

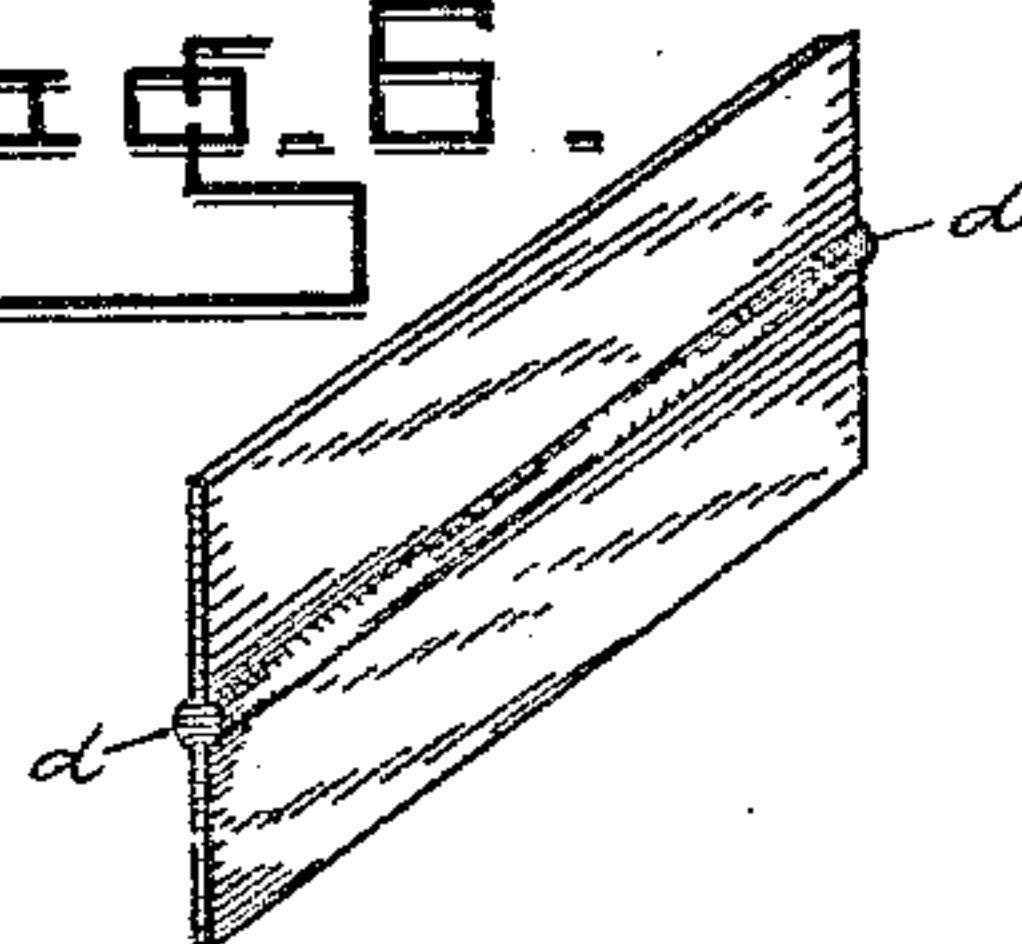
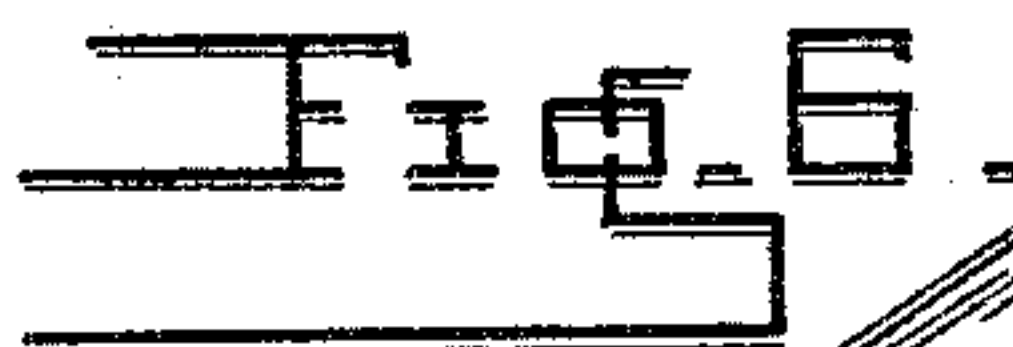
