

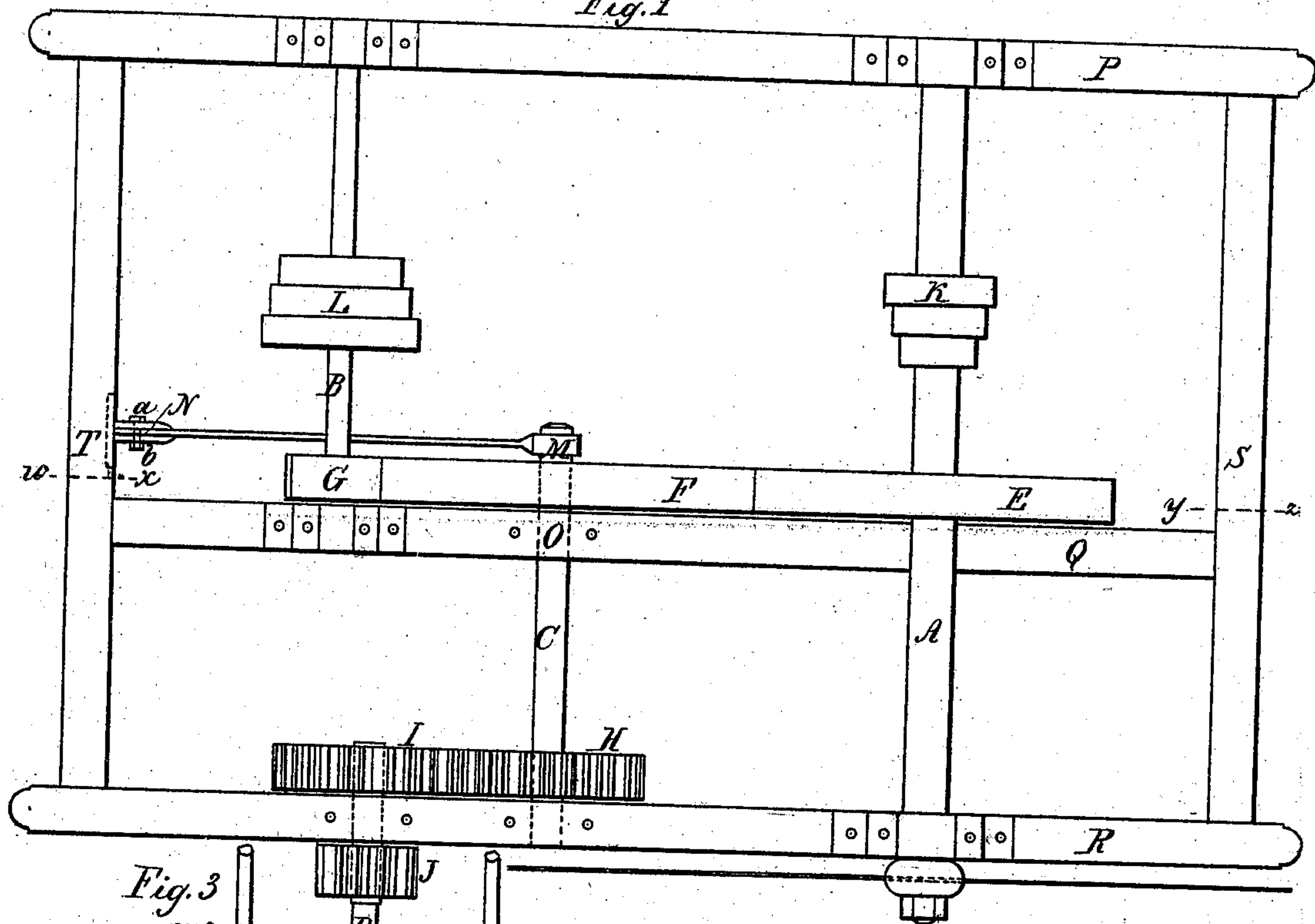
*J. E. Heyt.*

*Saw Mill.*

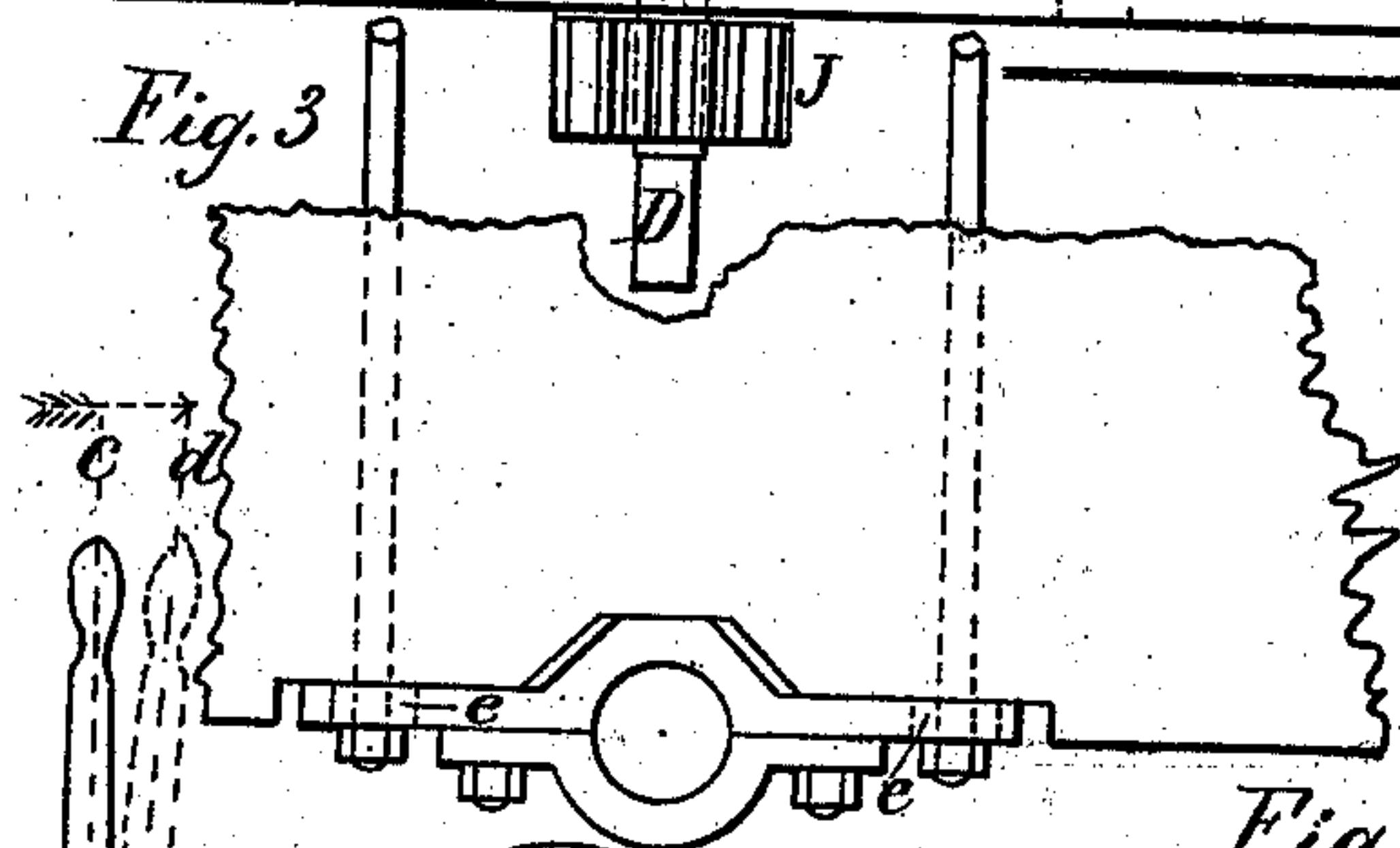
*N<sup>o</sup> 90,005.*

*Patented May 11, 1869.*

*Fig. 1*

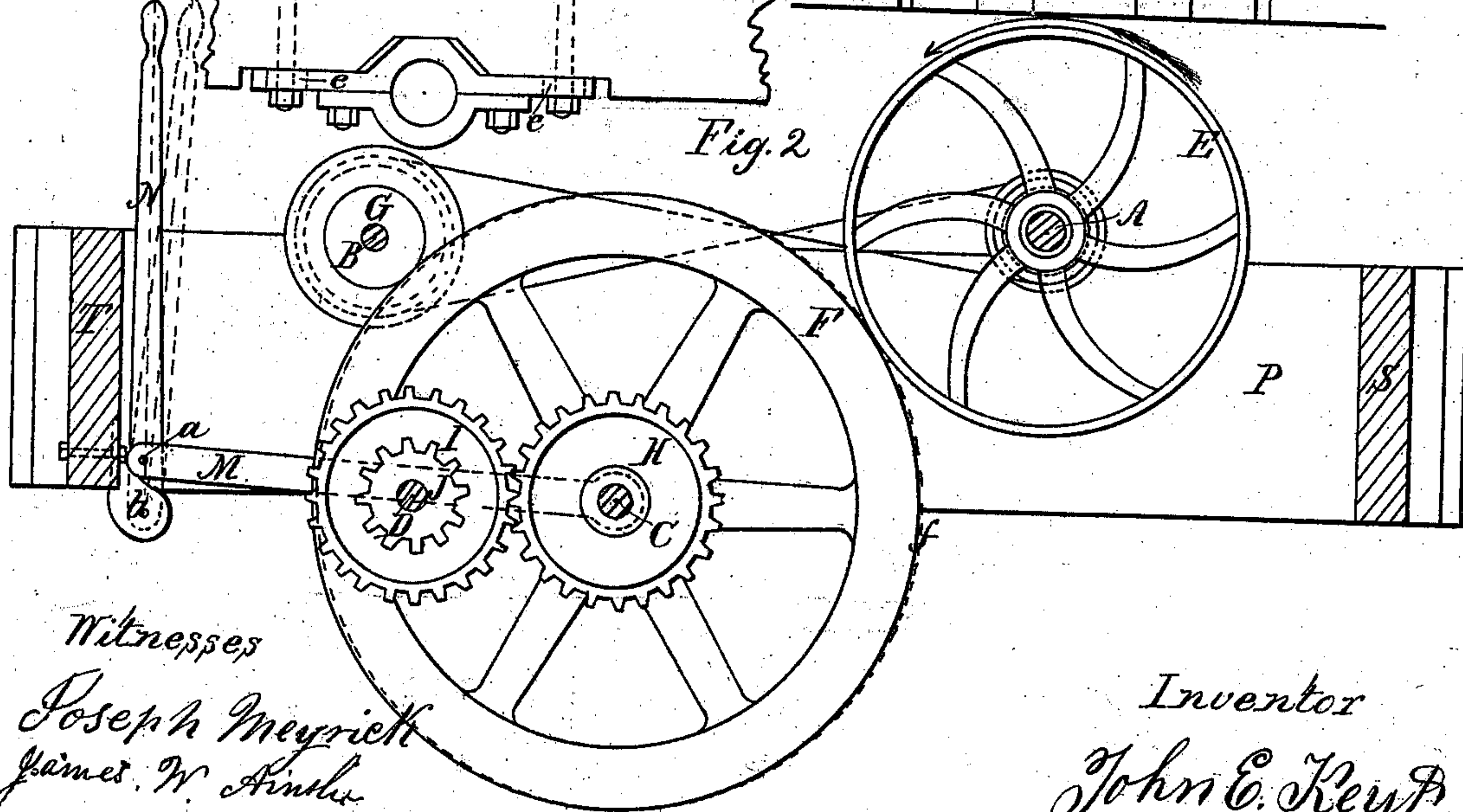


*Fig. 3*



*Fig. 4 bottom view of O.*

*Fig. 2*



*Witnesses*

*Joseph Meyrick  
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*John E. Key*





JOHN E. KEYT, OF LOUISVILLE, KENTUCKY.

*Letters Patent No. 90,005, dated May 11, 1869.*

**IMPROVEMENT IN FEED-DEVICE FOR SAW-MILL.**

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 E. KEYT, in the city of Louisville, county of Jefferson, in the State of Kentucky, have invented a new and improved Method of Giggling or Running Back the Log-Carriage of Circular-Saw Mills, of which the following is an exact description, letters or numbers below referring to similar letters or figures on drawings hereto annexed.

A is the saw-shaft, having on it a cone-pulley, K, which drives the feed-shaft B by cross-belt from cone-pulley K to cone-pulley L, on shaft B.

