

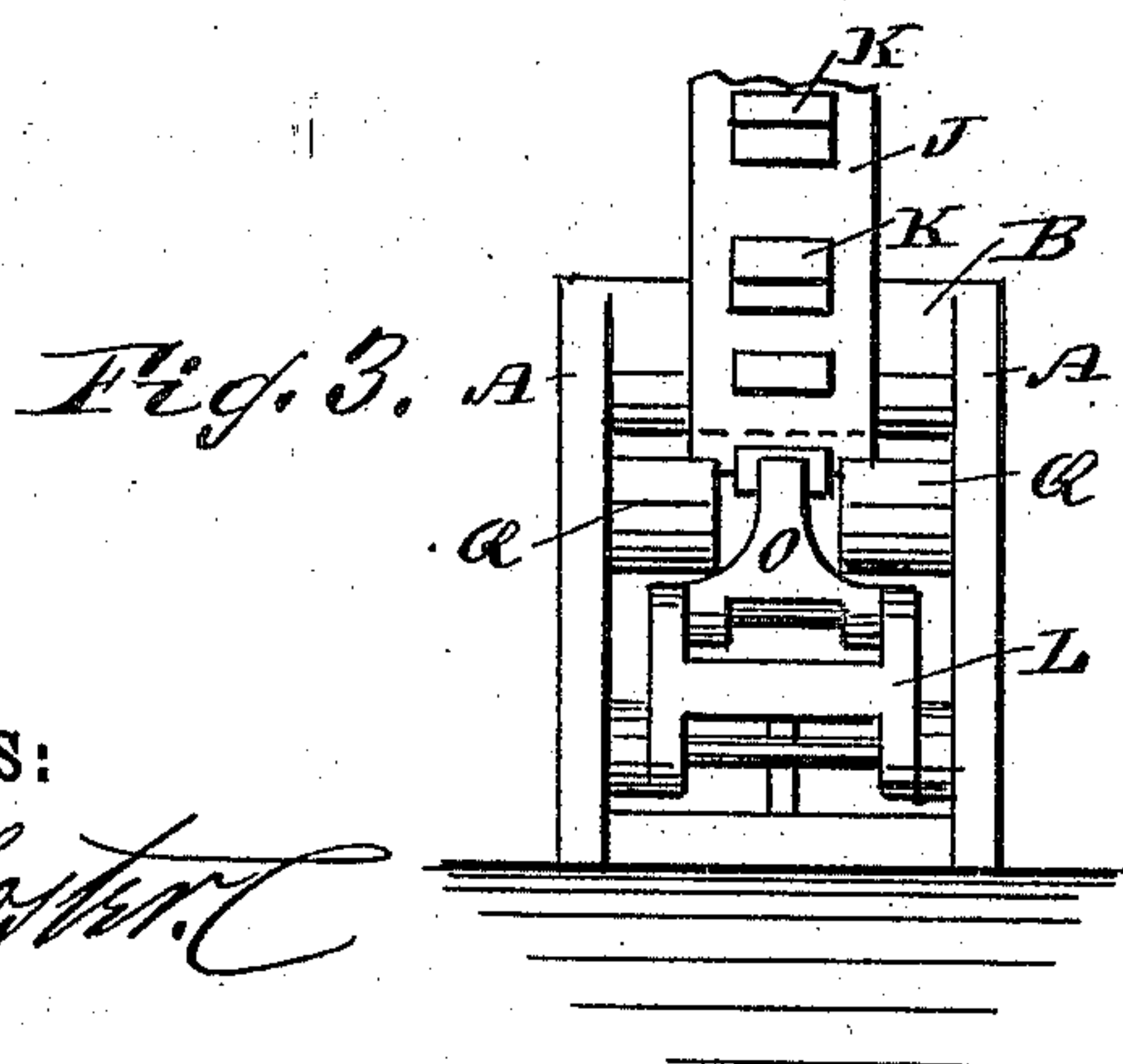
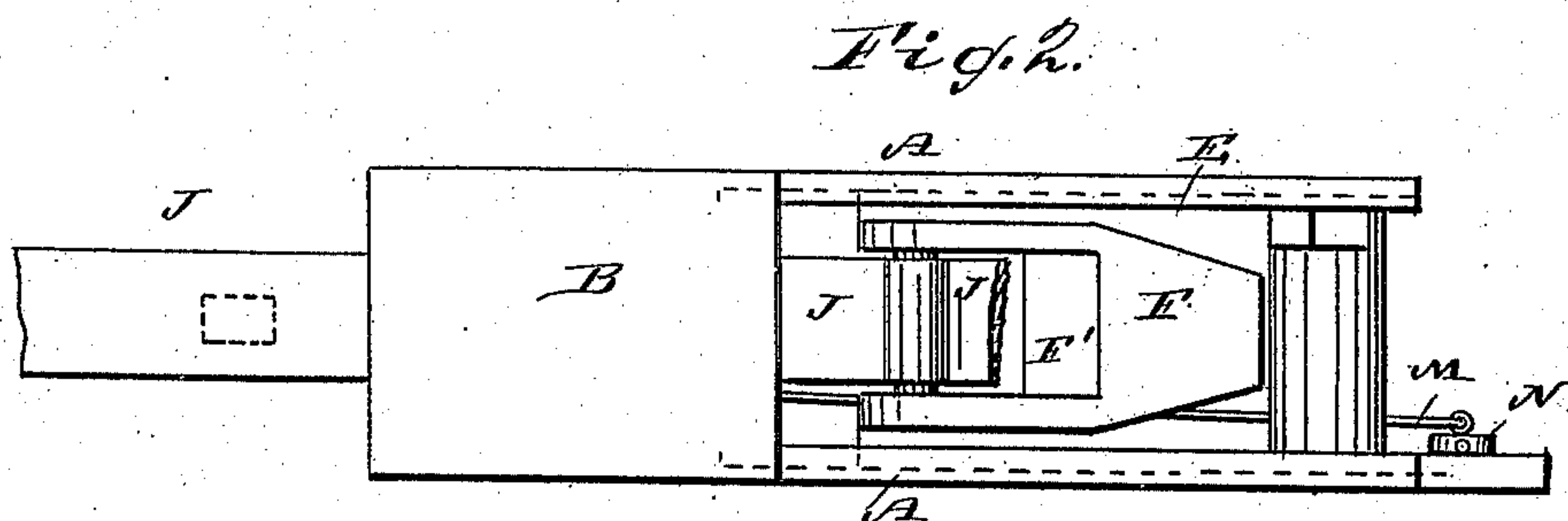
