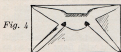
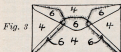


LESSON FOURTEEN

Envelope Printing

Envelopes, owing to the various thicknesses of paper at different points, often require a little more work in preparation for printing



than a job on a single sheet of paper. The overlapping and the gum which holds the flaps cause thick places which must be compensated for if the printing goes over more than one different thickness. Sometimes this can be avoided by opening out the flaps, particularly when the corner card you are going to print is small, and the envelope is "high cut"—that is, the top of the back side is almost parallel with the top of the front. In this case, you will be printing on two thicknesses of paper, but not two *different* thicknesses, so that the type will not be held off one part of the envelope by two

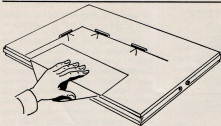
or more thicknesses in one spot, and a fewer number in another.

When you do want to print on the flap itself, and the corner card will run over more than one different layer of paper, it is customary to take an envelope of the lot you are going to use and with the point of a knife or a pin, punch small holes through the tympan one at each upper corner and one at lower right hand corner. Take an impression of the work to be printed on the envelope on a single sample. This must be cut out so that when the cut envelope and an uncut envelope are laid on each other, the number of paper thicknesses at all points will be the same. Thus, at points A, on figure 1 of the illustration, there are four thicknesses of paper, and all the other points must be built up to this figure. Where the flap goes over at points B and C, there are three thicknesses, requiring one more to make up to the maximum four, and points D, E, and F, having only two thicknesses to equalize, require only two thicknesses more.

These cut-outs and thicknesses must be cut exactly, and it is therefore necessary to know just where the paper laps over. This can be ascertained by running a lead pencil at right angles with the joint, the same as you would take a rubbing of a coin.

You are now ready to cut out the skeleton envelope. A, having the greatest number of thicknesses, is cut out entirely. B and C having the next largest number, should have all but the front thickness cut away. D, E, and F have only two thicknesses, and are therefore left.

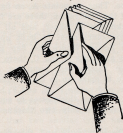
Paste the envelope thus prepared face up on the tympan sheet direct-



Closing flap as envelope is printed . . . Hand is at top of press platen, withdrawing envelope



ly under the top sheet, being careful to match it with marks previously punched. If this is done correctly, you can print envelopes without any difficulty.



Operation 1 (See above for 2 and 3)

Envelope Feeding

Each printer has his own idea of the proper way to feed and print envelopes, but here are a couple of suggestions.

They may be and often are printed with the flaps open or with the flaps closed. For printing with the flaps open the same technique is used as is practiced by large mailing firms before inserting the contents of the envelope prior to mailing.

This consists of taking a pack, breaking the band if they are banded, and, with the pack upside down in the palm of the left hand,

moving the top envelope down so that it can be pushed under the flap of the next. Now move both down, and up, so that the second is under the flap of the third. Continue until the whole lot is finished, then bend all the flaps flat and open. Practice will enable you to open the flaps of a large number of envelopes in a very short time.

If the envelopes are to be printed head down, the flaps should not be opened, as the flap side is your guide or gauge edge in that case.

If they are to be printed right side up, and with flaps open, so as to avoid part of the makeready caused by the uneven thickness of paper, you can, if you wish, learn to close the flap as you take the envelope from the press. This is done by dragging the envelope, not picking it up, from the platen after the impression. As the flap leaves the top of the platen, the thumb is slid underneath, pushing the flap to closed position.

If you prefer to close the flaps as a separate operation, prop the envelopes up in front of you, face forward. With both hands, one at each end, keep the envelopes upright with the thumbs, pushing down the flaps with the rest of the fingers. When you have a handful, squeeze them together and lay them aside or in the box.

Typewriter Facsimile Work

While a great deal of facsimile typewriter printing is turned out by stencil duplicators and machines like the Multigraph, printing presses have their place for such work. The large operators of mail order businesses rely heavily on printers.

A printing press will turn out such printing in several different ways. Some are straight printing jobs, that is, they are set up in typewriter type with uneven right margins, and run with regular ink on either bond or book paper.

Instead of regular spaces and quads, so-called justifiers, the same width as a typewritten character are used singly or in multiples.

If the copy which you are setting is not typewritten on the same size sheet or card as the one to be printed, you will find it helpful to run it off that way first on a typewriter to get the form it should take. This form should then be followed in the setting — spacing, ragged margins and all.

A second kind is set up in typewriter type with sharp face like the keys on an actual typewriter. Printing is done through a piece of silk or a silk ribbon, so that the facsimile is almost as good as the real thing.

