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P R I N T E C H

Vol. VI

NOVEMBER 1958

No. 4

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PRINTECH

VOL. VI. NOVEMBER 1958 No. 4

7 KONDI CHETTY ST. MADRAS-1

Grams: "PRINTECH"

The Delhi Printer's Convention—Delhi

Inaugurated by Dr. Yudhvir Singh

Dr. Yudhvir Singh, Chairman of the Industrial Advisory Board, Delhi, on Tuesday, the 14th October, inaugurated the third annual Conference of the Delhi Printers' Association at New Central Market, New Delhi.

He also declared open on the occasion a library and reading room of the Association.

Speaking at the function Dr. Yudhvir Singh congratulated the Association and its office bearers for the success it has achieved. He said that he would be much pleased if all the presses in the capital become its members and urged the active members to put in all efforts to reach this goal.

During his speech he commented on some of the points raised earlier by the General Secretary in his annual report. He hoped that the job presses in old Delhi would not have to observe a weekly holiday when the power supply position improved. Meanwhile, he assured the Association of his full co-operation in this matter and said that the Electricity Board authorities might be persuaded to the working of presses in Old Delhi upto 2 p. m. on Tuesdays if they observed their close-day on Sundays.

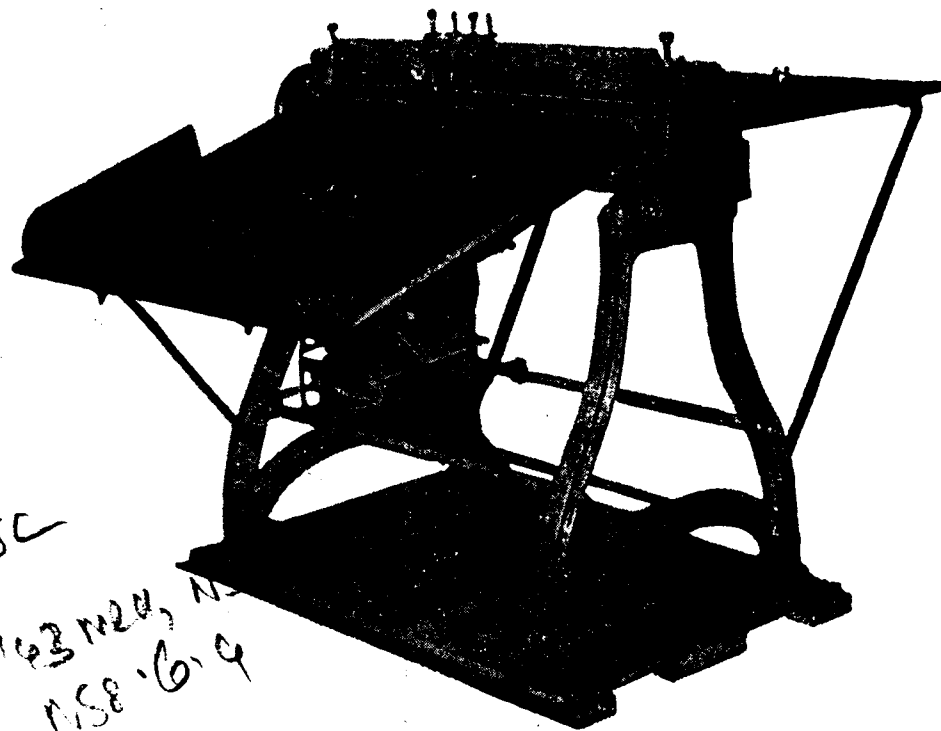
He, further, said that two representatives nominated by the Delhi Printers' Association



Dr. Yudhvir Singh opening the reading room
on the occasion

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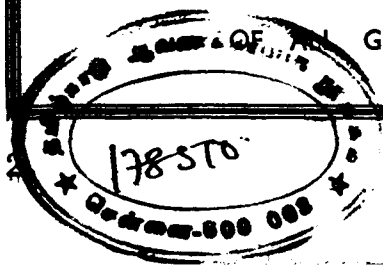
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PRINTECH

will be taken on the Committee formed by the Delhi Administration to examine the effect of various labour laws on small industries.

Describing the importance and the powerful position of presses in the country's cultural, educational and economic advancement he made a fervent appeal to printers to raise the standard of printing and forge healthy trade conventions.

Towards the end of his speech he expressed satisfaction at the improved and better relations existing between the press owners and workers. He wished and hoped that these will go on improving gradually by mutual understanding and goodwill.

