

D. L. GORMAN.

Improvement in Hydraulic-Derricks.

No. 130,367.

Patented Aug. 13, 1872.

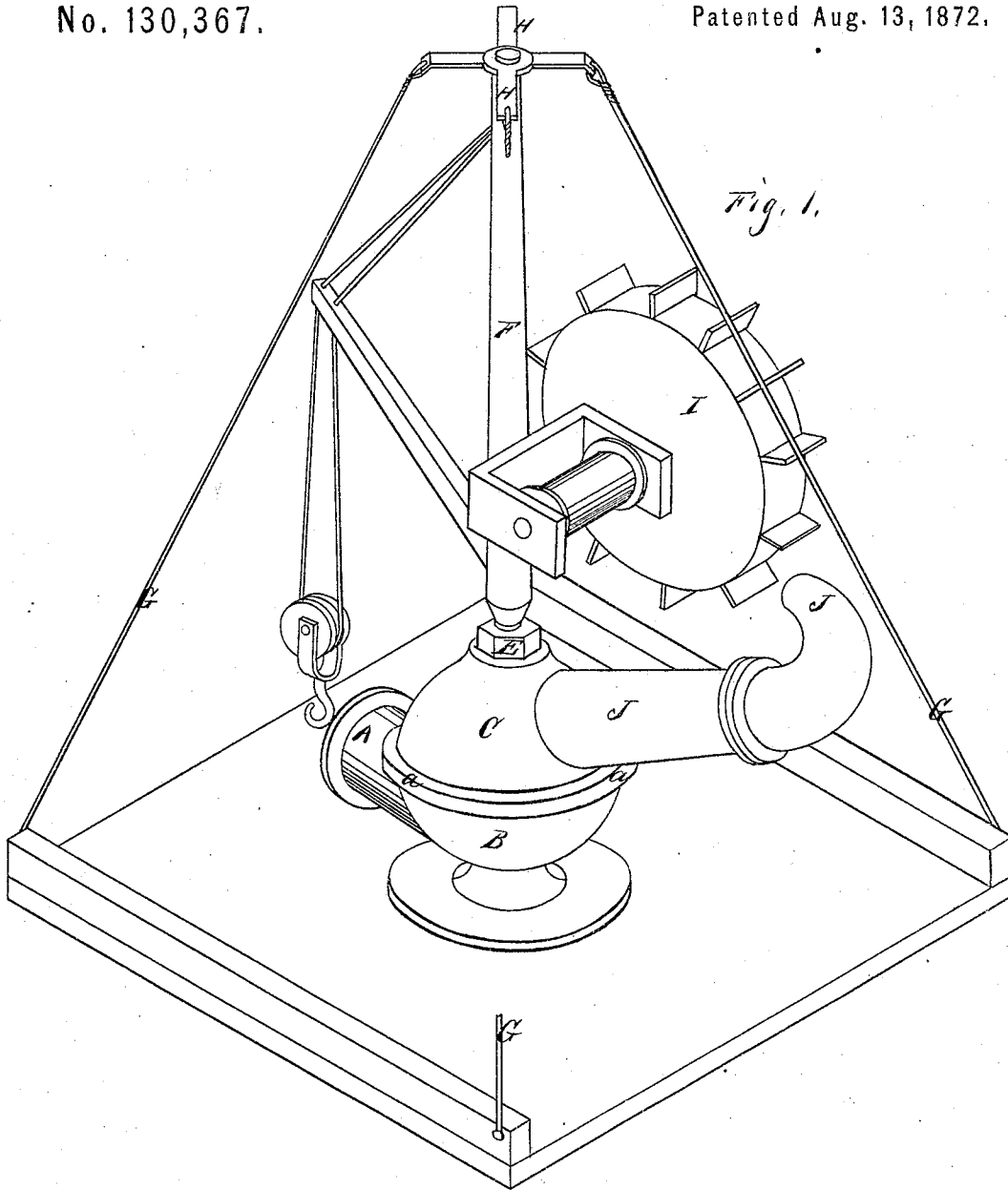
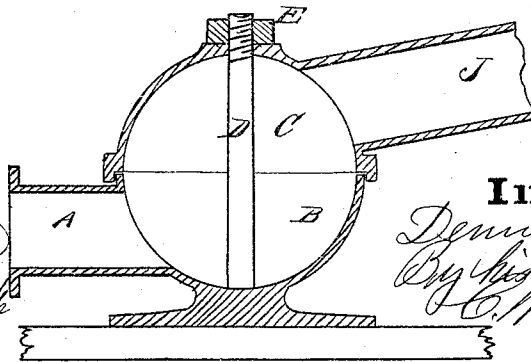


Fig. 1.

Fig. 2.



Witnesses

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Inventor

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By his atty
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UNITED STATES PATENT OFFICE.

DENNIS L. GORMAN, OF MICHIGAN BLUFF, CALIFORNIA.

IMPROVEMENT IN HYDRAULIC DERRICKS.

Specification forming part of Letters Patent No. 130,367, dated August 13, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, DENNIS LEWIS GORMAN, of Michigan Bluff, in the county of Placer and State of California, have invented a new and useful Derrick-Machine; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The object of my invention is to provide an improvement in derricks, more especially intended for use where there is a head of water, as in what are known as hydraulic diggings; and it consists in so constructing a derrick and its attachment that the force of the water is employed to raise the weights.

The derrick is mounted upon a globe, out of which projects a pipe, which furnishes the motive-power; and by thus mounting it the whole machine can be turned in any direction without deranging the driving power.

Referring to the accompanying drawing for a more complete explanation of my invention, Figure 1 is a perspective view. Fig. 2 is a vertical section of the globe.

A is a pipe or hose, bringing water from an elevation, and discharging it into the lower part of the globe. This globe is composed of two parts, B and C. The lower part B is secured so as to be stationary. The upper part C is made with a flange, *a*, fitting over the part B at their junction, so as to prevent the escape of water. The two parts have a post, D, which is fastened at the bottom, and extends up through the top of the part C, where it has a strong nut, E. This nut takes the place of nuts and bolts at the rim, which is

the ordinary mode of fastening, and while holding the parts together it allows the upper part to be turned independently of the lower, for a purpose hereinafter described. The mast F of the derrick is set or stepped on top of the post D, and has guy or bracing ropes G, extending from the cross H, in which its top turns, so as to steady it.

In construction the derrick itself does not differ materially from others of this class.

The power for elevating rocks and other loads is attained by extending the shaft of the driving-gear sufficiently outside the frame to allow a water-wheel, I, to be attached. This may be a hurdy-gurdy wheel or other form, or a centrifugal or Barker's mill may be used. In either case the water is supplied by a pipe, J, which opens into the upper part C of the globe, and is bent around at the nozzle-end, as shown, so as to drive the wheel. By this arrangement I am enabled to utilize the power of the water in raising and moving rocks and other loads to any point within reach of the derrick.

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

The machine described, consisting essentially of the globe with its pipe, the mast, and water-wheel, the mast and wheel being supported upon the globe in such manner as to revolve with it, as described.

In witness whereof I have hereunto set my hand.

D. L. GORMAN.

Witnesses:

GEO. H. STRONG,
JOHN L. SMITH.