A. W. ANDERSON.

Quartz-Mortar.

No. 165,146. Patented July 6, 1875.

Fig. 1

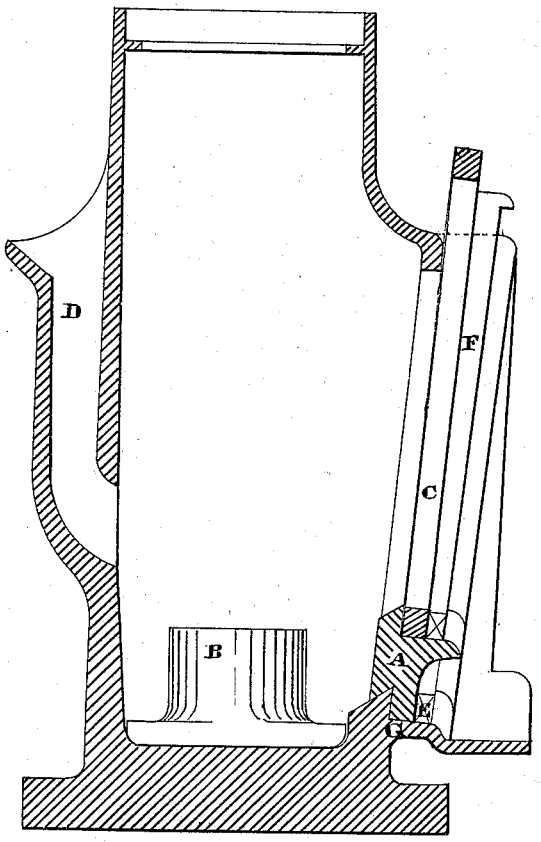


Fig 3

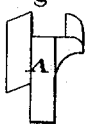
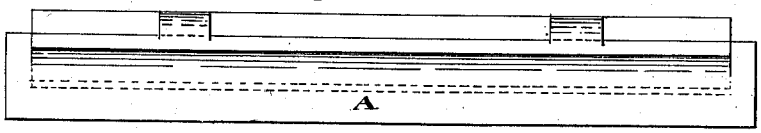


Fig 2



Witnesses

Ross E. Browne

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UNITED STATES PATENT OFFICE.

AUGUST W. ANDERSON, OF LYON COUNTY, NEVADA.

IMPROVEMENT IN QUARTZ-MORTARS.

Specification forming part of Letters Patent No. **165,146**, dated July 6, 1875; application filed March 4, 1875.

To all whom it may concern:

Be it known that I, A. W. ANDERSON, of Lyon county, State of Nevada, have invented an Improvement in the changeable pieces for adapting the height of battery-screens to the wear of the dies in quartz-mills, of which the following is a specification:

The object of my invention is to adapt the height of screens used in the mortars of a quartz-battery to the varying height of the dies occasioned by the wear of those dies in crushing, so as to keep the distance between the two as nearly uniform as possible from the time the new die is put in the mortar until it is worn out.

Figure 1 of the drawing represents a cross-section of a mortar, such as is ordinarily used in crushing quartz.

D shows where the quartz is inserted into the mortar. B is a die which receives the blow of the stamp. C is the screen, usually a rectangular wooden frame covered on one side by Russia iron punched with fine holes, through which the pulverized quartz is driven when it has attained a sufficient fineness. A represents one of my changeable pieces inserted, as shown, so as to receive the bottom of the screen C. This piece is secured to the mortar by means of the keys E and F. Fig. 2 is a side view, and Fig. 3 an end view, of one of these pieces. Letter B, Fig. 1, shows a die, the boss of which has not been worn by use, as it is when first placed in the mortar. Now, a set of these dies lasts some thirty days or thereabout. At the end of that time the boss is worn down about even with the base. With the mortars in present use the screen C cannot be lowered to keep pace with this wear of the die. The consequence of this is, that the pulverized quartz has to be thrown a higher and still higher distance as the die wears down in order to go through the screen. This has the effect of reducing materially the amount of the crushing.

My intention is to make the piece A of various heights, the highest one, of course, being used when the die is new, and this after a few days to be changed to one of less height, and so on until finally the piece A is removed altogether, and then the screen rests upon the mortar itself at G.

I claim—

In a quartz-crushing mortar, the combination of the die or dies B, screen C, and two or more interchangeable supports, A, of varying heights, substantially as described.

AUGUST WILLIAM ANDERSON.

Witnesses:

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