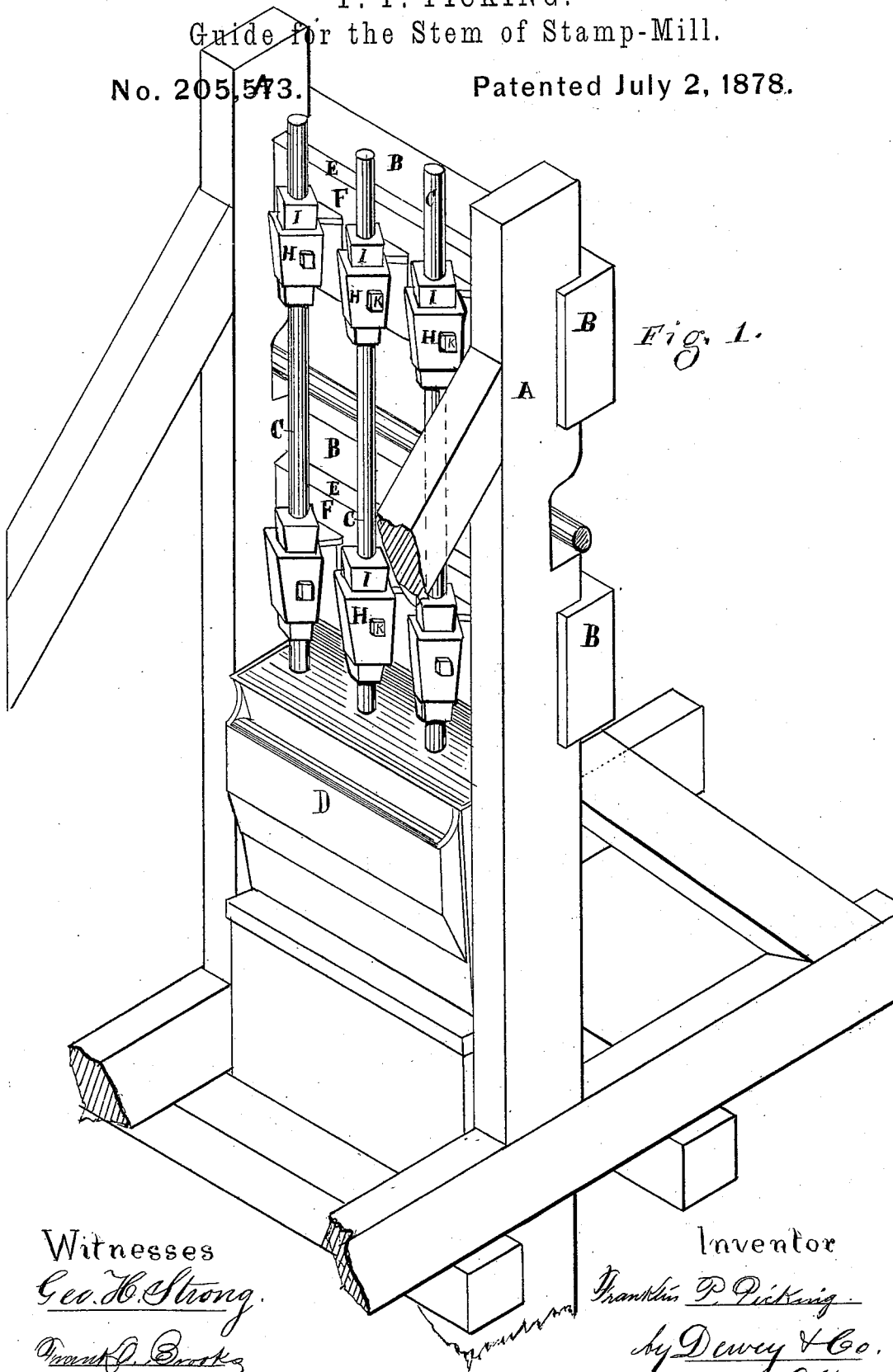


F. P. PICKING.  
Guide for the Stem of Stamp-Mill.

No. 205,573.

Patented July 2, 1878.



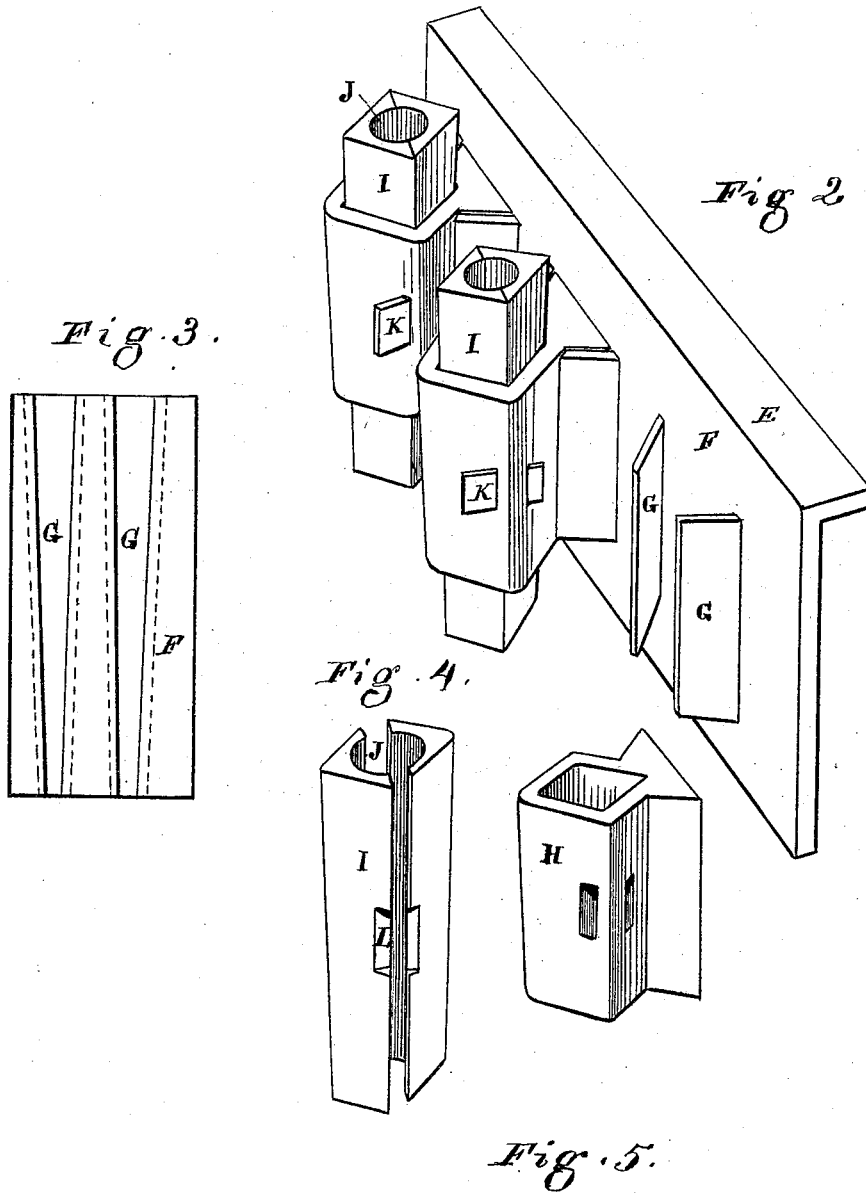
Witnesses  
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*Amos D. Brooks*