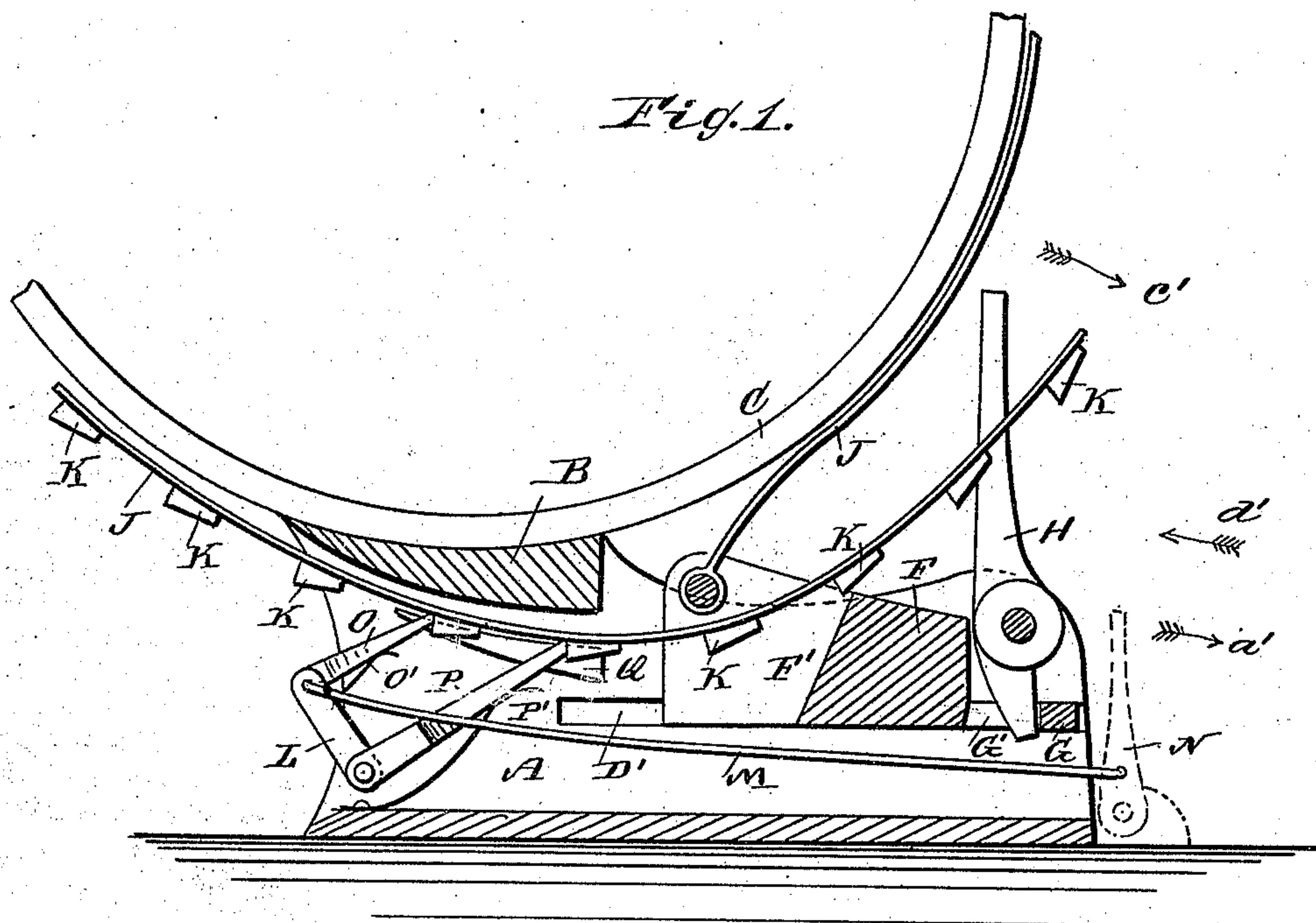
(Model.)

