

G. T. TRUNDLE.
CLIP FOR LOCKING TYPE LINES.
APPLICATION FILED FEB. 6, 1913.

1,083,711.

Patented Jan. 6, 1914.

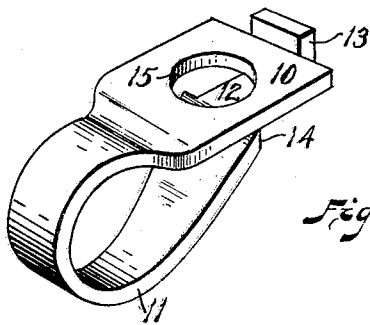


Fig. 1

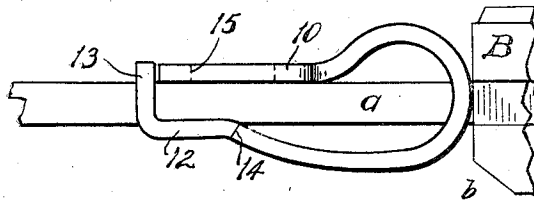


Fig. 2

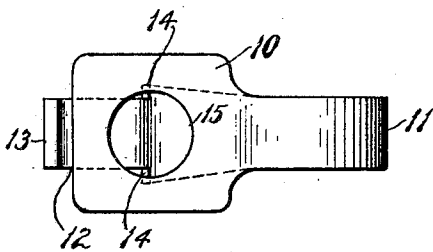


Fig. 3

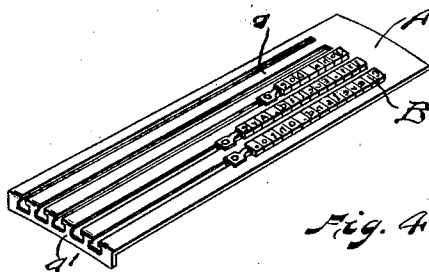


Fig. 4

Witnesses=

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UNITED STATES PATENT OFFICE.

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CLIP FOR LOCKING TYPE-LINES.

1,083,711.

Specification of Letters Patent.

Patented Jan. 6, 1914.

Application filed February 6, 1913. Serial No. 746,604.

To all whom it may concern:

Be it known that I, GEORGE T. TRUNDLE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and

State of Ohio, have invented a certain new and useful Improvement in Clips for Locking Type-Lines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of this invention is to provide a very simple and effective device for locking the ends of type lines to prevent their spreading.

The invention is especially well adapted for use with type having grooves on their opposite sides and holders for lines of such type; for example, address plates, multi-graph machines, flexible blankets, and similar type carriers.

My invention consists of a piece of spring metal bent in a peculiar form so that it coacts with the rail tines, or other typeholding edges to effectively lock any longitudinal movement of the type.

The invention is hereinafter more fully explained and its essential characteristics set out in the claims.

In the drawings, Figure 1 is a view on a much enlarged scale of my line-locking clip; Fig. 2 is a side elevation of the same in place on a rail or a type-holding member and against a suitable type; Fig. 3 is a plan of my line-locking clip; Fig. 4 is a perspective view of an address plate having several lines of grooved type which are held against longitudinal shifting by my clip. This view gives an idea of the size of my preferred clip in its preferable form, though the invention is not limited to such size.

As shown in Fig. 4, A represents a suitable slotted address plate having a series of parallel grooves having tines or ribs *a* between them. These ribs are shown as connected together at one end by the downturned flange *a'*, which is undercut to allow room for the insertion, between the tines *g*, of type grooved on its opposite sides; Fig. 2 shows one of the tines *a* and a type B which has a groove *b* on each side and is thus adapted to be retained between the tines or rails *a*. My line locking clip shown in each of the figures is especially well designed to prevent the longitudinal movement of such type B, as shown in Figs. 2 and 4. The clip consists of a single piece of

