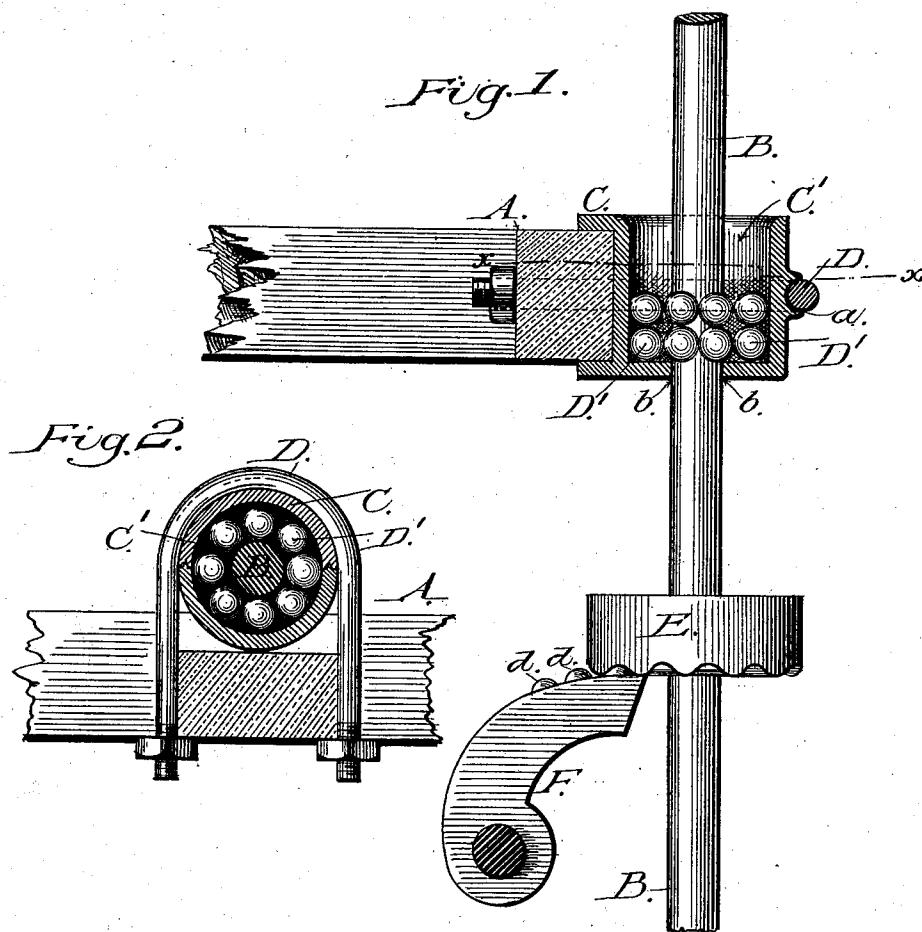


(No Model.)

J. D. PEREGRINE.
GUIDE FOR STAMP MILLS.

No. 373,092.

Patented Nov. 15, 1887.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN D. PEREGRINE, OF CENTRAL CITY, COLORADO.

GUIDE FOR STAMP-MILLS.

SPECIFICATION forming part of Letters Patent No. 373,092, dated November 15, 1887.

Application filed April 16, 1887. Serial No. 235,032. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. PEREGRINE, a citizen of the United States, residing at Central City, in the county of Gilpin and State of Colorado, have invented certain new and useful Improvements in Guides for Stamp-Mills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a partial sectional view showing the interior construction of the bushing, with its anti-friction balls surrounding the stamp-stem and showing the tappet at its greatest elevation and engaged by the lifting-cam. Fig. 2 is a cross-sectional view of the same on the line X X of Fig. 1.

My invention relates to certain improvements in stamp-mills; and it consists in the peculiar construction and combination of devices, which I shall hereinafter fully describe and claim.

To enable others skilled in the art to which my invention appertains to make and use the same, I will now describe its construction and indicate the manner in which the same is carried out.

In the said drawings, A indicates a guide timber or plate, such as is usually placed in the rear of battery-posts to receive and guide the vertical movements of the stamp-stem B. Suitably mounted within this guide are one or more bushings, C, preferably formed in two sections and held together and to the guide timber or plate by any well-known means—such as the U-shaped bar or staple D shown in Fig. 2. However, when a device as just mentioned is employed, one of the sections of the bushing will be provided with a grooved portion, *a*, to receive the staple and prevent the same slipping, and thereby causing a displacement of the sections constituting the bushing. The bottom plate of the bushing has an opening, *b*, for the stamp-stem, while that portion of said bushing above the bottom plate is provided with a chamber or bore, *C'*, having a diameter considerably larger than the diameter of the stamp-stem which passes through it.

Within the chamber *C'* are loosely placed a

number of anti-friction metal, glass, or rubber balls, *D'*, which surround the stem in two or more tiers, thereby forming a compact bearing for the stem and reducing the friction on the same to a minimum. By thus locating the spheres the stamp-stem is permitted to have a free and unimpeded vertical movement, and at the same time the usual rotary movement of the same is expedited.

The stem is provided with a tappet, *E*, which is engaged by a lifting-cam, *F*, to elevate the stem in the usual manner; but in the present case the lower face of the tappet is corrugated and the bearing-face of the cam provided with projections *d*, adapted to engage the corrugated face of the tappet, whereby the same and its attached stem are rotated during the movements of said cam.

By reason of the above construction I am enabled to provide an effective guide for the stamp-stem, and at the same time the friction incident to the continuous movement of the same is reduced to a minimum, while the double row of balls will serve to steady the upper portion of said stem.

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

1. The combination, with a vertically-moving stamp-stem and its guiding-timbers, of a bushing having chamber or bore, and a bottom plate through which said stem passes, and a double row of balls in said chamber surrounding the stamp-stem, substantially as described.

2. The stamp-stem and the two-part bushing, having a chamber through which said stem passes, in combination with the balls within said chamber and surrounding said stem, and means for holding the sections of the bushing together, substantially as herein described.

3. The stamp-stem and the tappet thereon having corrugations on its lower face, in combination with a lifting-cam having projections engaging the corrugations to rotate the stem, substantially as described.

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Witnesses:

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