

(No Model.)

J. B. LUCAS.

GUIDE FOR THE STEMS OF STAMP MILLS.

No. 257,353.

Patented May 2, 1882.

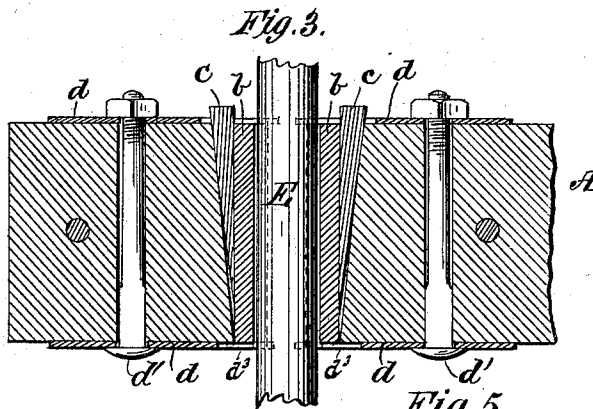
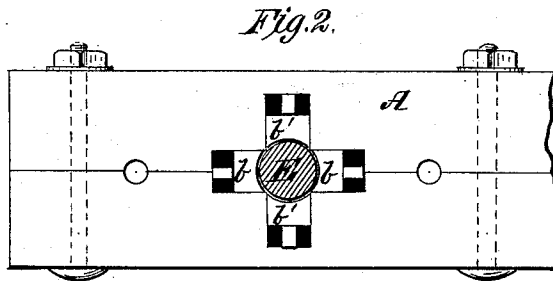
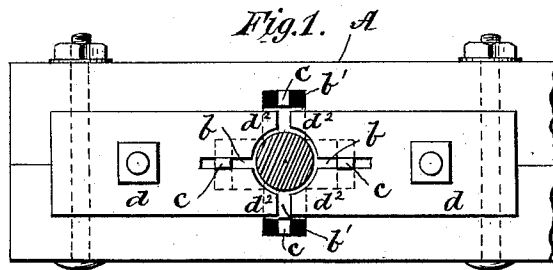


Fig. 4.

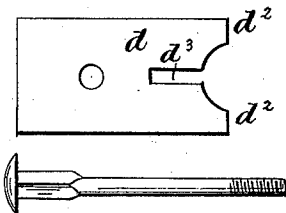
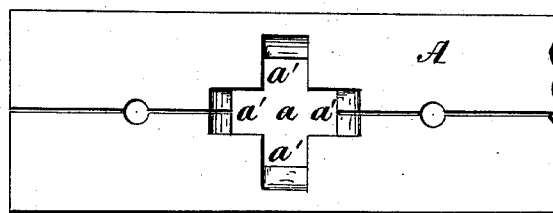


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES B. LUCAS, OF TYBO, NEVADA.

GUIDE FOR THE STEMS OF STAMP-MILLS.

SPECIFICATION forming part of Letters Patent No. 257,353, dated May 2, 1882.

Application filed January 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. LUCAS, a citizen of the United States, residing at Tybo, in the county of Nye and State of Nevada, have invented certain new and useful Improvements in Guides for the Stems of Stamp-Mills; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in guides for stems of stamp-mills; and it consists in the construction, combination, and arrangement of the several parts, as will be hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a plan view. Fig. 2 is a plan view with the top caps or plates removed. Fig. 3 is a vertical section, and Figs. 4 and 5 are detail views.

A is the guide-rail, which is suitably supported between the battery-posts of the mill.

a is a vertical mortise in guide-rail A, made in shape of a cross. The walls of the wings a' of this mortise are inclined inwardly from top to bottom, and provide a seat for the keys hereinafter described.

b b' are packing-blocks made the length of the height of the guide-rail, and fitted to be placed in the wings a' of the cross-shaped mortise a. The inner sides of these blocks b are cut away in the arc of a circle and adapted to fit snugly around the stamp-stem, to which they are held by the keys hereinafter described. These packing-blocks may be made of wood, rubber, old belting, Babbitt metal, or any other suitable equivalent substance. When rubber or old belting is used there is hardly any perceptible wear on the stems. Hence I prefer these latter substances.

c c are wedge-shaped keys placed in the spaces between the rear sides of the packing-blocks and the inclined walls of the wings a' of the mortise a, hereinbefore described, and these wedges are made narrower than the wings of the said mortise, as shown. These wedges may be driven downward whenever desired to tighten the blocks b b' on the stem.

It will be observed that the slots d³ in plates d on upper side of guide afford facility for driving the wedges, while the slots in the under plates permit the wedges to extend below the said plates. When new I preferably make the wedges of sufficient length to extend above the guide, so they may be readily driven.

d d are caps or plates held to top and bottom of the guide-rail on both sides of the stem by bolts d', passed vertically through the guide-rail. These plates d d are held on either side of the stamp-stem, and they are provided in the ends of each next the said stem with semi-circular recesses and with the longitudinal slots d³, formed radially to the said recesses. When these plates d are placed in position their ends next the mortise a are near to the stem E, while the wings or points d² extend over the side blocks, b b', and hold the said blocks from being worked out of position by the down-and-up motion of the stem.

It will be observed that the slots d³ in the upper and under plates on the same side of the stem are in the same vertical plane, and that the wedges driven through slots in the upper plates will extend through the slots in the under plates.

E represents the stamp-stem. I have shown my guide-rail constructed of two beams bolted together. This construction I do not regard as necessary, though often convenient.

The operation of my device is simple and readily understood. The stamp-stem is placed through the mortise a, and the blocks b b' are placed in the wings a' in position around it, where they are held by the caps d d above and below. The keys c are then placed in the spaces between the packing-blocks and the inclined walls of the wings a' of the mortise and driven down till the blocks b b' are in proper positions. Then, as the packing-blocks are worn, the keys are driven farther down, adjusting the blocks up to the stem until they are completely worn out, when they can be replaced at small cost and be adjusted as before.

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

1. The combination, with the guide-rail A, provided with the mortise a, having radial wings a', tapering inwardly from top to bottom, and bearing-blocks b b', placed in the radial

wings a' , of the two plates or caps $d\ d$, having their inner or adjacent ends provided with semicircular recesses and longitudinal slots d^3 , and having their outer ends made fast to the guide-rail, and the wedges $c\ c$, substantially as set forth.

2. The combination, with the guide-rail provided with the mortise a , having radial wings a' , stamp-stem E , blocks $b\ b'$, and wedges $c\ c$, of the plates $d\ d$, made fast to the upper and under sides of the guide-rail, and provided

with semicircular end recesses and radial slots d^3 , the upper and under plates being arranged in the same vertical plane, substantially as set forth.

In testimony whereof I affix my signature, in presence of two witnesses, on this 24th day of December, 1881.

JAMES B. LUCAS.

Witnesses:

B. F. NOWELL,
ED. CLIFFORD.