

No. 641,560.

Patented Jan. 16, 1900.

J. SYKES.
ANTIRATTLE THILL COUPLING.

(Application filed Nov. 14, 1899.)

(No Model.)

Fig. 1.

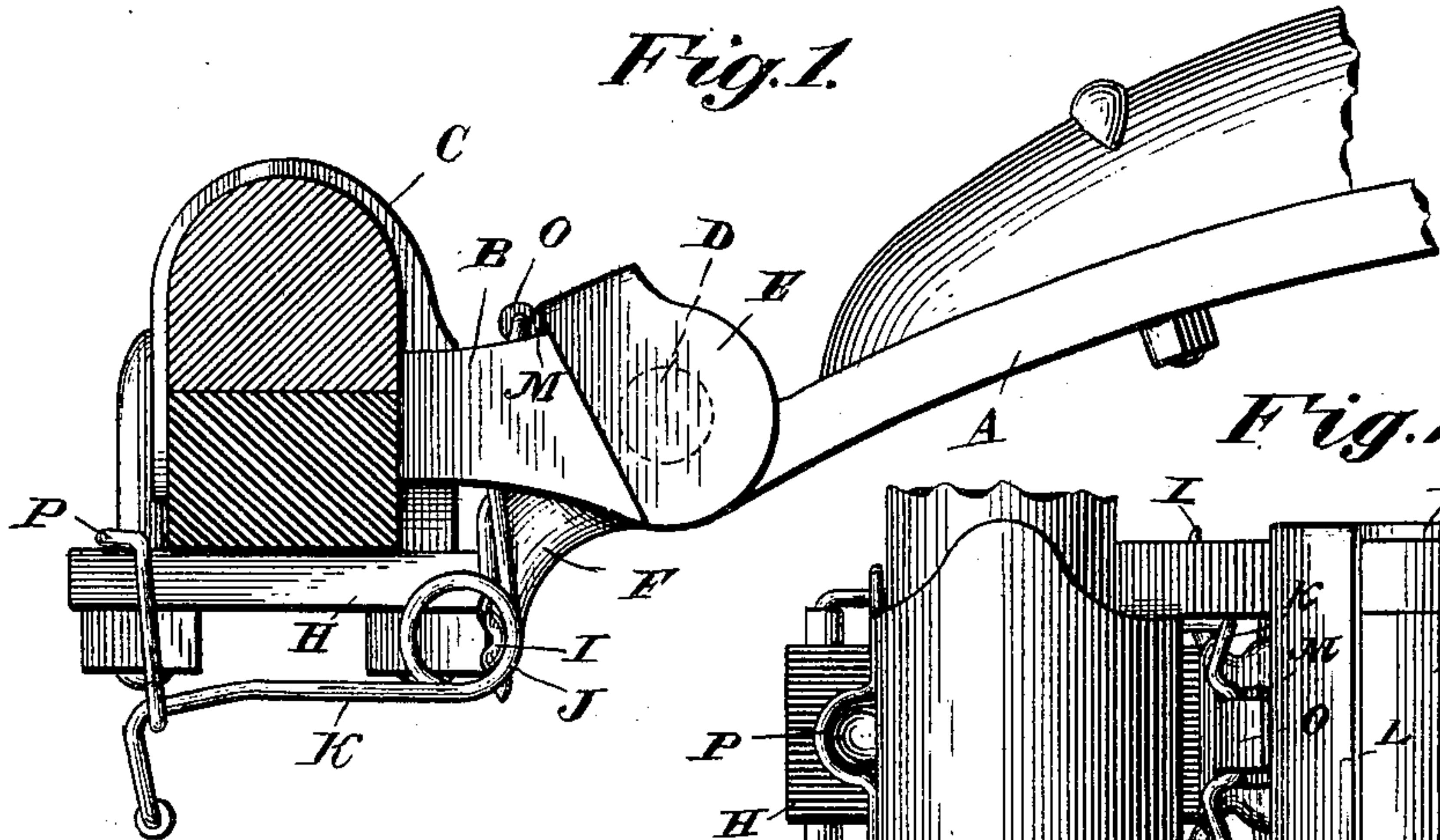


Fig. 2.