For this there have been devices on the market for automatically feeding inked ribbon across the face of the type. The printer can get the same effect without this special equipment if he locks a piece of silk across the form, and uses a fairly soft ink (like book, news or poster). A few movements of the rollers back and forth over the form are necessary to load the silk with ink and get the impression coming right.

If the customer is going to fill in the letter at the top with names and addresses, it will be best to obtain a specimen of the work

done by the typewriter to be used for the job, so that you can match it as closely as possible.

Any fine weave silk will do for use over the type, about the same weave as a typewriter ribbon. A piece of old Multigraph ribbon is exactly right.

If you buy new silk, wash it well with soap and water to remove any sizing or dressing in the cloth.

Some printers, instead of locking the silk over the form, sew it on the grippers, having set them well off on each side. Around fifteen or twenty impressions are necessary to impregnate the silk before the correct amount will show on the paper.

Some printers, instead of placing the silk between the type and paper, use a coarse weave linen on the tympan, either for the tympan itself, or directly under the first sheet.

It is also possible to run duplicator stencils on a printing press, although the incentive to do this is not so great because inexpensive duplicators are available.

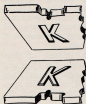
For this work a block the size of the stencil to be run or larger is required, of poplar or some other wood which does not warp easily. A metal bound block is better, and the thickness in either case should be about $\frac{3}{4}$ of an inch. Place on it a thin layer of cotton batting. Cover this with eight thicknesses of any cheap cotton cloth, and tack securely all the way around so as to avoid wrinkles.

The pad is saturated with regular duplicator ink and locked in the chase. A typewriter stencil is cut in the regular manner, and placed on the pad. It may be fastened, but probably will stay in place without.

The work is then fed through the press (without rollers, of course) in the regular manner.

How to Do Real Embossing

Before reading this, it should be borne in mind that there are three different processes producing similar, although not identical results, namely: embossing, which we shall describe here, engraving, which uses an engraved plate instead of type, but which does not require a counter die, and plateless embossing or raised printing, which does not require a plate of



*Male and
female plates
of embossing
die*

any kind, using regular type, in connection with special inks and compounds, and the raised printing unit, a comparatively inexpensive layout, easy to use, which in most cases will produce the results you wish without the bother of either standard embossing or engraving. Engraving is not usually done with an ordinary printing press or ordinary inks. On the other hand, very fine facsimile engraving (as well as embossing) may be done with your press and the raised printing unit. Real embossing may be done with your printing press, and it is with this last kind of embossing that our article deals.

To do embossing it is necessary to have a special embossing die in which the design to be produced is *snak in*, not raised as for ordinary letter press printing from type, cuts, etc., and, if the design is to be in color you will need a

plate or form for each color to print in exact register with the die. Embossing dies are usually engraved in solid brass, by hand and are rather expensive. For simple, small designs, with a little patience you can make your own on the back of an old electrotype, by taking the electro off its wood block and cutting the die in the soft lead back.

There are several compounds on the market for making the counter or male die, but for short runs, the printer can make one of his own which will be very satisfactory. Sift a small quantity of plaster of paris through a fine cloth and mix with clean flour paste and a few drops of glycerine to make a smooth stiff dough. Remove all packing from press and glue a sheet of cardboard on the platen. Lock the die in the chase and get an impression on the platen cardboard to show position. Spread a small amount of the prepared compound over this impression and, after oiling the die, close the press and let it stay closed for several hours until the composition is hard, or over night. If, when running the job, the die has a tendency at first to tear and cut the paper, feed in a piece of thicker paper which will take off the sharpness.

To Clean Shaded Letters

Sometimes, after considerable use the fine lines in shaded type become a little clogged with ink, in which case the type should be cleaned to produce first class work.

If your shaded type, or type with fine lines become filled with dirt so that a good clear impression is not possible, try a rubber eraser on the type. The same thing can be used on dirty halftones to advantage.

The printer who wants to clean shaded type can buy the gum cleaner

used by stenographers to clean the keys of their typewriters. It is pliable and applied to the type with a gentle pressure such as one uses with a blotter on ink. It is similar to wall paper cleaner in that the dirt it absorbs can be worked into the gum and it does not soil or injure the hands. This cleaner has a long life and its effectiveness is surprising. It has a sticky, tacky feeling like a good press roller, and must be pressed, not rubbed over the type. It should not be confused with soft gum erasers, or the art gum erasers which are more crumbly in texture.

Composing and Make-up Rules

Composing rules are type high, of various lengths for various column widths, and have small ears at each end which overhang the composing stick sides. The compositor sets his type against the



A Composing Rule

composing rule. When a line is completed, he moves the rule forward, putting a lead in its place if the work is to be leaded, or nothing if he is setting solid. The composing rule is of particular value on unleaded work because type has a tendency to catch on the previous line, and make proper justifying difficult.