On shaft B is also a friction-pulley, G, which drives a larger friction-pulley, F, on shaft C, which transmits motion to shaft D, through the two toothed wheels, H, on shaft C, and I on shaft D, thereby moving the log-carriage toward the saw by pinion J on shaft D, and the usual rack on the log-carriage.

The method of reversing the motion of the log-carriage or giggling back, as it is technically termed, is as follows:

On shaft A is a friction-pulley, E, as much larger in diameter than pulley G on shaft B, as is necessary to increase the backing-motion of the log-carriage faster than the forward or feeding-motion of the same.

On shaft C is a connecting-rod or link, M, attached or coupled to the end of shaft C at M, the other end of which is connected by a loose joint with a pin, *a*, to lever N, with its fulcrum-pin *b*. By moving the lever

N in the direction of the arrow from *c* to *d*, the connecting-rod M forces the large friction-pulley, and also the end of shaft C, over in contact with the surface of the friction-pulley E on shaft A, the journal-box O having the bolt-holes slotted, as shown at *ee* in Figures III and IV, to allow of the aforesaid motion of the end of shaft C, thereby reversing the motion of the log-carriage.

The drawings represent the machine in the act of feeding the log-carriage to the saw.

The dotted circle *f*, Figure II, shows the position of the friction-pulley F when backing the log-carriage.

The friction-pulley F is made with iron arms and rim of wood, or other suitable material, for increased friction.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement of the cone-pulleys K and L, friction-pulleys F and G, and gear-wheels H, I, and J, for feeding the carriage and log toward the saw, substantially in the manner shown and described.

2. The arrangement of friction-wheels E and F, and gear-wheels H, I, and J, for giggling back the carriage and the log, substantially as shown and described.

JOHN E. KEYT.

Witnesses:

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