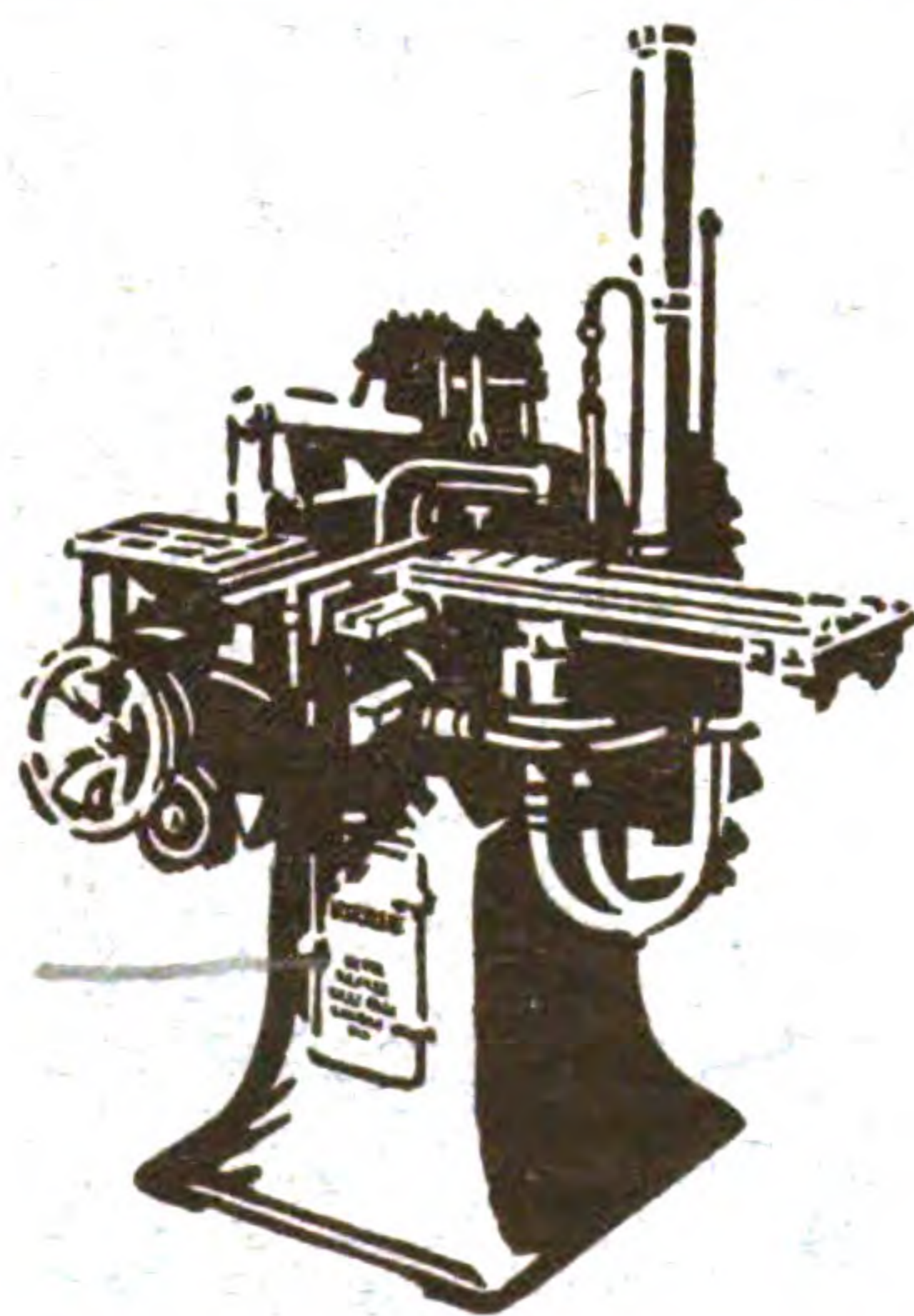


# MONO TYPE

*A Journal of Composing Room Efficiency*



1914

VOL. II

SEPTEMBER-OCTOBER

No. 5

LANSTON MONOTYPE  
MACHINE COMPANY  
PHILADELPHIA

The word **MONOTYPE** means much more than the name of a machine: it includes a complete system of composing room efficiency based on the work of the Monotype both as a **COMPOSING MACHINE** and as a **TYPE CASTER**.



# Four Points

Determine your returns from money invested in machinery



## The Value of the Product

*Selling Price minus Production Cost equals Profit*

*Service & Quality, the Salesmen that get Repeat Orders, work for the Printer who uses the Monotype.* The right hand of your Sales Department is your Composing Room, for it is there that you create values; be sure that you select the composing machine that helps you sell printing.

*The Monotype is the machine that took the limitations out of machine composition:* Don't waste your time, or your customers' good will, trying to persuade buyers of print-

ing to keep their requirements within machine limits. Monotype flexibility enables you to give your customers what they want—*that's Monotype Service.*

The equivalent of brand-new foundry type—*that's Monotype Quality.* Judge for yourself; look at the Monotype work in the Saturday Evening Post, Ladies' Home Journal, Scribner's, Harper's, World's Work, Delineator, Atlantic, American, Cosmopolitan and Country Life.



## The Cost of the Product

*Minimum Cost results from Continuous Production*

The Monotype is always producing new matter or type for the cases. It is never stopped to make a transposition or to insert a comma; a hand compositor (without the overhead expense of a machine) does this quicker and cheaper. There is no "back-tracking" in the Monotype office, the composition of new matter, corrections and alterations going on side by side without friction.

The Monotype Keyboard is as simple and as easy to operate as a typewriter. The compositor who uses it is not bothered by mechanisms or demands to stop and change to set correction lines. He hits the keys, *that's all.* The automatic caster never gets weary; it is as efficient at midnight as at midday. The Monotype gives maximum production because it is continuously producing.



## The Cost of Non-productive Hours

*The By-Product of the Monotype is Type for the Cases*

The value of this type, made when other composing machines would be idle, pays all the maintenance cost and a handsome return on the money invested in a Monotype. Be certain of this; unless an office makes its own type, it can never attain real efficiency from hand compositors, because the expense of supplying them with all the tools (type) they require would be prohibitive.

Other Monotype By-products are: *First,* Savings in distribution expense, for it makes new type cheaper than a compositor can distribute worn type. *Second,* Savings in press make-ready by always printing from new type. *Third,* Savings in electrotyping bills. *Fourth,* Selling help, for it improves the quality of your work and it furnishes just the faces your particular customers want.



## The Expense of Depreciation

*The Monotype is built on the Unit System, like "Elastic Bookcases"*

*By combining these Monotype Units you make your equipment exactly suit your requirements.* You can't buy the wrong "model" because, as your work increases, or its character changes, you buy the units you want and keep your equipment just as you want it. Thus you get the maximum return from the minimum investment—you start suited and you stay suited.

*You insure that new "models" cannot depreciate the value of your investment:* Although no manufacturer has been more progressive than we, for every improvement we make helps every Monotype user; instead of charging off a large yearly depreciation to replace old "models," you replace old units with improved units and you keep your equipment the same as new at small cost.

A postal brings you details about the point that interests you  
**Lanston Monotype Machine Co., Philadelphia**

THE WORD MONOTYPE MEANS MUCH MORE THAN THE NAME OF A MACHINE; IT INCLUDES A COMPLETE SYSTEM OF COMPOSING ROOM EFFICIENCY BASED ON THE WORK OF THE MONOTYPE BOTH AS A COMPOSING MACHINE AND AS A TYPE CASTER

# MONO TYPE

*A Journal of Composing Room Efficiency*

Published Monthly by LANSTON MONOTYPE MACHINE Co., Philadelphia

Vol. II

SEPTEMBER-OCTOBER

No. 5

## An Ideal Type Equipment for the Printer and Advertiser

A paper read before the recent convention of the Associated Advertising Clubs of the World, at Toronto

By A. F. MACKAY

Typographic and Advertising Departments, Lanston Monotype Machine Co., Philadelphia

**V**ERILY, of the making of types like the making of books there is no end, so that in selecting the raw material with which to put in readable and interest-compelling shape our typographic art and our ideas, the printer and the advertising artisan find themselves surrounded by a variety of tools that is bewildering.

For type is tools—the tools of the printer's and the advertiser's trade, plus the good, and, frequently, the inferior decorative accessories that seem to belong to the well-equipped typographic laboratories.

But type is something besides tools; it is uncrystallized thought, and it expresses thought more clearly and convincingly when it is chosen with some regard to the quality or the variety of the thought to be expressed. Just as the gesture puts meaning into the words of the speaker, so type, if it is well chosen, more nearly conveys the desired meaning.

Any catalog of available type faces for setting by hand, for setting by machine, or for casting type on your own machine in your own plant, presents

a variety of type and border designs that makes one wonder how, when the specimen books were only an inch thick, the printing and advertising men of those bygone days ever put their ideas in sufficiently good print to attract readers and sell goods.

Today it seems to be hardly a question of the choice of a face for any particular work because there would appear to be a face for every known variety of copy.

But it is a fact that, while the printers of seventy-five years ago—and they were the only advertising agents of that none-too-flourishing period—were not as gifted in the use of the material at their disposal as the typographer of today, they had a variety and an artistic quality of type faces that would do astonishingly good work in any modern shop under modern conditions.

In this connection, it is worth noting that the face of type that is most in demand today by the big national advertisers and the type experts of the most expensive advertising mediums, advertising agencies and printers, was cut about 1720.

Why, even the Roman letter upon which this face was based, was imported from Holland into England

and printed in an Oxford University specimen book dated 1693. I am certain that this original Dutch face in the sizes I have seen, judged from present-day tendencies in letter values, as the printer and the advertiser see them, would be rated as the ideal face for some of our pretentious or de luxe catalogs today.

This face of 1720 is the Caslon Old Style series, quite faithfully reproduced in this country by the MacKellar foundry in Philadelphia, but, unfortunately, later emasculated into a modernized old style by our two leading type founders. But advertisers and printers are again awakening to a realization of the beauty of the MacKellar face and I am told there is now a growing demand for it. It is not shown in any current issue of a type foundry specimen book, and the associated advertising clubs would be doing a service to their own profession and would extend a helping hand to the uplift of our typographic style if they insisted upon its restoration without the so-called refinements and conveniences of the standard line.

A totally different style of letter, the Scotch Roman, was cut in Edinburgh about 1810. This is the most precise, legible and pictorially beautiful modern face (as distinguished from an old style) that has ever been cut. American reproductions of it cut for hand setting and machine work are generally faithful in both color and design, and its use in advertising literature, following its general adoption as the perfect modern letter for book work, is steadily growing.

While the printer and the advertiser who first regaled themselves with the use of these two beautiful faces gave much distinction to their work they lacked, perhaps for their own good, the advantage (or disadvantage) of not having correspondingly good faces of the bold variety; and, while the black-letter or boldface type, and the unusually ornate, flourished fifty years ago, as they frequently do today, the boldface type of the purely Roman style, embodying the refinements of design common to the best of the lighter faces, is a product of the last fifteen years.

For many years, until this time, we put up with a style of typography that was aimlessly inartistic and crude, because it was over-decorated. The first of the influences that started the present tendency to a more simple style was the William Morris revival in England twenty years ago. It may sound academic and high-browish to refer to this incident among commercial typographers and advertisers, but it was primarily this revival which gave the great impetus to the reformation of our typographical ideas.

This influence was reflected in our country by the dawn of the Chapbook, the work of Bradley, a master printer who did better advertising printing with fewer types than any other man before or since, and, finally, the restraint and beauty of the work of Updike in Boston, and the group of publishers whose books for a time set the fashion and proclaimed the bounds of typographic taste.

During this period, up to about 1910, the American printers and advertisers threw into the discard all of the over-ornamental and characterless type faces and fanciful geegaws in their shops, and when the printing house cleaning was over we settled down to an era of simplicity in our tastes and in our ideas of type faces and how to use them which has been with us ever since. The little printer and advertiser, the big printer and advertiser, the magazine and the newspaper, whether consciously or not, are daily carrying on this campaign of simplicity, until some day—in the near future, let us hope—the choice of types will no longer be a matter of speculation, but a straightforward question of some definite face to carry out some definite idea.

The past fifteen years has witnessed, in advertising typography at least, the elimination of the floriated and ultra-ornamental because they were inefficient as producers; and as supply invariably follows demand our letter designers and our type makers, with rare good taste, are furnishing new faces, or old faces in new dresses, that are a delight to the eye, easy to read, and attractive in print. While the best faces of which we can boast in this country have been cut for the use of private presses, the designers of these private faces have set up a standard of refinement in lettering which is good art, and I sincerely hope that these faces may eventually serve as models of type cut for the general trade. Our typography would then be still further enriched by the talent of the best letter designers whose work is little known among commercial printers and advertisers.

