

No. 658,648.

Patented Sept. 25, 1900.

L. JACQUES.
ORE CRUSHER AND AMALGAMATOR.

(Application filed Feb. 8, 1899.)

(No Model.)

Fig 1

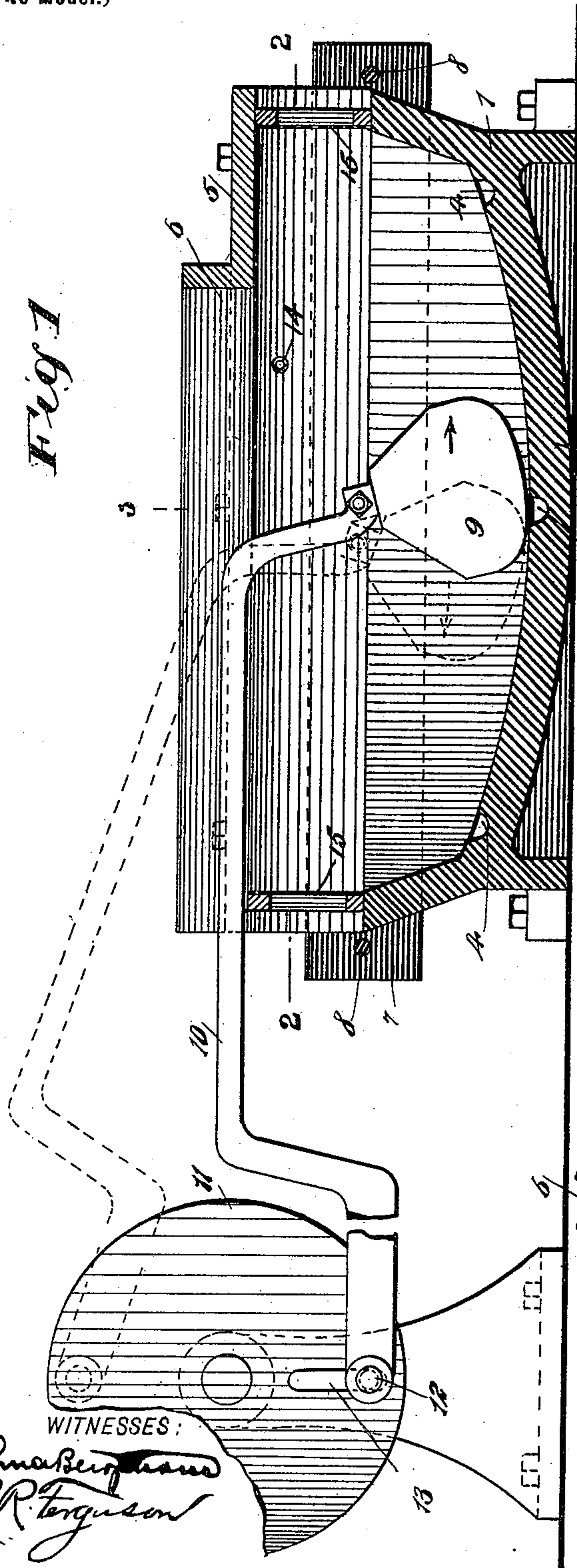


Fig 2

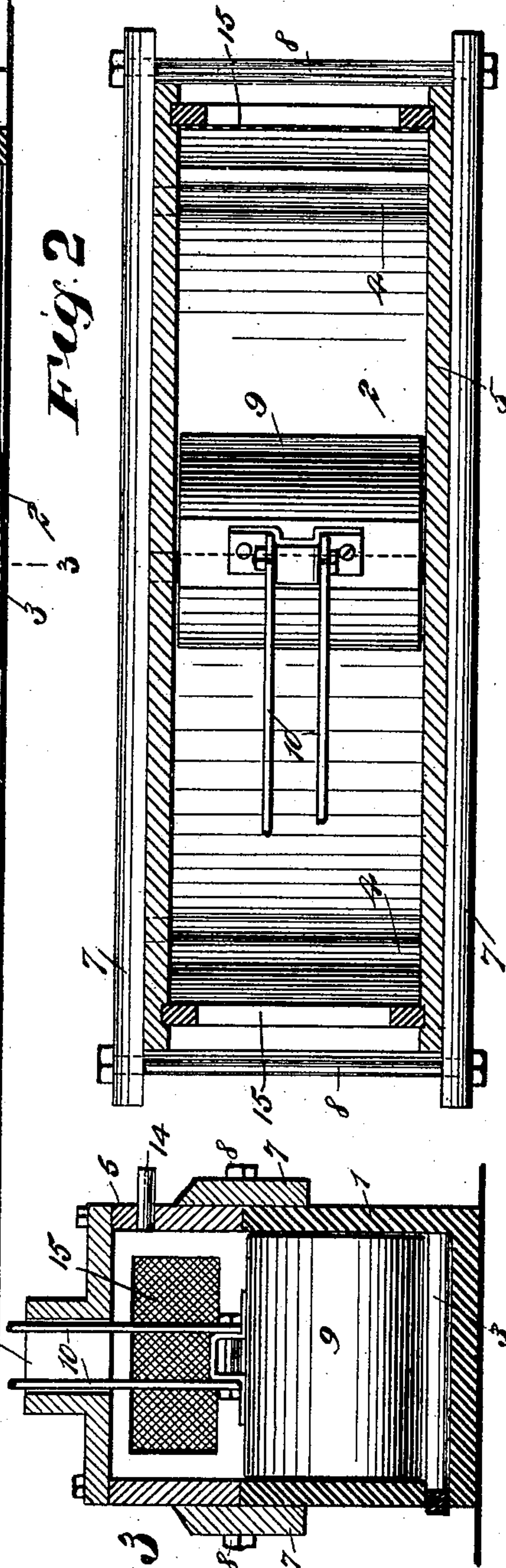


Fig 3

INVENTOR
Louis Jacques.
BY *[Signature]*
ATTORNEYS.

WITNESSES:

John Bergman
C. R. Ferguson

UNITED STATES PATENT OFFICE.

LOUIS JACQUES, OF TELLURIDE, COLORADO.

ORE CRUSHER AND AMALGAMATOR.

SPECIFICATION forming part of Letters Patent No. 658,648, dated September 25, 1900.

Application filed February 8, 1899. Serial No. 704,928. (No model.)

To all whom it may concern:

Be it known that I, LOUIS JACQUES, of Telluride, in the county of San Miguel and State of Colorado, have invented a new and Improved Ore Crusher and Amalgamator, of which the following is a full, clear, and exact description.

This invention relates to improvements in machines for crushing and amalgamating metallic ores; and the object is to provide a machine of this character that shall be simple and comparatively cheap of construction, which may be easily taken apart for transportation, thus making it particularly useful in mountainous mining districts, and by the use of which the ores may be quickly crushed or pulverized and the metal separated therefrom.

I will describe an ore crusher and amalgamator embodying my invention, and then point out the novel features in the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a vertical longitudinal section of a crusher and amalgamator embodying my invention. Fig. 2 is a section on the line 2 2 of Fig. 1, and Fig. 3 is a section on the line 3 3 of Fig. 1.

The machine comprises a mortar or tank 1 of any suitable material—such, for instance, as iron—and the bottom 2 of this mortar or tank is longitudinally concave. Extended across the center of the bottom is a mercury-pocket 3, and mercury-pockets 4 are extended across the ends thereof. Removably placed on the top of the mortar or tank is a boxing 5, having an opening 6 in its top, which extends nearly the entire length thereof. Secured to the sides of the boxing 5 are strips 7, which extend down over the sides of the mortar 1, and clamping-bolts 8 are passed through the ends of the strips 7 for the purpose of clamping them to the mortar.

