D. W. BRUNTON.

Revolving Ore-Roaster.

No. 215,877. Patented May 27, 1879.

Fig. 1.

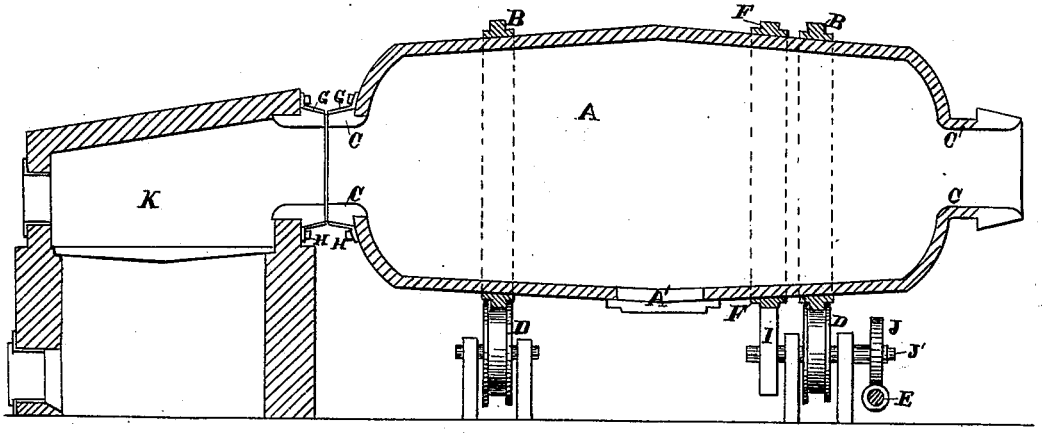
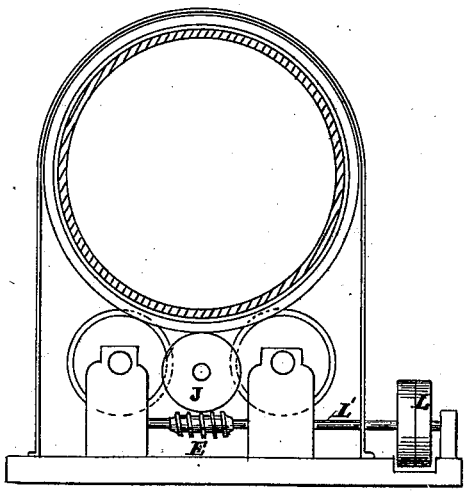


Fig. 2.



Witnesses

Geo. H. Strong.

Frank A. Brooks

Inventor

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Attys

UNITED STATES PATENT OFFICE.

DAVID W. BRUNTON, OF SILVER PEAK, NEVADA.

IMPROVEMENT IN REVOLVING ORE-ROASTERS.

Specification forming part of Letters Patent No. **215,877**, dated May 27, 1879; application filed September 23, 1878.

To all whom it may concern:

Be it known that I, DAVID W. BRUNTON, of Silver Peak, Esmeralda county, State of Nevada, have invented an Improvement in Ore-Roasting Furnaces; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to an improvement in rotary ore-furnaces; and it consists in a set of flanged conical rings in combination with and retaining the throat-lining.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a longitudinal section. Fig. 2 is a transverse section.

Let A represent a roasting-cylinder for roasting gold, silver, and copper ores. The internal diameter of this cylinder is greater at the center than it is at the two ends, as shown. The discharging-door A′ is situated in the center or broadest part of the furnace.

The cylinder is intended to revolve, and for this purpose the traveling rings B are secured on the outer surface of the cylinder, and rest on the truck-wheels D, on which the cylinder revolves.

To give the cylinder motion, power is applied to the pulley L on the shaft L′, which thus revolves the actuating-screw E on the same shaft. This actuating-screw meshes with the worm-wheel J on the shaft J′, and as the screw-wheel I is on said shaft J′ it is also revolved. This spur-wheel I engages with the cogs on the gear-wheel F on the outside of the cylinder, the cylinder thus being rotated.

C C are self-keyed fire-brick, held in place by the wedge-shaped rings or clamps G G, which are in turn held in place by the set-screws H H. To remove the throat-brick, the set-screws may be unscrewed and the rings G G removed, when the bricks may be separately removed. While the rings G G are in position it is impossible for the throat-lining to get out of place.

I am aware that rotary ore-roasting furnaces have heretofore been made with their greatest diameters at their longitudinal center, and hence I do not claim any such furnace.

Heretofore one of the greatest difficulties in operating cylinders has been to keep the throat-lining in position.

With the arrangement shown in the drawings and herein described, it is impossible for a brick to get out of place. The wedge-shaped cast-iron ring is held in place by the set-screws, and is put in after the throat-brick are in place.

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

The flanged conical retaining-rings G G, in combination with the throat-lining C C, for retaining it in position, as set forth.

In witness whereof I have hereunto set my hand this 20th day of August, 1878.

DAVID W. BRUNTON.

Witnesses:
PH. TRAVER,
FRED. CONN.