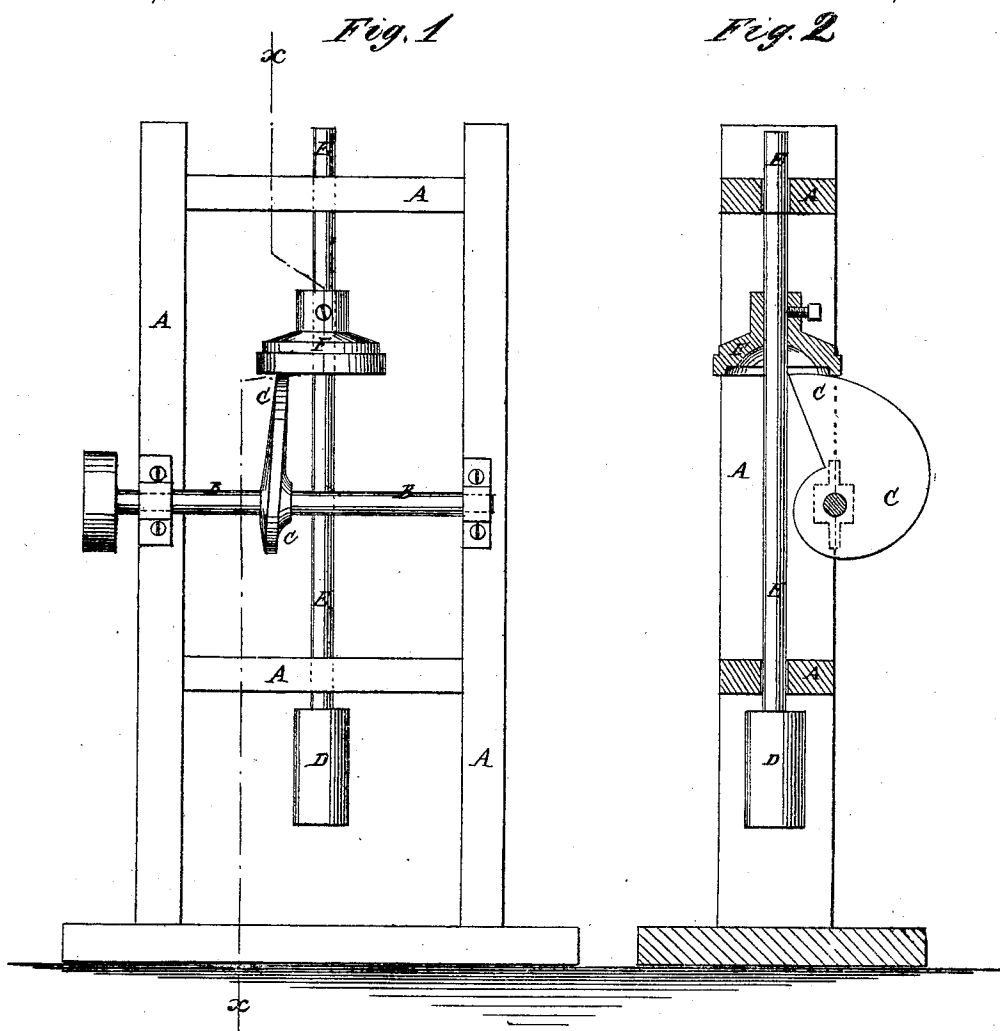


W. P. HAMMOND.

Ore Crushers.

No. 134,201.

Patented Dec. 24, 1872.



Witnesses:

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WILLIAM P. HAMMOND, OF NAPA CITY, CALIFORNIA, ASSIGNOR TO HIMSELF AND HENRY MYGATT, OF SAME PLACE.

IMPROVEMENT IN ORE-CRUSHERS.

Specification forming part of Letters Patent No. 134,201, dated December 24, 1872.

To all whom it may concern:

Be it known that I, WILLIAM P. HAMMOND, of Napa City, in the county of Napa and State of California, have invented a new and useful Improvement in Ore-Crusher, of which the following is a specification:

Figure 1 is a front view of my improved device. Fig. 2 is a detail sectional view of the same taken through the line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved device for operating the stamp of a stamp-mill or ore-crusher, which shall be simple in construction and effective in operation, enabling the stamp to be raised with a less expenditure of power than when the stamp is operated in the ordinary manner; and it consists in the tappet, constructed as hereinafter more fully described, in combination with the stamp-shaft, cam, and driving-shaft.

A represents the frame-work of the machine. B is the driving-shaft, which revolves in bearings attached to the frame A, and to which power is applied in the ordinary manner. To the shaft B is attached a cam, C, which is made somewhat spiral, so as to tend to rotate the stamp-shaft as it is raised. D is the stamp, which is attached to the lower end of the shaft E, which moves up and down in guide-holes in the frame A, so as to be always held in a perpendicular position. F is a tappet, through

the center of which the stamp-shaft E passes, and which is adjustably secured to said shaft by a set-screw, as shown in Figs. 1 and 2, so that it may be adjusted to cause the stamp to be raised to a greater or less height, as may be desired. The lower side of the tappet F is concaved, as shown in Fig. 2, so that the cam C may operate only upon the edge or rim of said tappet. The tappet F is made of such a size that the part upon which the cam C operates may be directly over the driving-shaft B, as shown in Fig. 2.

By this construction and arrangement of the tappet the friction will be lessened, the cam will rotate the stamp more surely, and the power required to raise the stamp will be diminished, the point of contact being directly above the driving-shaft B.

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

The adjustable tappet F, concaved upon its lower side, in combination with the vertical shaft E and with the cam C attached to the horizontal shaft B, substantially as herein shown and described, and for the purposes set forth.

WILLIAM P. HAMMOND.

Witnesses:

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