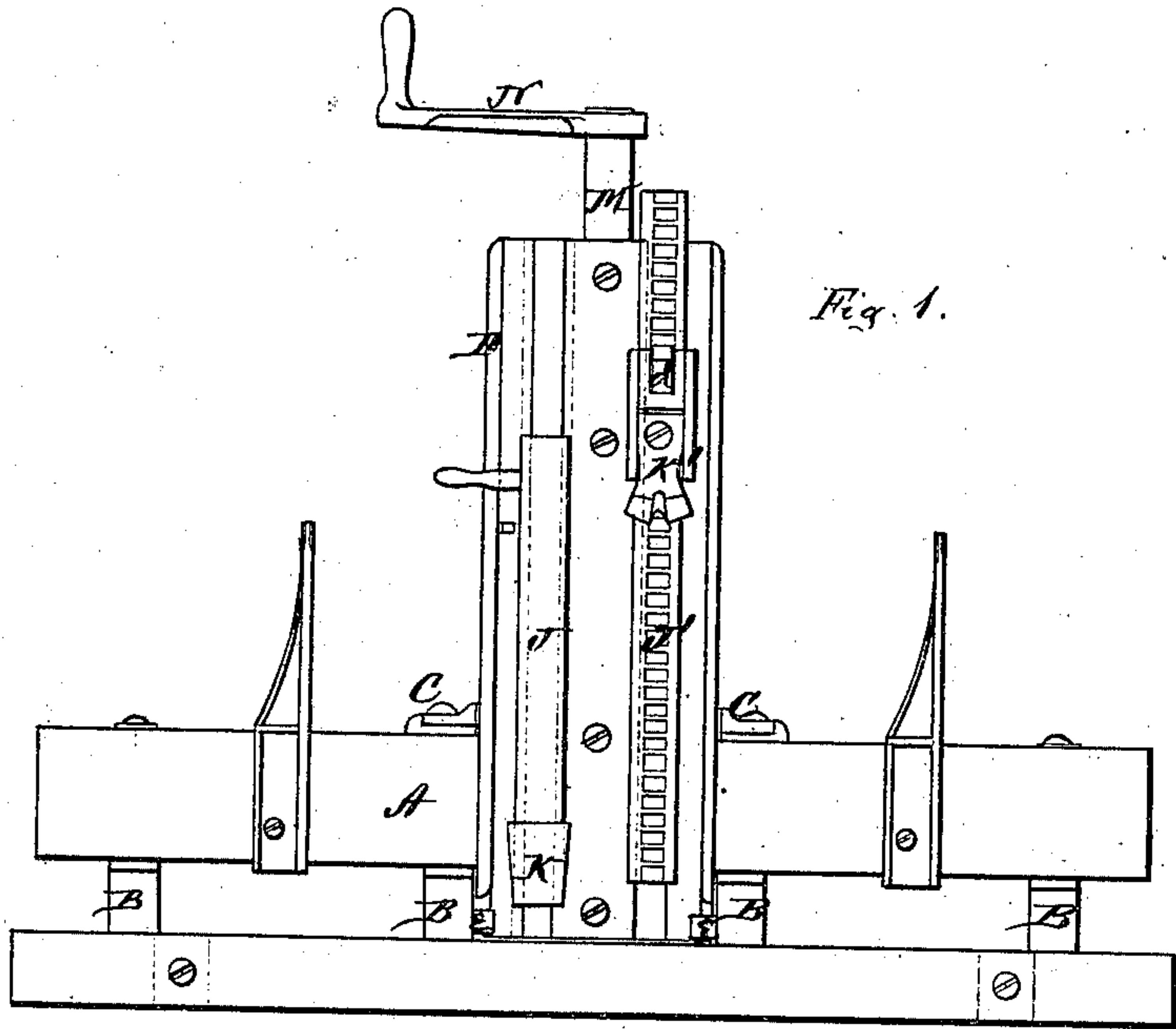


*J.S. Brown,*

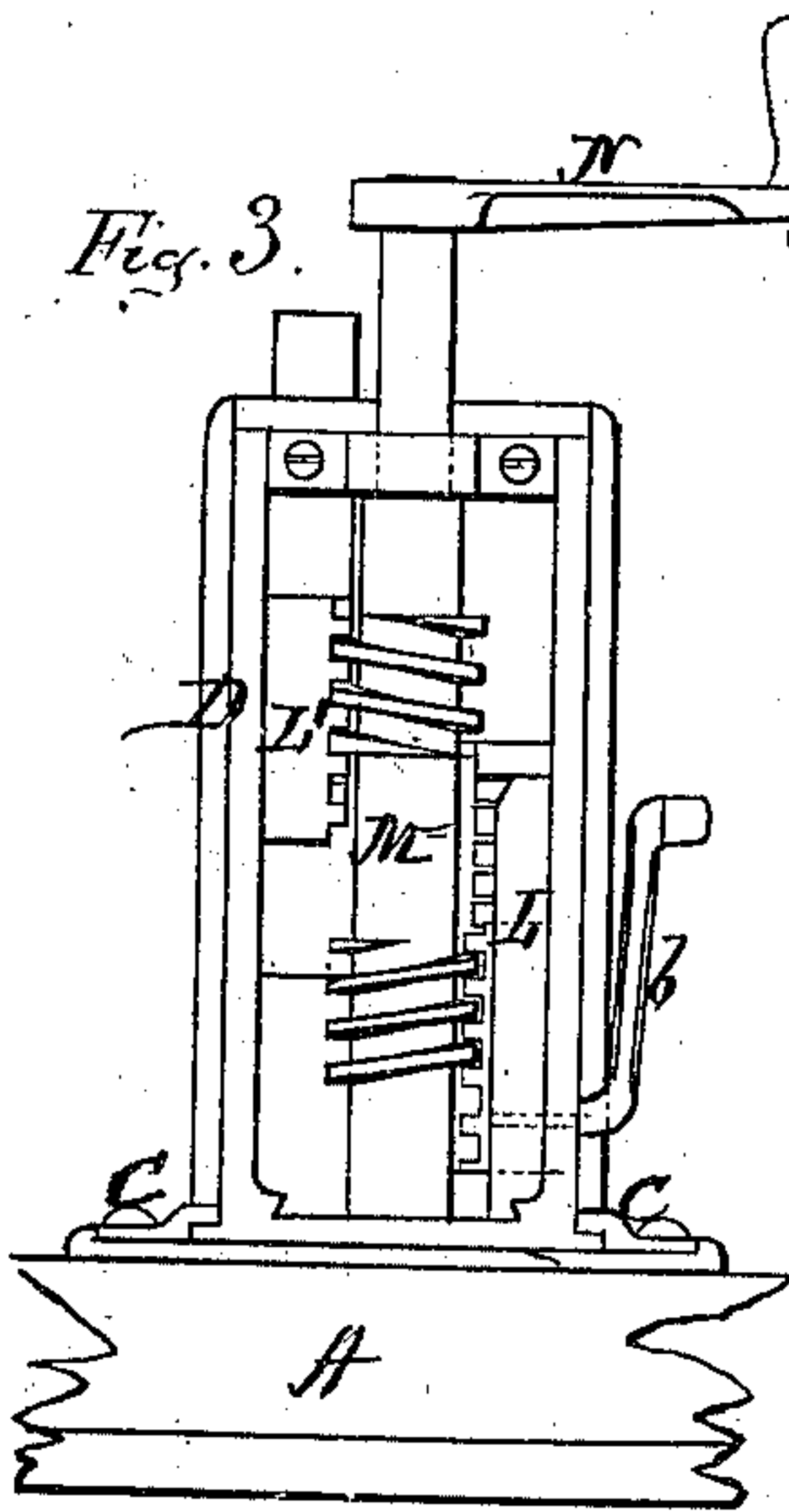
*Head Block.*

*No. 106655.*

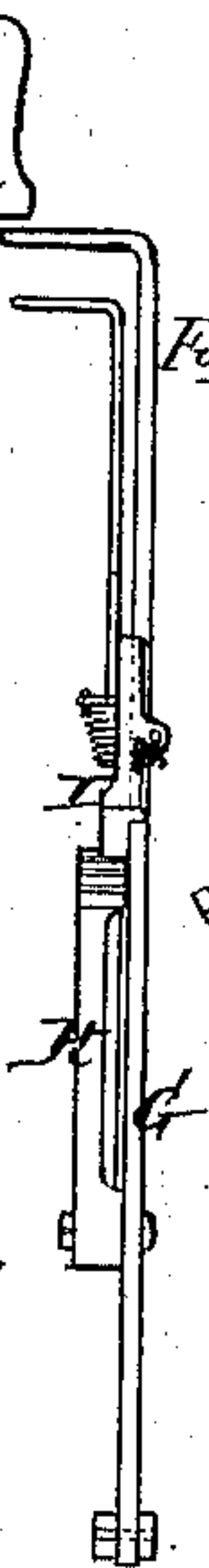
*Patented Aug 23. 1870.*



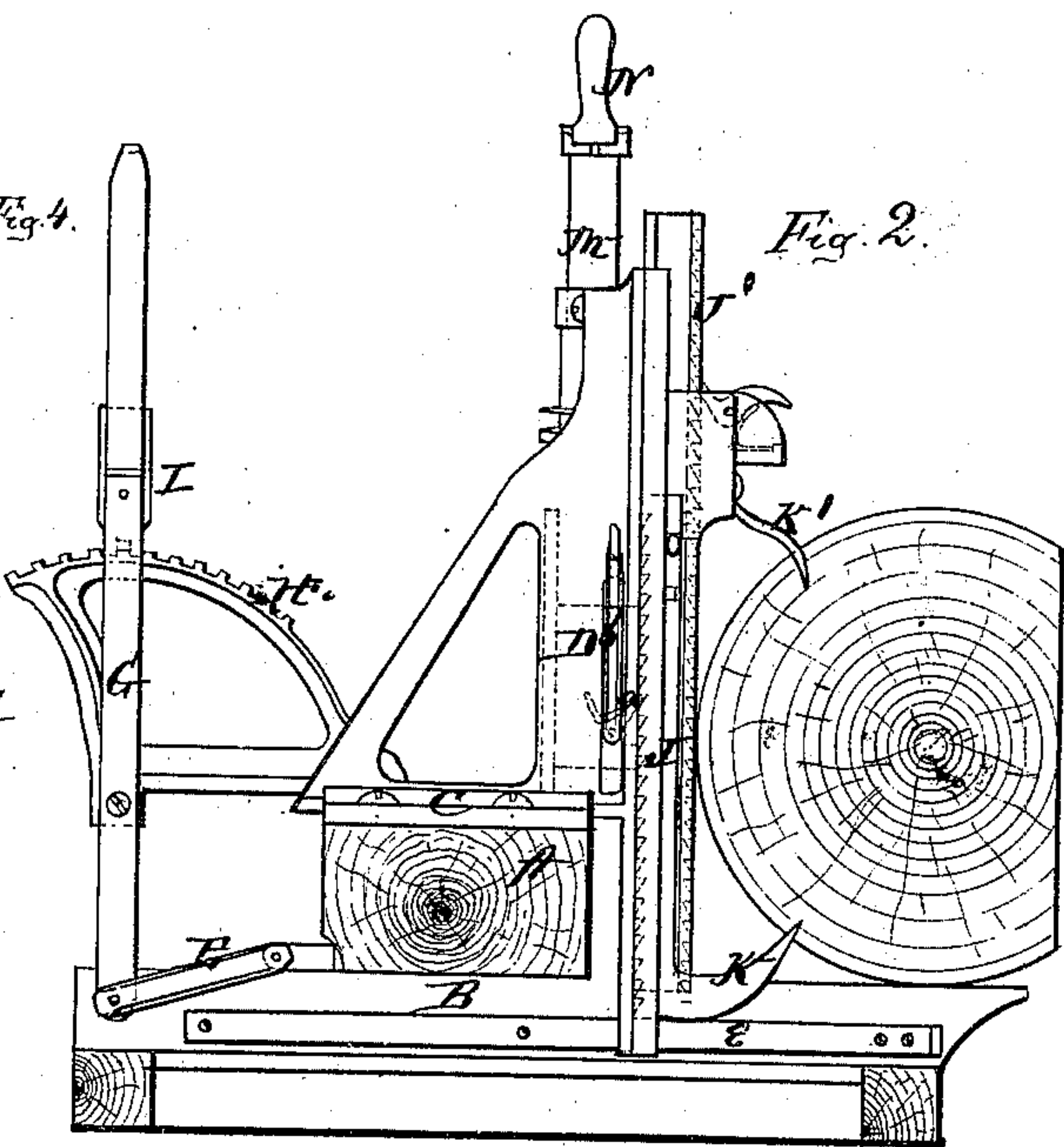
*Fig. 1.*



*Fig. 3.*



*Fig. 4.*



*Fig. 2.*

*Witnesses:*

*Chas Jacobs*  
*J. V. White*

*Inventor:*

*John S. Brown*

*For*  
*J. H. Alexander*  
*Atty.*



# UNITED STATES PATENT OFFICE.

JOHN S. BROWN, OF SEABROOK, NEW HAMPSHIRE.

## IMPROVEMENT IN SAW-MILL DOGS.

Specification forming part of Letters Patent No. **106,655**, dated August 23, 1870.

*To all whom it may concern:*

Be it known that I, JOHN S. BROWN, of Seabrook, in the county of Rockingham and State of New Hampshire, have invented certain new and useful Improvements in Saw-Mill Dogs; and I 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, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a dog for holding logs or any other kind of lumber on a circular-saw carriage while being sawed, as will be hereinafter 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 drawings, in which—

