

No. 786,969.

PATENTED APR. 11, 1905.

F. W. HOOPER.

STAMP STEM GUIDE.

APPLICATION FILED SEPT. 26, 1904.

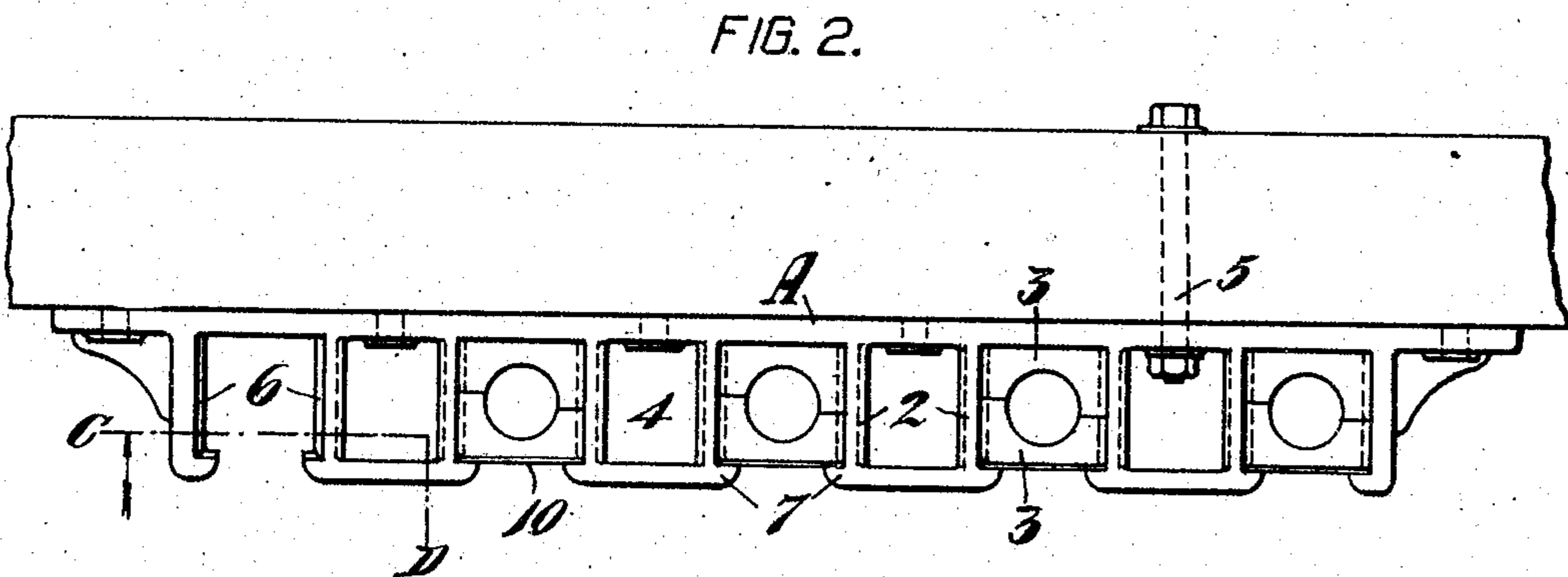
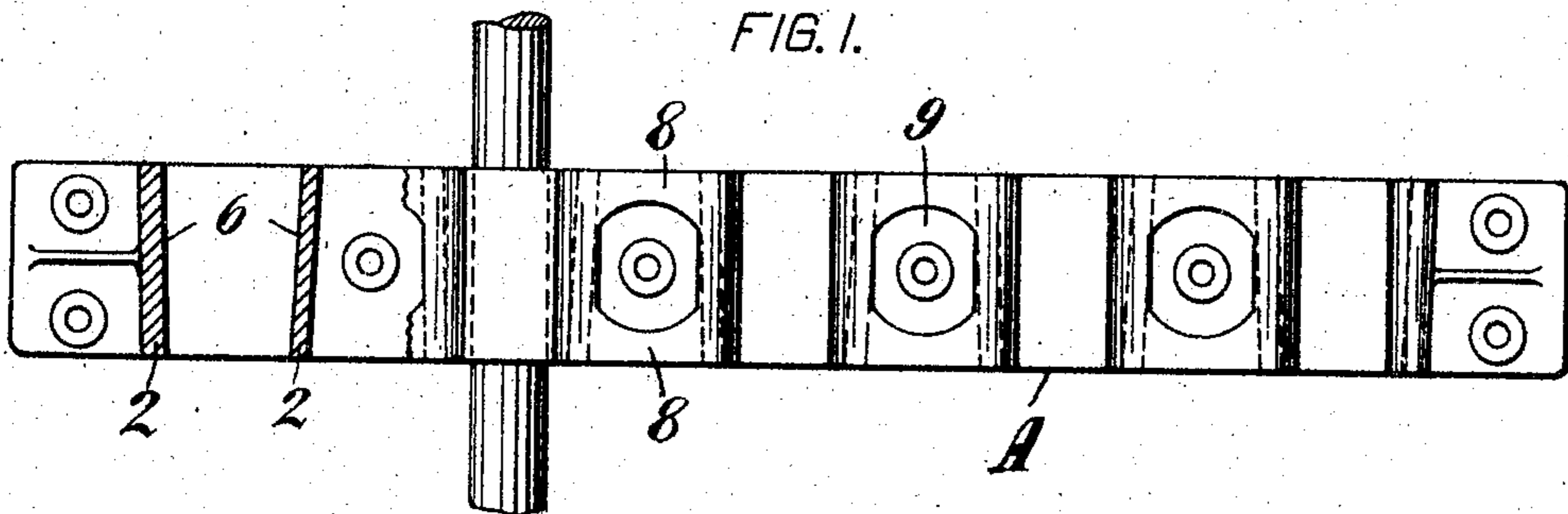


