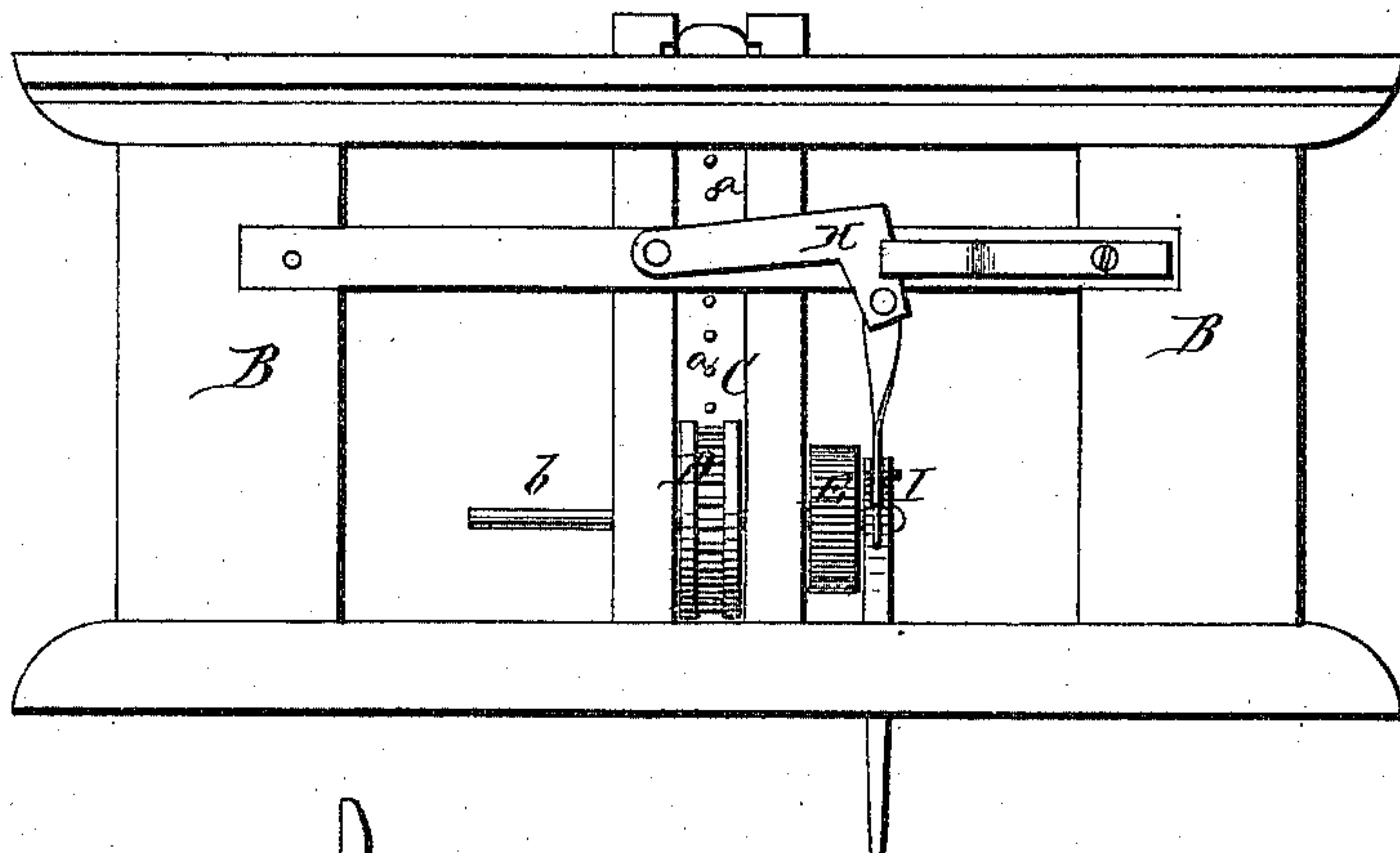


M. BLACKBURN.  
Circular-Saw Mills.