W. LEHMER.

**TIRE SHRINKER.**

No. 331,070.

Patented Nov. 24, 1885.



**WITNESSES:**

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# UNITED STATES PATENT OFFICE.

WILLIAM LEHMER, OF LOGANSFORT, INDIANA.

## TIRE-SHRINKER.

SPECIFICATION forming part of Letters Patent No. 331,070, dated November 24, 1885.

Application filed March 27, 1885. Serial No. 160,325. (Model.)

*To all whom it may concern:*

Be it known that I, WILLIAM LEHMER, of Logansport, in the county of Cass and State of Indiana, have invented a new and Improved Tire-Shrinker, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved tire-shrinker, which is simple in construction, strong and durable, effective in use, and can be adjusted for shrinking tires of different diameters.

The invention consists in the combination, with a base, of a toothed band, a sliding block in the base, with which block one end of the band is connected, and of a pawl or dog for drawing the toothed band taut around the tire.

The invention also consists in parts and details and combinations of the same, as will be fully set forth hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the the figures.

Figure 1 is a longitudinal elevation of my improved tire-shrinker. Fig. 2 is a plan view of the same, parts being broken out. Fig. 3 is an end view of the same.

The base A is provided with a projection, B, having a concaved top for receiving part of the tire C. The sides of the base A are provided with the longitudinal slots D', for receiving the side lugs, E, of a sliding block, F, provided at the inner end with a recess, F', and at the opposite end with a lug, G, having a slot, G', for receiving the lower end of lever H, pivoted between the sides of the base.

In the recess F' one end of a steel band, J, is pivoted to the sliding block F, which band is provided on its outer surface with a series of beveled teeth, K. A lever, L, is pivoted between the sides of the base, and is connected by a rod, M, with a short hand-lever, N, below the lever H. A pawl or dog, O, is pivoted to the swinging end of the lever L, and is pressed by a spring, O', against the toothed side of the band J. A locking pawl or dog, P, is pivoted on the same pivot with the lever L, and is pressed by a spring, P', against the toothed side of the band J. Curved guides Q project from the inner faces

of the sides of the base, below the projection B, and serve to support and guide the band J.

The operation is as follows: The tire is heated to a red heat at one spot, is placed on the projection B, and the band J is passed around the tire. By swinging the lever N in the direction of the arrow *a'* the dog O is moved in a like direction, and, acting on the teeth K, draws the band J taut around the tire, the band being locked in place by the dog P, engaging with the teeth K. Then the lever H is swung in the direction of the arrow *c'*, and moves the block F in the direction of the arrow *d'*, causing the band to compress the tire and upset the heated part. When the lever H is released, the tension in the band J moves it in the inverse direction of the arrow *d'*, and the band J is thus loosened. By swinging the lever N down in the direction of the arrow *a'* the dog O is caused to strike the dog P, and press the same down and disengage it from the teeth K, thus permitting withdrawing the band.

The above-described tire shrinker can be used for tires of different diameters or any desired width or thickness.

The apparatus is strong, simple in construction, and operates rapidly.

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

1. In a tire-shrinker, the combination, with the base A, of the band J, a pawl or dog for drawing the band taut around the tire, a sliding block connected with the band, and mechanism for shifting the block, substantially as herein shown and described.

2. In a tire-shrinker, the combination, with the base A, of the band J, having teeth K, of the dog or pawl for drawing the band taut, the dog or pawl for locking it in place, the sliding block connected with the band, and of a lever for shifting the block, substantially as herein shown and described.

3. In a tire-shrinker, the combination, with a base, of the toothed band J, the sliding block F, connected with the band, the lever L, the pawl O, pivoted to the said lever, the lever N, and the connecting-rod M, substantially as herein shown and described.

4. In a tire-shrinker, the combination, with

the base A, of the toothed band J, the sliding block F, the pivoted lever L, the dog O, pivoted to the same, the dog P, the connecting-rod M, the lever N, and a lever for shifting the  
5 block, substantially as herein shown and described.

5. In a tire-shrinker, the combination, with the base A, having the guides Q, of the toothed band J, the sliding block F, a pawl or dog for  
10 drawing the band J taut, and of a lever for shifting the block, substantially as herein shown and described.

6. In a tire-shrinker, the combination, with the base A, of the toothed band J, the sliding block F, having the slotted lug G, the pivoted  
15 lever H, and a pawl or dog for drawing the band taut, substantially as herein shown and described.

WILLIAM LEHMER.

Witnesses:

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