FIG. 3.

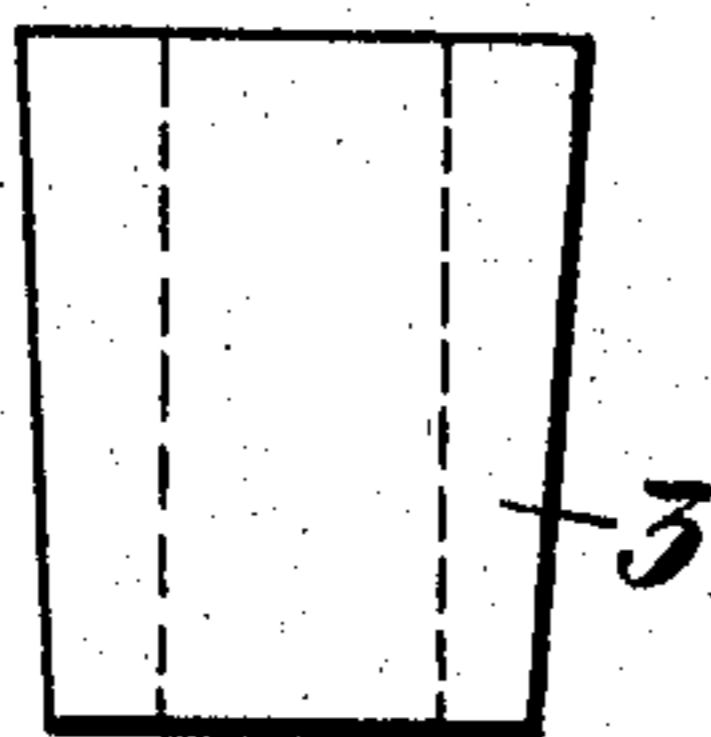


FIG. 4.

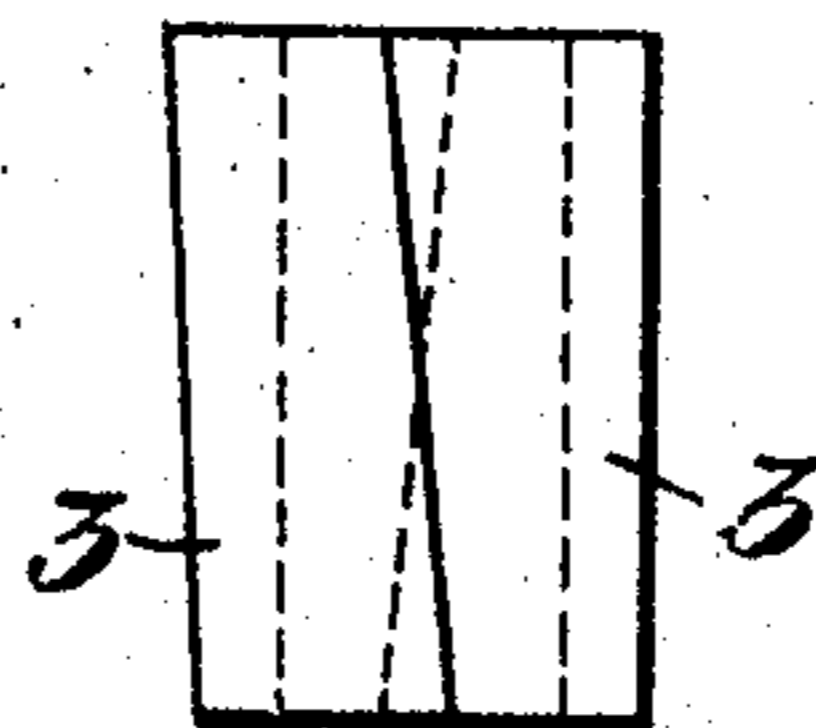


FIG. 5.

