

(No Model.)

C. A. FARGO.
STAMP STEM GUIDE FOR STAMP MILLS.

No. 546,284.

Patented Sept. 10, 1895.

Fig. 1.

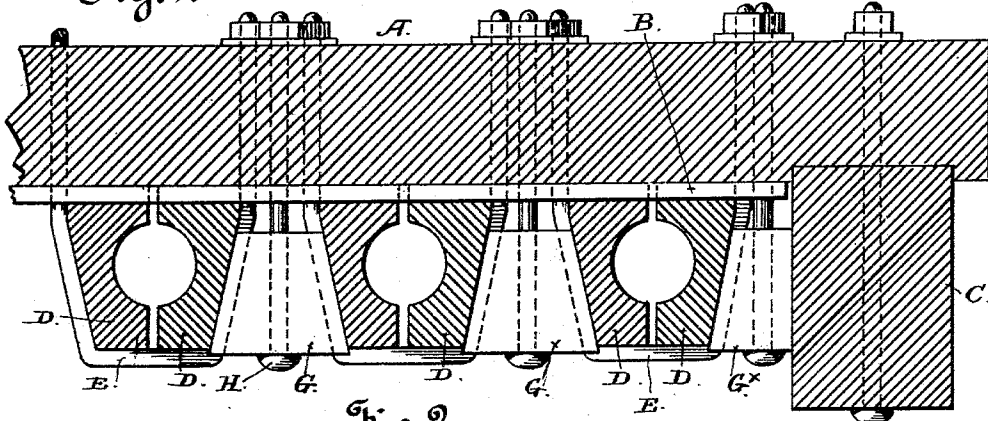


Fig. 2.

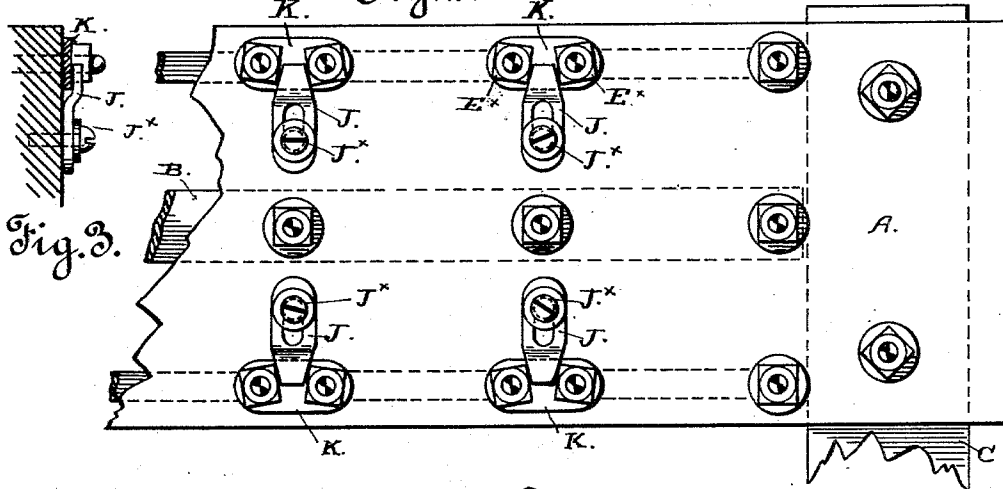
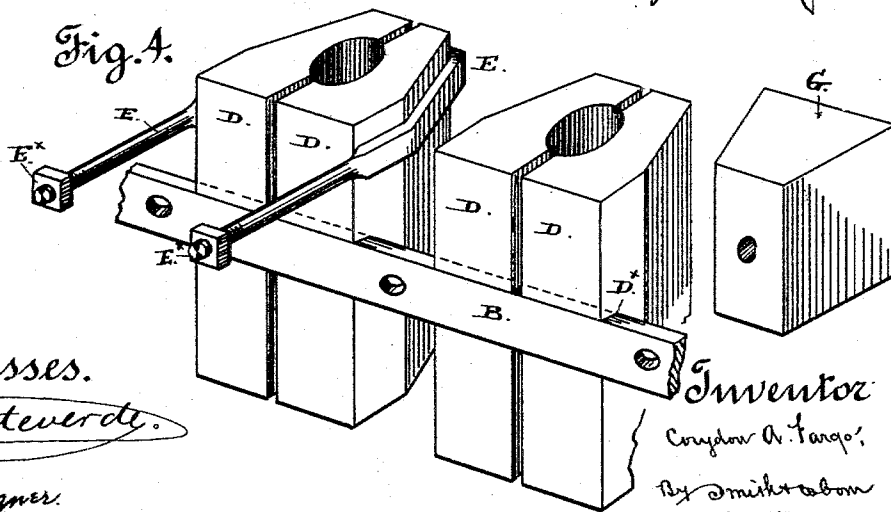


Fig. 3.

Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

CORYDON A. FARGO, OF BALD BUTTE, MONTANA.

STAMP-STEM GUIDE FOR STAMP-MILLS.

SPECIFICATION forming part of Letters Patent No. 546,284, dated September 10, 1895.