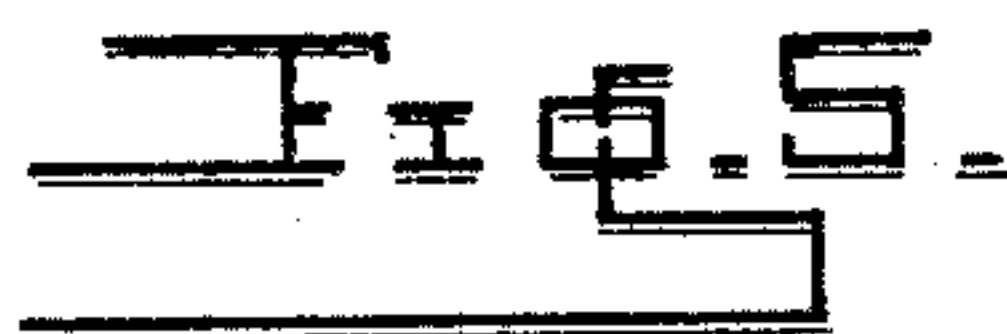
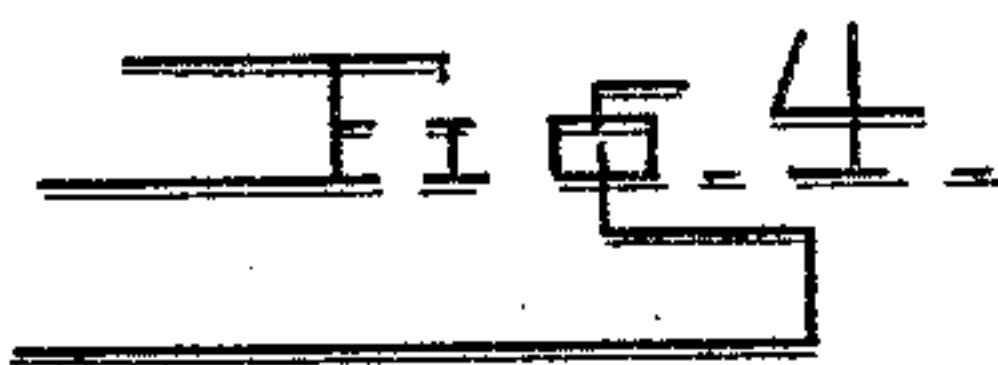
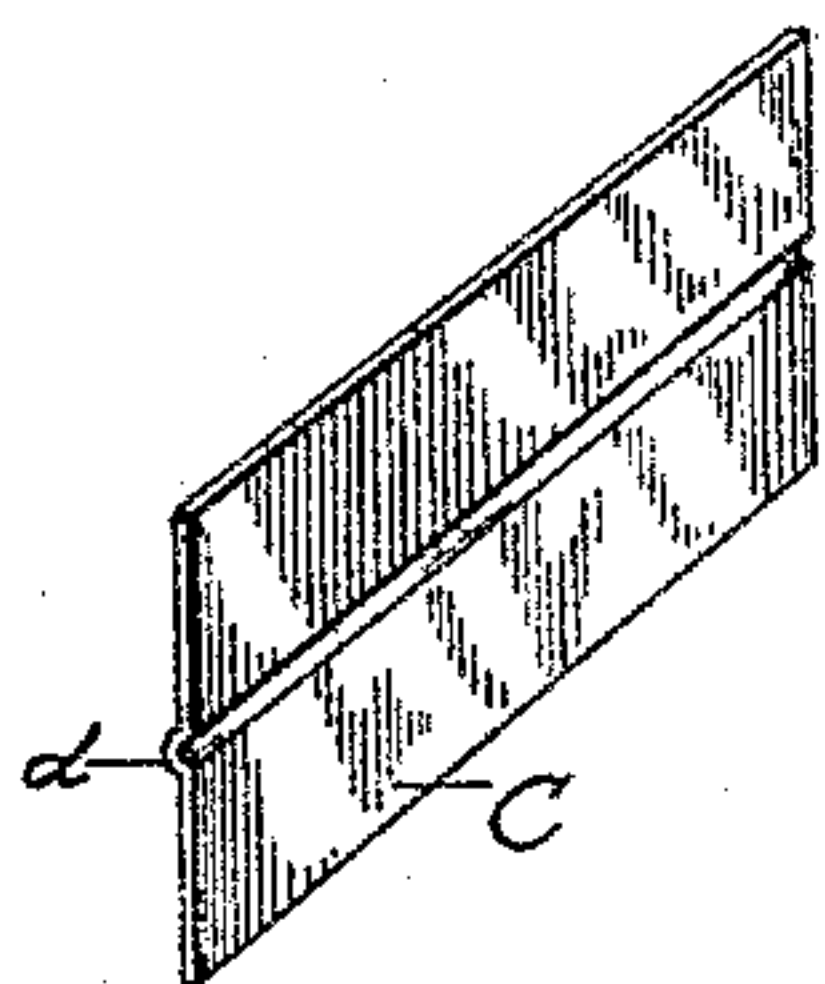