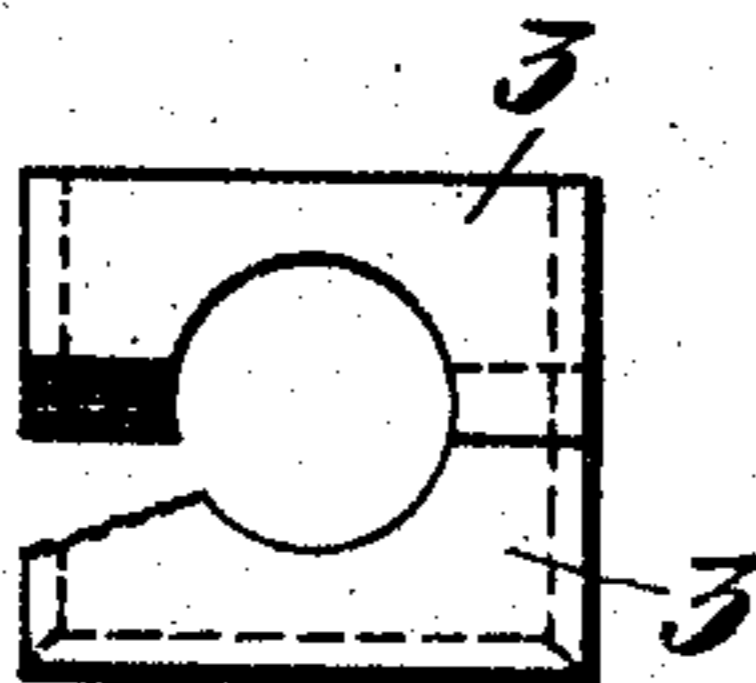
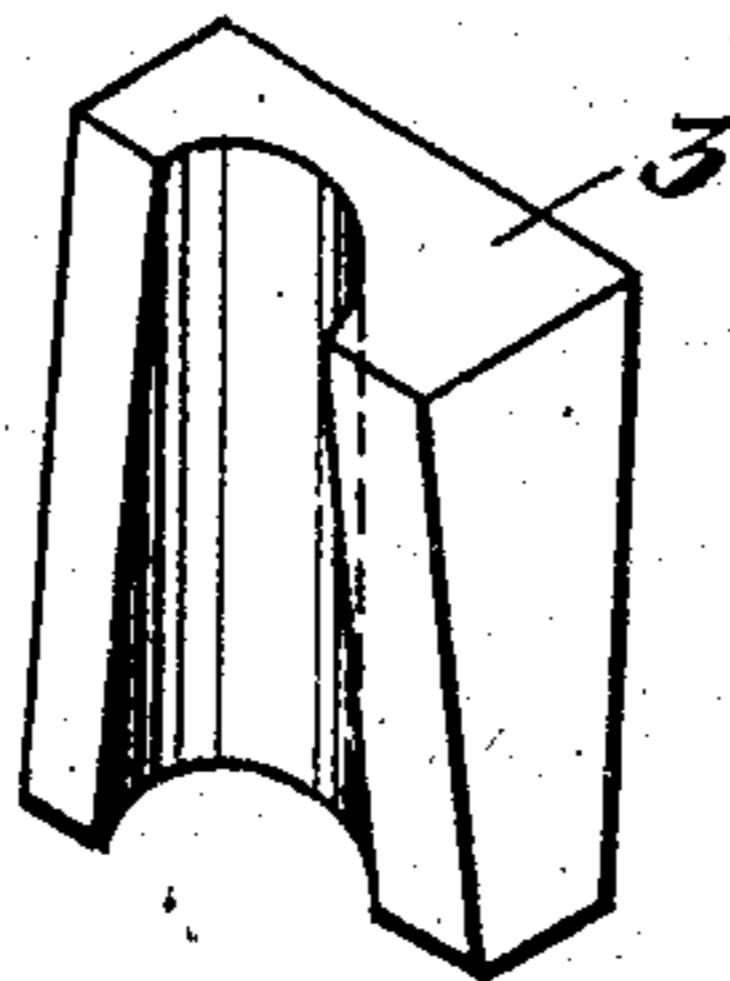


FIG. 6.



WITNESSES,
Chas. E. Chapin.

Chas. E. Chapin

INVENTOR,
Frank W. Hooper
By Geo. H. Strong *att.*

UNITED STATES PATENT OFFICE.

FRANK W. HOOPER, OF GRASS VALLEY, CALIFORNIA.

