M. P. BOSS.

ORE-FEEDERS FOR STAMPS.

No. 189,917. Patented April 24, 1877.

Fig. 1.

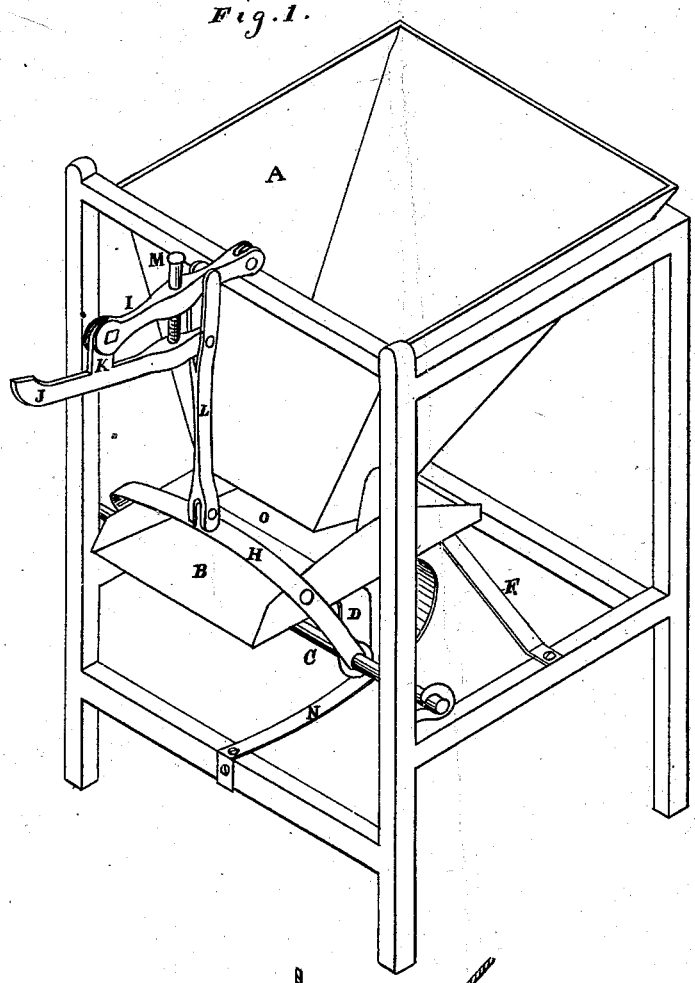
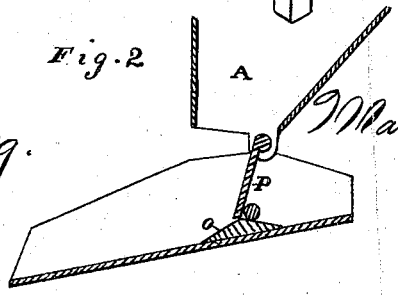


Fig. 2



Witnesses

Geo. H. Strong.

J. L. Bond

Inventor

Martin P. Boss

by Dewey & Co.

Attys.

UNITED STATES PATENT OFFICE.

MARTIN P. BOSS, OF VIRGINIA CITY, NEVADA.

IMPROVEMENT IN ORE-FEEDERS FOR STAMPS.

Specification forming part of Letters Patent No. **189,917**, dated April 24, 1877; application filed February 16, 1877.

To all whom it may concern:

Be it known that I, MARTIN P. BOSS, of Virginia City, county of Storey, and State of Nevada, have invented an Improved Ore-Feeder for Stamps; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being made to the accompanying drawings.

My invention relates to an improved machine for feeding ore to crushing-mills; and it consists in an improved method of constructing, mounting, and operating the tray or chute into which the ore is received as it descends from the hopper, and from which it is fed into the battery, all as hereinafter described.

Referring to the accompanying drawings, in which Figure 1 is a perspective view, Fig. 2 is a section of the hopper and tray.

A is the hopper or reservoir, which is mounted upon a suitable frame in the ordinary way. The tray or chute B, into which the ore passes as it descends through the bottom opening of the hopper, is made with a flat bottom and two sides. This tray is supported either horizontally or at a slight incline beneath the hopper at two points, one of which is at or near its middle, while the other is under its rear end.

C is a rod or shaft, which passes across the feeder-frame a short distance below the bottom of the tray, at some point between its middle and front end. The tray has a short depending leg or standard, D, secured to each side just above the shaft C, and each of these legs has a hole through its lower end, through which the rod or shaft passes. The rear end of the tray rests freely upon a bridge or other support, F.

A bale, H, is permanently attached to the front end of the chute. I is a short lever, one end of which is hinged to a projection on the upper cross-timber of the frame directly above the middle of the tray, so that its opposite end extends out beyond the end of the tray or chute. Another lever, J, has a projection, K, near its middle, and this projection is loosely attached to the outer end of the lever I, so that it is suspended from the end of the lever I, as represented.

The inner end of the lever J is connected with the bail H by means of a rod, L, while its opposite end extends out far enough to receive the stroke of the tappet on the stamp-stem in the usual way.

M is a set-screw, which passes through the lever I, near its middle, and serves as a fulcrum to bear upon the inner end of the lever I. By turning this screw up or down, the fulcrum is raised or lowered, so as to increase or lessen the effect of the motion upon the tray.

A curved spring, N, has one end attached to the lower cross-timber of the frame, while its opposite end is attached to the rear end of the tray. This spring serves to draw the tray back to its rest upon the bridge F after each stroke of the tappet.

A ridge or block, O, extends across the tray just under the rear edge of the opening in the bottom of the hopper, and extends upward to about middle of the sides. P is a hinged apron, which is hung loosely upon journals to the rear side of the lower hopper-spring, so that the apron hangs down and rests upon the ridge O.

The ore in the hopper A will pass through the lower hopper-opening, and rest upon the tray in front of the ridge or block O, the apron directing it and preventing it from working behind the ridge. It will then be seen that the weight of the ore will be supported directly over the shaft C, and equally upon both sides of it. The stroke of the tappet on the end of the lever J will then cause the tray to tip forward and move the ore toward its forward end.

The action of the ridge O and hinged apron P is to thrust the ore forward at each movement of the tray, so that a certain quantity will be dropped from the end of the chute or tray at each movement. This quantity can be regulated by setting the adjusting-screw M up or down, as desired.

This machine can be very cheaply constructed, as it is composed of but few parts. It can be regulated so as to work with great precision, and but slight force is required to tip the balance-tray forward.

Having thus described my invention, what I claim as new is—

1. The flat-bottomed ore-feeding tray or chute B, mounted upon legs D, which are supported by a shaft, C, and having its rear end

supported by the bridge F, in combination with the system of levers I J, arranged as described, bail H, connecting-rod L, set-screw M, and spring N, all combined and arranged to operate substantially as described.

2. The rocking tray or chute B, provided with the transverse ridge or block O, in combination with a hopper, A, provided with the hinged flap or apron P, which depends from the rear edge of its bottom opening, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand and seal.

MARTIN P. BOSS. [L. S.]

Witnesses:

GEO. L. GIBSON,

J. E. DEALY.