

J. W. STANTON.
Quartz Crusher.

No. 44,122.

Patented Sept. 6, 1864.

Fig. 1.

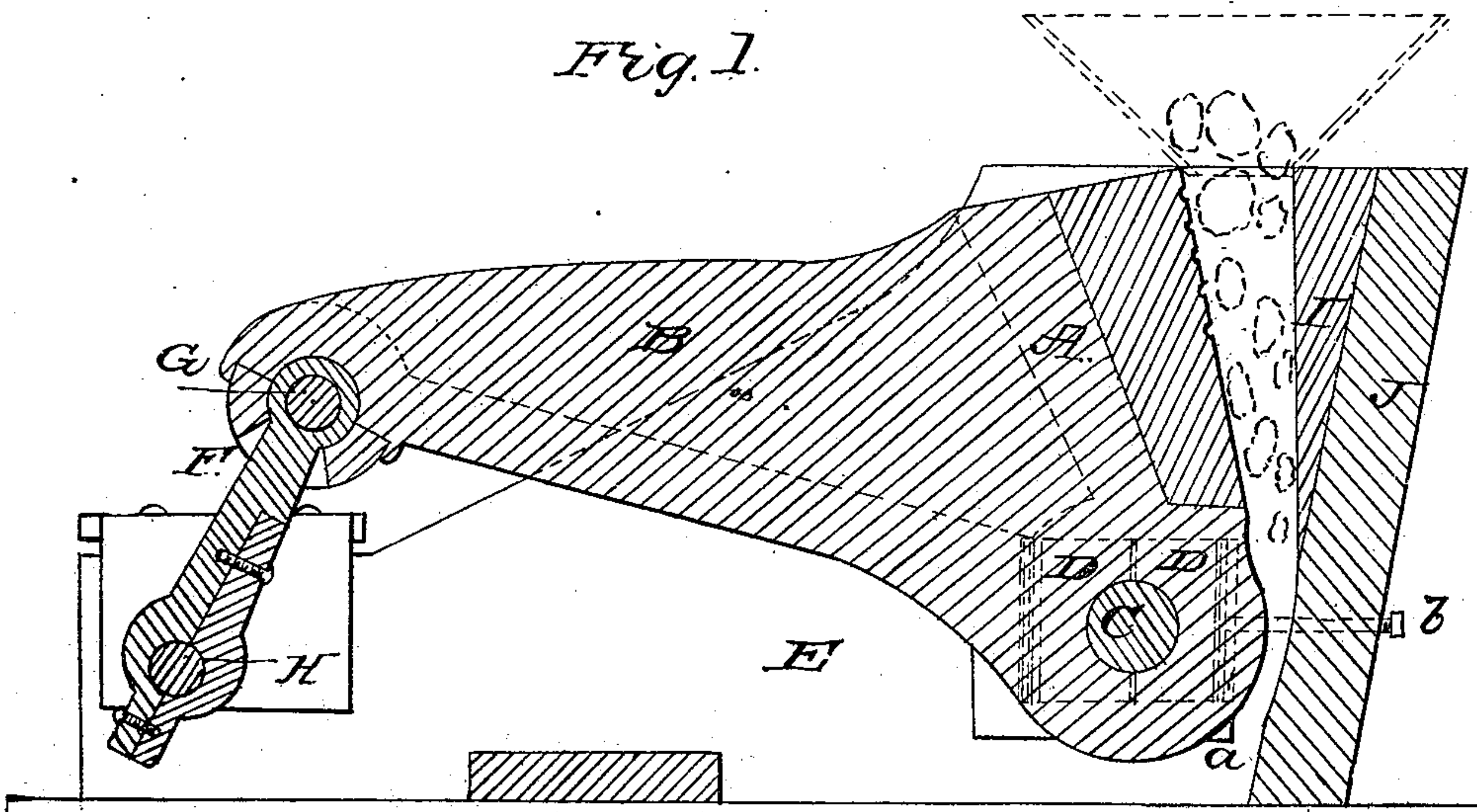
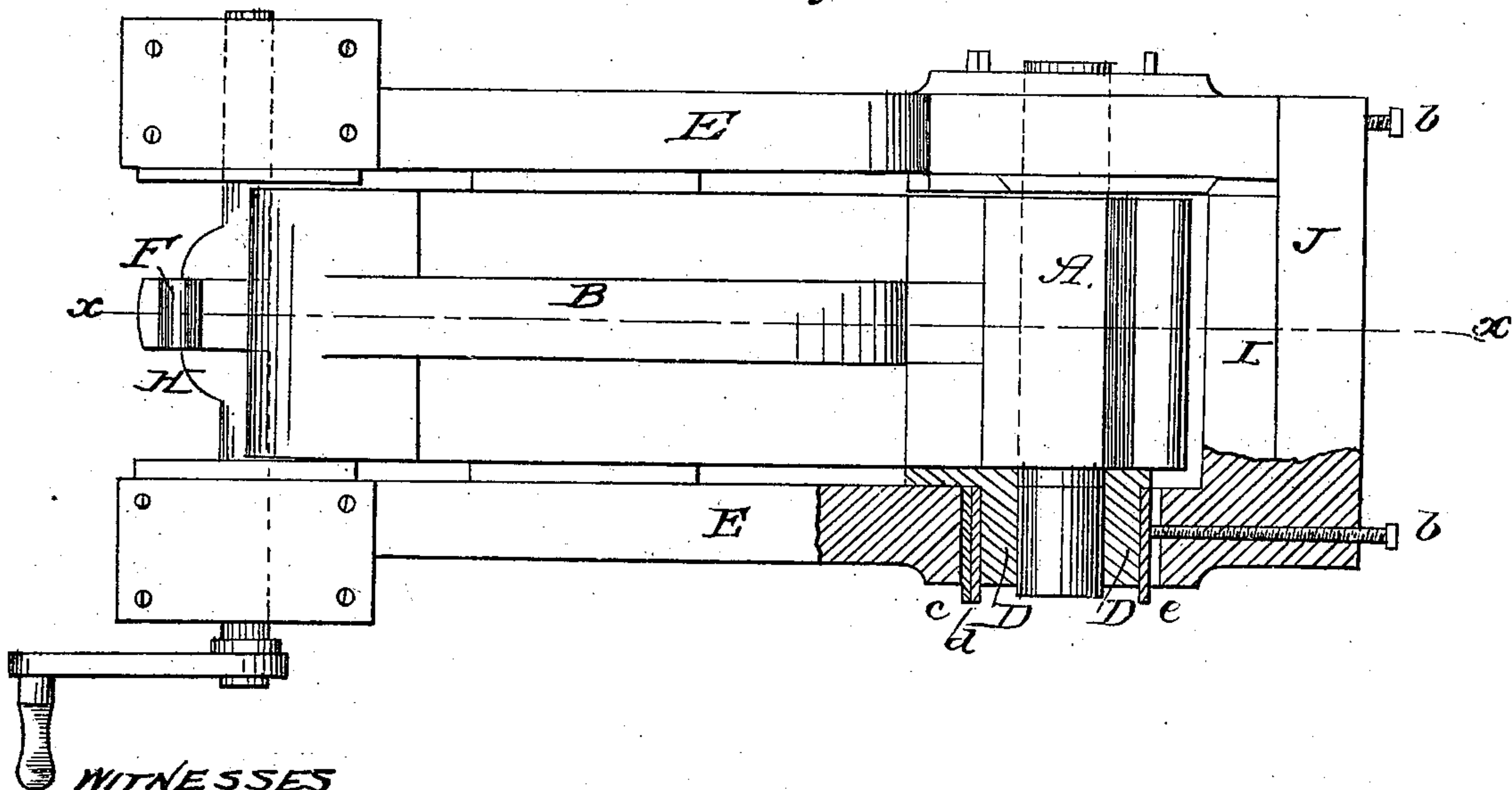


