

J. Cady,
Drilling Stone.

No. 91,911.

Fig. 1

Patented June 29, 1869.

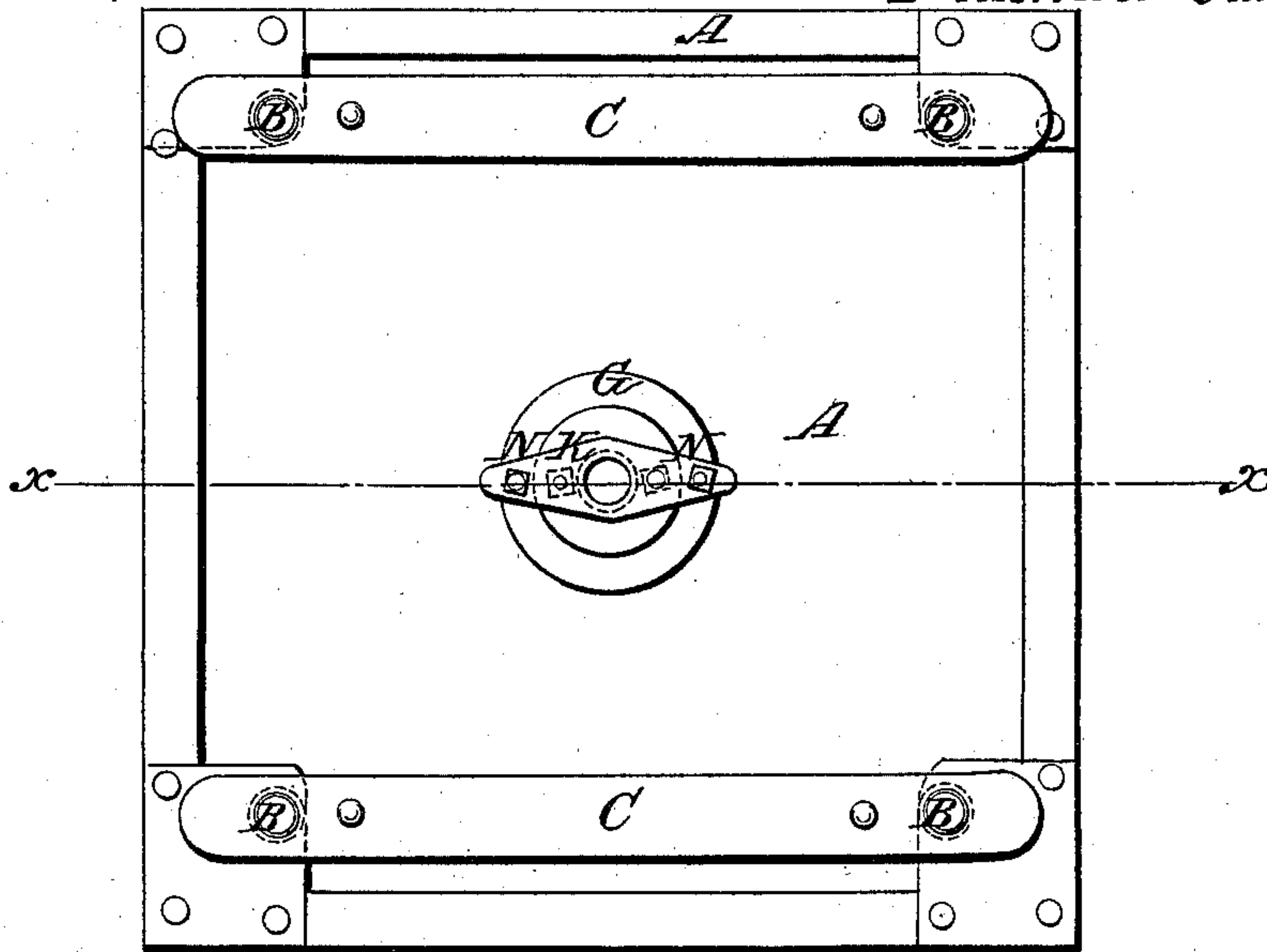
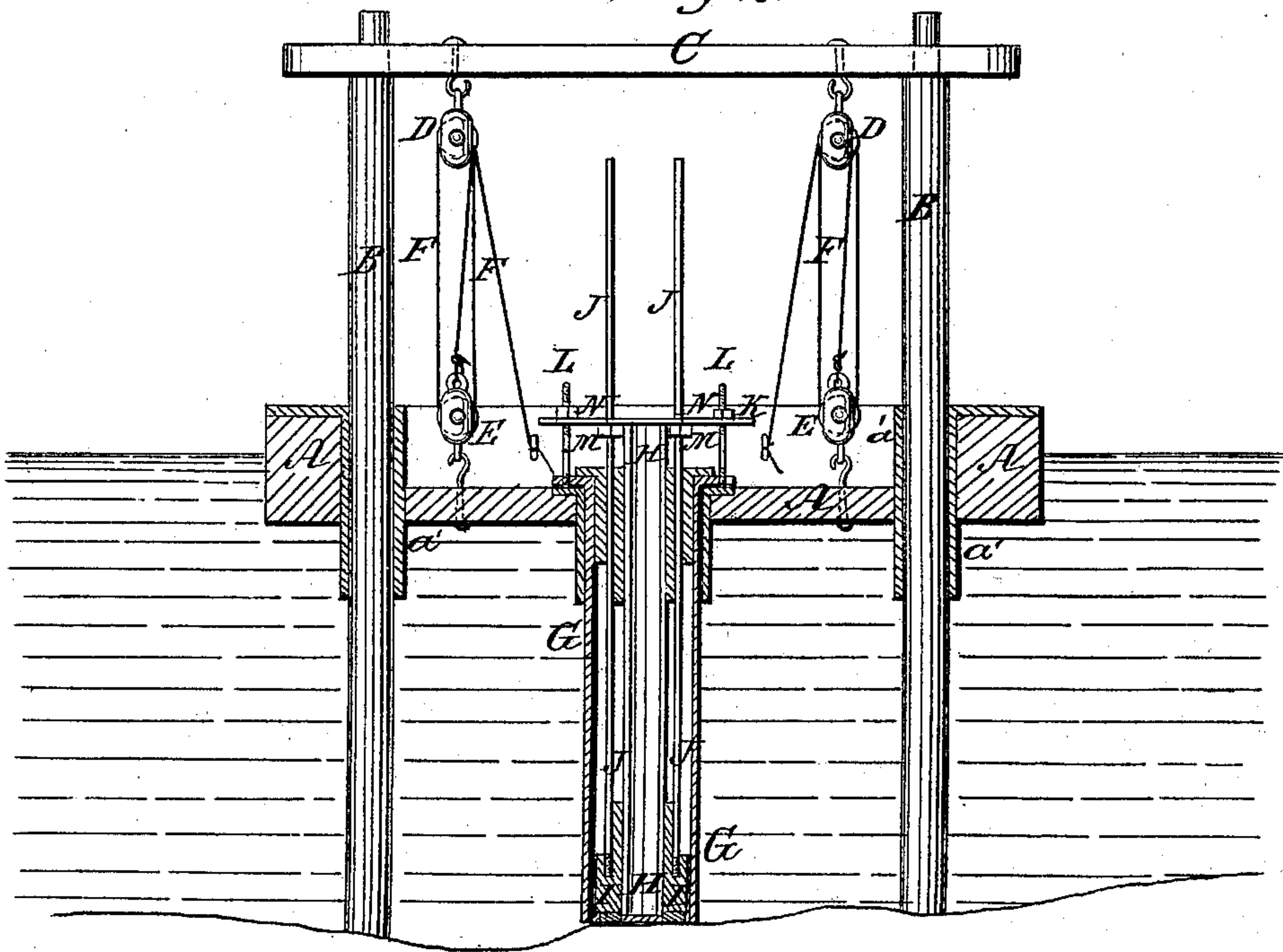


Fig. 2.



Witnesses.