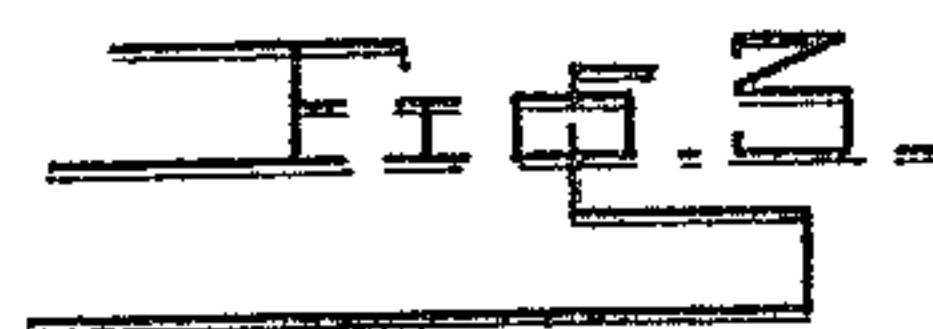
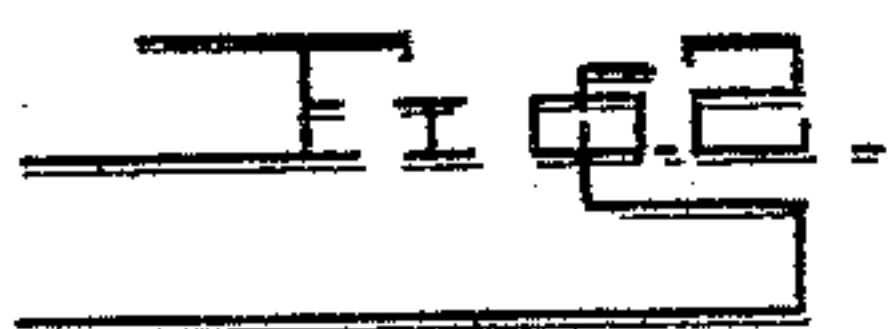