In lettering or type designing there is scarcely anything new under the sun. Our present form of Roman letter is centuries old, and every Roman letter produced since is built upon the original geometric lines of the Roman alphabet, so that it taxes the ingenuity of even the most skillful designer to create anything distinctly new.

But a successful adaptation of an original and beautiful old Roman to meet our present requirements can be a work of art within itself and of the greatest commercial value to the printers and advertisers who use it. After all, the Simon-pure original type maker was the man who created the Rustic series, that much-jointed and ruffled imitation of a variety of porch furniture; but the Rustic series wasn't useful. It wasn't good, simple, or substantial type and it fell by the wayside, like hundreds of other faces that have fallen or will fall when advertisers and printers realize more than they do now that there is a well-defined path to follow in the choice of type for good printing and successful advertising.

I have referred in this paper to two prime old faces which stand out conspicuously in modern typography, the Caslon Roman and the Scotch Roman, but instead of generalizing on the beauty or usefulness of these faces I will venture into the domain of the typographic efficiency engineer and, starting with these faces, offer, as a constructive idea, a schedule of type faces which I have selected

## An Ideal Type Equipment

**N**INE type families are represented in the following 12-point examples of Monotype faces similar to the faces known also to printers by the type foundry names quoted in the article "An Ideal Type Equipment for the Printer and Advertiser" (see page 65). It is not claimed or suggested that the progressive, go-ahead, business-building printer needs these nine families for his office, but the faces are recommended as supplying every typographical requirement of the modern shop from which the printer can make a selection best suited to his particular work. Of course, there is the insistent demand in most composing rooms for faces that do not come under any approved standard of typographic design. These should be purchased only to regulate or control the work of your fastidious customers. Do the bulk of your composition, if possible, with faces standardized, just like tools, for your class of work. It is an important step toward real efficiency in a department where efficiency counts.

### The Monotype Roman Families

The best kind of originality is that which comes after a sound apprenticeship; that *The best kind of originality is that which comes after a sound apprenticeship; that*  
Monotype No. 37E and its Italic

The best kind of originality is that which comes after a sound apprenticeship; that *The best kind of originality is that which comes after a sound apprenticeship; that*  
Monotype No. 21E and its Italic

The best kind of originality is that which comes after a sound apprenticeship; that *The best kind of originality is that which comes after a sound apprenticeship; that*  
Monotype No. 71E and its Italic

The best kind of originality is that which comes after a sound apprenticeship; that *The best kind of originality is that which comes after a sound apprenticeship; that*  
Monotype No. 36A and its Italic

The best kind of originality is that which comes after a sound apprenticeship; that *The best kind of originality is that which comes after a sound apprenticeship; that*  
Monotype No. 8A and its Italic

The best kind of originality is that which comes after a sound apprenticeship; that *The best kind of originality is that which comes after a sound apprenticeship; that*  
Monotype No. 20A and its Italic

### The Monotype Boldface Families

The best kind of originality is that which comes after a sound apprenticeship; that which shall *The best kind of originality is that which comes after a sound apprenticeship; that which shall*  
Monotype No. 64J and its Italic

The best kind of originality is that which comes after a sound apprenticeship; that  
Monotype No. 164J

**The best kind of originality is that which comes after a sound apprenticeship; that** *The best kind of originality is that which comes after a sound apprenticeship; that*  
Monotype 86J and its Italic

The best kind of originality is that which comes after a sound apprenticeship; that which shall *The best kind of originality is that which comes after a sound apprenticeship; that which shall*  
Monotype No. 88J and its Italic

The best kind of originality is that which comes after a sound apprenticeship; that which shall prove to be the blending of a  
Monotype No. 141J

Monotype No. 64 Family

**The best kind of originality is that which comes after a sound apprenticeship; that** *The best kind of originality is that which comes after a sound apprenticeship; that*  
Monotype No. 118J and its Italic

**The best kind of originality is that which comes after a sound apprenticeship; that**  
Monotype No. 95J

from easily available material, and which, in my judgment, should adequately meet the requirements of every printer and satisfy the most fastidious type expert in the advertising fraternity.

Besides, I think that I can set before you a bill of material in the way of type that would at least help you to obtain the very best results, and certainly improve your present standard of quality, if any of these faces are now lacking in your present composing-room equipment.

I am strong for the idea, which is endorsed by the doctors of scientific management and 100 per cent. efficiency, that what the printer wants is "more type of fewer varieties" and not "a little of everything the type founder has to offer."

Common sense and good management require that every workman in the composing room be supplied with sufficient tools to produce as nearly as possible a full day's work, and, as the tools of the composing room are mostly type, I aver that there is a greater possibility of inefficiency or bad work in furnishing a compositor with too many varieties of type, than under a system of plenty of type of the fewest and best faces which are standard for the particular work of any shop; a system which is raising the percentage of productive time and improving the quality of work in the best printing offices of the country.

The following are the faces for my ideal composing room that has for its motto "Not only good printing but good advertising."

The Caslon Old Style Roman, with its Italic, is the most substantial Roman of them all. It has completed almost two centuries of usefulness, and in the estimation of printers and advertisers it produces the work that gets results, and is the most serviceable face of type for a greater variety of work than any other in use today.

The Binney Old Style Roman with its Italic, lighter in weight than the Caslon and standardized by the Curtis Publishing Co., of Philadelphia, through its long and continued use as a text letter in the "Ladies' Home Journal." It is a book and catalog letter that is simple in design and noted for its extreme legibility.

French Old Style Roman, with its Italic, in design a letter modeled after that cut by the Turlot Foundry in Paris. Many excellent reproductions have been made in this country modeled on that of the French founder. This is an old style face that conveys the suggestion of daintiness and refinement essential in much of the printers' and advertisers' work.

Scotch Roman, with its Italic: the best of possibly three modern faces that do not offend the eye, and the mind's eye, by a glaring accentuation of hair-line. The Scotch Roman face is the best available modern letter we have today for book work and it has lately found favor with the makers of de luxe catalogs, as a text letter for magazines and for use in newspaper and magazine advertising typography.

A. D. Farmer's No. 20 Modern, with its Italic, a light-face modern that is easily the best of those

we inherited from the less-fertile days of American letter designing. This face and similar faces are most in demand for school-book and text-book work and for trade-journal and magazine typography; but, for my part, all might be omitted from an ideal equipment because school books and text books composed in this or a similar modern face represent the least admirable phase of American bookmaking.

The Farmer face has served as a model for some of the best newspaper faces which have been cut. The face formerly used on the New York "Sun" and the one now in use on the London "Times" are similar in design. But the newspapers, reaching out for a small face to cover white paper and ignoring any tendency to beauty of face or legibility, are satisfied with agate or 6-point faces which set as many words to a line as the average 9-point or some 10-point faces.

Century Expanded Roman, with its Italic, the modern face used on the "Saturday Evening Post." This is the modern face without a hair-line, good and clean in design and everlasting in wear, printing from type or plates. In the larger sizes above 12-point this letter, which is of medium color, has a good style in displayed work. If I had my way I would reset all of the school books in Century Expanded instead of the A. D. Farmer face already mentioned.

The above completes the list of Roman faces that I would include in an ideal equipment. To warrant the standardizing of all these Romans for a shop is a matter of individual control, depending upon the variety of work handled. Certainly a shop employing ten to twenty compositors could get along with two each, modern and old style faces. I know some that use the Caslon and Scotch series only for their Roman equipment of "body" faces. If we were living in the days of Franklin we could content ourselves with the Roman families, for the versatile printer-statesman had only one series to print his "Pennsylvania Gazette" and do the odd bits of job printing in his time.

Until fifteen or sixteen years ago the available black letters were atrocious. Even the De Vinne in its palmy days did not glorify our printing or improve our typographic style, but just at about that time a young architect and a printer-advertising-man got their heads together and the result was the Cheltenham Old Style face. I, therefore, head the list of boldfaces for my ideal equipment of type faces with the Cheltenham, and the best of the offspring of this prolific family, the bold with its Italic, the bold condensed and its Italic, the wide, extra condensed, etc.

The claim of the designer of the original Cheltenham Old Style (modeled on an Elzevir cut in the fifteenth Century) was that you could crowd more legible words in the square inch with this face than with any other face produced up to that time. I would not presume to dispute this claim, for the Cheltenham, more than any other boldface series that has ever been cut, follows very clearly and

distinctly the lines of a pure Roman. It is small wonder that the highest-priced advertising medium in the world restricts its columns exclusively to the use of the Cheltenham family as a boldface letter in its advertising pages. The Cheltenham and its related boldfaces is art in letter designing; it is quality in printing, and it is pulling and selling power in advertising.

The only other boldface that seems necessary in the ideal equipment is a letter approximating in appearance and color value what was once known as a title, and for this I would select the Century Bold with its Italic. This is a dignified and useful letter for ordinary grades of work and for booklet and catalog making. It is the embodiment of the pure title and answers every requirement where a title letter is best suited to the work.

The above is not a too-formidable assortment of faces for any printing shop of average size, but it is over-equipment when compared with the variety of faces used by Will Bradley at the Wayside Press, in Springfield, Mass., about fifteen years ago. This ingenious printer used only the Caslon with its Italic and the black letter now known as Priory Text. Yet the work he turned out during the short life of the Wayside Press, measured by the highest standards of the most exacting printer and advertiser of today, was in every sense of the word successful because it was good printing, it was good advertising, and it was good art.

So, since Mr. Bradley showed us how to use it and get the most out of it, I shall add to and complete my ideal equipment with Priory Text, a black letter that has been creating typographic values for over two centuries and which is a standard face in almost every composing room.

There are only nine type families, surely not over 150 separate fonts, for any one shop, represented in the above schedule, and I feel certain that if we had these faces, and only these faces, for, say, the next twenty-five years, our printing and our advertising would not only survive but adequately meet the steadily rising standards of good taste evidenced by the superior work and high ideals set for us by the good men and the big men in the game today.

Of course, in any shop there is the ever-present necessity, perhaps, for gothics and other faces, but they are essential only as a means to regulate or control customers who will not accept anything else.

You ask me what I would do with these faces, nine series of type, and I tell you that I would print the best newspaper (faces for news work and headings excepted), print the best magazine, and make the finest booklets and catalogs that have ever been made, besides turn out the hundreds of varieties of other kinds of printing necessary for purposes of information or education, or in any way for the promotion of sales through advertising.

I firmly believe that I could easily get ten of the best printers and ten of the best advertising men in the country to endorse my selection of type as an equipment sufficient to insure handling the greatest possible variety of work with economy in

manufacture, quality in production, and results in advertising. Now, if I could do this, is it not conceivable that with the elimination of typographic waste in the shape of useless faces we might reasonably hope that the selection of type for newspaper and magazine advertising and for all kinds of printing and printing publicity could be conducted on a more scientific basis? The mechanical departments of newspaper making and the printing and advertising business are probably more lacking in any reasonable system of standards in carrying on their work than any other of the mechanical trades. And these conditions will not improve unless we adopt standards in material, like type and accessories, standards in style, in the same way that we have already adopted standards in men.

In every great business involving detail in manufacture (certainly no greater in detail than printing), there is a department to plan the work before it goes into the shop; and with the employment in many printing offices, advertising agencies, magazine and newspaper offices, of the professional layout man or typographer, it is not too much to hope, since the results so far have been satisfactory, that the planning departments of the printing and advertising offices will ultimately develop so that all work will be planned according to predetermined standards adapted and approved by the men who know.

The Century Dictionary defines simplicity as "freedom from complexity or intricacy." This definition might have been written as a warning to many advertisers and printers who are floundering in the sea of too much type, too much art, and too much knowledge of things that are not so.

The degree of success that you may expect from a complex or intricate presentation of your arguments in print will be mighty small, and my advice is to break away from your present notions of style in type or typography unless you know they are right, and get in line with the leaders of advertising thought who have put simplicity to the test and found it to be the most serviceable and profitable standard to follow.

Simplicity insures service. The message to Garcia was successful because the request for its delivery was expressed in simple language. Express your ideas and tell about the goods you have to sell in simple type, simply arranged, and you will be successful.

In closing, I am constrained to say that I am not very enthusiastic over some recent productions of fashion-plate type makers who assume to set the styles in type faces. The outlines, inlines, shaded and other forms of freak letters, while they have their place perhaps in some varieties of work, and for certain newspapers like the New York "Herald," or forms of newspaper advertisements, are faddy. They impose working restrictions upon the printer who uses them, they quickly lose their sharpness of outline, and I predict that they will not find a permanent place among the standard faces in any well-conducted composing room.