sheet metal bent to present a flat portion 10, then a curved or bowed portion 11, then a flat portion 12, substantially parallel with the portion 10, and then a tongue 13 bent up at substantially right angles to the portion 12. The bowed part 11 is considerably narrower than the part 10 and is thus adapted to pass freely between the rails or tines *a*, while the portion 10 seats on the tops of such rails or tines. This bowed portion 11 flares as it approaches the portion 12 and provides an abrupt, sharp shoulder 14, which is adapted to effectively engage the under surface of the tines or rails *a*. Beyond this shoulder 14 is the horizontal or parallel portion 12 and then the tongue 13, these parts being narrow enough so that they may lie between the adjacent tines or rails *a*. The enlarged portion 10 is provided with a hole 15, which comes over the portion 12 so that a suitable tool or pointer may be shoved downwardly through the hole 15 and engage the portion 12, pressing downwardly to free the shoulder 14 from the rail.

In operation, the lines of type are inserted in their holder in the usual manner and then my line locking clips are shoved into place between the type-holding rails or tines with the bowed end of the clip foremost. When shoved in this direction the clips travel freely. When in place, however, against the line of type the shoulder 14 biting on the under side of the rails *a* effectively holds the line against spreading. In fact, the clip may easily be constructed so that this binding is sufficiently tight to prevent movement of the clip by hand.

To allow the clip to be removed I provide the hole 15 heretofore referred to. When a pointer or tool is inserted through this hole it presses downwardly on the portion 12 of the clips and frees the shoulder 14 from the rail, so that the clip may be easily slipped in the direction of the two free ends of the clip. In fact, the same tool which presses downwardly on the ledge 12 may furnish a means, by a lateral movement, of sliding the clip out of place.

It will be noted that the clip 13 and the bowed portion 11 standing between the adjacent tines or rails effectively hold the clip against any displacement laterally of the line and thus makes it a very convenient device for use with a slotted plate holding individual type where there is nothing

to prevent the clip turning except the plate itself.

Having thus described my invention, what I claim is:

5 1. A line locking clip consisting of a substantially flat portion with a hole through it, a narrower bowed portion having abrupt shoulders on its opposite sides, a portion substantially parallel with the flat portion
10 and projecting from the shoulder portion, and a tongue projecting from the parallel portion substantially transverse thereto and terminating adjacent to the end of the flat portion, first mentioned.

15 2. The combination, with a slotted plate and grooved type carried thereby, of a line locking clip held in line with such type and adapted to stop endwise movement thereof, said clip comprising a U-shaped spring lying
20 partially above and partially below and partially between the portions of the plate which hold the type, such clip having also a tongue projecting between such portion, whereby the clip is prevented from being
25 laterally displaced.

3. The combination, with a typeholder and type carried thereby, of a line locking clips, one for each line, each clip being a U-shaped spring having a portion adapted to
30 lie above the typeholder, a portion below the typeholder, and an intermediate connecting bowed portion narrower than the place between the edges of the typeholder, one leg of such spring having abrupt shoulders to engage the typeholder, and having a
35 projecting tongue adapted to lie between such edges.

4. A line locking clip consisting of a U-shaped spring having a portion with an opening through it, a reduced bowed portion
40 connected therewith and having two abrupt shoulders, a portion narrower than the bowed portion at the shoulder extending from the shoulder approximately parallel with the portion first mentioned, and a
45 tongue projecting from the last mentioned portion substantially at right angles thereto, and terminating adjacent to the portion first mentioned.

5. The combination, with a typeholder
50 having a pair of parallel separated guiding edges adapted to loosely confine between them a line of grooved type, of a line locking clip adapted to frictionally clamp on to said edges and block the end movement of
55 the line, said clip consisting of a U-shaped spring made of a single piece of metal and having a comparatively narrow bowed or doubled portion adapted to stand between said edges, and wider portions adapted to
60 stand above and below said members, one of said wider portions having a pair of abrupt shoulders adapted to engage the under faces of said edges, there being a narrow transverse tongue projecting upwardly from the
65 end of the last mentioned wider portion and adapted to stand between said edges.

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

GEO. T. TRUNDLE.

Witnesses:

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