Composing rules come singly or in sets, but they can be made out of brass rule with a little cutting and filing. Sets of them come in push lined cases, just as a machinist or toolmaker keeps his precision instruments. The composing rule is often owned by the individual printer, and looked upon

as a sort of occupational token. It is also called a setting rule or a printer's rule.

Makeup rules likewise come in various sizes. They are handy in pushing lines back and forth, or handling them when making up a form in the galley, and in making changes or corrections on the imposing stone. They are sometimes called humpback rules, because of their humplike projection in the middle for ease in handling.

Lesson 14—Questions

1. Describe how a "skeleton" envelope is prepared.
2. Why is such a prepared envelope necessary?
3. In typewriter facsimile printing how is the silk used, and where is it placed?
4. What is embossing?
5. What is the difference between engraving and raised printing?

The Printer's DICTIONARY

K

Kalogram—Similar to a monogram, but including all the letters of a name. Used sometimes on individual stationery, bookplates, and such personal printing.

Keep Standing—The holding of any form of type, etc., so that, if necessary, it may be used over again, without resetting.

Kerned—A piece of type whose face overhangs the body is said to be kerned. Italic and script faces have more kerned letters than other styles. Some type, particularly machine composition material, have no kerned letters at all. Care should be taken to see that kerned type is not broken. In some styles, f and i or l will not fit together, because of the kerning of the top of the f, hence ligatures (combination letters) are supplied,

such as fl, fl, fl, fl. In some cases they will fit, but as a matter of custom ligatures are supplied.

Key Form—Jobs being printed in more than one color must be set into proper position on the page by the checking up with the form to be run in the color which best shows that position. In most cases this is the black form. The one which determines this is called the key form.

Key Plate—Key form. Stamp collectors will recollect that many nations with colonial possessions, such as Great Britain, France, Portugal, etc., use a single design for the postage stamps of a number of colonies, the name of the colony and the denomination of the stamp being on a separate plate. In this case, the design, which is in color, is called the key-plate, because the margins are determined by the design, not the black plate with name on it.

Kick Press—A press run by foot power.

Kill—To kill type or matter is to order it taken out, and redistributed into the cases. It may or may not have been run in a previous edition—usually not.

L

Labor Saving Furniture, Rule, Leads, etc.—Material cut to various standard sizes and offered in sets, to save time in making up a job and making it easier to classify and lay away for future use.

Laid Paper—Paper having parallel lines and possibly cross lines, watermarked into it as a continuous pattern.

Lampblack—Used in the production of black ink. Carbon black, really a form of soot, but mostly produced by burning natural gas.

Layout—The arrangement of material, cuts, type, etc. for a job. Also used to denote the working diagram showing the way the job is to be set and printed.

l. c.—Lower Case letters—small letters, as contrasted with caps—capital letters.

Leaded Matter—Type with leads between the lines, as contrasted to solid (unleaded) matter.

Leaders—Dots or hyphens cast singly or together on one piece of type, used in a line to lead or guide the eye to figures, letters or words further along the same line. Leaders are cast on most sizes of body from 6 points up.

Lead Cutter—Small cutter made to cut leads to various lengths as desired. Cutters made strong enough to handle brass rule also, are called lead and rule cutters.

Lead Rack—A rack with compartments to hold different lengths of leads.

Leads—Strips of metal to use between lines of type. Cast in various thicknesses from one point thick up, the two point being the most commonly used. A lead six points thick or more is called a slug.

Legend—The title, caption or short description under an illustration.

Letterhead—Actually, the form which is printed at the top of a sheet of letter paper, but also used to cover the entire printed letter sheet.

Letterpress Printing—Printing done from regular type and plates, as contrasted with lithography, gravure, offset, copperplate engraving, and other forms of printing.

Letter Spaced—Work with spaces between the letters as well as the words. This is done most times to avoid leaving an excessive amount of space between the words themselves, especially in a short line, which is particularly difficult to justify properly.

Lift—The quantity of paper placed on the press feed board at one time or taken from the press after printing—each portion of it—is called a lift.

Lifts—A type form which is properly locked up, justified, etc., is said to lift. In other words, it may be lifted without anything dropping out. Printers also speak of lifting part of a form and, perhaps, putting it in another, or lifting a few lines or a paragraph for the same purpose. Last, but not

least, of course, it is used in the same sense as the layman may use it — some unscrupulous publisher and printer may lift an article or story from some magazine and use it in his own without credit.