## Getting the Most out of the Monotype

By EVERETT R. CURRIER

Director Publicity Printing Department, Curtis Publishing Co., Philadelphia

No article we ever published has received more favorable comment than "What you Get per Page vs. What you Pay per Page" in the last issue of "Monotype." To supplement that clear analysis of the paramount importance of good typography in good printing, we are fortunate to be able to publish the following article by Mr. E. R. Currier of the Curtis Publishing Co. The Curtis Co. is unquestionably the greatest success of its kind, and it is generally recognized that no small part of its success is due to the mechanical perfection of its publications and its advertising. Mr. Currier is responsible for the typographic beauty, the dignified and forceful printing of the booklets and house organs, the direct advertising, of the Curtis Co. All publications illustrated in Mr. Currier's article are examples of Monotype quality; this fact seems to us to be answer enough—more than enough—to the following statement in a recent publication of the "Type Trust":—"No printer ever bought a machine to set high grade booklets, catalogs and magazine advertising pages."—Editor Monotype.



**W**HEN a really fine booklet or catalog is on the layout desk—something that must look expensive and have "class"—the familiar question has to be settled whether as good results can be obtained from machine composition as from hand composition of foundry type. The printer usually feels that machine composition is "good enough" for the general run of work, but that hand work somehow or other is more artistic and therefore the only correct thing for pretentious work.

I say flatly that the printer who feels this way is standing in his own light and cannot see the full usefulness of the type-casting and composing machine. There is no sense in investing hand composition with a mysterious halo of virtue, merely because it happens to be a vulnerable process. As a matter of fact any work so fine or pretentious that it simply must be composed by hand is something that nine hundred and ninety-nine printers in every thousand need never worry themselves about. There never was an automobile catalog (to take the most conspicuous class of pretentious printing) too good for machine composition. And as for library editions de luxe and all that sort of thing, than which there are no harder tests, we should note the fact that many of the choice books that get to the connoisseur's shelves are machine-set.

Good taste, "class," neatness, clearness and attractiveness in general, indeed all the virtues which all printers strive to put into their work, are not matters of machine versus hand composition. They depend rather upon the excellence of the face chosen and upon reasonable and intelligent care in composition, whether in one field or the other. I have seen (and who has not?) many a handsome book or

circular done by machine which utterly shamed more pretentious hand work.

The secret of good composition is bound up in two factors: Selection of a good type face, and good spacing. (Under ideal conditions the first of these factors would not exist and there would be no bad faces—but this is not Utopia!)

In the matter of good spacing the hand compositor is no monopolist. He too is working against a time-card, and will stick in two three-em spaces next to one three-em much quicker than a machine will. In fact the Monotype has no choice but to distribute its spaces evenly.

It does not weaken the case for the machine to admit that the finest possible machine composition is not quite equal to the very finest that hand work could be, for the "very finest hand work" is something quite outside the range of commercial possibility—let us say, a folio Altar Book from a specially designed type, produced at a fabulous price during a period in which a cathedral itself could be built. In such a case, if one ever comes your way, go to it! and use your hand type with a clear conscience.

This is the Golden Age of Machinery. The glory of the Twentieth Century, in all lines of manufacture, is its wonderful machines by which the slow, laborious and crude methods of past centuries have been transformed into marvels of speed, accuracy and economy. The type composing and casting machine is one of these marvels.

Cultivate your machine to its full usefulness! That it is otherwise than eminently suitable for the noblest work your shop may ever be called upon to do, is no more than a dilettante, precious notion, with no basis in fact.



## The Making of a New Dictionary

**T**HE dictionary resembles a vast museum where words, like priceless gems from all parts of the world, are ranged side by side in endless variety; some brilliant, as the diamond; others sparkling, as the ruby and sapphire, and still others iridescent, as the opal—all they need is an appropriate setting. And this setting, rich and rare, has been given to them in the "New Standard Dictionary" of the English Language.

Twenty years ago "A Standard Dictionary of the English Language" was first published. It was all set by hand and the work took five years. Ten years later there appeared a new and revised edition of this important work, to which were appended, as addenda, some fifteen thousand new terms. The work just issued, Funk and Wagnalls "New Standard Dictionary," is the only complete record of the living words in English that has ever been compiled. It is built on original lines which have ease of consultation primarily in view, and in this direction marks a great step in advance. Its contents are given in one alphabetical vocabulary instead of in several vocabularies as is the case with all other English dictionaries.

Approach it how we may, no matter how wide the range of our knowledge, the dictionary teaches us the wisdom of humility, for not one of us is certain that he has a complete mastery of its contents even though some may delude themselves into believing that they have. Ours is an age of specialized knowledge, an age in which no man can know all, but one in which minds may, by specialization, encompass the realm of the knowable and present it to the world for the benefit of their fellow men and women. For this reason the publishers of the "New Standard Dictionary" determined to engage the largest staff of specialists that has ever been employed on a single work to produce their book. More than 380 of these and other scholars were engaged, and their labors were supplemented by a trained general staff.

For the first time in the history of lexicography, a great work of reference has been produced by means of type setting and type casting machinery. This machinery was manufactured by the Lanston Monotype Machine Company of Philadelphia. Dr. Frank H. Vizetelly gives us some idea of the vast-

ness of the enterprise from his records of the work as it advanced toward completion. The total number of words critically examined, revised, or defined in making the "New Standard Dictionary" was 513,000. Of these, 63,000 were rejected as outside of the pale of a dictionary designed for popular and practical use. The vocabulary of the dictionary consists of 450,000 terms, 65,000 proper names, Biblical, bibliographical, biographical, geographical, mythological, personal, etc., 32,000 quotations illustrative of the uses of words or often encyclo-

pedic and adding valuable information to the definitions, 23,000 synonyms, contrasted and compared so as to afford readers and writers an exact guide to the fine distinctions in the meanings of words, and 5,000 antonyms or antitheses or counter-terms—that is, words directly opposed to other words in their meaning.

In the making of this work, the labor was divided into 180 separate departments each one of which was in charge of specialists. In addition, 26 trained definers

were engaged for two years in drafting definitions, 23 revisers compared the definitions made with the original sources, supplied omissions, corrected errors or defective forms, and covered, as completely as it was in their power to do so, the advances in science and linguistry. All terms or definitions of terms belonging to special departments were thereafter referred to the specialists in charge, and approved, or amended and approved, by them, and then inserted in their places and amplified where necessary by quotation, illustration, or tabular matter by the reviewing editors. From their hands the "copy" next traveled to those of the managing editor, who amplified definitions, as by quotation or illustration, strengthened weak spots, indicated errors in the uses of words as by quotation or encyclopedic note, suggested pictorial illustrations, and, particularly, supervised the carrying out of the plans upon which the new work was based. This work done, the copy then passed before the trained eye of the editor-in-chief, Dr. I. K. Funk, who gave it a critical examination, and when satisfactory, stamped his imprimatur upon it. Then the copy was sent to the printer.

In the printing office, after the copy had been composed and cast by the Monotype process, galley proofs were sent to the proof room for



Managing Editor's Room

reading and correcting, and thereafter were turned over to the compositors for typographical correction. The intricate character of the work done, which is well illustrated by the charts of architecture, arteries, geology, languages, etc., etc., often required several days' time to perfect; but, once accomplished, clean proofs were sent to the editorial rooms, where they received an entirely independent reading from a staff of trained proof-



Composing Room, showing Operators at Monotype Keyboards

readers. Batches of these proofs were turned over to record and mailing departments, to which was entrusted the forwarding to each specialist of the definitions of his particular department for approval. During the interim—the time between the dispatch of proofs to that of their return—the working or office proofs were read, revised, and held for the specialists' corrections. Sometimes, as in the cases of experts in Bombay, India; Cape Town, South Africa; Sydney, Australia, and Kyoto, Japan, several months lapsed before proofs were returned; notwithstanding this, the necessary corrections were made before the matter was ordered cast into plates for printing.

Thereafter, the galley-proofs already referred to were turned over to revising editors, who re-examined each word for alphabetical position, for possible omission of meaning, or for condensation. This work completed, the proofs passed to the illustration department, where the necessary pictorial matter was supplied, and then they were turned over to the reviewing editors, whose duty consisted chiefly in seeing that the work of those who preceded them was done satisfactorily. Once again the proofs passed in turn under the eyes of the managing editor and, finally, those of the editor-in-chief; then they were returned to the printing office to be made up into pages. This work accomplished, the page proofs were subjected to the same processes of reading, correcting, revising, and reviewing as the proofs in galley form, so as to assure, as far as human effort could, a minimum of error, and ordered cast into plates.

Ordinarily, the stages of progress from copy to plate described above, all but terminate—there

remaining but the press work and binding to be done—the processes of producing a book. But with such a work of reference as a dictionary, greater care is needed, and therefore, after every plate was made, the publishers ordered that a proof of each one be compared with the original type proof to see that all changes marked were properly made, and, if any had been overlooked, that they be repeated on the latest proof and returned to the printing office for adjustment. Even here the steps to secure accuracy did not end. A further revision of the plates was made after they had been delivered to the press room, and before they were imposed into forms and put upon the presses for printing. But after each form had been made ready for printing, and before any one was released for its run, a press proof of it was submitted for critical examination of the color of the type impression and illustrations, as well as to see that all instructions given on the final proofs had been properly carried out.

From the foregoing it will be seen that the contents of the "New Standard Dictionary" passed before many pairs of eyes before the plates were ready for printing. From the copy to the printed sheet there passed before one pair of eyes 60,220,800 words—that is, 10,036,800 words which were used in making the "New Standard Dictionary" multiplied by six—the number of times the words underwent editorial scrutiny as (1) copy; (2) galley proof; (3) page proof; (4) plate proof; (5) revised plate proof; (6) press sheet. There is an average of 3,400 words on a printed page of this work. The number of letters or symbols in a column is 5,242—that is, 15,726 on a page, or 46,423,152 in the entire book.

The work of making the "New Standard Dictionary" involved the handling, in the editorial



Monotype Casting Machines in Operation

rooms, of 145,944 sheets of copy, the work of 380 specialists and other scholars, which kept eight operators steadily occupied for more than two years on Monotype keyboards each containing 225 character keys especially arranged for dictionary work by the Monotype Company. The number of ems keyboarded daily by each operator averaged 20,000. In addition to the operators referred to, there were engaged on the typographical end of the

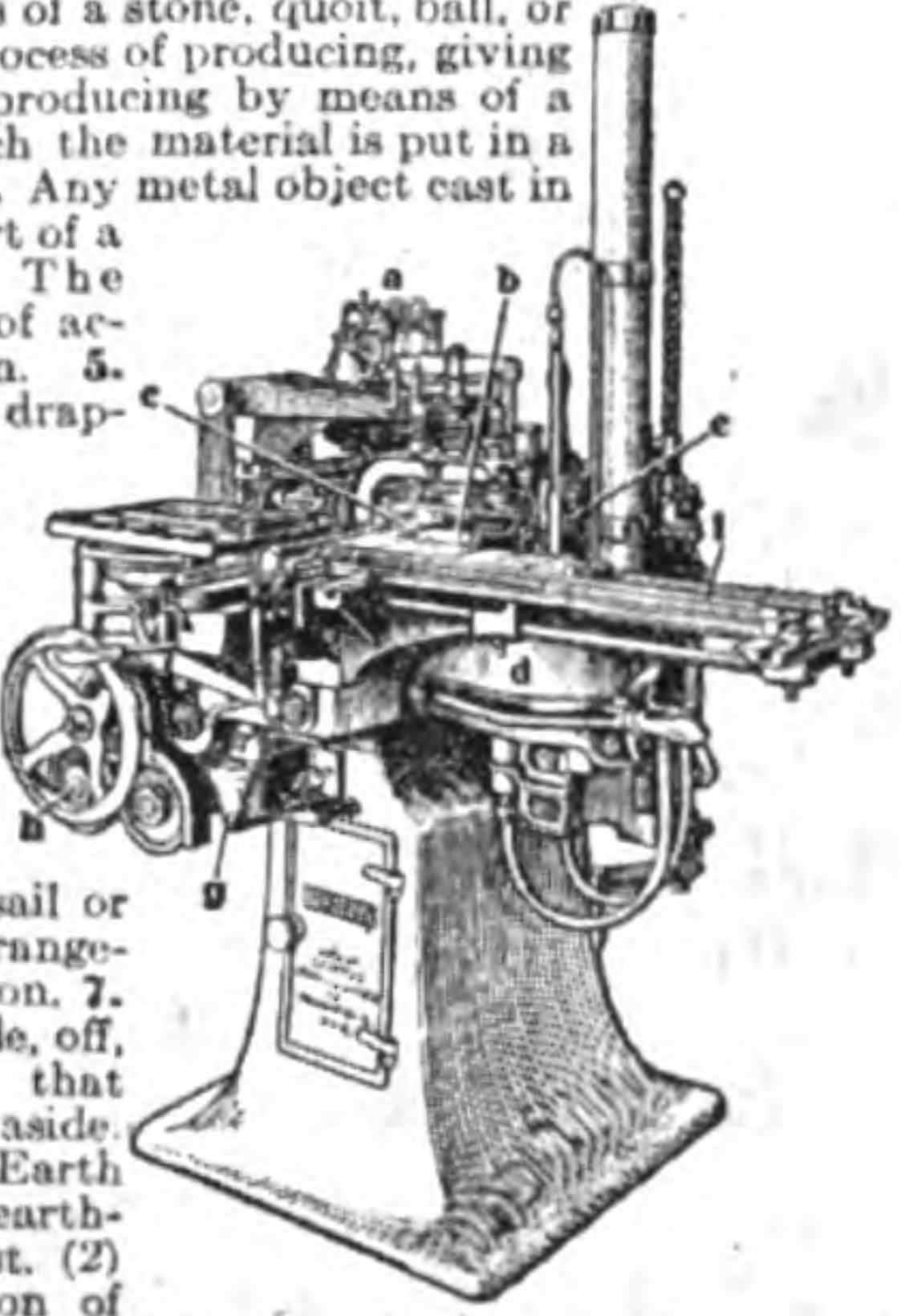
caste, 1 kast; 2 east, n. 1. One of the hereditary classes into which society is divided among Hindu peoples by the religious laws of Brahmanism; also, the principle or custom of this division. The principal castes are the Brahmins (priests), Kshatriyas (warriors and rulers), Vaisyas (husbandmen and merchants), and Sudras (mechanics and laborers), besides Pariahs, or outcasts, who are considered to be of no caste. The first three castes represent the Aryan races, or the twice-born, while the Sudras, or the once-born, comprise the non-Aryan races vanquished by the Aryan invaders. These primal divisions, from various causes, have been split up into multitudinous sects, tribes, and sections, the Brahmins alone now forming a distinct group in Hindu society. There are many mixed castes, the object being always to make employments hereditary, as, the caste of sweepers; the caste of tanners and shoemakers. Socially the distinction of "high" and "low" caste is observed. The term is also applied to breed-animals; as, a high-caste Arab (horse).