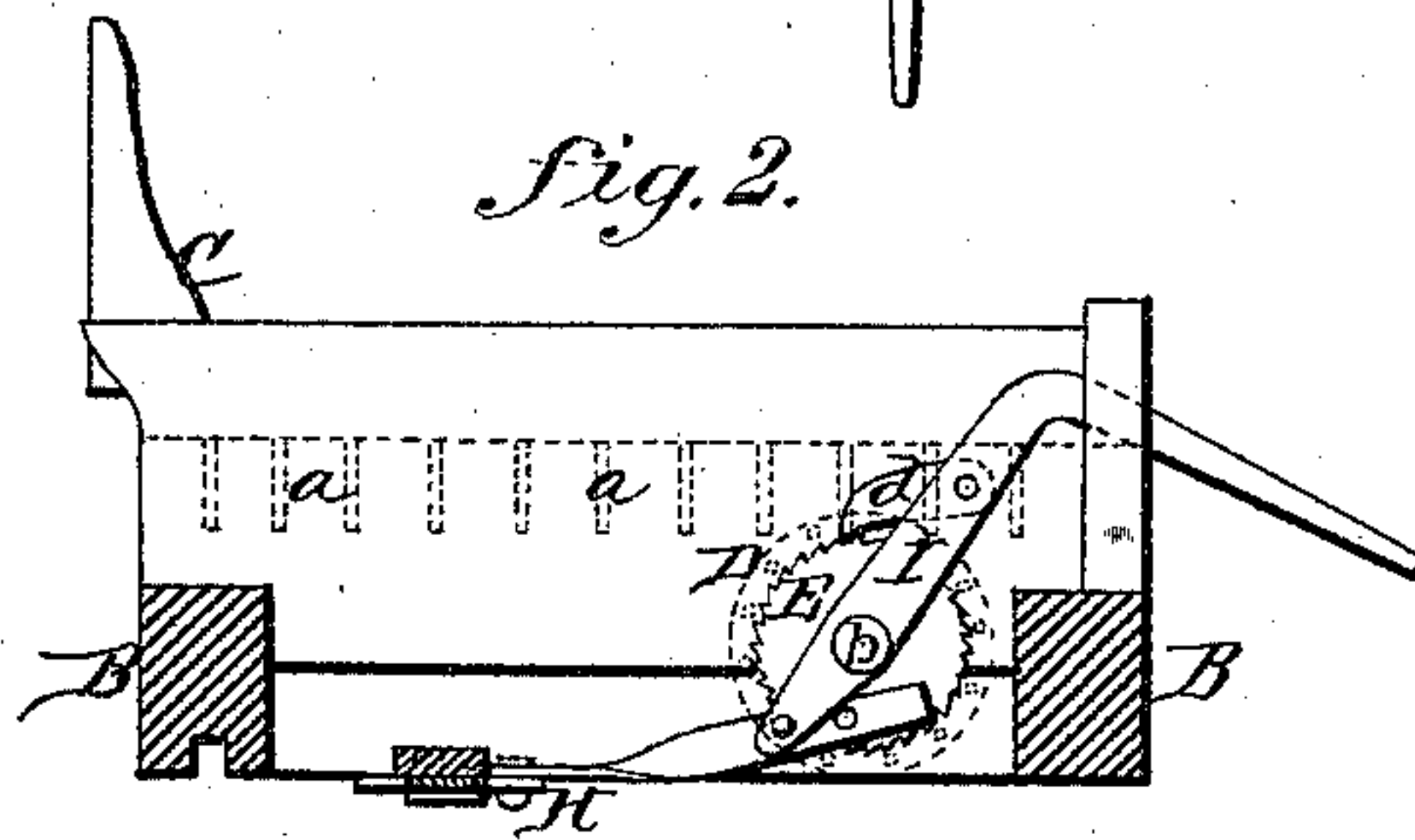
No. 140,002.

Patented June 17, 1873.

