

DIRECTIONS FOR USING TAYLOR'S ADJUSTABLE TYPE MOLD

THE METAL.

Old Foundry type out of the hell-box, melted up, gives the best results. Linotype and Monotype metal can also be used. Heat the metal as much as possible; **red hot metal** is best to cast with, especially on small sorts.

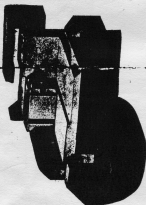
THE TYPE.

Pick out the most perfect character you have of the sort to be reproduced; if your character is old or broken, your duplicate will be the same. You cannot get a good matrix from a letter filled up or incrimated with ~~old dried ink~~.

CASTING.

Turn up the flame of the oil lamp, until it smokes well, then hold the **face** of the type you want to reproduce in the smoke until it is completely blackened; this **must** be done with all **metal type**, as it prevents fusion when the metal is poured on it to form the matrix.

Lay the mold with the wood guards down on any flat; loosen the brass thumb-screws, open the mold, and drop the type in, face up, so the foot rests on the two bottom plates; then press the two sides with the thumb screws on, at the bottom, bringing them tightly against the type, and tighten screws, while holding the sides; when this adjustment is made, slide the two sides together against the length of the type, then you are ready to cast matrix. *Don't use much force in tightening thumbscrew, there is danger of breaking lugs.*



Position of letter in Mold
one side removed.

Before making the pour, see that you have all four sides of the mold adjusted tightly to the body and space of the letter, and be sure you have not disturbed the film of lamp black covering its face.

When making the pour to form the matrix, tip the mold slightly and pour the metal into the side of the matrix gate so that the metal flows over the face of the letter. This will prevent air bubbles forming on the matrix and spoiling the cast.

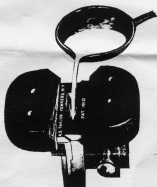
Fill the matrix gate to the top, and when the metal hardens, which it does almost instantly, slide the mold apart and the matrix and original letter will fall out. Examine the matrix and

if it is not deep and sharply defined, replace the original letter and make another cast. After a little practising on most letters the matrix can be successfully cast the first time. When you have obtained a good matrix, smoke the face in the same manner as the original and replace it in the mold in the same position as it was cast. Two small projections will be found on opposite sides of the matrix, which fit into corresponding notches in the matrix gate. These projections serve a double purpose; they show the operator the proper position in which to replace the matrix, and when the mold is closed up tightly against the matrix body, prevent it from falling out or being misplaced when the mold is turned over to cast the duplicates. When the matrix is in proper position, reverse the mold and pour the metal into the duplicate gate or small opening.

When the metal hardens, slide the mold apart and the matrix and duplicate will fall out. Replace the matrix and pour again, making as many duplicates as desired. Any number can be cast from the same matrix, providing you let it cool occasionally and keep it well smoked to prevent fusion.



Showing method of pouring the matrix.



Showing method of pouring duplicates.



Original Matrix Duplicate

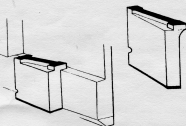
Break off the tail, or jet, and you have a duplicate of the original letter. Should any burr or roughness remain on the foot of the cast letter, rub it off on a file or sandpaper. All four sides should be rubbed a trifle to remove the burr.

Small cuts, signs or electros, within the size limits of the mold, can be duplicated in the same manner as type.

KERNED LETTERS.

The casting of kerned letters can be successfully done with very little trouble. On most foundry type the kern or overhang is supported by a web; this kern must be filed out square so that it rests flat in the ledge of the matrix gate, in order that the mold may be closed tightly to correct size on the body of the type, leaving the kern overhanging on the ledge of the matrix gate.

The same process is then used as in ordinary type and good results are obtained.



WOOD TYPE.

Wood type can be reproduced by the mold up to the size of 6 x 9 picas. Wood type must not be cleaned in the same manner as metal type. The old ink and dirt can be picked and scraped away with a knife, but the letter must be kept as dry as possible. Rub the face of the type on a piece of fine sandpaper until you have taken off the oily and polished surface. The idea is to expose the pores of the wood. The success of the cast depends on the dryness of the wood; if the letter is thoroughly dry and seasoned you will get a good matrix on the first pour. But if there is much moisture in the wood, it will be brought to the surface of the letter as soon as the hot metal strikes it, causing blisters and unevenness in the matrix. Do not smoke the face of the wood letter; there is no danger of scorching or injuring the type. If the matrix is imperfect, rub the letter down a little more on the sandpaper and repeat the cast. If the letter is very oily or wet you may have to cast several times before you get a perfect matrix.

For casting matrixes and duplicates of wooden type, old leads, slugs, or electro type backing is the best, but the *metal must not be too hot* when the *matrix* is cast. Get the metal just hot enough to run. When you have obtained a good matrix, smoke the face and cast the duplicates in same manner as before described. Metal must be *hot* when duplicates are cast.

Embossing Dies Made from Small Line or Wood Cuts.

A matrix is cast in the mold from any small cut or design. The face of the matrix is then rubbed down on sand or emery paper until it is quite shallow, say about 3 points deep. This forms the female die. The two lugs are trimmed off and then

the die is replaced in the duplicate or small compartment of the mold and a cast made from it, which forms the male die. This latter cast must be cut or sawed down to about a pica in thickness, so that when the male and female dies are put together the combined height will be about type high. The female die is then locked up in a chase, the back of the male die covered with glue and a touch of paste on the four corners of the face. Put the male and female dies together and the paste will hold them in position while putting the form on the press. When the press is closed the male die will adhere firmly to the tympan sheet. Strips of pica reglet can be glued around the male die, a mask cut, and the stock to be embossed is fed in the ordinary way.

LOGOTYPES

In casting logotypes, each letter must be smoked separately before assembling in the mold. Care must be used in taking original type from matrix, as there is danger of breaking faces of fine type, if they are not pulled out straight. The face of the matrix should be rubbed down until the "strike" is quite shallow; this will leave a mushroom around the shoulder of the logotype, which may be trimmed away.

If the face of large letters should cast rough, they are easily smoothed down on a piece of emery paper.

Do not be deceived by the appearance of the type cast: put it in the form and print it.

POINTS TO BE REMEMBERED.

The letter to be reproduced must be carefully cleaned

Be sure to smoke the original and matrix before casting.

To get the best results the metal and mold should be very hot. The rule is—the smaller the letter to be cast, the hotter the metal, for all below 18 pt. the metal should be red hot.

The operator, when first starting, would do well to wear a pair of leather gloves, to protect the hands from burns.

Although the mold is designed principally as an emergency tool, by means of which the printer can cast sorts rapidly and inexpensively, he will find it useful in the slack business season, to replenish his job fonts

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