castus, pp. of castigo, < castus, pure, + ago, make. SYN.: see BEAT; CRASTEN.—cas'ti-ga-bi(e), a.—cas'ti-gate, a. Chastened; subdued; also, revised and corrected.—cas'ti-gate-ly, adv.—cas'ti-ga-tiv(e), a. Castigatory.—cas'ti-gator, n.—cas'ti-ga-to-ry, I. a. Pertaining to or like castigation; corrective; retributive. II. n. An instrument of punishment; especially, a ducking-stool.

cast-iron, 1 kast'-ai-arn; 2 east'-f'ern, a. 1. Made of cast iron. 2. Like cast iron; rigid; unyielding; as, a cast-iron rule.



Castle of Carroussel, France. a, principal gate; BB, barbican; bbb, gates; c, postern; dd, passage to the castle; ee, portico surrounding the courtyard; f, donjon; g, quarters of the guard; h, great watch-tower.



Monotype Casting-machine, as used in casting type for this dictionary.

work, six operators in charge of 12 Monotype casting machines which cast 24,000 ems each per day, 36 correctors, make-up men, foundry molders, stone hands, and plate-finishers, eight printers' proof-readers and six copy-holders. These persons, 64 in all, were kept employed for three years and seven months, during which time they handled more than 51,000 pounds (over 25 tons) of type, more than 7,000 definitive pictorial illustrations presenting 10,914 separate figures which serve to illustrate several thousand distinct parts. For example, under architecture 19 types are presented; under arteries the courses of 120 of these are mapped out; under bird 47 parts of the biped are shown; under bone 73 distinct bones are named and illustrated; under locomotive 107 separate parts of a Pacific type of railroad engine, as used on the Baltimore and Ohio Railroad, are given. This plan is carried out systematically through the book, and chassis and motor-vehicles show 99 parts, muscle shows 94, steamship shows 137, watch 84, etc.

Pictorially, the "New Standard Dictionary" is much in advance of the old one. The plates of decorations of honor, of flags, of state seals, and of coats of arms have been carefully revised, new designs introduced, and obsolete ones removed; and a number of new and instructive full-page illustrations are introduced, notably one of bacteria in colors, and several in monochrome, as astronomical and meteorological phenomena, flowers, leaves, national and patriotic songs, etc. On the plate of flags one notices, for the first time in any dictionary, the flags of the Chinese and Portuguese republics. There is a remarkable plate of cross-sections of live woods and one of butterflies and moths, neither of which formed part of the first edition of this work. The textual illustrations are clearer, more numerous and, in general, up to date. Some of these, as of certain mechanical devices, are identical with those included in the earlier printings, presumably because little or no change has been made in the devices they illustrate. Others, such as casting and composing machines, locomotive, printing press, steamship, turbine engine, watch, etc., are entirely new. All the popular games are illustrated, many with diagrams giving dimensions of field or court where played. The scheme of selection appears to have been modern rather than ancient, for there are fewer designs "from an ancient Greek vase" in the "New Standard Dictionary" than are usually found in such works. An innovation is the introduction of reproductions of pictures by great artists—an exclusive feature with this new work. There are in addition pictorial reproductions of world-renowned sculptures. All serve to supplement the definitions in a way that words could not possibly do.

Turning from the pictorial side of this new work to that of the paper required to print the first edition and to the number of printing presses needed to print it, one learns that no less than 4,010 reams of paper, weighing 380,785 pounds, were used, and that from 14 to 18 printing presses

were run continuously for four and a half months to print the first edition. Independent of these were the lithographers' work, which occupied several additional presses for a like period of time.

The cost of producing the new work has exceeded \$450,000, which, added to the initial cost of "The New Standard Dictionary," \$1,000,000, entitles the publishers to the distinction of having erected to the memory of their former president, the late Dr. Isaac K. Funk, a monument full worthy of his sagacity as a man and of his ripe erudition as a scholar.

One has but to examine this work closely to feel justified in saying that it is the most practical dictionary ever published. He who purchases it may well consider its price a charity to himself.



### "An Appreciation"

**T**HIS month we publish in "Monotype" an article which describes in detail the making of the "New Standard Dictionary." With its completion, this great work takes its place beside the "Encyclopædia Britannica" and other great works of reference, as an enduring monument to Monotype quality and versatility. It is the culmination of a stupendous task well done. Dr. Frank H. Vizetelly gives us some interesting statistics of the vastness of the work, and the processes through which it passed from copy to finished book, supplemented by illustrations through the courtesy of J. J. Little & Ives, Trow Printing Co., and the publishers, Funk and Wagnalls Company. We feel confident that readers who have had the pleasure of examining this new dictionary are heartily in accord with the words of Dr. Vizetelly, who says: "He who purchases it may well consider its price a charity to himself."



### Lead Casting at the "Boston Post"

**I**T would be difficult to find a place where Monotype versatility was more convincingly shown than at the "Boston Post." Ad work; editorials; markets; base ball scores; straight matter; quads for mounting cuts in quantities, casting hundreds of pounds of display type are the regular "stunts" of the Monotypes in this plant. The casters are never idle. The moment the keyboards are through with copy the casters are thrown on other work—one of the by-products. Lately the "Post" installed our lead mold and in a letter from Mr. G. Lyon, the Superintendent, he says:

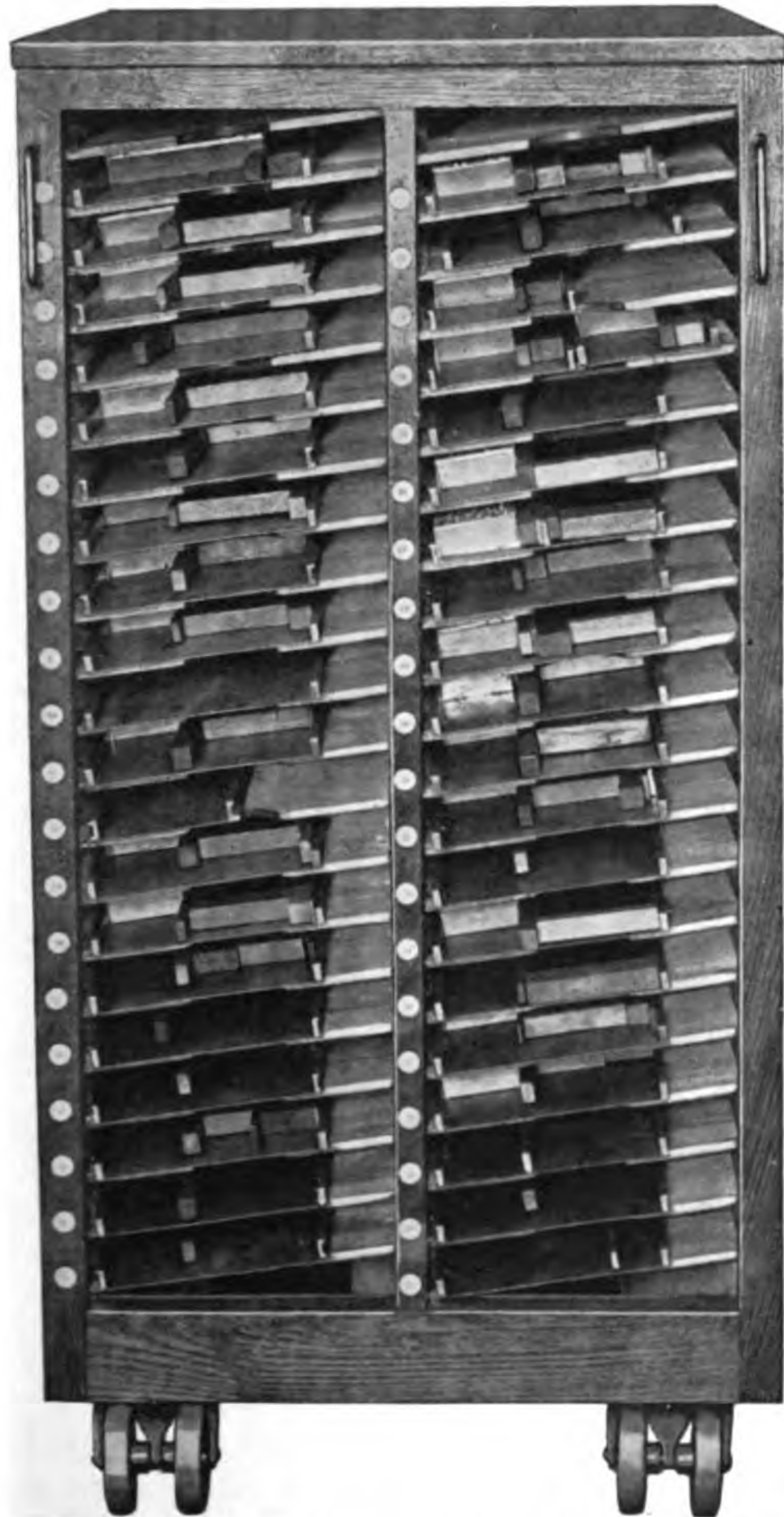
"It may interest you to know that we recently produced 1700 pounds of leads 12½ picas long in 28 hours. A very satisfactory performance in itself, but much more so when you consider the fact that the caster man also ran our other machine on ad work."

As there are approximately 65 12½ pica leads to the pound, this means about 3900 leads per hour.

## Portable Galley Cabinets

**T**HE "transportation" problem is of vital importance to the printer, for it is essential to handle quickly work in process and, in most printing offices, room is at a premium.

The galley cabinets here illustrated were made by the Hamilton Manufacturing Co., of Two Rivers, Wisconsin, for J. H. Walden, of Chicago, who has



Portable Galley Cabinets used by J. H. Walden, of Chicago

found them most efficient in saving both time and room. These cabinets are 44 inches high and 21½ inches wide; they are mounted on wheels so that a boy can easily push the cabinet, with its load of galleys, from one part of the office to another.

While it is customary in most offices to have an apprentice take the first galley proofs, in many offices it is still the custom for the compositor who corrects the galley to take the proof of this and then return the galley to the rack. Thus, a compositor on corrections spends a large part of his time carrying galleys, one at a time, to and from the galley rack. Mr. Walden tells us that in his plant these portable galley cabinets are used to save these needless steps

and the time lost by the compositor in continually "back-tracking" to the galley rack.