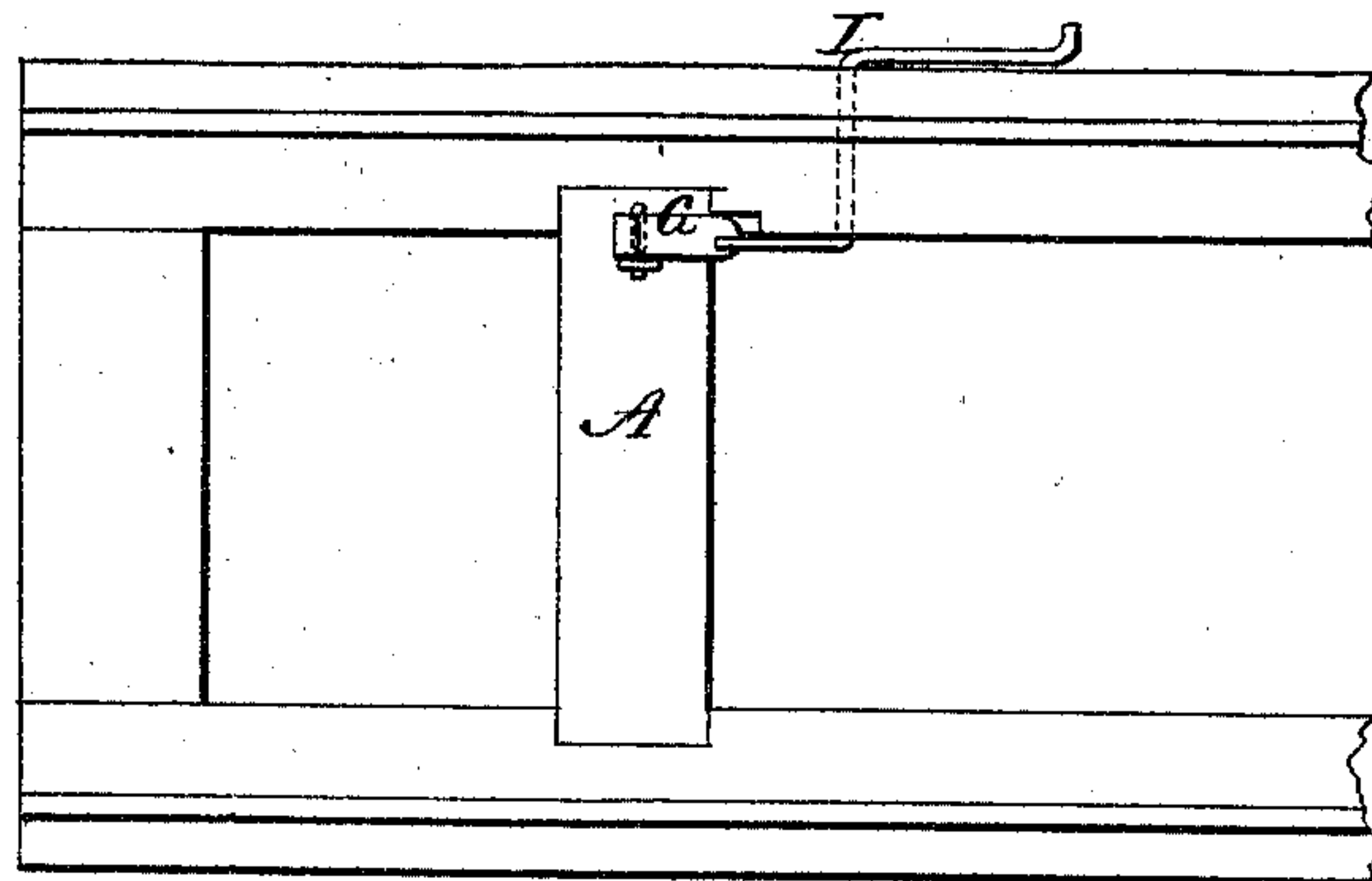
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses

John A. Ellis  
Edward O. Ellis

Inventor

Monroe Blackburn

For

J. H. Alexander & Co  
Attys.

# UNITED STATES PATENT OFFICE.

MONROE BLACKBURN, OF SULLIVAN, INDIANA.

## IMPROVEMENT IN CIRCULAR-SAW MILLS.

Specification forming part of Letters Patent No. **140,002**, dated June 17, 1873; application filed April 15, 1873.

*To all whom it may concern:*

Be it known that I, MONROE BLACKBURN, of Sullivan, in the county of Sullivan and State of Indiana, have invented certain new and useful Improvements in Circular-Saw Mills; 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 self-set for saw mills, as will be hereinafter more 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 drawing, in which—

Figure 1 is a bottom view of the carriage. Fig. 2 is a transverse vertical section of the same, and Fig. 3 is a plan view of the carriage-frame.

A represents the frame upon which the log-carriage B moves back and forth. C represents the head-block on the carriage B, which head-block is provided with cogs or teeth *a a* on its under side. These cogs or teeth gear with a cog-wheel, D, mounted on a shaft, *b*, which is intended to pass under the other head-block and have another cog-wheel gearing with cogs or teeth on the under side of the same. On the shaft *b* is a ratchet-wheel, E, to be operated by the following means: On the frame A is pivoted a foot-block, G, in such a manner that when the carriage B is moving in one direction a lever, H, pivoted on said

carriage, will tip the foot-block; but when the carriage is moving in the opposite direction, the foot-block will turn said lever on its pivot. The lever H is an elbow-lever pivoted at one end, and to the other end is pivoted a lever, I, carrying a pawl, *d*, which engages with the ratchet-wheel E. Now, as the foot-block G turns the lever H, as above described, this lever, through the medium of the lever I and pawl *d*, revolves the ratchet-wheel E a certain distance. With the ratchet-wheel the cog-wheel D also turns, moving or setting the head-blocks. The amount of the set is regulated by changing the point of connection between the levers H and I.

When desired to jig back the carriage without setting the log the foot-block G is thrown up by means of a lever, I, whereby the lever H is allowed to pass without touching the same.

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

The levers H I, arranged so that the point of connection can be changed to regulate the set, and used in connection with the wheel E, foot-block G, pawl *d*, wheel D, carriage B, and head-block C, the several parts being constructed and arranged as and for the purpose set forth.

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

MONROE BLACKBURN.

Witnesses:

B. F. BUFF,  
SOLOMON WALLS.