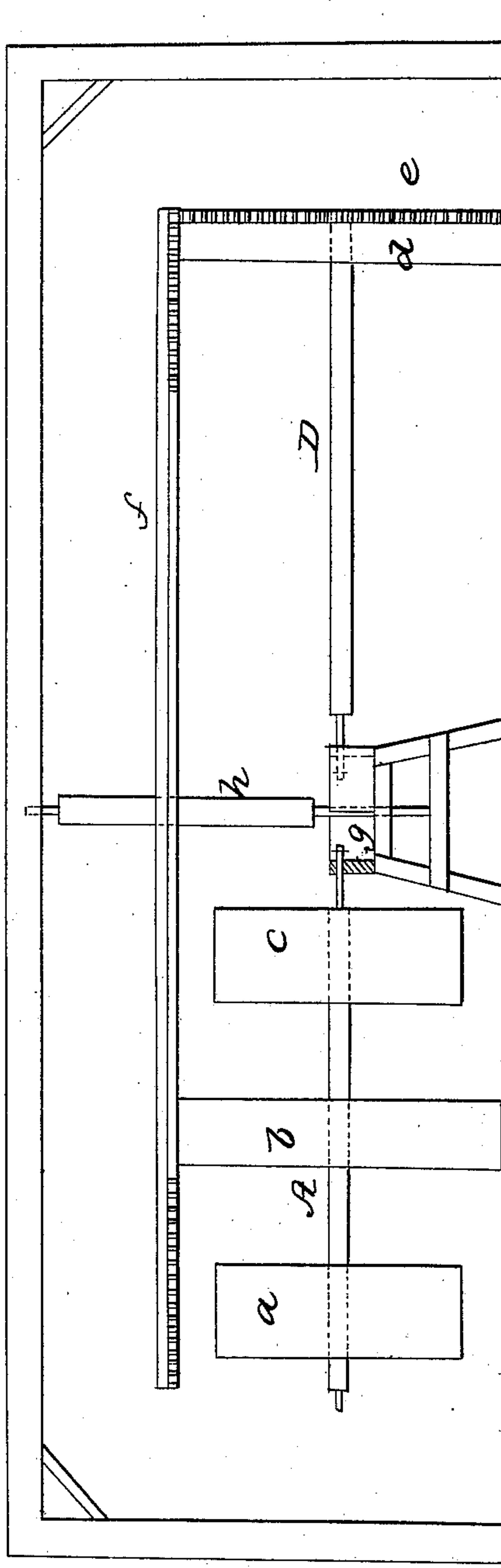
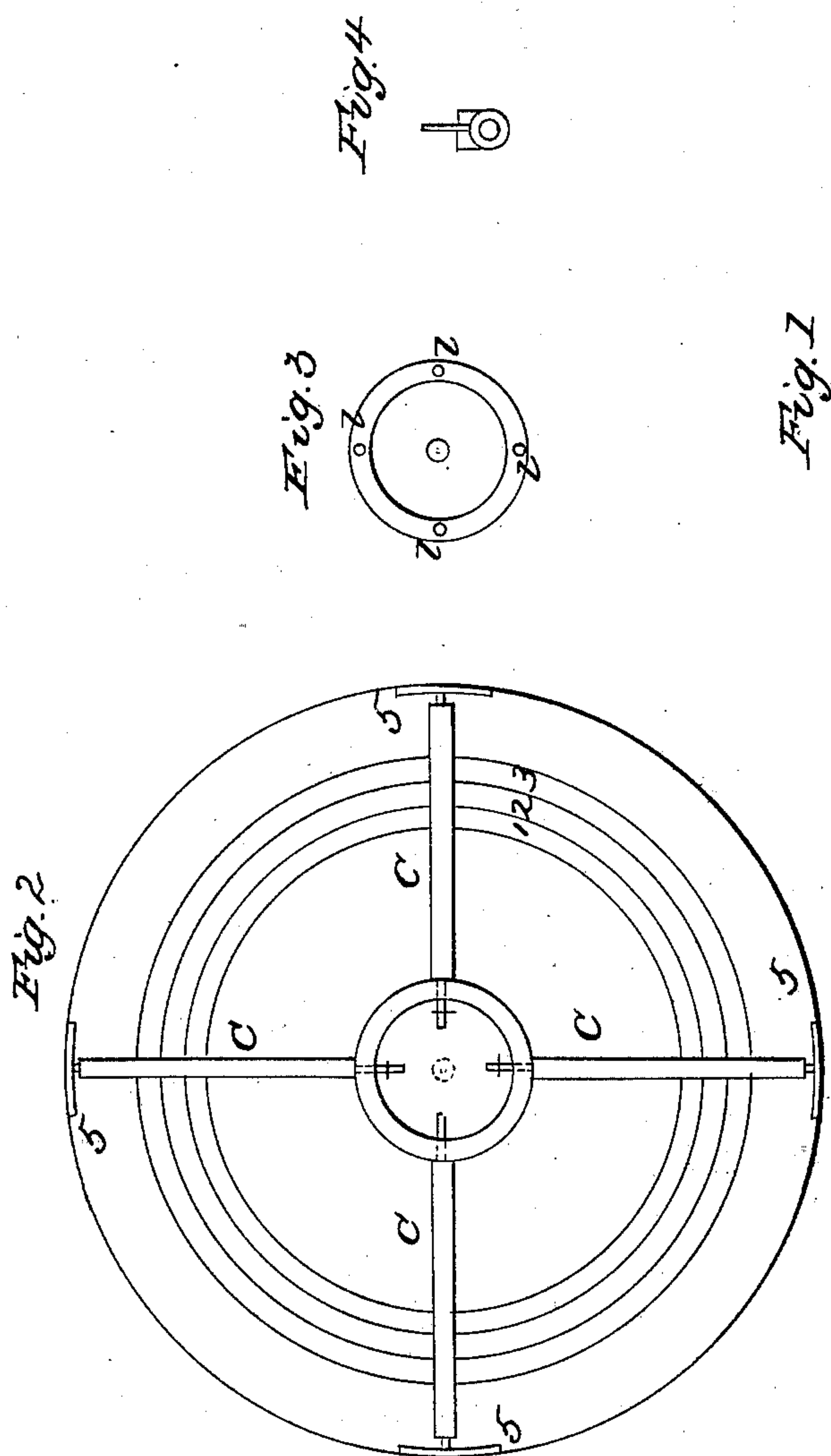


