# R. GIDLEY.

## Ore-Washers.

No. 148,442. Patented March 10, 1874.

*Fig. 1*

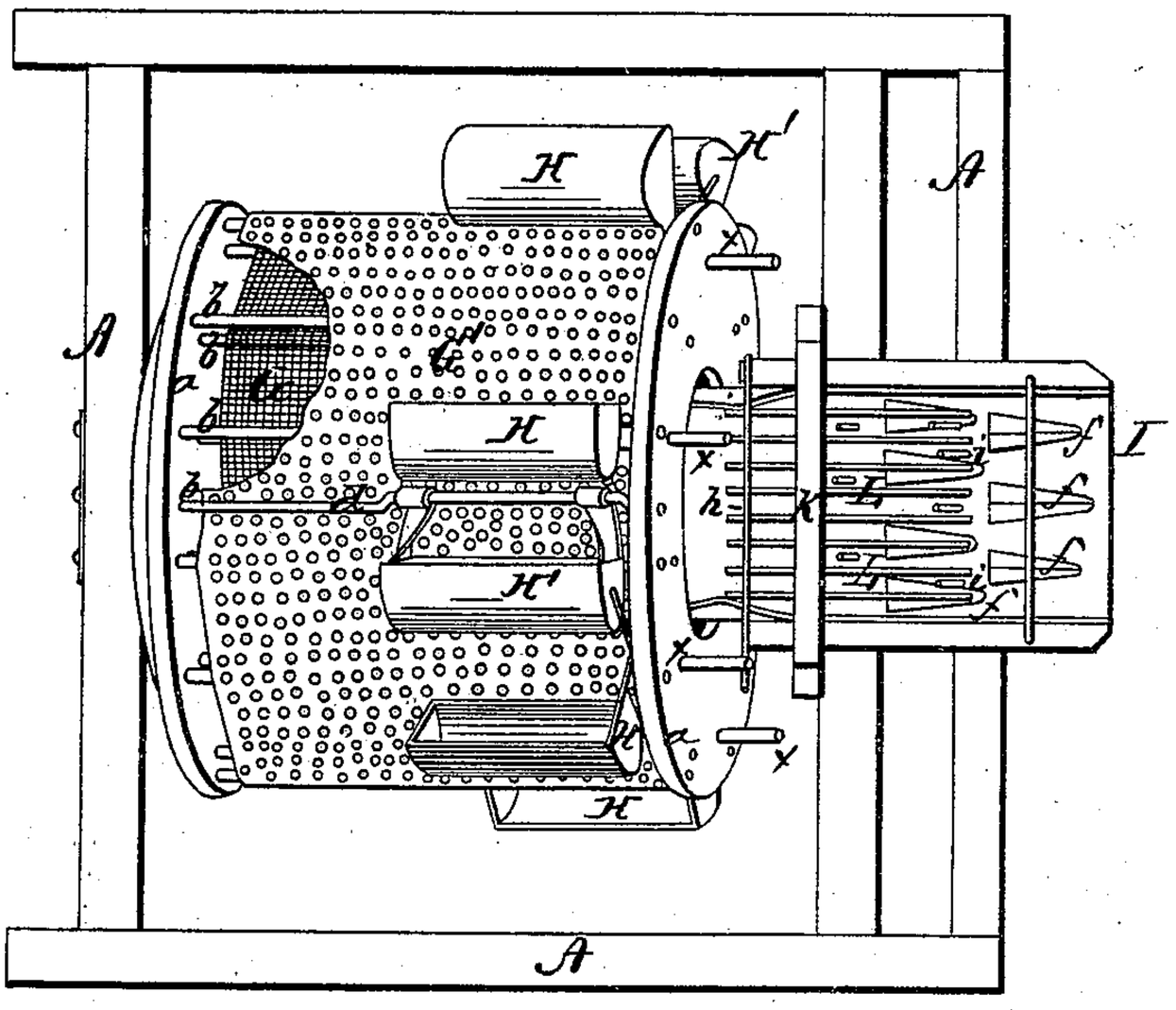


*Fig. 2.*

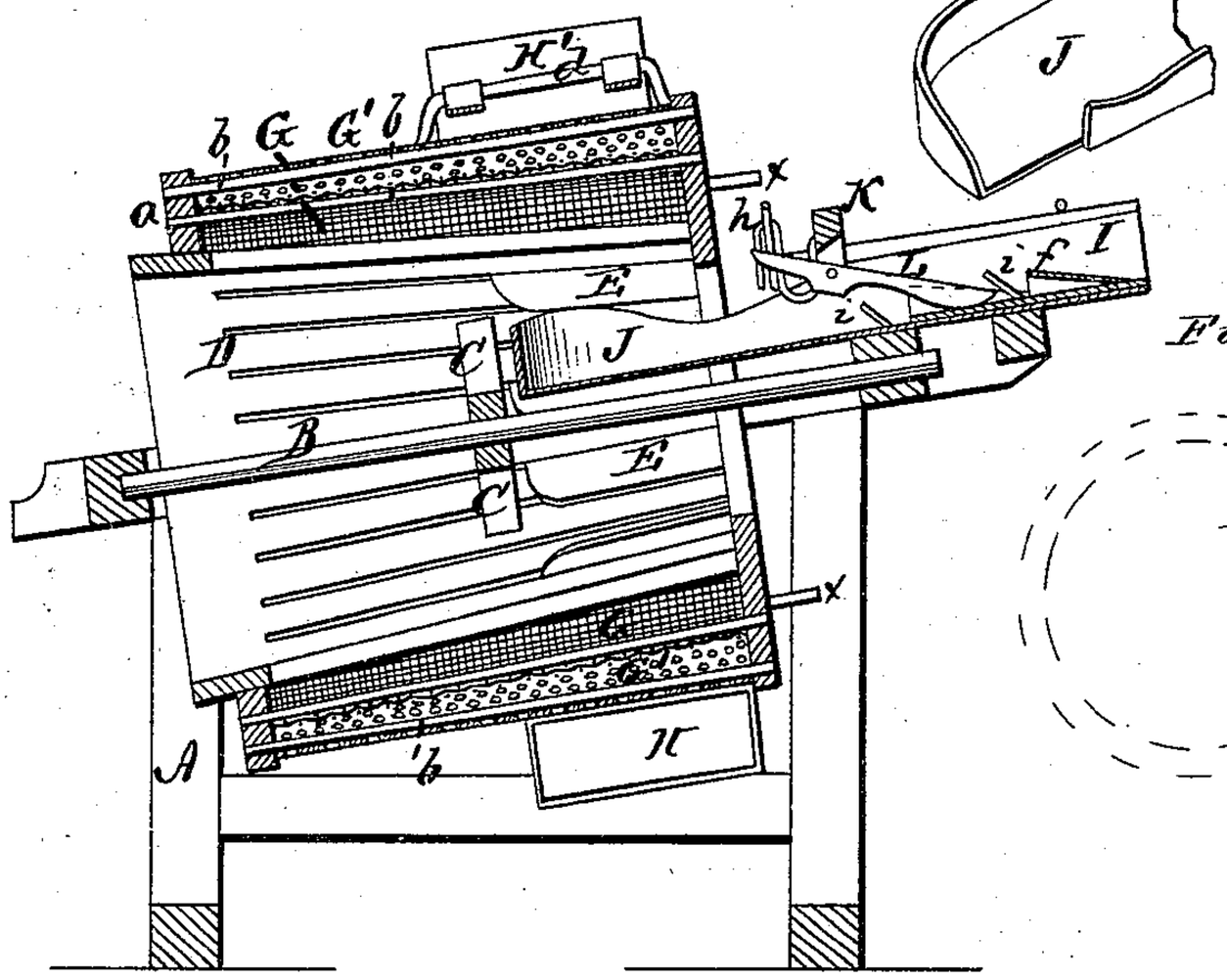


*Fig. 3.*




*WITNESSES*

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# UNITED STATES PATENT OFFICE.

ROBERT GIDLEY, OF MOORE'S MILL, NEW YORK.

## IMPROVEMENT IN ORE-WASHERS.

Specification forming part of Letters Patent No. **148,442**, dated March 10, 1874; application filed September 13, 1873.

*To all whom it may concern:*

Be it known that I, ROBERT GIDLEY, of Moore's Mill, in the county of Dutchess and in the State of New York, have invented certain new and useful Improvements in Ore-Screening Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for screening ores, to be attached to a curb or sluice, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view, and Fig. 2 a longitudinal vertical section, of my machine. Fig. 3 is a transverse section of the cylinder.

A represents the frame-work, constructed in any suitable manner to contain the working parts of my machine. B is a shaft, placed in an inclined position, and revolving in suitable boxes on the frame A. Upon this shaft are secured arms C C, which support a tapering slotted cylinder, D, arranged with the smaller end upward, as shown in Fig. 2. At or near each end of the cylinder is an exterior circumferential flange, *a*, through which two flanges pass two series of rods, *b b*. Around the inner series is stretched a wire-cloth screen, G, and around the outer series a screen, G′, formed of perforated sheet metal. Around the interior of the cylinder D, at the upper or narrower end, is a series of stationary buckets, E E; and around the