Concluding his speech, he once again, expressed his satisfaction at the working of the Association at the able hands of its office bearers and wished it further success and prosperity.

PRESIDENTS' APPEAL

SRI S. RAMU, President of the All-India Federation of Master Printers, who presided on the occasion said: "I am grateful to the Delhi printers for having asked me to preside over this Conference. I must also congratulate you for holding your conference soon after the momentous meetings of the International Monetary Fund and the World Bank in the City. The financial experts from the more fortunate countries had an opportunity of seeing what our Government has been doing from the time we got our independence and what our future plans are for the betterment of the teeming millions of this sub-continent. From the reports we can see that universally a very good impression has been created and that we will have an opportunity of going ahead with our plan.

Our plan basically is intended to make the maximum number of people literate in the shortest possible time, to increase the agricultural and industrial output and to increase the standard of living. In this huge task what is the impact on our industry which is the hand-maid of all progress? Millions of books, countless forms, and tons of advertising material will be required.

Are we prepared to meet the situation? Meet it with enough presses and enough trained men; meet it with enough paper; meet it with a high quality that will stand comparison with the western countries; meet it with appropriate design for the specific purpose the printed piece is produced. There are 20,000 presses in the country, the vast majority of them small with 3 to 15 people working. We have over 3018 towns in India. An average of 6 to 7 small presses per town is inadequate. This is not all. There are 558,000 villages in the Country with a rural population of 300 million. There are practically no presses at all for this vast concourse. Should there not be at least one small press for about 20 or 30 villages? Otherwise how can the ideals of educating the adults be attained; how can the necessity of educating the little ones of the rural population be attended to. The huge Government Press in the Centre and the States in the metropolitan towns cannot reach the people of the land. Unless they are reached, their lot improved, their status bettered, our great Plan will be of no use. To reach them and educate them there must be printing available. If not, not only the 300 million will continue to be in darkness and want, but will fall a prey to the propaganda of opportunists. I think the Government instead of spending money to enlarge the present Government Presses already big and unmanageable, should encourage small private printers to open up presses for serving groups of villages. They must give these men the necessary machines, money and material to do this missionary work. They will spread education, improve literacy and publicise the work of the present Government which is being done to improve the lot of the people and the future generation.

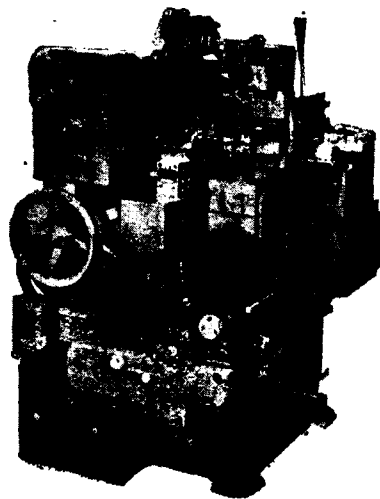
Though printing was introduced in this country in 1556, we have not made much progress. The early presses were started by Christian missionaries; later the Government started their presses for their administrative and confidential work. Mostly, they did not care for high quality. Nor did they organize the industry so that it can have a

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Introducing the

'MONOPHOTO'



FILMSETTER

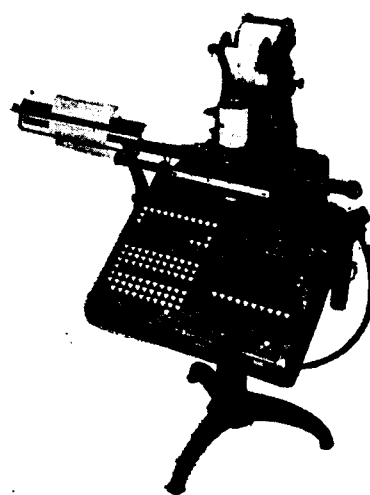
to the

Indian Printer

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healthy growth. As a result of which, today we have very few properly trained artisans and the quality of work generally is very poor. Men who have come out of one or two good presses of old have helped to improve quality. Otherwise the general standard is still very low.

If the printing industry is to thrive and be helpful for improved education, for better administration in business and industry, for better sale of goods by proper printed advertising and for spreading the news of progress of the other nations in this Country, then the most important thing for the printing industry is to improve its quality and maintain a very high standard all over the country. This is very very important. Quality before anything else. Unless we do that you can take it from me the printing industry in the Country is doomed.