Movable in the mortar or tank 1 is a stamp or muller 9, which is convex on its bottom,

and rigidly attached to its top is a pitman 10, which extends upward through the opening 6 and connects with a crank 11, to which motion may be imparted by any suitable means. This crank is shown in the form of a disk, and the wrist-pin 12 for the pitman 10 is adjustable in a slot 13 formed in the disk, so that the throw of the stamp or muller may be regulated.

It is obvious that by the operation of the crank 11 the stamp or muller will be reciprocated longitudinally of the mortar, and it will also have a sliding motion, so that as it approaches the end of the mortar the stamp or muller will be so tilted as to leave a space between its bottom and the ore on which it is operating, so that ore may be washed underneath the same by the water placed in the mortar or tank with the ore. The metal crushed and washed out of the ore will be gathered in the mercury-box with the mercury. The ore may be passed through the opening 6 or it may be placed in the mortar before the boxing is placed thereon. The water will flow continuously into the mortar through a suitable pipe 14, and the waste or light portions will pass out through the sieves 15 at the ends of the mortar.

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

An ore crusher and amalgamator, comprising a mortar, a muller movable in the mortar, means for imparting a sliding and rocking movement to the muller, a boxing having a longitudinal opening in its top and provided with upwardly-extending flanges at the sides of said opening, the said boxing being provided at each end with a screen, side strips on said boxing adapted to engage over the sides of the mortar, the ends of the strips projecting beyond the ends of the mortar and clamping-bolts passing through the projecting ends of said strips, substantially as specified.

LOUIS JACQUES.

Witnesses:

JAMES M. O'BRYAN,
JAMES A. STUART.