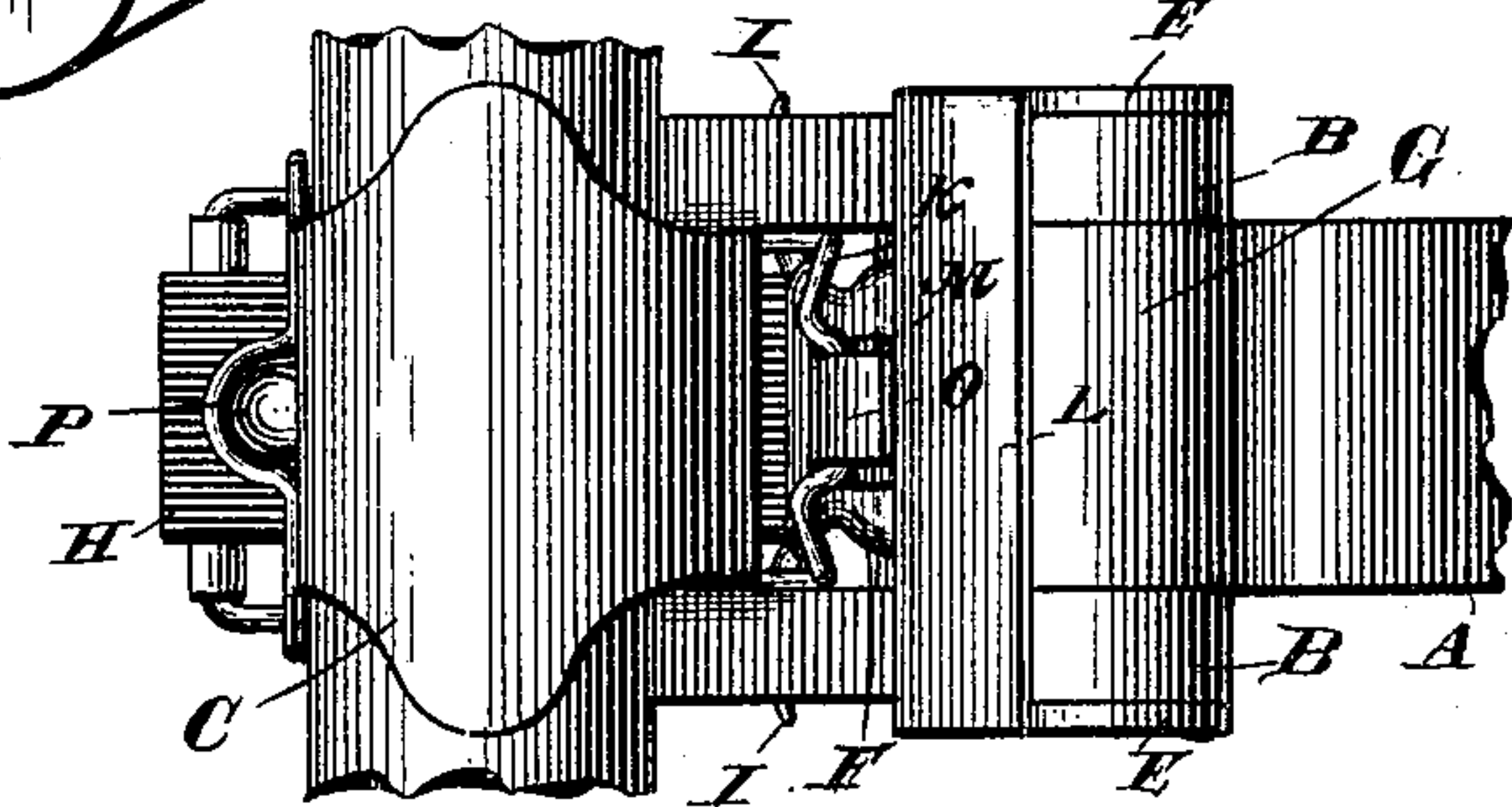


Fig. 4.