To attain high quality and to maintain it in season and out of season, we must have principally excellent trained artisans. For this we cannot afford to import from other countries. Our Government has opened schools of printing in various parts of the country. We printers must give unstinted help to those institutions, to see that they produce the finest type of men and then encourage those that come out of these institutions by absorbing them by giving good wages. So much for the present. For the future, the most important thing is to have a proper apprenticeship scheme. In the printing industry of India, this aspect is hopelessly wanting unlike all the advanced countries of the West. The young man has not only to learn the craft for years, but has to imbibe certain habits—cleanliness, accuracy, aesthetic value, love of work, loyalty, creative ability and so on. This comes only from long and good apprenticeship. During this period, they must be given practical training in the Works, theoretical training in evening classes, historical background, aesthetic feeling, design value and a high sense of pride in their profession by lectures by eminent men.

Since the Government owns the biggest presses in the Country and since they employ

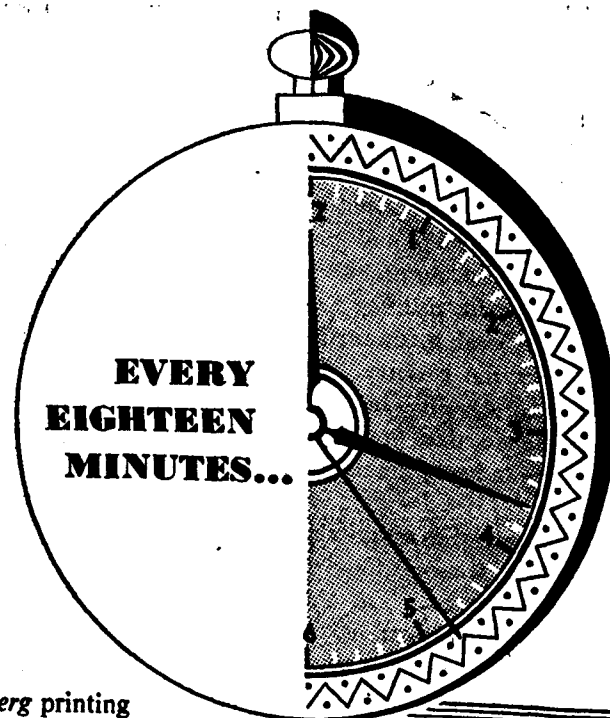
nearly 30 to 40% of the 80,000 people employed in the printing industry, Government Presses both Central and States, must immediately start a proper apprenticeship scheme. When sufficient experience is gained in running the scheme, the Government must introduce it in the private sector as well. Then only will the printing industry of India in the future rank equal to those of other countries.

The next thing which occurs to me of being very important is the wages paid to printing workers. A few years back it was shameful low. It is slightly better but the trouble is, it is not uniform. If you see the difference in pay between a cooly and a compositor, or a machineman and manager, and if you compare these figures paid in other countries, you will realise what injustice has been perpetrated on these unfortunates. In the new way of thinking there is no room for this sort of difference. Then from place to place, there are big differences in the country. Even from press to press in the same town there are glaring differences. Unlike foreign countries, we have no proper trade unions for tackling this problem. We have only political unions exploiting the workers. If the printing industry is to attract the better class of worker and keep him, this problem of uniform wages in the industry has to be tackled. Here again the Government by its advantage of huge press and financial backing must show the way to private enterprise. Then like the minimum wage act in the printing industry, an equitable wage formula could be evolved.

The next thing of importance to the industry is to know your costs: I have travelled over the country and seen presses. The vast majority of them do not know what each operation and what each job has cost. If 'time' is kept of the individual worker and an attempt is made to establish costs. This is not complicated. It is simple. I know many printers ending in an insolvency court owing to the ignorance of their costs. Out of all the industries in Britain, printing was the first to introduce a costing system. Many countries have adopted it with minor variations.

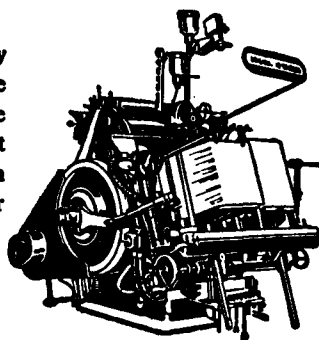
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P-2



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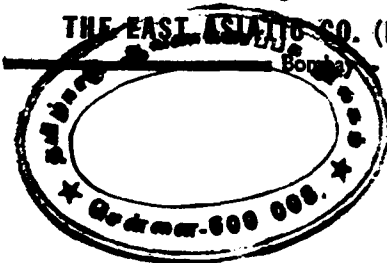


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don't see any reason why we should not follow it. Nor can I see any reason why our Government Presses cannot follow it.