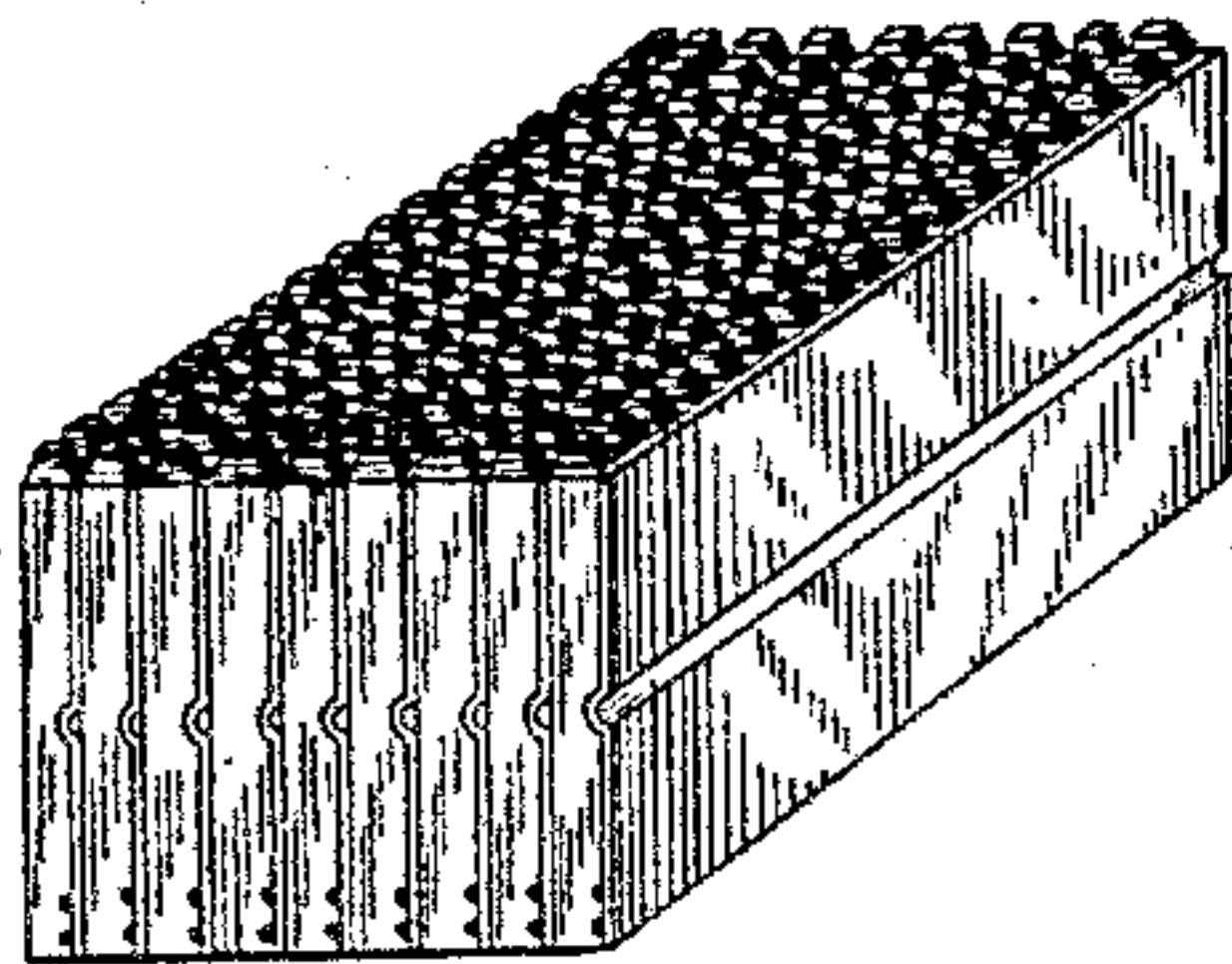
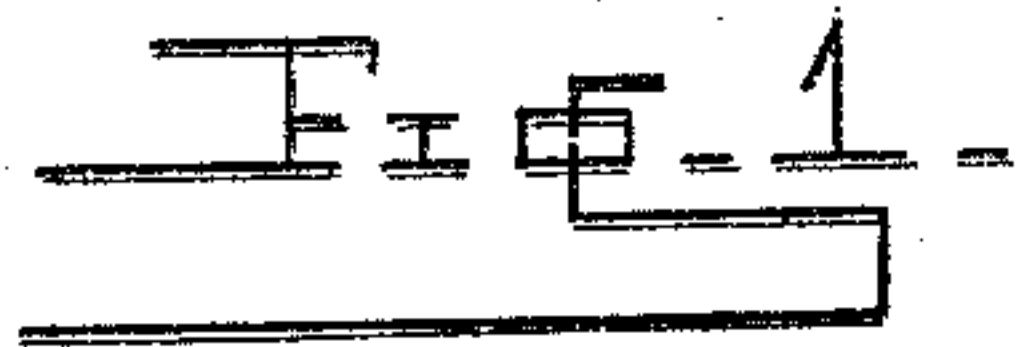
(No Model.)

