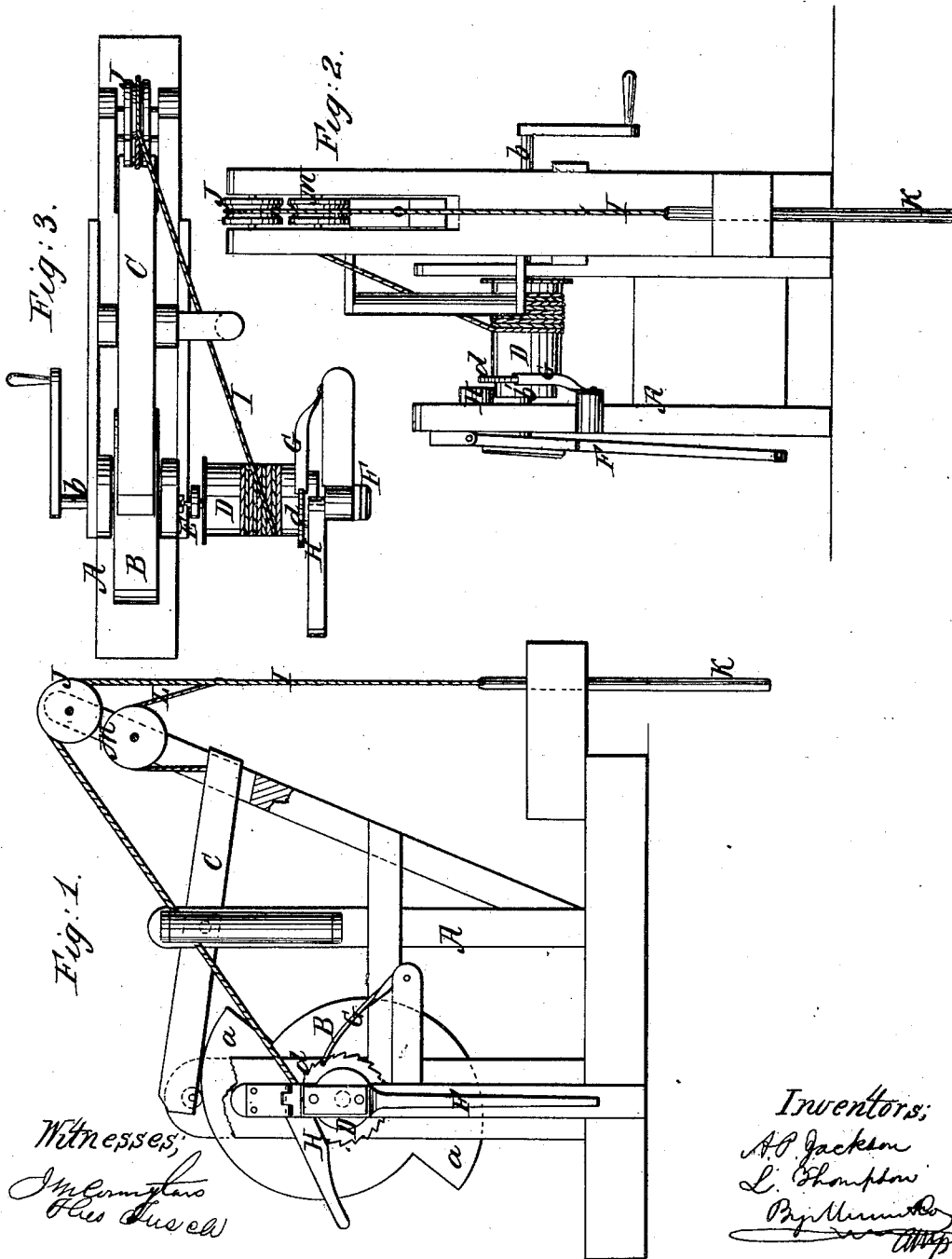


A. P. JACKSON & L. THOMPSON.  
DRILLING MACHINE.

No. 51,189.

Patented Nov. 28, 1865.



Inventors;  
A. P. Jackson  
L. Thompson  
By Wm. H. H. H. H.

# UNITED STATES PATENT OFFICE.

ANDREW P. JACKSON AND LEANDER THOMPSON, OF MEMPHIS, INDIANA.

## IMPROVED DRILLING-MACHINE.

Specification forming part of Letters Patent No. 51,189, dated November 28, 1865.

*To all whom it may concern:*

Be it known that we, ANDREW P. JACKSON and LEANDER THOMPSON, of Memphis, in the county of Clark and State of Indiana, have invented a new and Improved Drilling-Machine; and we 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 drawing, forming part of this specification, in which—

Figure 1 is a side view of our machine, partly in section; Fig. 2, a front view of the same; Fig. 3, a plan or top view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved drilling-machine designed for general use, but more especially for boring deep wells.

The invention consists in a new and improved means employed for operating the drill and for raising the same out of the well when required.

A represents a framing, which may be constructed in any proper manner to support the working parts, and B is a cam fitted in said framing, and provided with two prominent surfaces, *a a*, as shown clearly in Fig. 1.

C is a lever fitted in the framing A, against one end of which the cam B works.

D is a windlass, which is placed in the framing A in line with the shaft *b* of the cam B. The shaft *b* of this windlass is allowed to slide in its bearings, and one end of it is connected to the end of the shaft *b* of the cam B by means of a clutch, E, which is connected and disconnected by moving the windlass D laterally through the medium of a lever, F.

G is a pawl, which engages with a ratchet, *a*, on the windlass; and H is a brake, which is simply a lever applied in such a manner as to admit of being pressed upon the windlass near one end of it as occasion may require.

I is a rope, which passes around the windlass D and over a pulley, J, at one end of the framing, said rope having a drill, K, attached to its lower end; and L is a rope, which is attached to the outer end of the lever C, passes over a pulley, M, and is connected to the drill-rope I, as shown clearly in Fig. 1.

From the above description it will be seen that as the cam B is rotated the lever C will be operated and an up-and-down motion given the drill K, the rope I of the windlass being let out from time to time and the rope L slipped or adjusted on rope I from time to time, as the rapidity of the work of the drill may require. The drill is drawn out from the bore by connecting the windlass D with the shaft of the cam B and rotating the cam, and the drill may be let down to its work with the requisite speed by means of the brake H, which controls the motion of the windlass.

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

1. The cam B and lever C, in combination with the windlass D, all being arranged, in connection with the ropes I L and drill K, to operate in the manner substantially as and for the purpose set forth.

2. Connecting and disconnecting the windlass with the shaft of the cam by means of a clutch, so as to admit of the windlass being turned to raise the drill through the medium of the cam-shaft.

The above specification of our invention, signed by us this 22d day of June, 1865.

ANDREW P. JACKSON.  
LEANDER THOMPSON.

Witnesses:

JOHN D. COOMBS,  
THOMPSON M. HOSEA.