If you know your costs you can tackle your wage problem better. If you know your costs, your estimates will not be guesstimates. I would also request you gentlemen to pay a certain amount of attention to modern business methods, production systems, method study and so on. Small printing concerns should not think that these are beyond their province. On the contrary a proper study and understanding of these techniques will make them build their concerns into big ones, and they will be able to cope up with the vast volume of work which is ready round the corner. As for the source of this education, the Government and other public bodies, have facilities available, like the Productivity Centre, Management Councils and the various Industrial training institutes. In fact, it is surprising that the Government Presses haven't taken advantage of these available sources of training and advice.

The United States Government Press is the biggest in the world. It is also a fountain head of modern efficiency methods, a cost and quality control and productivity systems. What a contrast is our Government Presses?

Lastly, the most important draw back for the private printer is want of finance. Finance to buy better machines, to buy paper. As I pointed out earlier 90% of the Presses are small units with no great financial backing. In very many mofussil towns they depended on text books and Government forms. It is the duty of this Government, the people's Government, to give them the work, give a little finance to improve their equipment, give a reasonable rate and insist on maintaining a certain standard of quality. But alas! all this work is being taken away by the Government Presses. Even the little money, these owners and workers were getting from the niggardly rate has been lost. Public money is being invested by these huge Government

Presses to order machinery at these times of tight foreign exchange, to print text books and other printed material, when 20,000 hungry presses are starving for support. I can understand Government taking over huge public utility undertakings. It is abominable to think that the very Government which is to help the printers all over the country, is reducing them to shameful poverty. Brother printers, please don't get the impression that I have come here to find fault with the Government and its methods. You must remember that it is our Government. We must realise they have tremendous problems to tackle. I am pointing out the drawbacks so that these can be rectified; so that we can be proud of Government Presses. I can assure those in power, that the All-India Federation of Master Printers will be ever ready to help the Government in any way they want.

But let us have a look at ourselves. We have been one of the most disorganized lot. Only now, our industry is trying to put up an united front. We have never tried to produce quality work, but always preferred to enter into cut throat competition. We never thought in terms of giving our customers new ideas. We never bothered about the aesthetic quality of our work. We never had a pride about our profession. We always complained and did nothing. It is high time we sit up and face facts. Our country is progressing at a terrific rate in every direction. Great leaders like our beloved Pandit Nehru are working night and day for the advancement of our peoples and to make this country a glorious place for the future generation. The whole world is watching this experiment.

Let us not be found wanting. Let us get together. Let us produce the best quality of printing. Let us help the customer. Let us not cut each others throat. Let us take a pride in our profession. Let us put our country before self. No sacrifice is too great for making this land of ours a glorious place for the future generation. Let progress through print be our motto."

★

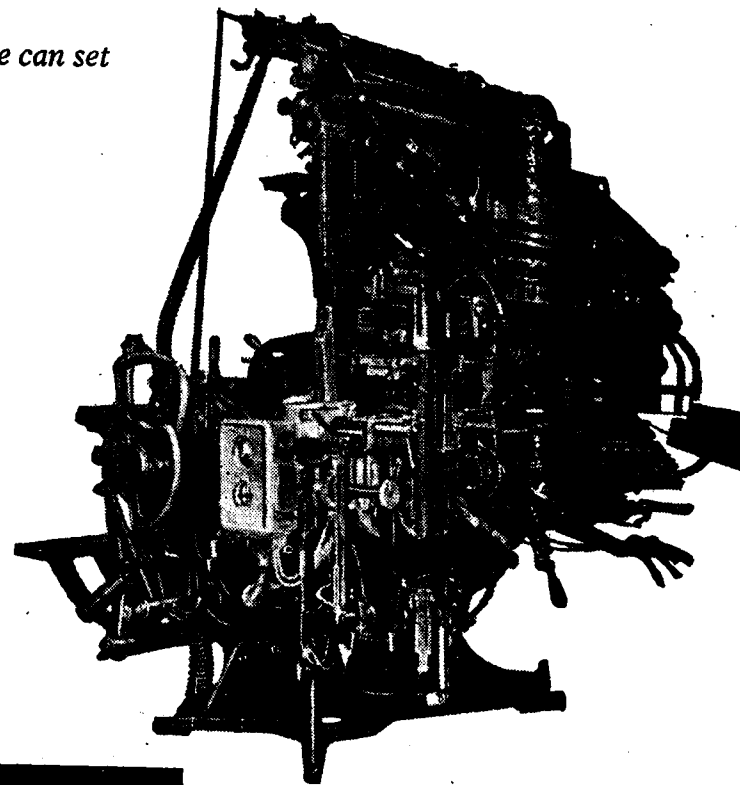
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7

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in fact, nearly
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D. J. KEYMER

LEADING ADVERTISING AGENCY

—Changes its Name to

BOMAS LTD.