As the galleys are proved they are put in one of these portable cabinets, and, when a sufficient number have been read, the cabinet is wheeled to the corrector by the galley boy. All corrections are made by one man who, by natural ability and experience, has become an expert on corrections. Experience and knowledge of the Monotype System, the unit sizes of different characters, are as desirable in a corrector as in a keyboard operator.

When the corrector has finished the galleys in one cabinet, the galley boy wheels this to the proof press, proves the galleys and then wheels the cabinet to the make-up alley.

The make-up frame, shown in the illustration, is a regular type cabinet, with the top reversed, so that



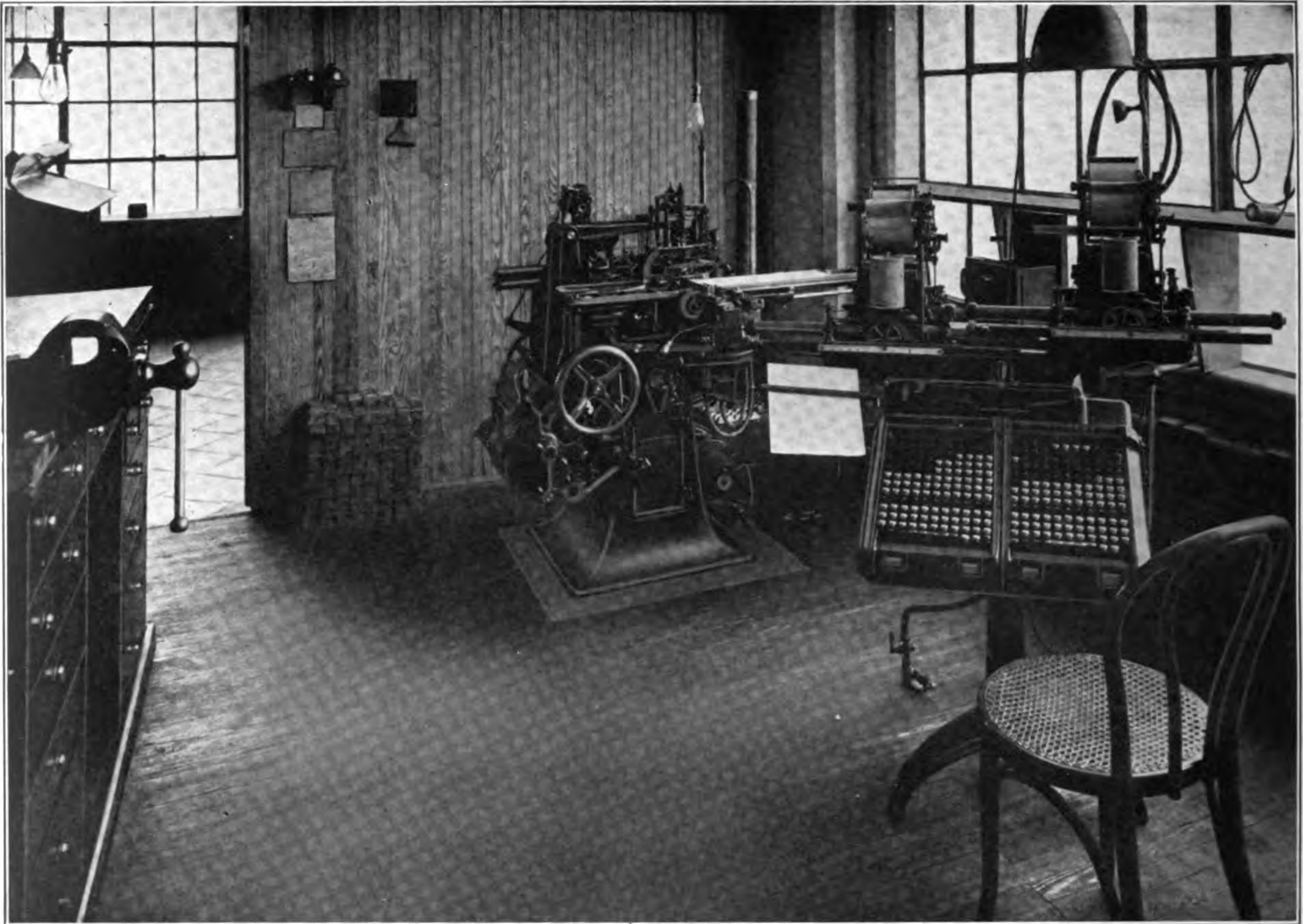
The illustration shows the Portable Galley Cabinet beside the Make-up Frame

the make-up man has conveniently in his alley the type required to make any minor corrections and page alterations.

In making up double column pages, instead of lifting the type from one galley to another, the make-up places the galley of type that is to be made up, against the make-up galley, as shown in the illustration, and slides the matter onto the make-up galley; a piece of cardboard is pasted on the frame to raise the end of the type galley slightly above the make-up galley.

In the same way in making up single column pages, the type is slid, instead of being lifted, onto regular book galleys; these pages are not tied up until they are ready for press—that is, until there is no possibility of their having to be untied for the purpose of making alterations.

Type used in "Monotype" for September-October: Text pages, 8 and 10 point No. 173E series. Page headings, No. 117 series. Ad pages Nos. 37, 64 and 86 series. Monotype rule, cast on the rule mold has been used throughout.



The Monotype Department of the Industrial Printing Company, Baltimore, Md., is a model of neatness and efficiency. Partitioned off from the composing room proper, the operator's attention is given entirely to the production of the work in hand under ideal conditions

## A Print Shop That Gets Monotype Service, Quality and Economy

**T**HE leading article in "Monotype" for May emphasized an advantage of the Monotype System of machine composition and casting type for the cases, under the heading of "Continuous Production."

This "keeping everlastingly at it" feature of the Monotype—setting type or making type—is splendidly illustrated in actual practice, under every-day commercial conditions, in the plant of the Industrial Printing Company, of Baltimore.

It would seem hardly necessary to do more than describe the course of the copy in this plant under the accompanying pictures, to show that production is continuous, that the copy follows the "straight line" of quick and easy handling, and every compositor is supplied with well-filled cases of all the type required to make the day's work full and efficient.

In an ideal location at the head of the composing room, one standard Monotype equipment handles all of the composition for this thriving office, and, in addition, keeps the hand men amply supplied with new type, in a good variety of up-to-date and

attractive faces, as well as spaces and quads, in all sizes up to and including 36 point.

This plant was newly equipped throughout somewhat over a year ago, and equipment bought to do high-grade commercial job printing, booklets, catalogs, etc. That the selection of equipment was a wise one is manifested in the great volume of profitable work that is passing through the plant continuously.

This Monotype plant is operated by a machinist operator, who handles both keyboard and caster, demonstrating that the Monotype, in the hands of a competent operator, is a one-man machine.

This operator not only turns out all of the body-type composition used in keeping the batteries of cylinders and jobbers busy, but also finds time to keep the cases filled with new type for the hand men, so that, when the product of his keyboard reaches the composing room for make-up, the hand compositors lose no time in hunting for sorts in the display sizes. This composing room is operated on the theory that in order to make it profitable it is



The composing room of the Industrial Printing Company, Baltimore, Md., showing the excellent arrangement of the compositors' stands, which are placed along the windows, parallel with the imposing stones, thus saving steps for the hand compositors, as well as giving an abundance of daylight

just as important to furnish the workmen with tools (type) as it is to furnish them with copy.

The photograph of the composing room, with press room at the extreme left, shows an ideal layout for a printing office. Copy starts at the extreme right, at the Monotype, and then advances toward the left to the cases, which run parallel with the imposing stones. After being made up into pages the compositor pulls his page proofs, and immediately stores his pages in the storage cabinets built into the imposing stones. When the proofs return, if there are any alterations or corrections, the compositor, of course, makes the changes by hand, and when the job is ready for press the pages are placed on the stone, locked up, and the form sent to the press room.

The bindery and stock rooms are located next to the press room, so that the printed sheets advance directly from the press room into this department and from there to the shipping room, ready for delivery.

There are many larger printing plants throughout the country, but certainly none laid out better to get results. This plant also demonstrates in a practical way what a wonderful advantage a Monotype has over the slug machines. No better incentive is needed by a workman to encourage him to give the

best that is in him, than to work under these ideal conditions, in addition to having placed at his disposal plenty of high-grade equipment such as this shop affords.

He does not have to doctor his time ticket on account of time lost picking type or replacing worn letters that do not really show how badly they are worn until the final page proofs are pulled.

He devotes his entire time to constructive work; his job is always progressing, never going back or standing still. He unconsciously gets the habit of completing the work he has in hand, in the minimum amount of time and with the maximum degree of accuracy.

More errors occur in hand distribution than in composition. Distribution errors show up the next time type is set from the cases. But there are no distribution errors when cases are filled right from the Monotype caster, and when this type goes into a job, perhaps alongside of type composed at the keyboard, it is all of the same uniform high quality, which means hours of valuable time saved in make-ready on the presses.

Any printer having doubts in his mind as to "which machine" to install will do well indeed to pay a visit in his own interests to the plant of the Industrial Printing Company, Baltimore, Md.

## Analysis of Cost Methods Using the Monotype Composing Room as an Illustration

**I**N THESE days of rational cost methods and scientific management every master printer is intensely interested in obtaining the simplest and most thorough method of arriving at his cost of production, and also, from these statistics of cost, to increase his operating efficiency, so that he will not only obtain the greatest return from his investment in equipment, but know for himself that the system he uses is at least as efficient as that used by his competitors. With this in mind, and using the Monotype composing room as an illustration, a chart has been prepared to show: First, the method of an efficient system; and second, to demonstrate some points upon which there seems to be a difference of opinion.

This article does not advocate a new method, or the use of new blanks, but simply describes basic principles which are applicable to any printing plant and which can be used, not only for the Monotype composing room, but also for the improvement of conditions and the obtaining of more accurate data in any department of the business.

As every operation in a printing plant is different from every other process in the plant by reason of its different elements of expense and the variation of the proportion of its cost factors, it has been long recognized that the costs for each operation should be separately compiled, thus obtaining basic productive hour costs. This principle of departmentization, applied to the Monotype composing room, requires the recognition of three separate departments; viz: Keyboard, Casting, and Hand Work.

### PLAN OF THE CHART

The method in general use for the obtaining of the productive hour cost is shown in a straight line, and production costs are extended above and below the hour costs. The general items of expense, in the first column, are shown for the purpose of emphasizing their variation, as investment expense will be comparatively low for the keyboard, comparatively high for the casting, and proportionately between the two for the hand work; the operating expense will closely follow the proportions of the investment expense; keyboard paper and metal depreciation are proportionate to product, while type making expense, as its proportion increases, will not only materially reduce the hand work cost, but also reduce the casting cost. These three divisions of maintenance might well be termed "fixed charges," as they are not materially affected by the fluctuations of business or the efficiency of operation.

The overhead item is the proper proportion of department and general expense, brought down to

the individual operation in order that the actual costs compiled will each carry their share of the total expense of the entire business. The wages item is the actual labor purchased directly for the individual operations.

Having obtained the total expense of the department, and also having compiled the total productive hours for the same period, the productive hour cost is naturally obtained by dividing the total cost by the total hours, thus giving the basic cost now generally recognized by all the authorities on cost methods. This average productive hour cost is an interesting index of operating efficiency as well as selling methods; but as a prime cost factor it leaves much to be desired. The purchaser of printing does not buy the productive hour—he buys the product of the productive hour; consequently proper cost methods must provide for compiling the costs of product after the hour cost has been obtained. When the method of obtaining average costs of product are generally known and consistently followed by printers generally, price-cutting will be eliminated from the business. This important point will be treated later.

### PRODUCTIVE VS. SOLD HOURS

The United Typothetæ and Franklin Clubs of America have decided that the productive hour is the hour, the product of which can be sold directly to the customer. The hour of original hand composition can be sold direct, but to put the product of this hour into acceptable work, office corrections are always necessary, and can the hour of office corrections be sold direct? Usually, no! While office corrections are a legitimate expense of the hand composing room, the amount of this expense will vary for the sold hour in many ways that do not directly affect the value of the sold hour, which is thoroughly appreciated by every master printer. Consequently, the hour of office corrections cannot be classed as a sold hour, but if it is not compiled as a productive hour, bearing its just proportion of composing room expense, it is impossible to increase efficiency from this standpoint. The master printer who compiles his office corrections as productive hours has several advantages: First, his hour cost is shown as it should be if the ideal of no office corrections were attainable; second, he has a direct check on the efficiency of the hand compositor on each job as well as of the entire department from this standpoint; third, they are a direct credit to composing room operation and a charge against product; fourth, as then expressed in cents against the sold hour, they enable the master printer to make plans for



and tally the efficiency of improvement; and fifth, as a separate item in the cost of the work, the master printer is enabled to make his price in accordance with the kind of copy he receives, or see the advisability of preparing the copy himself.