Figure 1 is a front view, and Fig. 2 a transverse vertical section, of my machine. Fig. 3 is a rear view of the dog, and Fig. 4 is a side view of the mechanism by means of which the dog is moved forward and backward.

A represents the beam of a circular-saw carriage, which moves forward on the cross-bars B B to set the log. On this beam A are secured guides C C, between which the T-shaped stand or casting D moves or is moved back and forth by the following means.

To the rear side of the beam A are pivoted two bars, E, between the outer ends of which is pivoted a lever, G. At a suitable point on this lever is pivoted a segmental rack, H, at its center, one end of said rack being secured to the rear end of the stand D.

At the upper end of the lever G is attached a double spring-pawl, I, which engages with the rack H and holds the stand at any point desired.

The front side of the stand D is provided with two vertical T-shaped grooves running the entire length of the stand, in which grooves are placed two sliding bars, J J'. The bar J is at its lower end provided with a dog, K, which is curved upward, as shown in Fig. 2. The entire rear side of the bar J is provided with downward-projecting ratchet-teeth which catch on a tooth, *a*, said tooth being placed within a block, L, on a lever, *b*, projecting through the side of the stand D.

The block L is on the rear side of the stand,

and the tooth *a* projects forward through a vertical slot in the groove on the stand, in which the bar J is placed. By the use of the lever *b* the tooth *a* may be thrown back, so that the bar J, with its dog K, may be moved up or down at pleasure.

The bar J' is upon its entire front surface provided with downward-projecting ratchet-teeth, and a downwardly-curved dog, K', slides upon said bar, and is held at any height desired by means of a spring-pawl, *d*, engaging in said ratchet-teeth. On the rear side of the bar J' is a block, L', extending toward the rear through another vertical slot in the stand D.

The inner sides of the blocks L L' are provided with cogs, as shown in Fig. 3, and right and left hand screw-threads upon a vertical shaft, M, engage with the cogs on said blocks, so that when said shaft is turned in one direction by means of the crank N on its upper end the dogs K K' will move apart, and when turned in the opposite direction they will move toward each other.

Upon the inner sides of the center cross-bars, B B, are rails or guides *e e*, to hold the stand D in its proper position when thrown forward from the beam A.

The log is placed in proper position, and by means of the lever G the dog is moved forward so as to nip onto the log as much as desired. Then raise the lower dog, K, up to the log and push the upper dog, K', down to it. Then give the crank N a turn or so, and the log is fast. To loosen the log reverse these motions.

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

1. The combination of the sliding bar J, dog K, tooth *a*, lever *b*, and block L, constructed and arranged substantially as and for the purposes herein set forth.

2. The combination of the sliding bar J', dog K', spring-pawl *d*, and block L', constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN S. BROWN.

Witnesses:

JOHN N. BROWN,  
JOHN D. LOCKE.