THE Indian Branches of the well-known advertising agency D. J. Keymer & Co. Ltd. will, from this month, be known as the Indian Division of BOMAS LTD. This change reflects the decision taken earlier in the year by the U. K. parent organization, S. H. Benson Ltd., to form a separate company to develop further its overseas business. The initials BOMAS stand for Benson's Overseas Marketing and Advertising Service.

Announcing this development at a staff reception, Mr. R. F. Hardcastle—Director of BOMAS in India—said that “International advertising today knows no frontiers. We must speak with the same voice, in many different languages, to make known the goods and services which modern industry offers to the world. It is the progressive business-man who today thinks and acts in truly international terms.”

A long tradition

D. J. Keymer & Co. Ltd. was formed well over a hundred years ago, in 1844, although it was not until the late 1920's that it entered the advertising field in this country. Together with other companies, expansion was held in check during the war years and the difficult trading period which followed, but since that time there has been a steady development of Keymer business in India. The company acts as advertising consultants to a large number of major national advertisers in this

country, and Mr. Hardcastle said that “the considerable amount of goodwill which we have been fortunate enough to build for the name ‘Keymer’ in the past, will stand BOMAS in good stead during the years to come.”

He went on to say that the Keymer operation in London will concentrate its development purely in the home market under the name of Keymer Advertising Ltd. “The change of our name in India”, he added, “does not affect in any way the basic pattern of administration in this country. Our staff and our standards of service remain the same. The new title will, however, enable the Indian Branches of D. J. Keymer & Co. Ltd. and the Indian Market Research Service to take their place as an important part of a new international marketing and advertising operation.”

BOMAS in Italy

While the staff reception was in progress, news was received from London that Bensons have acquired a ‘substantial’ interest in an Italian advertising agency operating from Milan. A new company has been formed Radar Publicity S.p.A—and the London interests will be in the hands of BOMAS LTD. It was stated that “news of BOMAS developments in other overseas markets will be announced in the near future.” ★

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HOWRAH—BOMBAY—MADRAS

THE MIRACLE OF THE PRINTED WORD

By

LEONARD RULE

Industrial and Technical Journalist

You are reading the printed word, something which we all take almost as much for granted as the spoken word. You read books and magazines; you have easy access to the great thoughts of the great minds of the past and present. Before printing was invented every copy of every book had to be written by hand. Then book-learning was rare and books themselves rarer, for it might take a man years to copy a complete book.

Like so much of the world's culture, printing began in the East. It was the Japanese who first cut wooden blocks of pictures which could be inked and pressed on paper. We know that they did that 1,200 years ago, and we know that the Chinese made the same discovery 100 years later and printed books.

Movable Type

The strange thing is that the same discovery was made for the third time in Europe, round about the year 1440, but this time there was a difference the inventor, who may have been Gutenberg, in Germany, cut letters into small blocks of wood thus making movable type. Very soon afterwards a method was devised for casting the letters in metal so that they were made much more easily, and in quantity.

The unlikely event of war helping the spread of culture actually happened in 1462 when the German town of Mainz was sacked and the printers there were dispersed throughout Germany, and, soon afterwards, through Europe.

The "Father of British Printing" as William Caxton is sometimes called, studied the craft in Germany and then set up his press at Westminster, London, in 1476. Caxton has one great claim to fame: he was the first

printer in Europe to print in his own language instead of the usual Latin. In 15 years he printed 100 books, and made possible, later on, the printing of the works of Shakespeare with their incomparable use of the English language.

New Ideas and Designs

For hundreds of years printing was carried out by the methods used by Caxton and his contemporaries. The trade declined rather than moved, forward, and it required the stimulus which William Caslon brought to it in the 18th century with his new type faces to set it moving forward again. Soon, others followed him with other ideas and designs, but not until William Morris showed the possibilities for craftsmanship in the arrangement of the printed word, in the 19th century, did it really become an art.

