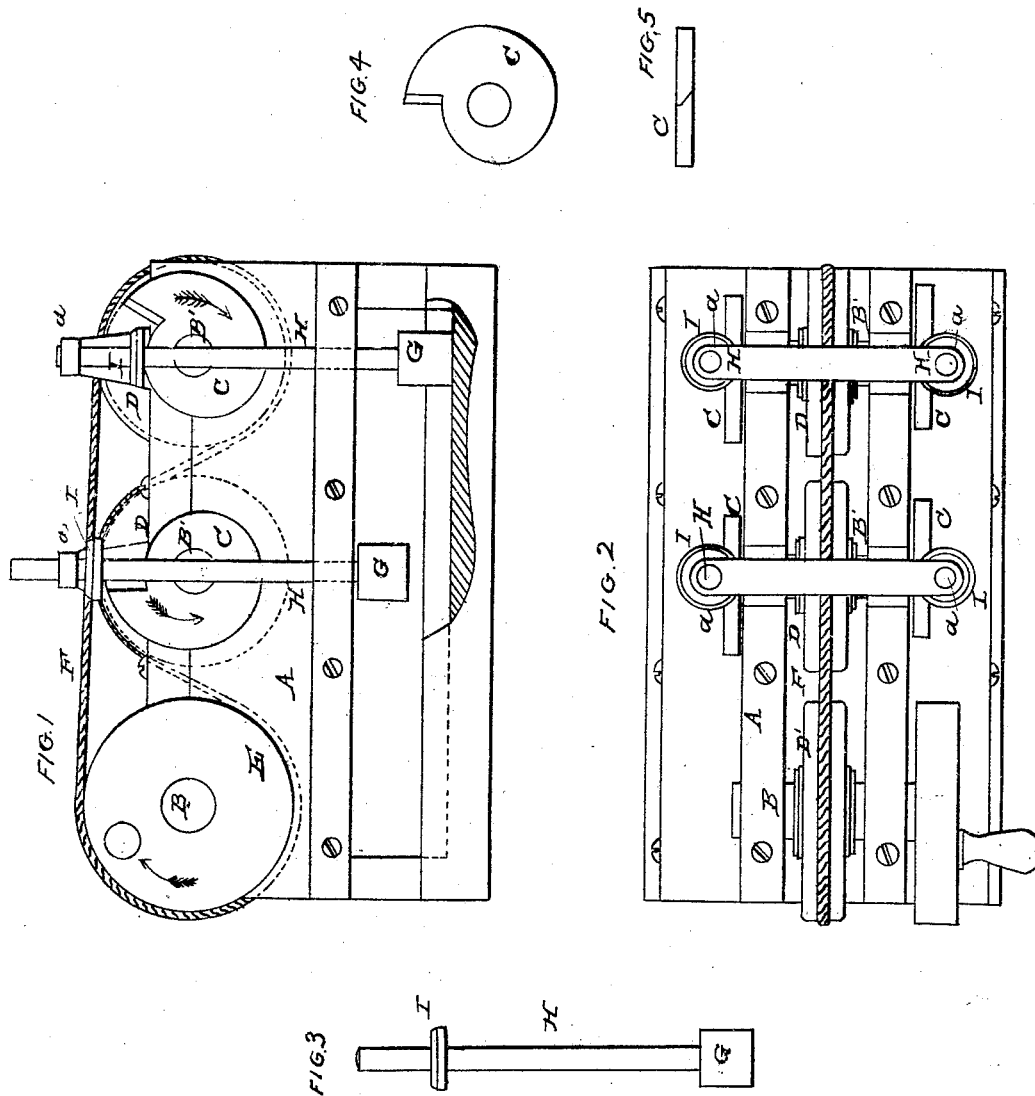


D. SEXTON.
Quartz Crusher.

No. 49,796.

Patented Sept. 5, 1865.



WITNESSES
Henry Horn
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INVENTOR
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Attys

UNITED STATES PATENT OFFICE.

DANIEL SEXTON, OF SAN GABRIEL, CALIFORNIA.

IMPROVEMENT IN QUARTZ-CRUSHERS.

Specification forming part of Letters Patent No. 49,796, dated September 5, 1865.

To all whom it may concern:

Be it known that I, DANIEL SEXTON, of San Gabriel, in the county of Los Angeles and State of California, have invented a new and Improved Quartz-Crusher; 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 represents a side view of my invention; Fig. 2, a plan or top view of the same; Fig. 3, a detached view of a stamp; Fig. 4, a detached side view of a cam by which the stamps are raised; Fig. 5, an edge view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved machine for crushing quartz; and it consists in the employment or use of a series of cams placed on horizontal shafts, in connection with fixed wheels placed on the rods of the stamps, all being so arranged that the cams will elevate the stamps by acting against the wheels, and the stamps rotated while being elevated and also while falling, so as to insure the stamps wearing evenly.

A represents a framing, which may be constructed in any proper manner, to support the working parts.

B B' B' represent three horizontal shafts, which are placed horizontally in the upper part of the framing, the shafts B' having each a cam, C, at each end and a pulley, D, at their centers, a pulley, D', being also placed centrally on the shaft B, the latter having a driving-pulley, E, at one end.

F is a belt, rope, or chain, which passes around the pulleys D' D D and rotates the shafts B B' B' and cams C in the direction indicated by the arrows.

G represents stamps, which are at the lower ends of rods H, which work in suitable bearings, a, at each side of the framing and in line with the shafts B B' B'. Each rod H has a wheel, I, attached permanently to it, against which the cams C act, the wheels being above the cams. The cams C are eccentrics, as shown clearly in Figs. 1 and 4, and as they rotate they elevate the stamps, and at the same time rotate them in consequence of the cams turning the wheels and rods as they raise them. The stamps are elevated until the prominent parts of the cams pass underneath the wheels, when they fall until the wheels I come in contact with the depressed or small portions of the cams, when they are again raised. The rotary motion of the stamps causes them to wear evenly in consequence of being continually changed in position as they fall, and after coming in contact with the quartz, in consequence of the impetus given them as they are raised.

By this arrangement a very simple and efficient quartz-crusher is obtained, one which will work with but little friction, as the cams C are directly under the wheels I and there is no lateral pressure against the rods H.

Instead of the pulleys D D D' and belt F' for rotating the shafts B B' B', gearing may be employed, if desired.

The quartz may be introduced underneath the stamps in the usual or in any proper manner.

I claim as new and desire to secure by Letters Patent—

The employment or use of the cams C in connection with the wheels I on the stamp-rods H, all constructed and arranged to operate in the manner and for the purpose herein set forth.

DANIEL SEXTON.

Witnesses:

C. C. TWICHELL,
E. M. JONES.