Dec. 1, 1931. F. H. POEPPELMEIER 1,834,732

TYPE LOCKING QUAD

Filed Oct. 27, 1930

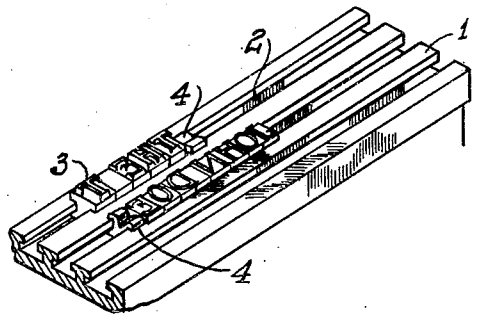


Fig. 1.

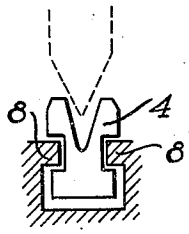


Fig. 3.

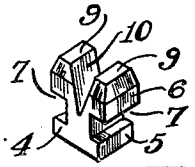


Fig. 2.

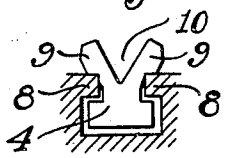


Fig. 4.

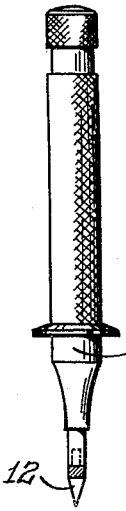


Fig. 5.

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UNITED STATES PATENT OFFICE

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TYPE LOCKING QUAD

Application filed October 27, 1930. Serial No. 491,380.

This invention relates to new and useful improvements in quads for fixing the position of type in the T-slots of chase plates and segments.

It is the principal object of my invention to provide means such as a quad that may be inserted in a slot in a chase plate or segment in front of, or behind, the type therein to lock them in a fixed position relative to a predetermined marginal spacing.

This invention contemplates the use of a quad formed with a V-slot in its top portion to permit the two raised projections to be spread apart by a center punch after the quad is placed in a desired position in the chase plate slot in front of, or behind, the type therein. When the two raised projections of the quad are thus spread apart, they will lockingly engage the top shoulders of the slot to hold it in a fixed position within the latter.

It is another object of my invention to make the locking quads of the same metal as that from which the type themselves have been cast. The quads, being cast from a softer metal than that from which the chase plate is made, will not injure its type grooves.

It is another object of my invention to provide a quad that will hold the type rigidly in place during the printing operation, but which may be easily dislodged from the chase plate without the use of tools when it is desired to discard the composition set-up.

Other important and incidental objects will be brought out in the following specification and particularly set forth in the subjoined claims.

In the accompanying drawings illustrating my invention, Figure 1 is a perspective view of a portion of a chase plate, showing a locking quad in place at the end of one line and a similar locking quad in place in front of the type in another line. Figure 2 is a perspective view of a locking quad before it is used. Figure 3 is an end view of a locking quad, showing in dotted lines the V-shaped point of the punch in place for the locking operation. Figure 4 is an end view of a locking quad in its locked position in a T-slot of the chase plate. And Figure 5 is a side view of a conventional automatic center punch to perform the locking operation.

Referring to the accompanying drawings for a detailed description of my invention, the numeral 1 in Figure 1 designates a chase plate formed with T-slots 2 to receive any shoulder type 3.

After a row of selected type 3 has been set within a T-slot 2, in a position to conform to a predetermined marginal spacing, a locking quad 4 is inserted in the slot and moved into engagement with a type at the end of the row. In Figure 1 I have shown one of my quads 4 at the rear of a row of type and another quad at the front of a second row of type to illustrate how the quad may be used at either end of a line of type to lock it in a predetermined position.

Each locking quad 4 preferably consists of a shouldered member that is cast from a metal which is softer than that from which the chase plate 1 is made, in order that the quad will not injure the grooves of the plate.

Referring to Figures 1 and 2 for a more particular description of this quad, it will be seen that the latter comprises a cast member of T-shape having a narrow base 5 and a wide top 6 between which there are two side grooves 7, 7 to fit the shoulders 8, 8 that define the top of each slot 2 in the chase plate. Raised from the top of the quad are two pyramidal projections 9, 9 with a deep V-shaped slot 10 between them. The horizontal center line of the V-shaped slot of each quad 4 runs parallel with the slot which receives the quad in the chase plate or segment to permit it to be locked in the slot by the means now to be described.

After a line of type such as that which spells the name "John Doe" in Figure 1, is set in a slot 2, a quad is inserted in that slot and moved through it against the last type at the left end of that row. A conventional automatic center punch 11 carrying a V-shaped point 12, is then brought to a position to forcibly engage that point in the V-shaped slot 10 of the quad. When the point 12 of the punch is forced into that slot, it will spread the portions 9, 9 of the quad at

the side of the slot, into locking engagement with the shoulders 8, 8 of the slot 2 in the chase plate to hold the quad fixedly therein. Being so held within the T-slot 2, the quad will lock the row of type in that slot against movement into the marginal space beyond the quad. Thus it is possible with my quads 4 to lock any row of type in any fixed position within the chase plate or segment.

Having described my invention, I claim:

1. A locking quad insertible in a T-slot of a chase plate or segment, in front of, or behind, a row of type therein, comprising a shouldered member to fit said slot and formed in its top portion with a V-slot whose horizontal center line is parallel with the type slot, whereby the top parts of said member may be spread apart into locking engagement with the shoulders of the T-slot by a wedge inserted in the V-slot of the quad.

2. A locking quad insertible in a T-slot of a chase plate or segment, in front of, or behind, a row of type therein, comprising a shouldered member to fit said slot and formed in its top portion with a deep V-slot whose horizontal center line is parallel with the type slot, whereby those parts of said member which the V-slot divides may be spread apart into locking engagement with the shoulders of the T-slot by the V-point of a center punch inserted in the V-slot of the quad.

3. A locking quad insertible in a T-slot of a chase plate or segment, in front of, or behind, a row of type therein, comprising a shouldered member cast from a softer metal than that from which the chase plate or segment is made, and formed in its top portion with a deep V-slot whose horizontal center line is parallel with the type slot, and shoulders at the sides of the V-slot adapted to be forced into locking engagement with the shoulders of the T-slot by the V-point of a center punch inserted in the V-slot of the quad.

In testimony whereof I have hereunto set my hand this 25th day of October, 1930.

FRANK H. POEPPELMEIER.