In the meantime, newspapers had been born, bringing with them the need for faster methods of printing, which coincided with the possibility of using machinery for the work. A Scotsman, William Ged (it is remarkable how many "Williams" have played a part in the development of printing), who started work as a goldsmith, invented a means for making a metal casting of a whole page of type set for printing, thus releasing the type for further use.

This he did in 1725, but ever the prophet is without honour in his own country, and Ged brought his idea to London. Even there he was opposed by the compositors who thought they saw a threat to their livelihood in his work. Only much later was the "stereotype", as it is called, brought into

common use and it is still a basic part of newspaper printing.

Still too Slow

Another Englishman, John Baxter, had to invent the inking roller before the power of steam could be applied to printing. Koenig, a German, working in England, designed the first power press in 1811, and it was used by "The Times" in 1814. This was followed by a British design, the Wharfedale press of Dawson and Payne built in 1860, which became the standard machine for book printing for many years. But still the speed of operation was too slow for the newspapers of the day, and it was the great John Walter, of "The Times" in London, who thought of fixing curved stereotype plates to a roller and passing the paper under it. That was in 1868.

The slowness of hand typesetting continued to be a major obstacle until 1885 when the Linotype machine was invented. This enabled the operator to set lines of letter-matrices merely by pressing keys, and cast from them the slugs of type face ready for making the stereotype. Soon afterwards the Monotype machine was invented. This machine also used a keyboard for typesetting, but in a different way, producing individual letters and spaces put together in lines. Both machines, vastly improved since those days, are in use now: the Linotype is mainly used for newspapers and the Monotype mainly for book printing, but both are frequently employed together by general printers.

Then and Now

Each development in printing methods has called for improvements in other aspects of printing—rather like the steps of an army on the march. In Caxton's day the type was set by hand, locked in a "forme" and put on to a hand press where it was inked, a sheet of paper was put on it, and a lever pulled to press the paper on to the inked type. The sheet was then hung up to dry. No wonder it took him 15 years to print one hundred books.

Today, newspapers of from 16 to 32 pages are printed on continuous rolls of paper—

many miles in length—with printing on both sides, the paper being trimmed to size, cut, folded with the sheets in proper order and the whole newspaper delivered in quires ready for despatch at the rate of 30,000 to 60,000 copies an hour from one machine alone. These speeds are vital to daily newspapers with circulations of hundreds of thousands, or millions of copies.

The great presses, such as those built by Hoe and Crabtree, are driven by electricity. They ink themselves, oil themselves, dry the papers they print, and count them as they deliver them. Through their agency events in any part of the world can be read about in the rest of the world within hours. And all this happens because hundreds of years ago the peoples of East and West sought an easier and quicker method of putting words on paper.

(By kind courtesy of British Information Service, Madras)



By Courtesy—Printing News

PRINTECH

4-LINE MATHEMATICS

In an age of increasing specialization a printer's knowledge of elementary arithmetic and algebra must sometimes be stretched to include the mysteries of integral and summation signs, of first and second order superiors, of vectors, differential co-efficients, partial derivatives and all the other special symbols of the realms of higher mathematics. So great has become the demand for highly technical literature involving complicated mathematical formulae that a branch of printing which was once restricted to a few specialist firms is now coming more and more into the general stream of the trade.

In introducing the 4-line system of mathematical composition on 'Monotype' machines, the Monotype Corporation has a double objective in view. With one eye on economy and the other on simplicity, the Corporation has evolved a practical method of doing the vast majority of formulae composition mechanically, thus cutting down the high costs entailed by hand setting and rationalizing the problems of formulae work in the simplest possible terms for the non-specialist printer.

It is impossible to determine accurately the extent of saving on costs of the new system, as this is a relative matter largely dependent on the type of printing firm concerned, the nature of the formulae work involved and the degree of co-operation of the author or editor. There undoubtedly will be considerable economy, particularly to the printer who is completely new to this type of work, and both authors and printers alike can rest assured that the typographical standard of the 4-line system will be every bit as good as the orthodox method.

To the printer who is thinking of taking on some mathematical work, the 4-line system offers a much more straightforward approach than the orthodox method, as it is less depen-

dent on the acquisition of a great deal of detailed information and on the highly-specialised skill of a trained compositor. There is no denying that it requires skill on the part of the keyboard operator, (but a brief course at the Monotype School in Cursitor Street, London), will be sufficient to train an operator to become an expert machine compositor of 4-line mathematical settings.