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JOHN CODY, OF NEW YORK, N. Y.

Letters Patent No. 91,911, dated June 29, 1869.

IMPROVED PLATFORM FOR SUBMARINE DRILLING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN CODY, of the city, county, and State of New York, have invented a new and improved Platform for Submarine Drilling; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top view of my improved platform.

Figure 2 is a detail sectional view of the same, taken through the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved adjustable platform, designed especially for use in submarine drilling, but which may be used with equal advantage for other purposes, and which shall be so constructed that it may be readily adjusted, as required; and

It consists in the construction and combination of the various parts of the apparatus, as hereinafter more fully described.

A represents the platform, which is made water-tight, and in the form of a scow, so that it may be conveniently floated over the place where the drilling is to be done.

In each corner of the scow, or platform A is formed a hole, into which is fitted, water-tight, a tube, *a*, projecting up so far above the water-line, that the water cannot flow through them into the scow A.

B are poles, which are let down through the tubes *a*, and which are of such a length as to reach to the bottom, where the drilling is to be done, and extend to a sufficient height above the scow A.

Upon the upper ends of the poles B are formed tenons, which enter holes in the ends of the cross-beams C, as shown in figs. 1 and 2.

The cross-beams C may be replaced by chains or ropes, as may be most convenient, as they must adjust themselves to the different heights of the upper ends of the posts B, caused by the unevenness of the bottom, upon which their lower ends rest.

To the cross-beams C, near the poles B, are attached pulley-sheaves D, and to the scow, or platform A, directly beneath them, are attached other sheaves E, as shown in figs. 1 and 2.

F are the ropes which pass around the pulleys of the sheaves D and E, and the ends of which are attached to a windlass or to belaying-cleats.

By this construction, by drawing upon the ropes F, the scow, or platform may be raised out of the water, or to such a height that it will be unaffected by the rise and fall of the water.

The ropes F may all be connected to the same windlass, or each rope may have a separate windlass, or the said ropes may be operated by hand, as may be desired.

In the bottom of the platform A are formed one or more holes, which, when not in use, should be closed water-tight by caps or other conveniently detachable means. Through the said hole is passed a tube, G, reaching to the bottom or rock, to be drilled and which should be made in sections, so that its length may be adjusted as required.

Within the tube G is placed a smaller tube, H, closed at its lower end with a cap, which should also be made in sections, and which should also extend to the bottom.

The upper end of the tube G should be flanged, so that it may be securely bolted to the platform A. Between the tubes G and H is placed a quantity of packing, which is forced down to the bottom of the tubes G and H, and pressed firmly against the bottom, so as to entirely exclude the water by means of the ring-packing piston I.

The piston I is provided with two piston-rods, J, extending up through the space between the tubes G and H.

The upper ends of the rods J and of the tube H may be kept in position by a guide-block, having holes for the passage of the said rods and tube, which is dropped into the mouth of the tube G, and which is kept from dropping down too far by a flange formed upon its upper end.

K is a strong cross-bar, through holes in which the piston-rods J pass, and which has a hole in its centre corresponding with the bore of the tube H.

L are bolts, the heads of which are securely connected with the platform A, and which pass up through holes in the ends of the cross-bar K.

The cross-bar K rests upon adjustable collars M, secured to the piston-rods J, by set-screws or other convenient means.

Upon the bolts L, above the cross-bar K, are placed nuts N, so that by turning down the said nuts, the cross-bar K, pressing upon the collars M, will force the packing closely against the rock.

A drill may then be inserted and worked in the tube H, unimpeded by the water.

I claim as new, and desire to secure by Letters Patent—

The combination of the exterior tube G, interior tube H, ring-packing piston I, piston-rods J, adjustable collars M, cross-bar K, bolts L, and nuts N, with each other, said parts being constructed and arranged substantially as herein shown and described, and for the purposes set forth.

The above specification of my invention, signed by me, this 17th day of March, 1869.

JOHN CODY.

Witnesses:

FRANK BLOCKLEY,
JAMES T. GRAHAM.