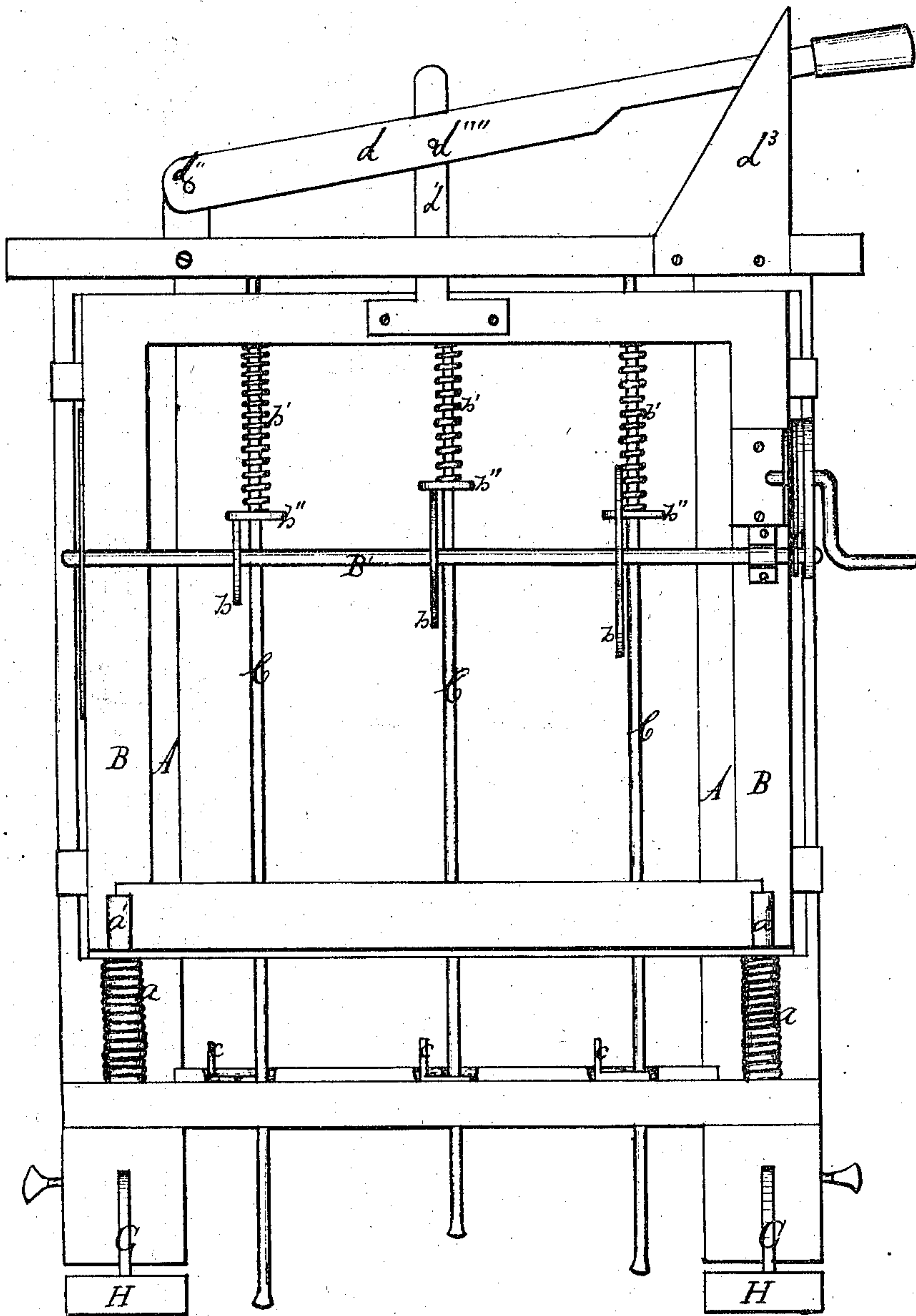


*J. Hart,*  
*Rock Drill.*

No. 100,756.

*Patented Mar. 15. 1870.*



Witnesses.  
C. O. Brown  
M. E. Stiles.

Jacob Hart Inventor, by  
Geo. E. Brown  
Atty.

# United States Patent Office.

JACOB HART, OF SAVANNAH, MISSOURI.

*Letters Patent No. 100,756, dated March 15, 1870.*

## IMPROVEMENT IN ROCK-DRILLING MACHINES.

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, JACOB HART, of Savannah, in the State of Missouri, have invented a new and useful Improvement in Rock-Drills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and letters of reference marked thereon making a part of this specification, in which—

Figure 1 is a front elevation.

This invention consists in the interposition of springs, placed around upwardly-projecting rods, between the foot-piece of the sliding sash and a cross-bar of the main frame, for the purpose of rendering support in sustaining the sliding sash, and assistance in raising it after it has been once lowered.

To enable those skilled in the art to make and use my invention, I now proceed to describe its construction and operation.

Similar letters in the drawings refer to like parts.

A is the frame, and

H H, the foot-blocks, to which the frame is jointed, the inclination of the former to the latter being controlled by semicircular arms G and set screws, in a common and well-known manner.

The frame A bears, on its front side, in suitable

guide-ways, a sliding sash, B, which supports the cam-shaft B'.

C C, &c., are the drills, passing through the upper and lower cross-bars of the sash and frame, and operated by the cams *b* and springs *b'*, bearing on the collars *b''* in the usual way.

The sash rests on springs *a* placed around rods *a'*, projecting upward from the foot-piece of the frame A.

The same foot-piece is furnished with clamps *c*, one to each drill, sliding horizontally in suitable guide-ways, and used for rendering the drills inoperative at pleasure.

The sash is connected by a bar, *d'*, with a lever, *d*, whose fulcrum is at *d''* on the top of the frame A, and whose office is to lower the sash, so as to compress the springs *b'*, and cause them to act with greater force on the drills.

A rack, *d<sup>3</sup>*, retains the lever *d* in the place to which it is lowered.

What I claim as my invention is—

The combination of the frame A, sash B, rods *a'*, and springs *a*, in the manner and for the purpose explained.

Witnesses:

JACOB HART.

ABRAM DOBBS,  
R. S. EDWARDS.