J. SHORT.
Quartz Crusher.

No. 27,932.

Patented April 17, 1860.



Witnesses
James A. Budon
James W. King

Inventor
Jefferson Short

UNITED STATES PATENT OFFICE.

JEFFERSON SHORT, OF LEAVENWORTH, TERRITORY OF KANSAS.

MACHINE FOR CRUSHING QUARTZ.

Specification of Letters Patent No. 27,932, dated April 17, 1860.

To all whom it may concern:

Be it known that I, JEFFERSON SHORT, of Leavenworth, Territory of Kansas, have invented a new and Improved Machine for Crushing Quartz; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view. Figs. 2, 3 and 4 transverse sections. Fig. 1 represents the machine as set up in running order. Fig. 2 represents the circular or endless truck on which the wheels run and quartz is placed. Fig. 3 represents the revolving cylinder and boxes in which the axes of shaft or shafts revolve; Fig. 4, the revolving box placed in revolving cylinder in which the end of shafts or axes are placed.

Further reference being had to lettered and figured specifications and drawings—

Fig. 1 is a perspective view of the crusher set up.

Letter A is a shaft, with crushing and balance wheels or dead weights.

Letters *a* and *c* are balance wheels or dead weights; letter *b*, the crushing wheel.

Letter B is a shaft with a wheel on the end and revolves around on the outside of endless track at "Fig. 2."

Letter *d* is a wheel that revolves on "shaft B" and confines said shaft to its parallel height, from floor of track.

Letter *e* is a cog wheel, that fastens on *d* and works in the cogs of the driving wheel at *f* on a parallel height to prevent the wheel *f* and crusher *b* from coming in contact.

Letter *g* is a cylinder set up on a frame

and revolves around the center of endless track at Fig. 2.

Letter *h* is a shaft that supports the wheel *f* the lower axis passing through center of cylinder *g* and revolves independent of the cylinder *g*; also, the cylinder *g* will revolve without producing any motion in *h* or *f*.

Fig. 3, end view of cylinder *g*.

Fig. 4 is a revolving box whose pin passes through 1, 1, 1, 1, at Fig. 3.

1, 2, 3, in Fig. 2, is the endless track, the crushing wheels to be arranged to traverse the three circles 1, 2, 3, as shown in model. 5, 5, 5, 5, Fig. 2, the coupling that regulates the speed of shafts C C C C, at Fig. 2.

What I claim as my invention and desire to secure by Letters Patent, is—

1. The application and combination and arrangement of a series of crushing wheels combined with balance wheels or dead weights, so arranged on endless track that motion will be uniform, on said track as described in Fig. 2 of drawing, by means of coupling the ends of shafts together, and revolving cylinder with boxes in which axis of shafts revolve at center one independent of the other.

2. And I further claim the invention of the double revolving cylinder which revolves independent of upright shaft and driving wheel.

3. I do not claim the invention of the wheels but the arrangement and combination of same as described in specifications, and drawings.

JEFFERSON SHORT. [L. S.]

Witnesses:

JAMES A. BURTON,
JAS. M. KING.