While this principle has been recognized and adopted by many printers for this expense item, and the importance of the plan has been realized, it has not been applied to other classes of printing office work, where it is of much more importance, as the method of doing so has not been clearly understood.

Monotype corrections are usually made by hand, and have no relation whatever to the cost of the operation of either the keyboard or casting departments, but they are undoubtedly a part of the expense of the Monotype product when it is corrected on the galley and ready for the make-ups. All of the "tools" used by the hand compositor in correcting Monotype matter are the same as he uses for hand composition; consequently in order to obtain a cost of this work, it must be compiled in the hand composing room; first, in order that the hand composing room shall obtain proper credit for this expense; and second, in order that the charge may be properly made against the product of the machines.

There is another important question in connection with these factors of productive and sold hours which exists in the average Monotype plant—the type making feature of the casting machine. The casting machine has two functions, both of which, however, are type making—one of which is the making of type in justified lines from the keyboard ribbon, which is generally termed composition; the other is the making of type for the use of the compositors, generally termed type making. There can be no question but that the hours the casting machine devotes to either one of these is certainly productive time. Even though the hours devoted to composition would be a direct charge against the customer, and the hours of type making could not be so directly charged, it would have no bearing on the case, as the printer who owns a Monotype casting machine has spent his money not only for the purpose of producing composed matter from the keyboard ribbon, but also for the making of type for his hand compositors; and if he wants to know the profits from his investment, he must obtain a record of his entire casting department product. This principle applies to any device for the production of composing room facilities.

The question of expediency should always govern the decision regarding complications of system work. Proof reading is undoubtedly productive time and should be compiled as sold hours; but, in many plants, this would make an unnecessary complication of the system for no tangible result, and in other plants, owing to the variation in the proportion of proof reading to the sold hour of composition, it is carefully compiled against the cost of the work as productive (and sold) time. This question of expediency may control the decision regarding proof reading, but the other three items mentioned under this heading, affect conditions to so much greater

extent, that this possibly greater expense of compiling statistics is of less importance than the more accurate costs that can be obtained.

#### CHARGING PRODUCTIVE (NOT SOLD) HOURS

A fundamental rule of cost keeping is that a department shall be charged with every item of expense that enters directly into its cost of production and shall not be charged with any item that does not so directly become a part of its hour cost, except those items which are not directly chargeable to any department and are carried as overhead.

In the application of this rule to the expense of Monotype corrections, attention is called to the fact that the cost of corrections does not in any way enter into the cost of the keyboard and casting departments. These are specialized departments for the production of specialties, in one case the making of a perforated ribbon, and the other the making of type. The specialized expense of making ribbons or making type is not increased or decreased by proofs, dirty or clean; so why, therefore, should the cost of these two specialized operations be loaded with an expense that does not affect their department costs? There should be no question, therefore, but that Monotype corrections should be compiled as productive hours for the hand composing room, thus assisting in making the hour cost and being a credit to that department, and then charged against the Monotype product as a part of the expense of the work produced. This will accomplish two results: First, a guarantee of accuracy of the various expense items which enter into the cost of the completed work; and second, a check on the efficiency of all three operations.

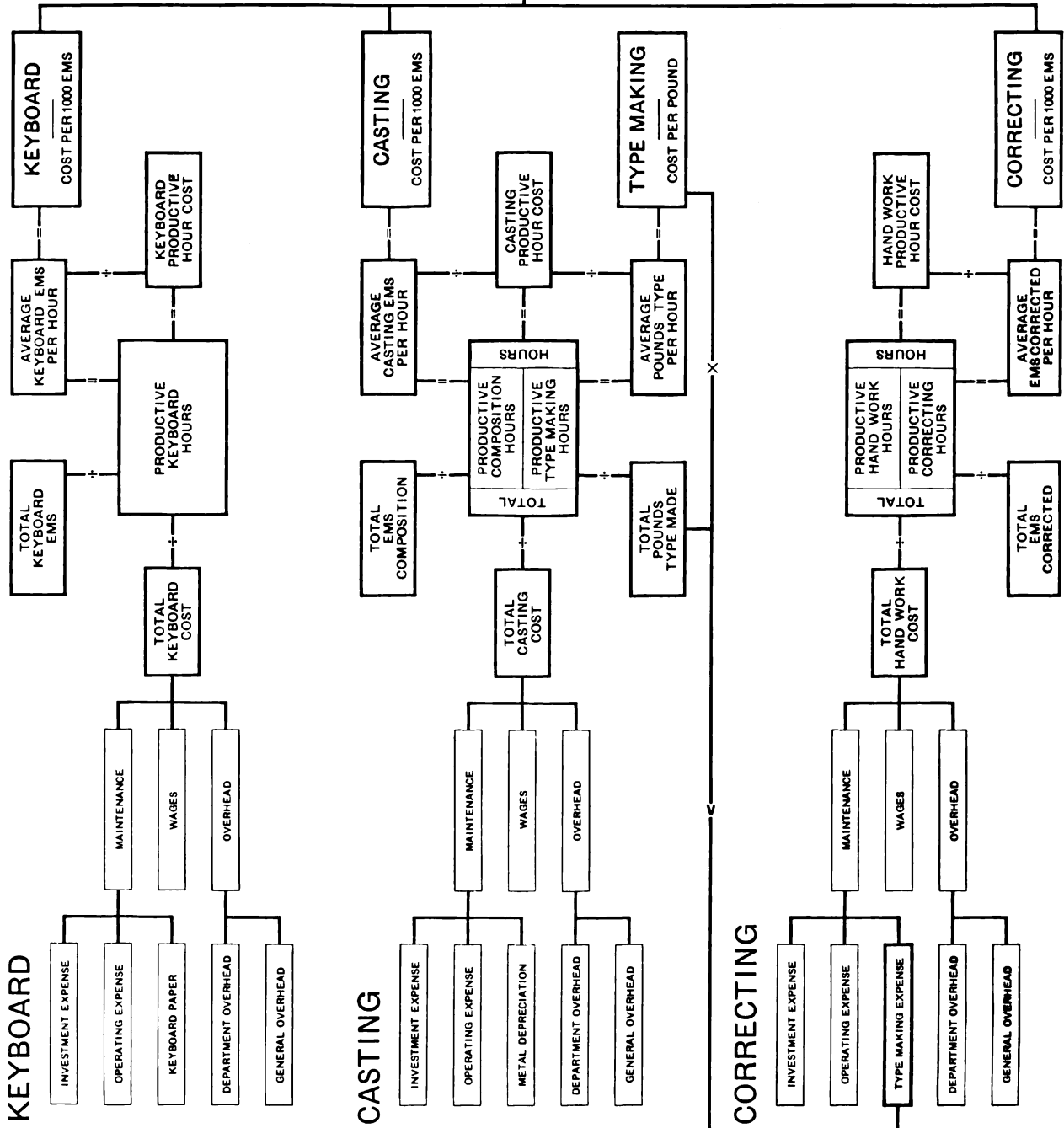
The first expense factor in any department is investment, or the cost of the "tools" needed to produce the work. In the hand work department, the largest item of "tools" is type. Type must be furnished to the compositors in order that their time may be productive of salable results, just as machines must be furnished in other departments. If one hundred pounds of 8-point type were purchased from the foundry to be used by the hand compositors, it would be charged against that department as would be "tools" used for the purpose of making the compositors' time salable. Even if it matched a slug-machine face, and were used for corrections of slug-set matter, it would still be a charge against the hand composing room, for the reason it would be used exclusively in the hand composing room by the hand compositors. It would not be charged against the slug-machine department any more than would the leads that were used to space out the slugs set by the machines.

If the printer has a type foundry of his own (the Monotype casting machine) and makes the type for his hand compositors, instead of purchasing it from the foundry, does it make any difference what kind of matter the type so made is used for? In order that the hand compositor may do his work, he must have "tools" (type), regardless of whether his work is the "finishing" of machine product or is original

MONOTYPE  
COMPOSITION  
CHART

TOTAL  
COST  
PER  
1000 EMS  
MATTER  
CORRECTED  
ON THE  
GALLEY

KEYBOARDS AND CAST AT ONE  
OPERATION ON THE MONOTYPE,  
INCLUDING ALL TYPE AND  
RULES; EXCEPT THE EIGHT POINT  
AND TWELVE POINT GOTHIC, AND  
THE +, - AND X SIGNS, WHICH  
WERE INSERTED BY HAND IN  
MONOTYPE TYPE.



composition, and the expense of these tools, as part of the hand work hour cost, will be charged against machine products when they are used for Monotype corrections. But the charge will be scientifically made as part of the cost of the hand work on the job, without distorting the machine costs. There never has been any question but that the making of type for hand composition was productive time for the casting department and a charge against the hand work department, so why discriminate against the making of sorts, supposedly for the correction of Monotype matter, when, as a matter of fact, these same sorts are largely used for the composition of new matter? For either purpose they are still the hand compositors' "tools."

#### PRODUCTION COSTS

After all, as stated above, the printer does not sell his productive hour, but the product of the hour, and, to be of value, the system must give him this information. In the chart a method is specified for the extension of the product costs in connection with the productive hour costs, and the final addition of the various items of cost of product in order that a total cost of product can be known. Dividing the total keyboard ems by the total productive hours will give the average product per hour; and dividing the average product per hour by the average hour cost will give the cost of keyboard per 1000 ems.

In the casting department, where we have two kinds of productive hours, composition and type making, the productive hour cost is obtained by the division of the total casting cost by the total hours; then the total ems of composition being divided by the composition hours will give the average product per hour; and dividing the hour cost by this average of ems per hour will give casting cost per 1000 ems. On the other hand the type making cost is carried out in the same manner to the average cost per pound, and when this is obtained it is carried as an expense against the maintenance cost of the hand work department.

The hand work department is handled in the same manner as the casting department, as here again we have two kinds of productive hours. The actual hand work hours are not extended for product costs, as this would complicate this illustration. The Monotype correcting costs are, however, extended to the average cost per 1000 ems.

The product cost extensions, made in accordance with the chart, now permit an addition to be made of the costs per 1000 ems for the keyboard, casting and correcting departments, which will be the total cost per 1000 ems of matter corrected on the galley.

This plan will surely recommend itself to the careful consideration of every master printer for the following reasons:

1. Every item of expense is carefully charged against the departments.
2. All production is properly credited to the producing departments, and charged against the work produced, either directly as part of the cost of the job, or indirectly as part of the operating cost of some other department.
3. The records of average costs are always available to tally efficiency of operations, operators or methods.
4. No department or operation is burdened with any expense except that which is needed for its greatest efficiency.
5. This plan should be adapted for the use of all other departments of the business, so that each department obtains the same accurate statistics from which to increase efficiency.

In connection with the compiling of Monotype costs, reference is made to two booklets published by the Monotype Company, "Monotype Cost and Efficiency Records" and "A Rational System for Measuring Composition," which will prove invaluable to the master printer who desires to know his actual costs, and which will be furnished by the Monotype Company upon request.



## The New York Convention

**A**LL ROADS lead to New York in October for the opening of the annual convention of the United Typothetae and Franklin Clubs of America. The headquarters of the convention will be at the Waldorf-Astoria Hotel, where the opening session will be Tuesday, October 6, and continuing until the 8th.

Ten-minute addresses will be the rule this year and there are many vital subjects coming up for discussion. The list of speakers includes the names of men who are well-known in the printing trade from coast to coast, and there is every promise that this will be the best convention ever held.

All of the entertainment is to be provided by the New York printers, and require no registration fee or payment of any kind. It includes a visit to the

Metropolitan Museum of Art, reception ball and banquet in the Astor Gallery of the Waldorf-Astoria and a theatrical performance at New York's biggest and largest theatre, the Hippodrome.

Fortunately for the delegates and visitors to the printers' convention, the annual Electrical Exposition opens in New York October 7. This is the greatest exhibition of industrial electricity ever held in this country, and the visiting printers should not fail to see this Exposition, which will be held in the Grand Central Palace.

At the New York Edison Co. exhibit, where the daily paper of the show is printed, there will be three Monotypes in operation, each demonstrating a particular advantage of the versatile machine, on composition, type casting and lead and rule casting.

## The Chicago Monotype Club

IT is a pleasure to "Monotype" to publish the picture of the "distinguished" members of the Chicago Monotype Club, taken at their annual dinner at Smidt's Resort, Robey, Ind., which we understand was a most enjoyable affair.

The club was organized March, 1911, and comprises nearly eighty per cent. of the local union



operators and caster men. It is the only club of its kind in the country, and was organized for the purpose of social entertainment, but has since become a factor in the promotion of better working conditions and the welfare of its members.

