

J. R. BETTIS.
Type.

No. 200,020.

Patented Feb. 5, 1878.

FIG. 1.

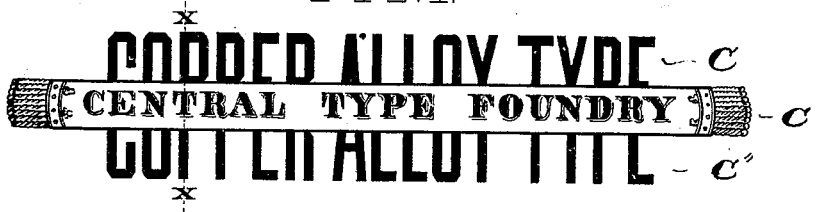


FIG. 2.

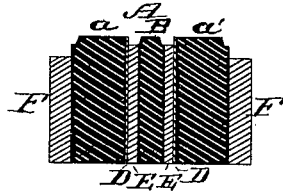


FIG. 3.

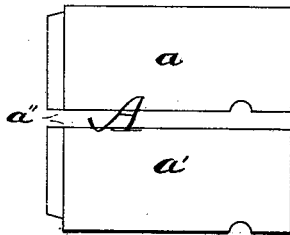
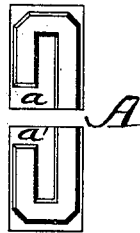


FIG. 4.



ATTEST.
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UNITED STATES PATENT OFFICE.

JAMES R. BETTIS, OF ST. LOUIS, MO., ASSIGNOR TO CARL SCHRAUBSTÄDTER
AND JAMES A. ST. JOHN, OF SAME PLACE.

IMPROVEMENT IN TYPES.

Specification forming part of Letters Patent No. 200,020, dated February 5, 1878; application filed August 28, 1877.

To all whom it may concern:

Be it known that I, JAMES R. BETTIS, a resident of St. Louis, Missouri, have made a new and useful Improvement in Types, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 shows an impression as produced by a form containing my improved type; Fig. 2, a vertical cross-section taken through such a form, say at the line *x x* of Fig. 1; and Figs. 3 and 4, respectively, a side and a top view of my improved type.

Similar letters refer to similar parts.

It is frequently desirable in printing to print one line through the center of another line. For such work it has been customary to use a special engraving or cut, or to use ordinary type and make a second impression.

Both of these methods are objectionable—the first involving, for each piece of work, the expense of a special engraving that is worthless for other work, and the second requiring additional composition and press-work, and generally differently-colored inks.

To obviate these difficulties, and to provide means whereby the desired result can be readily and economically attained, is my present aim.

Referring to the annexed drawing, A, Figs. 2, 3, and 4, represents my improved type. It may be described as an ordinary type divided vertically into two parts, *a a'*, the line of division being between and parallel with the top and bottom of the face of the type, and one, *a*, of the parts having the upper portion of a letter or character raised thereon, and the other part, *a'*, having the lower portion of the letter raised thereon, and preferably arranged so that on each part the edge of the letter that (when the form is made up) is toward the other part of the type comes even with the side of the body of the type, as shown at *a''*, Fig. 3. Thus made, the parts *a a'*, although used in combination, are two distinct types.

In making up the form these two sets *a a'* and *a' a'* are arranged, respectively, above and

below the intermediate type B, Fig. 2, the latter being used to print the central line—that is, the types *a a*, bearing the upper portion of the letters, are arranged above the type B, and the types *a' a'*, bearing the lower portion of the letters, are arranged below the type B. The last-named type may be of any style, either ordinary type or a cut or engraving, suitable for printing that part of the impression.

The sectional (*a a'*) and the intermediate (B) type are locked as one form, and a single impression is sufficient to obtain the desired result, and as shown in Fig. 1, where the upper portion C is produced by the type *a*, the middle portion C' by the type B, and the lower portion C'' by the type *a'*.

As is seen, the general effect is that obtained by printing one line through another line, or as if a subsequent impression had been superimposed on a previous impression, with this advantage, that every part of the impression is distinctly printed—a result which cannot be satisfactorily obtained when ordinary type are used and a second impression made upon a previous one.

Although divided at right angles to the face of the type, the type *a a'* may, if desired, be divided at any angle with the face, and the plane of the vertical division may be at any suitable angle with the side of the type, or in a plane that is not parallel with the top of the type, and the type *a a'* may be of any desirable size, face, case, or style.

In Fig. 2, D represents the rule, and E the leads, of the intermediate type B, and F represents the chase. The rule, and even the leads, are not in all cases essential, as the intermediate type may come directly in contact with the type *a a'*, if desired.

A modification of the invention is the division of the type A into three or more parts, instead of into two, *a a'*, only. In such case the letter or character is divided correspondingly.

I am aware that bank-note plates have been made in parts, and I therefore do not claim, broadly, all kinds of sectional plates or blocks. The present is an improvement in typography

in distinction from plate-printing or xylography, relating only to printers' movable types cast in molds; and

I claim—

1. As a new manufacture, a printer's movable type made in sections, for the purpose described.

2. A form composed of the sectional type *a a'* and other intermediate type, B, arranged substantially as described, and for the purpose set forth.

3. A form composed of the type *a a'*, type B, rules D, and leads E E, substantially as described.

Witness my hand.

JAS. R. BETTIS.

Witnesses:

CHAS. D. MOODY,
GEO. H. KOHN.