Application filed September 4, 1893. Serial No. 484,771. (No model.)

To all whom it may concern:

Be it known that I, CORYDON A. FARGO, a citizen of the United States, residing at Bald Butte, county of Deer Lodge, and State of Montana, have invented certain new and useful Improvements in Stamp-Stem Guides for Stamp-Mills, of which the following is a specification.

My invention relates to new and useful improvements in stamp-stem guides for quartz-mills; and the object of the invention is to provide a means for more firmly securing the guides to the guide-timbers and the battery-posts, whereby vibration is lessened and the battery-frame not weakened by cutting and mortising the frame, as now practiced.

Another object of my invention is to provide a novel means for securing any two nuts of the series of bolts passing through the battery-frame in place.

To this end my invention consists of two or more clamping-irons for each of the series of stamp-stem guides, the arms of which pass through the battery-frame and are held in position by nuts.

It also consists in a longitudinal strengthening-plate along the guide-timbers between the battery-posts, which is rabbeted or provided with sockets for the guides, and through which bolts for holding the beveled keys and plate in position pass, all of which, together with the details of construction and operation, will be hereinafter more fully described.

In the drawings which form part of this specification, Figure 1 is a section taken longitudinally through stamp-stem guide and the timber of the battery-frame. Fig. 2 is a back view of battery-frame at one end. Fig. 3 is a side view of nuts and locks in detail. Fig. 4 is a view in perspective of guides, holding-plate, clamps, and keys, looking from the back of the battery.

Similar letters of reference are employed to indicate corresponding parts throughout the several views.

Great difficulty is experienced in keeping the guides for stamp-stems of quartz-mills in proper position, as the constant jar caused by the stampers striking the mortar-bed and the action of the cams in striking the tappets in lifting the stamps produces great vibration of the battery-frame, jarring the nuts from the

bolts, loosening the keys and gibs holding the guides, requiring constant attention and considerable outlay in renewing the parts so affected. I avoid these objections and disadvantages in a great measure by introducing along the inner face of the battery-frame A the horizontal metal plate B, the ends of which fit closely against the battery-posts C, and along the face of the plate, at suitable distance apart to receive the guides, I provide a rabbet D^x in the rear or back portion of the guide D to set over the plate B. The guides D D are generally made of firm-grain wood, and they are secured by stirrups to the cross-ties of the battery-frame. They are constructed in halves, so that when worn they may be set up to the stem by dressing down the faces of the two halves.

My construction of clamp E admits of taking up the loose play caused by the wearing action of the stems. The clamp is made to conform to the outline of the guide and extends around three sides, one above and another below. The two arms E^x E^x, passing through the battery-frame, have screw-threaded ends for nuts F F, and as the guides are worn away these nuts may be turned up without stopping the mill. A beveled gib or wedge G, interposed between the guides, is kept in position by a bolt H, passing through the center of the wedge and the plate B and battery-frame. These bolts can also be tightened up as occasion requires. The end wedge G^x is constructed with only one beveled face or side and sits against the post of the frame. It is held by a bolt in the same way as the wedge G. By this construction it will be seen that the battery-frame is not weakened by mortising the interlocking or connecting parts. Owing to the excessive jar and vibration of the battery-frame the nuts at the end of the bolts are constantly in a loosened condition, and to overcome this defect I propose to employ a metallic wedge-shaped plate J for every two nuts of the series. These plates are slotted lengthwise and are movable on a set-screw and washer J^x and are placed between every two nuts, with points downward, being also set at an incline, so that the point of the wedge or plate will gravitate and adjust itself to the opening in an automatic manner between the two nuts, the bent point or wedge portion,

however, resting upon the double washer or plate K of the bolt and nuts.

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

1. In a stamp mill or battery, the combination with the main frame, and the longitudinal strengthening plate standing against one face thereof; of the stamp stem guides made in two parts with beveled outer faces, the rear faces of the parts having a rabbet fitting over said plate, stirrups surrounding said parts at their upper and lower ends with their arms passing through the frame, wedges interposed between the beveled faces of said guides, and bolts passing through said wedges and through said plate independent of the guides and their stirrups, as and for the purpose set forth.
2. In a stamp mill or battery, the combination with the main frame, a horizontal series of stamp stem guides arranged in pairs adjacent to said frame, and stirrups embracing said guides with their arms passing through

the frame adjacent each other; of double washers embracing said arms in pairs, nuts on the arms, and for every pair a plate having a beveled point passing between the nuts, and means for holding said plate removably in position, as and for the purpose set forth.

3. In a stamp mill or battery, the combination with the main frame, a horizontal series of stamp stem guides arranged in pairs adjacent to said frame, and stirrups embracing said guides with their arms passing through the frame adjacent each other; of double washers embracing said arms in pairs, nuts on the arms, and for every pair a slotted plate having a beveled point passing between the nuts, and a set screw passing through its slot and into the frame, as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

CORYDON A. FARGO. [L. s.]

Witnesses:

TIM KELLEHER,
E. GRINDROD.