The present officers of the club are: David Benson, president; J. W. Williams, vice-president; B. F. Jones, secretary-treasurer; Jos. J. Lowe, recording secretary; Jos. J. Strum, H. H. McFarlane, R. S. Gilfay, P. M. Tomlinson, and J. P. Willard, directors; and H. F. Kuehl, sergeant-at-arms.

Too much cannot be said about the good work the club has accomplished, and with increasing membership it bids fair to become one of the leading clubs in typographical circles. It will gladly furnish information to operators in towns or cities wishing to inaugurate clubs.



"Business going on as usual during alterations"

THE war cloud announcement of the Japan Paper Company, of New York, reproduced above, and containing only the wording quoted, is one of the very few examples of incidental advertising that humorously, yet seriously, calls attention to an appalling fact.

## The Emergency Order

THE full-page newspaper advertisement "The Machinery of Advertising" reproduced here from the "Public Ledger," Philadelphia, of July 21, contained over 70 pounds of type—Monotype type—our 18 point No. 98 Antique old style.

To cast your own type in your own plant insures having "type on tap" to meet any emergency.

The Ledger did not have this font of matrices in its own equipment when the advertising manager selected this face twenty-four hours before publication, but the conveniences and facilities of our matrix library supplied this font on a telephone order and within twelve hours the whole page was in type.

Seventeen of these full-page ads have so far been published in the "Public Ledger." Can you imagine the outlay for foundry type required on this campaign? Think of the depreciation in turning over this type seventeen times under the severe strain of newspaper usage.

The Monotype type caster, in the newspaper or the job composing room, supported by a matrix service that insures getting the face you want, or your customer wants, when you want it, is the corner-stone of composing room efficiency.

Type is tools and if your shop and your compositors are poorly supplied you're cheating yourself out of many valuable hours of time that ought to foot up in the right column on the cost sheet.

PUBLIC LEDGER—PHILADELPHIA, FRIDAY MORNING, JULY 21, 1914

## The Machinery of Advertising

The sixth in a series of talks on National Advertising

A manufacturer does not ejaculate before lunch, "I believe I'll use a page in THE LADIES HOME JOURNAL," after lunch dash off a clever bit of copy, and telephone to the magazine to send a messenger for it before five o'clock, so that he can see the proof tomorrow. Advertising passes through an intricate mill that grinds slowly—but exceedingly fine.

THE four-color display which makes the back cover as attractive and as forceful as the front, has much history behind it. To begin with, the space it occupies was ordered a year or more ago—for there is keen competition among advertisers to obtain the cover positions of leading publications. The idea of this particular advertisement as a part of an extensive campaign was conceived perhaps a year ago. Six months ago a highly trained artist was commissioned to begin the painting, and soon after the copy man was at work, writing and rewriting. As long as three months ago the magazine insisted on receiving the design and copy in order that its mechanical staff might begin the process of reproduction. Between the first suggestion of a campaign and the cash-in on the last of the resultant sales, perhaps years after, there stretches an orderly series of shafting, pulleys and gears—powered of tremendous man-power.

Like a newspaper press, each advertising machine is constructed individually to meet particular needs. The inventor who sells, by mail, a line of little household conveniences turns out his own one-inch advertisement in a couple of evenings at home, and mails it direct to the publication, while the larger advertiser, spending considerable sums, sets a huge mechanism moving in well-oiled and balanced revolution.

This machine has as its main features:

- (1) The firm.
- (2) The sales manager.
- (3) The advertising manager.
- (4) The advertising agent.
- (5) The publisher's representative.
- (6) The publishing house.

Under one or the other of these six divisions fall all the numerous supplementary heads—the copy writer, the illustrator, the space buyer, investigators and statisticians, follow-up men, engravers, designers, printers, clerks to check up results and answer inquiries.

It will be noted that of the six features of the advertising machine, three lie within the organization of the advertiser himself and three outside it. This talk will deal with the first three, leaving the outside factors to be discussed in these columns later.

The direct touch of the firm with advertising comes through the advertising manager. He may be a big man or a little one, a help or a hindrance. His efficiency or inefficiency may have much to do with success or failure according to the amount of responsibility given him.

In some concerns the advertising manager does little more than interview solicitors, transmit instructions to the agent, read proofs and report upon results. In others he works in constant touch with the agent, controlling the progress of the campaign, ferreting out ideas, planning and writing some of the copy. Usually a manager of this calibre has much to do with the selection of the agent. Still another kind of advertising manager has broader duties, conducting a large department which plans campaigns, writes and illustrates all copy, and attends to the primary dealer-work and the follow-up, leaving only the actual purchase of space, distribution of copy and checking of insertions and results to the agent. Such a system often signifies insufficient service on the part of the agent. The best agencies refuse to accept an account where their duties are to be limited solely to "placing" or "clearing."

In general, the true position of the advertising manager is between the agent and the firm; representing the latter and directing the former. He should be a man with a thorough comprehension of advertising methods, and, at the same time, closely concerned with the policies of the company. To the board of directors of the firm, made up of men unfamiliar with advertising, he interprets the plans and campaigns of the agent. Upon the enthusiastic agent he impresses the viewpoint of the firm, and exercises the check of conservatism. To this chief function he may add such of the duties and prerogatives of either party as necessity or policy may dictate or permit.

The connection of the sales manager with the advertising varies widely with different types of organization. In some he has authority over the advertising manager, sometimes the two offices are combined in one, often the two have equal power and pull together in double harness. There is much divergence of opinion as to the most efficient relation.

The president of the National Sales Managers' Association maintains that the advertising should be under the direct supervision of the sales department.

Others will tell you that because advertising strikes the dominant note of the sales policy the relation should be reversed.

There is at least no disagreement as to the need of close connection and the hearty support of the advertising by the whole selling organization. From the sales manager must come the data as to what kind of help he most needs, in what localities and at what times. From him will emanate many of the arguments to be used in the copy—although not always the most powerful ones. It is his responsibility to endorse the salesmen, to keep them informed about the advertising and to insist that they take best advantage of the favorable attitude which it fosters. His department will also handle the incoming inquiries, and in some firms attend to the follow-up methods of reaching dealer and consumer.

It is, of course, the firm, the board of directors or other management, which is ultimately responsible for the advertising. But all too seldom does the initiative proceed directly from these sources. A new national advertiser is born of the suggestion of a publisher or an agent, the energy of some one far-sighted member of the firm, or the progressiveness of the sales or advertising manager.

It is the firm which authorizes the spending of the money and makes the appropriation. It also approves the general plan and scope of the campaign—whether the methods shall be general or mail-order, the keynote, in what classes the appeal shall be directed, and what type of publication shall be used. The firm also very often, with the advice and cooperation of a publisher in whom it has confidence, selects the agent who seems best qualified to handle the account.

When the day comes that these "men higher up"—the men who have so often either ignorantly handled a good advertising plan or given too free rein to an inefficient "expert,"—when the directors and officers of the firm themselves try to know more about advertising, then we may expect an even greater coverage of success than is being attained today.

THE CURTIS PUBLISHING COMPANY, INDEPENDENCE SQUARE, PHILADELPHIA

Full-page Newspaper Ad containing over 70 pounds of 18 point Monotype Type



Printers visiting New York City for the United Typothetæ and Franklin Clubs Convention are urged to attend the Electrical Exposition which opens in the Grand Central Palace October 7th.

Nearly every machine the printer uses is electrically driven, and at this exhibition you will see new and improved methods of applying electrical power to all kinds of printing machinery.



## What Has Become of Your Investment?

**WE GLADLY** give more publicity to the following from "The Ohio Messenger" (May, 1914), the official publication of the Ohio Printers' Federation, because no question is of more importance to the printer than this: "What has become of your investment?"

**You cannot safely estimate the efficiency of the machine you bought last week.**

**Its service value cannot be fixed.**

**Its term of usefulness is an uncertain quantity.**

**The instant an improved model—a more efficient type—makes its appearance you must install the better machine regardless of the cost of junking your practically new machine of yesterday.**

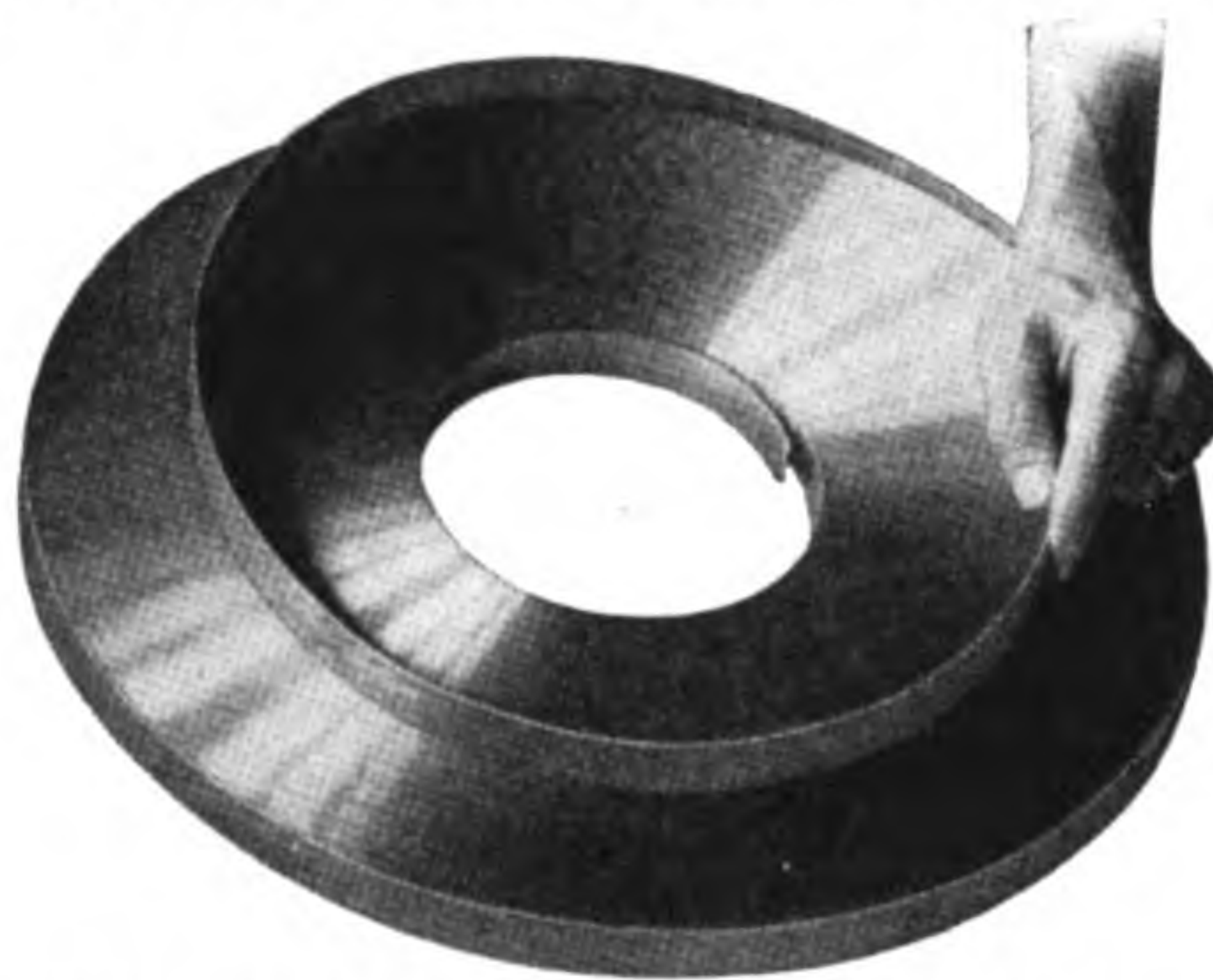
**What has become of your Investment?**

You will find the answer at Point 4, second page of cover of this issue of "Monotype." Where shall we send our booklet?

## Still Another Monotype By-Product

**I**T IS constantly the case that the by-products of a complex industry are found to be the sole source of business profits," says the "Encyclopædia Britannica," and, not content with its record of service to the printer as the only composing machine and type caster—two machines in one—there is added the lead and rule casting mold, a standard Monotype unit which can be applied to any Monotype composing machine or type caster.

The new mold casts 2 point leads or rule in endless strips (see illustration) at the phenomenal rate of thirty pounds an hour or five feet a minute. If you bought this material in brass from a type



600 Feet of 2 Point Monotype Lead Rule

foundry it would cost you \$18.00, not counting a depreciation charge that makes brass rule a luxury in every print shop.