Ligatures—Two or more letters cast on one piece of type make a ligature. (fi, fl, ffi, ffi, etc.) In most cases ligatures are made because the overhang on at least one of the letters would interfere with the top of the other letter, and either prevent the type from fitting snugly or would break off the top of the overhanging letter. Where ligatures are provided, therefore, they should always be used.

Lightface—Type whose face is lighter than the average, that is, has finer and narrower lines through.

LIGHT Face TYPE STYLES

Line Gauge—A printer's measuring stick, marked with picas and half picas (Nonpareils).



Line Gauge

Linens and Linen Finish—While originally applied to paper made from linen rags, linen has come to mean any paper with a cloth impression on it. Such surfaces are either put on with rolls embossed for the purpose, or by running the stock between sheets of actual cloth and rolls. Linen finish in past years has largely lost its popularity as a writing paper.

Line Engraving—An engraving made by the photo-engraving-etching process consisting of lines and solids, as contrasted with a halftone, which is made up of minute dots, and which uses these dots to reproduce photographs, wash drawings, and other objects to be illustrated in which shading not made up of lines appears. Roughly speaking, line etchings are made by photographing the drawing,

print, or whatever is to be reproduced, transferring the image to a sensitized zinc plate, and etching (eating away with acid) those portions of the plate which are to appear as whites in the finished printing job, low enough so that ink will not touch them. The



Line Engraving

resulting plate is mounted on a block, and is then ready to use in printing, or electrotypes duplicates may be made from the original line engraving, so that if by any chance the cut is damaged, the original will be unharmed. Line engravings are also called zinc etchings — "zincs" — altho coarse screen halftones are also made on zinc plates. See *Halftones*.

Line of Stars—A row of asterisks (***) used to indicate omissions in an article, story, paragraph or sentence of some part of the original text. Sometimes used to indicate that matter which looks like regular reading matter is advertising, altho the present law requiring that such matter be plainly labelled "advertisement" has largely eliminated its use for that purpose. For use singly, see *Asterisk*. Sold as part of the font of auxiliary characters, or separately as extra letters and figures, either by the number of pieces or by the 6-inch line.

Lining Type—Type of various kinds, the bottoms of which all line with each other. Type on standard line, as may be inferred from the term itself, conforms to one standard which has been used

by most manufacturers for a number of years, on most faces. Most type is on what is called common line. There is title line, also, which is cast much lower on the body, because there are no lower case letters for title line faces, and no letters with descenders have to be provided for. The Copperplate Gothics are all cast on title line, and this en-

H H H H H H H H H H

Examples of Lining Type

ables the foundries to get four different sizes of Copperplate Gothic on one body, the smallest occupying only the bottom of the body, and the largest covering it

COPPERPLATE GOTHIC, NO. 6001
COPPERPLATE GOTHIC, NO. 6002
COPPERPLATE GOTHIC, NO. 6003
COPPERPLATE GOTHIC, 6004
FOUR SIZES ON SIX POINT BODY FOUR
Copperplate Gothic, cast on Title Line

from top to bottom. There is also Art line, used on a limited number of very specialized faces. In the old days, before standard line was adopted, there was no assurance that two similar types would line at all — and usually they wouldn't. Like the introduction of the point system, standard line has been of great help to printers and type foundries alike.

Linoleum Block Printing—The use of engraved blocks of linoleum for cuts, tint blocks, large lettering, (Dance, Ice) etc. The linoleum itself is mounted on blocks of wood to make it type high. Very similar to the wood cuts made when printing first came into existence, and now quite popular among artists for certain types of illustrations.

Lithography — Printing from a flat plate of stone or metal, which has neither raised characters, such as are used in ordinary (letter-



Merry Christmas

A Linoleum Block Cut

press) printing, nor cut in characters in the plate (engraving). Lithography uses the well known principle that water and oil do not mix. Also see *Offset Printing*.

Lithotone—Halftone made by a special process, in which lines, running one way of the cut, take the place of the dots which in ordinary halftones furnish the face of the cut.

Live Matter—Type matter which is not ready to be distributed into the cases, or discarded, either because it has not yet been printed, or because a rerun of it is desired.

Lock-up—To lock up a form is to fasten it in the chase so that it is ready for the press. This is accomplished by quoins, chase screws, etc.

Long Primer — The name formerly applied to 10 point type.

Lower Case—The small letters of the alphabet, so called because in a pair of news type cases, they are placed in the lower of the two positions on the top of the rack. The upper case (caps) occupy the position above. The cases themselves are also known by these terms.

Low to Paper—Cuts, type, etc., which are not type high.

(To be continued)