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

J. W. STANTON, OF BLACK HAWK POINT, COLORADO, ASSIGNOR TO
HIMSELF AND M. B. DODGE.

IMPROVEMENT IN QUARTZ-CRUSHERS.

Specification forming part of Letters Patent No. 44,122, dated September 6, 1864.

To all whom it may concern:

Be it known that I, JOHN W. STANTON, of Black Hawk Point, in the county of Gilpin and Territory of Colorado, have invented a new and useful Improvement in Quartz or Stone Breakers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional elevation of my improvement; Fig. 2, a plan view of the same.

Similar letters of reference indicate like parts.

This invention pertains to that class of devices in which the quartz is broken during its passage between two crushing-jaws, one of which is movable, the other stationary.

Referring to the drawings, A is the movable jaw, attached to the front face of a strong movable lever, B, having its axis of motion C arranged in adjustable journal boxes D, between strong side frames, E E, as shown. The rear end of lever B is connected by means of a link, F, and lateral pin G with a driving crank-shaft, H, which is journaled between the rear ends of the frames E E, as shown. The crank-shaft H is to be driven by means of steam, water, or other suitable power. When motion is imparted to the crank-shaft H, the lever B oscillates on its axis C, causing the jaw A to move to and from the stationary crushing-jaw I, which is attached to the inner face of a front frame-piece, J, which connects the front ends of the side frames, E E, as shown. The position of the two jaws in reference to each other is somewhat like that of the sides of an inclined hopper, the upper ends of the jaws A I being separated, while the lower ends gradually approach each other.

The quartz to be crushed is introduced through a hopper at the upper ends of the jaws, as shown in Fig. 1, and is crushed by the approach of the jaws toward each

other. The axis C of the movable jaw A is arranged in front of the fixed jaw I, so that when the jaw A oscillates toward the jaw I the jaw A will have a downward or drawing movement across the face of the fixed jaw I in direction of the arrow, by which drawing motion the quartz is most effectually crushed and forced downward and prevented from flying upward. Below the jaw A there is an open space, a, into which the crushed quartz falls.

In ordinary machines of this kind it is usual to arrange the axis of the movable jaw under the fixed jaw, which precludes the possibility of the drawing motion before described with its attendant advantages. The axis C is made laterally adjustable by means of screws b, which pass through the end frame-pieces, J, and side frames, E E, as shown, and bear against one of the filling-plates, c d e, which are placed at the sides of the journal-boxes D. By turning the screws b and shifting the plates c d e of the journal-boxes, it is obvious that the axis C may be adjusted laterally, so as to increase or diminish the space between the crushing-faces of the jaws A I at will, and thus regulate the crushing action of the jaws.

The jaws A I are to be so attached to their respective supports that they can be readily removed when they wear, and replaced by new jaws, or changed end for end in position, so as to bring new crushing-surfaces into use.

This improvement is intended to be used in the breaking of gold bearing quartz and other minerals or substances.

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

In a machine for crushing ore, adjusting the axis of the movable jaw relatively to the stationary jaw by means of plates or blocks placed before or behind the journal-box.

JOHN W. STANTON.

Witnesses:

J. P. HALE,

M. M. LIVINGSTON.