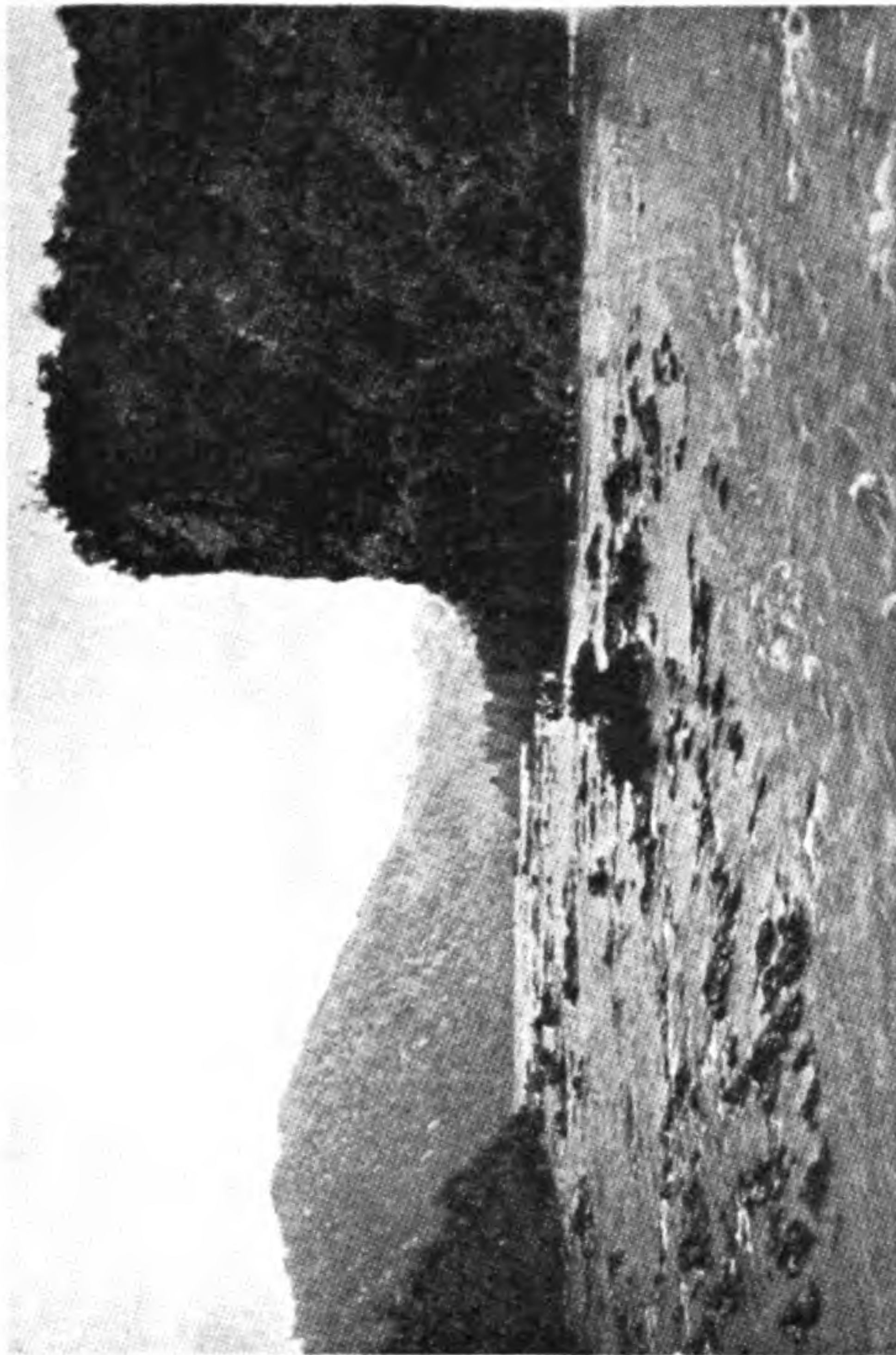
Monotype users from every part of the United States and Canada, representing shops doing every conceivable kind of printing, have been quick to realize the money-saving possibilities of the lead and rule mold, for the orders so far received are from two to three months ahead of delivery.

The time saved looking for leads, cutting leads and distributing "labor saving" leads is just as important to the printer as the saving of time in having plenty of type which he casts for his own plant. Eliminating the cost of depreciation and distribution on type, spacing material, lead and rule, is an economy that looms up tremendously in the actual cost analysis.

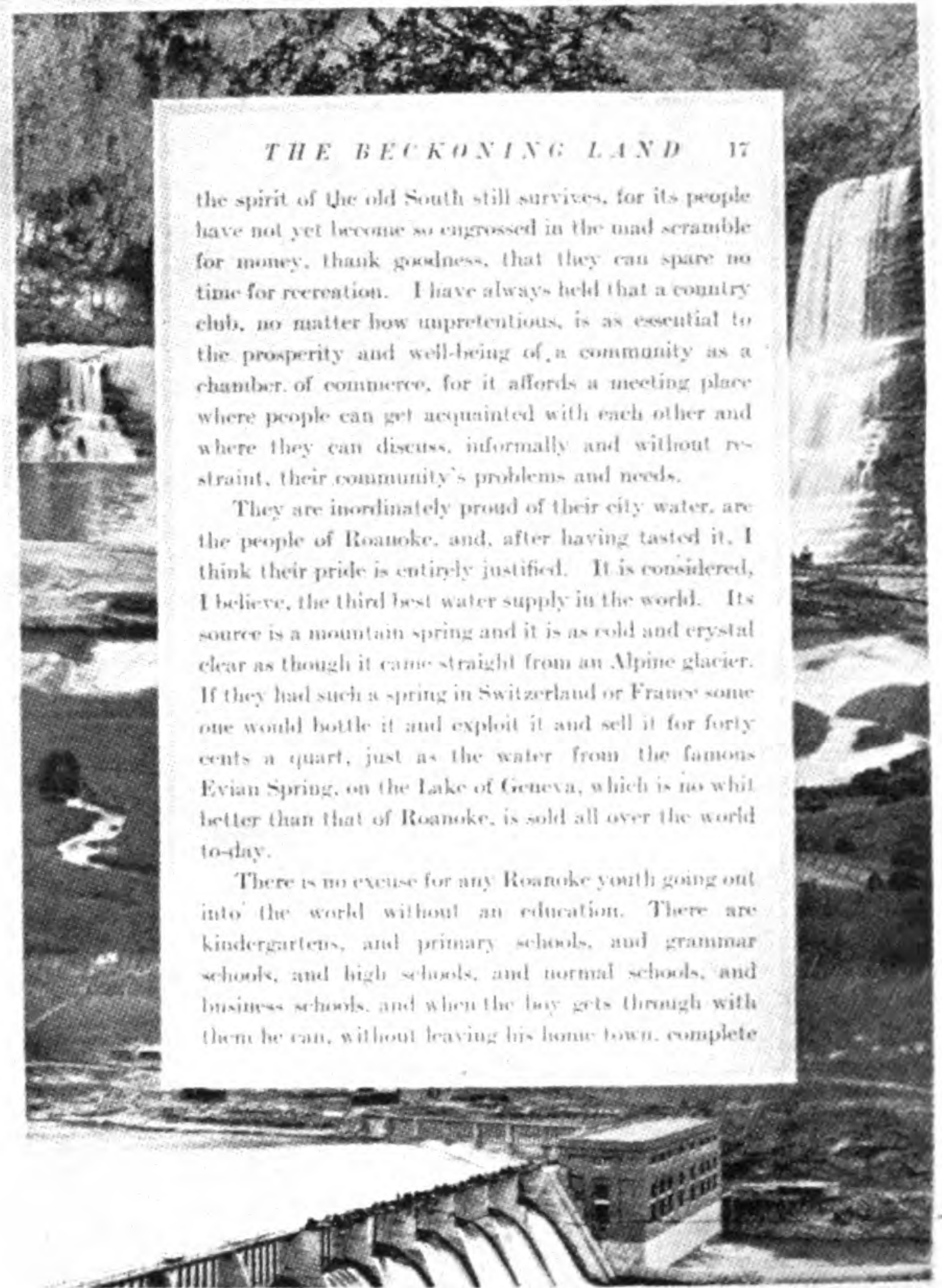


## Before the Days of Punctuation

**I**N THE early days of their craft, compositors had no need to worry about quotation marks. Punctuation was then of the simplest, consisting only of an oblique line and a full stop. The first book to introduce the colon and notes of interrogation and exclamation appears to have been a "Lactantius" printed at a monastery near Rome in 1465. Title pages were also unknown in those early days. The books started off with "Here beginneth," no author's or publisher's name being prefixed. This causes much difficulty in attributing early work to the proper sources.—London Chronicle.



Can you hear the whisper of the wind and its grain? They beckon and call to you.



#### THE BECKONING LAND 17

the spirit of the old South still survives, for its people have not yet become so engrossed in the mad scramble for money, thank goodness, that they can spare no time for recreation. I have always held that a country club, no matter how unpretentious, is as essential to the prosperity and well-being of a community as a chamber of commerce, for it affords a meeting place where people can get acquainted with each other and where they can discuss, informally and without restraint, their community's problems and needs.

They are inordinately proud of their city water, are the people of Roanoke, and, after having tasted it, I think their pride is entirely justified. It is considered, I believe, the third best water supply in the world. Its source is a mountain spring and it is as cold and crystal clear as though it came straight from an Alpine glacier. If they had such a spring in Switzerland or France some one would bottle it and exploit it and sell it for forty cents a quart, just as the water from the famous Evian Spring, on the Lake of Geneva, which is no whit better than that of Roanoke, is sold all over the world to-day.

There is no excuse for any Roanoke youth going out into the world without an education. There are kindergartens, and primary schools, and grammar schools, and high schools, and normal schools, and business schools, and when the boy gets through with them he can, without leaving his home town, complete

Two representative pages of a Monotyped booklet, "The Beckoning Land," from the Stone Printing and Manufacturing Co., of Roanoke, Va.

## Monotypography

The above illustration shows two pages from a well designed and well printed booklet, "The Beckoning Land," which tells in story form the advantages and attractions of the state of Virginia, and the city of Roanoke in particular. "The Beckoning Land," from the press of the Stone Printing and Manufacturing Co., Roanoke, Va., is composed throughout in Monotype No. 36 series (Scotch). Twenty-three pages of text matter, printed in black, enclosed in wide halftone borders, printed in light brown and gray, picture familiar scenes throughout the state; in addition, nine pages in process color work of a high order depict such points of interest as the Natural Bridge at Cedar Creek, mountain lakes, rivers, farms in the blue grass region, etc. Altogether this booklet, the page size of which is  $7\frac{3}{4} \times 10\frac{3}{4}$ , combines good art with good advertising of the civic, industrial and material advantages of historic Virginia as a home state. The handsome buff cover is printed in brown, green and gold, and embossed.

"The McAlpin Pibroch," for July, the handsome house organ of the McAlpin Hotel, New York City, Monotyped and printed by the Isaac H. Blanchard Co., of the same city, is a credit to those who have had a part in its making. Reflecting as it does, an equal impression of service and facilities, no advertising literature today requires more good taste in its making than the hotel house organ. "The Pibroch" is a beautiful specimen of simplicity in the selection of type faces; the text is in the No. 137 series, and the ad pages, composed entirely in the No. 172 series, present an interesting and pleasing typographical harmony by the use of one series of type throughout, while the illustrations, both in line and halftone, are original and effective.

As we examine the admirable publication "Vermont the Land of Green Mountains" we cannot help but feel that the Vermont Printing Company, of Brattleboro, have incorporated therein just pride in their home state. The handsome gray cover, printed in a gray tint and dark green, and embossed, encloses 208 pages of attractive and well printed illustrations and text. The text, composed in Monotype No. 36A series, is printed in black on heavy coated india tint paper, and has as another commendable feature a decorative engraved border, printed in a green tint, surrounding each page. The Vermont Printing Company have just cause to be proud of this work, which was issued by The Vermont Bureau of Publicity, and should prove an inspiration for other state printers to follow.

Mr. W. G. Galencia, of the Perry & Searle Co., Lynn, Mass., sends us several sheets from the "Metz Motor Car Catalog," composed in Monotype No. 79 series throughout and printed from type. One sheet shows the form after 5000 sheets have been printed, and the other after an additional 100,000 impressions, with no apparent wear on the type. The Perry & Searle Co. are well known for the excellence of their booklets, catalogs and other commercial work.

Mr. Joseph S. O'Brien, superintendent of the Ashby Printing Co., Erie, Pa., and others who have had a part in the production of the book "Greater Erie," are to be commended upon the results of their labor. The handsome gray cover, which shows a picture of Admiral Perry's flagship, the Niagara, printed in black and white, encloses 256 pages of well arranged Monotyped text, with a number of views of the city of Erie from 1785 to the present day.