The fact that it took the Corporation over five years to perfect the 4-line system was largely due to the high typographical standards that were expected of it. In this connection the Corporation is extremely indebted to the Learned Presses, mathematicians, editors and others who assisted with their helpful criticisms and enabled the project to be successfully completed.

It was in 1951 that the Corporation first heard, through Mr. C. A. Ronan of the Royal Society, of a 4-line system being used by the University Press of Toronto. Work was started on some trial characters, based on the Patton Method in use in the U.S.A., the chief principle of which is that formulae are made up of four lines of 6 point. The face selected was Times New Roman (Series 327), and the appearing-size of the main characters was made 10 point instead of the more usual 11 point.

The first trials incorporated the dividing rule as part of the '2" matrix. Proofs were circulated to the Learned Presses but were unfavourably received due to the impossibility of obtaining the correct face size and position on the body of first and second order characters and also to the imperfect join in the rule. After further experiments it seemed clear that, if the 4-line method was to provide a printed result which was in no way inferior to the orthodox method, the incorporation of the rule as part of the matrix would have to be

abandoned. Instead it was decided to insert 2 point strip rule so that the depth of the equation becomes 26 point, and the large characters have to be cut on this size.

All the 10-point characters cast on a 6-point body overhang at the top of the body and have to be supported by a shoulder-high space of the same unit value as the character to be supported. In the U.S.A. shoulder-high spaces are obtained by having blanks in each unit row in the extreme left-hand side of the matrix case, with the obvious disadvantage of the loss of character positions. A mechanical device has now been developed in this country which allows the operator to produce shoulder-high spaces at will without any loss of character positions in the matrix case.

Further trials were circulated early in 1954, and as a result of the many suggestions and criticisms subsequent cuttings were made before general approval of the design was obtained. Between seven and eight hundred

special matrices have now been cut and others less commonly required are now in hand.

The first public showing of the 4-line system took place at a special Mathematical Exhibition held at Monotype House in January 1957. It was then announced that it would be commercially available in June 1958, and the Corporation is now pleased to report that the first lot of equipment has been installed in the firm of Oliver and Boyd Limited of Edinburgh and that further orders are being carried out.

An outline of the basic principles of the 4-line system is given in a booklet, copies of which were circulated among the two thousand mathematicians attending the recent International Congress at Edinburgh, where the Corporation staged a small, but extremely successful, exhibition on the setting of mathematics. (Interested readers may apply for a copy of the booklet to the Corporation's Office at London.) Ed. ★

(Continued from page 16)

differ by at least 6%. (Covering power, defined as the amount of ink per square metre required to give the required density, is an important economic factor, particularly in long run work).

In order to attain the necessary accuracy, says the report, it is essential that the mean covering power of each ink is determined from a series of standard prints of progressively increasing ink film weight.

The papers and inks were provided from stock materials used by a daily newspaper. The papers were supplied in the form of eight unprinted eight-page newspapers which had passed through the press before the actual production run. The test procedure employed was to roll up and weigh two solid printing blocks mounted in a Vandercook proofing press and, after printing the papers at the same pressure, the blocks were immediately weighed. The loss in weight gave the weight of ink transferred to the paper.

Optical measurements using a Baldwin densitometer were carried out to assess the print density and degree of print-through

corresponding to the ink weight transferred.

Although the investigation was primarily concerned with a comparison of the covering power of news inks, other comparisons were made between the inks and papers in relation to the general problem of printability.

The report states that there was no significant difference in the transfer characteristics of the inks supplied, or in the degree of print-through associated with the resulting prints at the same ink film weight. A finding of particular practical importance was that a comparison of the print-through produced on prints at the same print density showed that the ink of greater covering power produced less print-through.

There was no significant difference in the smoothness, oil absorbency, ink transfer and ink coverage properties of the two newsprints. On the other hand, there was a significant difference in the printing opacity of the papers. This resulted in greater print-through on the paper of lower opacity than the paper of higher opacity on prints of the same ink film weight.

12 பாயின்ட் பவானி ரோமன்

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

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

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

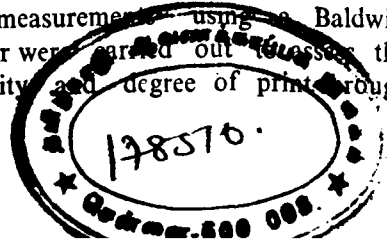
ஒருவன் தானே தனக்குத் தலைவன். வேறு யார் தலைவனாயிருக்க முடியும்? தன்னை நன்கு அடக்கிவைத்துக் கொண்டால் ஒருவன் பெறுதற்கரிய தலைவனைப் பெற்றவனாவான்.