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 by *Dewey & Co.*  
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# UNITED STATES PATENT OFFICE.

FRANKLIN P. PICKING, OF PIOCHE, NEVADA.

## IMPROVEMENT IN GUIDES FOR THE STEMS OF STAMP-MILLS.

Specification forming part of Letters Patent No. **205,573**, dated July 2, 1878; application filed April 22, 1878.

*To all whom it may concern:*

Be it known that I, F. P. PICKING, of Pioche, county of Lincoln, State of Nevada, have invented an Improved Guide for Quartz-Mill Stamp-Stems; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to improvements in girt-timbers or guide-frames of quartz-mills, which keep the stems carrying the stamps in position, allowing them a vertical but no lateral motion.

It consists in forming a metal back plate which bolts to the girt-timber, in or on which are formed dovetail mortises, and a metal box, formed square and tapering, having on one edge a dovetail tenon to fit in the mortises in the back plate. In this metal box is a wooden lining or bushing, made also tapering, which is formed in two longitudinal halves, each half having a semicircular groove cut lengthwise down its inner face, so that when they are in position in the tapering box the two grooves in the halves form a circular hole, through which the stamp-stem plays.

Figure 1 is a perspective view of a stamp-mill. Figs. 2, 3, 4, and 5 are enlarged views of my invention.

Let A represent the frame of a quartz-mill, in which B are the girt-timbers or guide-frames, serving as guides for the stamp-stems C, keeping them in a vertical position over the battery D, and admitting of a vertical motion to the stamps.

To the girt-timbers B is fastened, by means of a flange, E, and the necessary bolts, a metal back plate, F, having dovetailed mortises G, formed either by projecting lugs or by sinking in the body of the plate. I then construct a metal box or holder, H, having formed on one edge a tenon to fit the dovetail mortises in the back plate, so that the box stands vertically when in position for use. This box or holder H is made square, with the opening cut tapering; or it may be made in any desirable form, the recess being cut tapering for the purpose below described.

In the tapering hole in the box H, which I preferably make square, is fitted a hard-wood bushing or lining, I, made in two pieces for

its easier insertion, withdrawal, and convenience of manufacture. In this bushing or lining I to the box H the stamp-stem C moves vertically through the cylindrical hole J formed in the bushing.

The tapering form of the interior of the box H prevents the bushing or lining I, which, as stated, is also made tapering, from sliding down farther than its shape admits, and holds it firmly in place.

Through the side of the box H is a slot, in which is fitted a key, K, which passes through the box, and a notch, L, cut in the two pieces of wood forming the inside lining or bushing I. This key then serves to keep the lining or bushing from sliding upward out of its seat in the bushing by the upward motion of the stamp-stem.

The two pieces forming the lining I are made of hard wood, cut so that the grain is vertical. A lining made in this manner is easily and quickly removed by taking out the key K, and a slight tap from below will loosen the bushing.

When the hole J becomes enlarged by the continued friction of the stamp-stem, the bushing may be taken out, and by removing a little wood from each inner side of the halves forming the bushing, and inclosing the stamp-stem by dropping one-half on each side into its seat in the box H, the wear is taken up.

I thus provide a simple, cheap, and effective appliance through which the stems of a stamp-battery may play. There are no bolts or fastenings to be removed, and the bushing may be removed and replaced in a moment without the aid of any tools.

In case of a necessity for removing the stamp-stem, the box holding the bushing may be taken from its dovetailed seat by sliding it up the stem, where it may remain; or it may be slid off altogether.

The back plate and box may be made of steel, so as to be light and strong. The hard-wood bushing will last a long time, and may easily be removed and replaced when considered necessary.

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

1. The plate F, with its flange E and the

dovetailed mortises G, in combination with the holder or box H, substantially as shown, and for the purpose herein described.

2. The metal box or holder H, made tapering, in combination with the tapering wooden bushing I and the locking-key K, substantially as shown, and for the purpose herein described.

In witness whereof I hereunto set my hand and seal.

FRANKLIN PIERCE PICKING. [L. S.]

Witnesses:

A. A. YOUNG,  
E. D. TURNER.