outside of the outer screen G′ are a number of buckets, H H′, some of which, H H, are made stationary, and others, H′, made to swing upon rods *d*. I represents a part of the curb or sluice, through which the ore and water pass into the cylinder, said sluice being provided with an inclined and curved spout, J, so as to deliver the ore and water to one side, and at the upper end of the cylinder D.

The ore is received by the interior buckets E E, and the water passes through the slots in the cylinder D, and, through the screens G G′, into the exterior buckets H H′, all upon one side of the machine, thus causing the machine to revolve automatically for screening the ore; or, in other words, forming a self-acting ore-screening machine.

In the curb or sluice I are arranged ribs *f f* and pins *i i*, to change the motion of the water, so as to allow the beaters L L to wash the ore more than they could if the water ran straight. The beaters L L are pivoted in a cross-bar, K, above the mouth of the sluice, and on top of their front ends is laid a rod or lever, *h*, which is pivoted at one end, and the other end operated upon by pins *x x*, projecting from the upper end of the cylinder.

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

1. The combination, with an ore-screening machine D G G′, of the interior buckets E E and the exterior buckets H H′, substantially as and for the purposes herein set forth.

2. The combination of the ribs *f f* and pins *i i* in the sluice I, and the beaters L L, operated by means of the rod or lever *h* and pins *x x*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of September, 1873.

ROBERT GIDLEY.

Witnesses:

JONATHAN GIDLEY,

CHARLES C. WAIT.