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

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

ஷெ பவானி ரோமன் எழுத்துக்கள்
18, 14, 12, 11, 10, 9 பாயின்டுகளில் கிடைக்கும்

தயாரிப்போர் :
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ஸ்பார்ட்டன் டைப் பெளண்டரி
சூலை, சென்னை-7



PATRA

—Abstracts

Development of Works' Model of Patra's Carton Board Creaser Planned

ONE of the main items in the Printing, Packaging and Allied Trades Research Association's cutting and creasing research is the study of methods for assessing the creasing properties of carton board. The Patra Carton Board Creaser is being used in this work and it is planned to develop from it a works' model that will enable board mills to check the creasing properties of their products and give carton makers an aid to selecting the optimum creasing conditions of the board they buy.

This was one of the points made by D. J. Hine, who has been in charge of the cutting and creasing project since its inception four years ago, when he addressed the 13th Annual Conference of the Institute for Food Technology and Packaging held in Munich recently.

Mr. Hine's lecture covered the various stages of the project—from the questionnaire circulated to members to find out what were the major problems in carton production, to the development of laboratory instruments for examining the creasing and folding properties of carton board.

After describing early work on the variations in size of cartons for machine packing, Mr. Hine outlined some of the conclusions reached. These were: (1) skewing of glued side seams was found to depend on the depth of the crease; (2) sifting of the powder contents from a detergent pack occurred mainly from the corners nearest to the glued seam and that the amount of sifting was related to skewing of the side seams.

He said that work was in hand to study the creasing conditions needed to give crack free folds in both directions of the grain on a wide range of typical carton boards. The effects of such factors as the size of the carton and the moisture content of the board were being investigated.

Mr. Hine told the conference that since the project was started, cutting and creasing enquiries had increased by over tenfold. This showed that the work was fulfilling a need of firms concerned in carton production.

While in Munich, Mr. Hine took the opportunity of visiting the Paper Research Institute (Papiertechnische Stiftung) where work is in progress on a number of problems concerned with the production and conversion of paper and board. The Institute has itself developed two board creasing testers.

Mr. Hine also toured the factory of Heinrich Nicolous, GmbH, manufacturers of a wide range of packaging products. He studied there various aspects of carton production and discussed problems of mutual interest with the head of the company's Development Division.

Patra Report Describes work on Covering Power of News Ink

An investigation into the covering power of news ink has recently been undertaken by the Printing, Packaging and Allied Trades Research Association. The study, which is the subject of a report recently published by the Association, was carried out as a result of an enquiry submitted by a member firm.

The experiments showed that by using a technique of weighing blocks rolled up with ink before and after printing on a precision proofing press, it is possible to distinguish between the covering power of two inks providing they

(Continued on page 14)

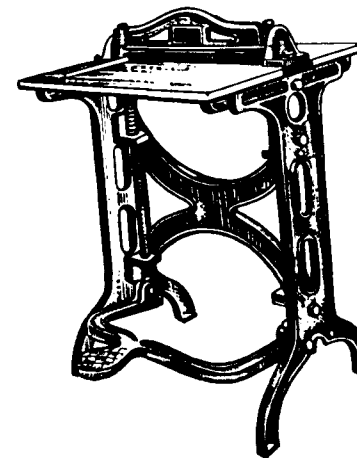


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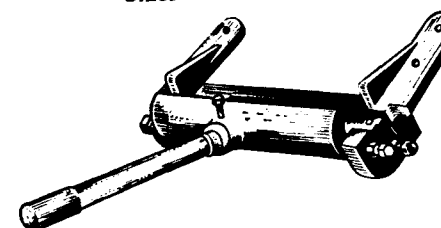


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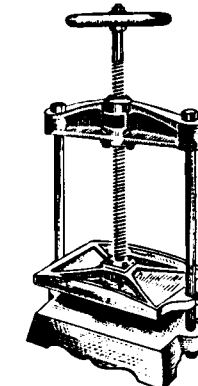
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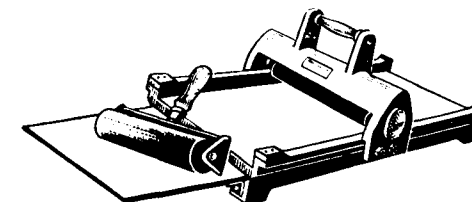
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