J. R. CUMMINGS.

TYPE AND LEAD.

No. 359,960.

Patented Mar. 22, 1887.



WITNESSES:
Josh. H. Blackwood
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Attorney

UNITED STATES PATENT OFFICE.

JOHN R. CUMMINGS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE AMERICAN PRESS ASSOCIATION, OF SAME PLACE.

TYPE AND LEAD.

SPECIFICATION forming part of Letters Patent No. 359,960, dated March 22, 1887.

Application filed June 23, 1886. Serial No. 206,011. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. CUMMINGS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Types and Leads; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

My invention relates to an improvement in types and leads especially adapted for use in electrotyping, but useful wherever it is found desirable to prevent letters, quads, spaces, or
15 leads from working up in the form.

In Patent No. 337,744, granted to me on the 9th day of March, 1886, I illustrated and described a font of types, the spaces and quads of which were provided with a rib or beard
20 on one side and a recess on the opposite side, while the shanks of the letters were provided with a like recess in both sides, the object of that construction being to cause the quads and spaces to interlock with the letters and be held
25 down flush with the shoulders of the letters while the wax matrix was being made. Although a font of types so constructed answers the purpose for which it was intended, it has, nevertheless, on practical test, proved unsat-
30 isfactory in the matters of composition, imposition, and distribution, being tedious to set and distribute, and open to the objection that often a turned space or quad would prevent the successful locking up of the whole page. By
35 my present invention, however, I have avoided all objections on the part of compositors, the types being so constructed as to be as easily composed as ordinary types.

My invention consists in the combination,
40 with letters having a recess formed in one side and quads and spaces having a recess formed in two sides, the letters, quads, and spaces being set in a line, of a lead having a bead or rib on one side, said bead or rib being so posi-
45 tioned as to take into the recesses in said letters, quads, and spaces, and hold them in their proper positions.

In the accompanying drawings, Figure 1 is a perspective view of sufficient composed mat-
50 ter to illustrate my invention. Fig. 2 is a per-

spective view of one of the leads. Fig. 3 is a side view illustrating in detail a letter, a quad, and a space, the latter two, however, owing to the nature of the illustration, being represented by the same character. Fig. 4 shows a modi-
55 fied form of construction of the quads and spaces. Fig. 5 shows a modified form of construction of the letters. Fig. 6 shows a modified form of construction of the lead, it being
60 formed with a bead or rib on each side.

Referring to the drawings, A represents the letters, B the quads and spaces, and C the leads.

In carrying out my invention, I make the quads, spaces, and leads of such height as to
65 come flush with the shoulder of the letters, in order that the wax mold may have an even surface; but this height may vary according to the purpose for which the types are to be used.

The letters, quads, and spaces of the font
70 have each a recess, *a*, formed in one side, as shown in Figs. 1 and 3; but, if desired, the recess may be formed in both sides of the quads and spaces, as shown in Fig. 4; or, in addition to the quads and spaces so recessed, the letters
75 may also be formed with a recess on each side, as shown in Fig. 5. There is, however, an advantage in recessing the letters on but one side, for if a letter is set wrong side up it is almost certain to be discovered and corrected
80 before another line is set, because the lead will not fit unless the recesses form a continuous groove, which would not be the case if one letter were turned wrong. On the other hand, it is desirable to have the quads and spaces and
85 such characters as are commonly used in inverted positions (as commas, quotation-marks, hyphens, dashes, braces, brackets, &c.) made with recesses in both sides, so that they may be turned either way indifferently—the characters
90 in order that they may be inverted when so required, and the quads and spaces because it is the custom of compositors to set them either end up, in order to save the time necessary to set them more carefully.

The recesses in the letters, quads, and spaces
95 may be at any height below the top of the two latter; but it is preferable that they be exactly midway between the tops and bottoms of the quads and spaces, as it is a habit of composi-
100

tors to set these pieces either end up, which-
ever happens to be most convenient, and if
the recess is exactly in the middle such in-
verted quads and spaces will fit as well as if
5 set with the proper end up and leads with
either edge up.

The leads are made, preferably, of thin sheet-
brass, although it is evident other material
will answer the purpose. Along the longi-
tudinal central portion of the lead there is
10 formed a bead or rib, *d*, for taking into the
recesses in the letters, quads, and spaces. This
bead or rib I have shown in Fig. 2 stamped
up from the surface of the metal strip; but it
15 may be formed in other ways—as, for instance,
the lead may be cast or rolled with the bead
or rib.

When all the letters, quads, and spaces of
the font are recessed on both sides, it may be

desirable to use leads having a rib on each side, 20
as shown in Fig. 6.

Having thus described my invention, what
I claim is—

The combination, with letters having a re-
cess formed in one side and quads and spaces 25
having a recess formed in two sides, the let-
ters, quads, and spaces being set in a line, of
a lead having a bead or rib on one side, said
bead or rib being so positioned as to take into
the recesses in said letters, quads, and spaces, 30
substantially as described, and for the purpose
hereinbefore set forth.

In testimony whereof I affix my signature in
presence of two witnesses.

JOHN R. CUMMINGS.

Witnesses:

EDWD. G. PAULING,
HORACE WHITE.