STAMP-STEM GUIDE.

SPECIFICATION forming part of Letters Patent No. 786,969, dated April 11, 1905.

Application filed September 26, 1904. Serial No. 225,912.

To all whom it may concern:

Be it known that I, FRANK W. HOOPER, a citizen of the United States, residing at Grass Valley, in the county of Nevada and State of California, have invented new and useful Improvements in Stamp-Stem Guides, of which the following is a specification.

My invention relates to an improved stamp stem guide for quartz and like mills. Its object is to provide a comparatively light, simple, easily-adjusted metal guide with means for preventing relative longitudinal movement of the sections of the boxes in which the stems slide, the boxes being securely held in the guide without bolts or other independent fastenings.

It consists of the parts and the construction and combination of parts, as hereinafter more fully described, having reference to the accompanying drawings, in which—

Figure 1 is a front view, partly in section, on line C D of improved guide. Fig. 2 is a top plan view of same, showing battery-frame guide. Figs. 3, 4, and 5 are front, side, and plan views, respectively, of guide-blocks. Fig. 6 is a perspective view of one-half of guide-block.

A represents a cast-metal plate adapted to be secured to the battery-frame and of suitable length, depending on the number of stamps in the battery. A series of transverse walls or projections 2 extend from the outer side of and are integral with the plate, and the spaces between certain of these walls or projections constitute recesses for the blocks or boxes 3, while the intermediate spaces 4 admit of the entry and seating of the bolts 5, by which the guide is secured to the battery-frame. The adjacent surfaces of the projections which receive the blocks 3 are tapered downwardly and inwardly, as shown at 6, and the front edges of these particular projections have lateral flanges 7 facing each other and supporting the front of the boxes. At the same time the space between each pair of opposed flanges is sufficient to provide an opening for the lateral admission or removal of a stamp-stem. The opposite sides of the boxes are tapered corresponding with the pitch of the walls 6. The portions of the

plate intermediate of the tapered surfaces 6 and forming the back of the recesses may be straight.

The spaces 4 are bridged over at the ends of the projections 2, as shown at 8, to afford sufficient strength to the guide, but a central opening 9 is left in this bridge or web to allow the passage of a bolt 5. These spaces 4 are open at top and bottom to freely admit of the operation of a wrench.

The boxes 3 are made in two sections and are preferably formed with their opposed abutting edges oppositely inclined relative to the axis of the bore, thereby locking the two sections, so that one section cannot shift longitudinally relative to the other once they are clasped about a stem, interlocked, and seated in their recess in the guide. If one section moves, the other has to move with it, and consequently there is no opportunity for binding or displacement, as is possible with boxes split in a plane of the axis of the bore.

A box is placed in its recess, so that its lines of division are adjacent to the tapered walls 6, leaving a straight unbroken side against the back of the recess and a straight unbroken side abutting against the flanges 7. If desired, a leather cushion 10 may be provided on the front side between the box and flanges 7 to prevent the latter breaking from the jar of the stamps. This construction permits of a perfect guiding and adjustment of the stamps, obviates the use of bolts and keys, and allows any single stamp to be taken out or adjusted without the necessity of hanging up the entire battery.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A stamp-stem guide comprising a casting having means of attachment with the battery-frame and provided with a socket substantially rectangular in cross-section, the back and front walls of the socket being substantially straight and the side walls converging downwardly, said socket having a passage through the front wall for the lateral admission or removal of a stamp-stem, and a sectional guide block or box fitting said socket, the sections of said guide-block

formed with their opposed abutting edges oppositely inclined relative to each other and to the axis of the bore.

2. A stamp-stem guide comprising a casting having a tapered socket and an opening in one side of the socket for the admission laterally of a stamp-stem, and a sectional guide-block seating in said socket, the sections of said block having their opposed abutting edges oppositely inclined relative to each other.

3. A stamp-stem guide comprising a casting having a tapered socket and an opening in one side of the socket for the admission laterally of a stamp-stem, and a sectional guide-block seating in said socket, the sections of said block having their abutting edges inclined relative to the axis of the bore.

4. The combination with a casting having a socket and a sectional guide-block removably seated in the socket, the sections of the

block having their abutting edges oppositely inclined relative to the axis of the bore.

5. A stamp-stem guide comprising a plate having a plurality of transverse projections on one side, alternate pairs of said projections having inturned vertical flanges with the walls between said flanges and the back of the plate tapered downwardly and inwardly, and sectional tapered guide-blocks fitting in the spaces between said tapered walls and flanges, said blocks having their sections provided with abutting edges which are oppositely inclined relative to the axis of the bore.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK W. HOOPER.

Witnesses:

A. J. HOSKING,
W. F. PRISK.