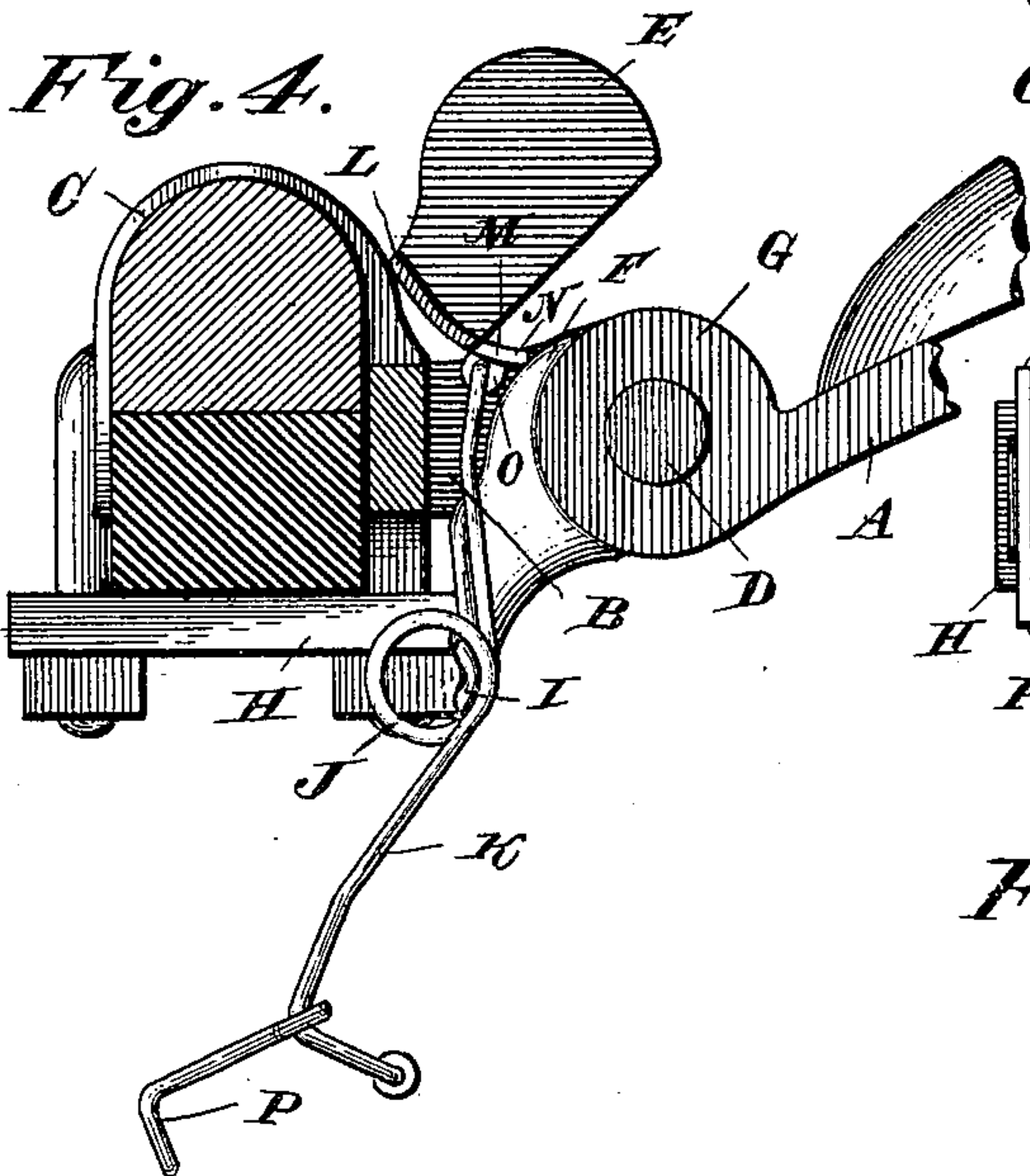


Fig. 3.

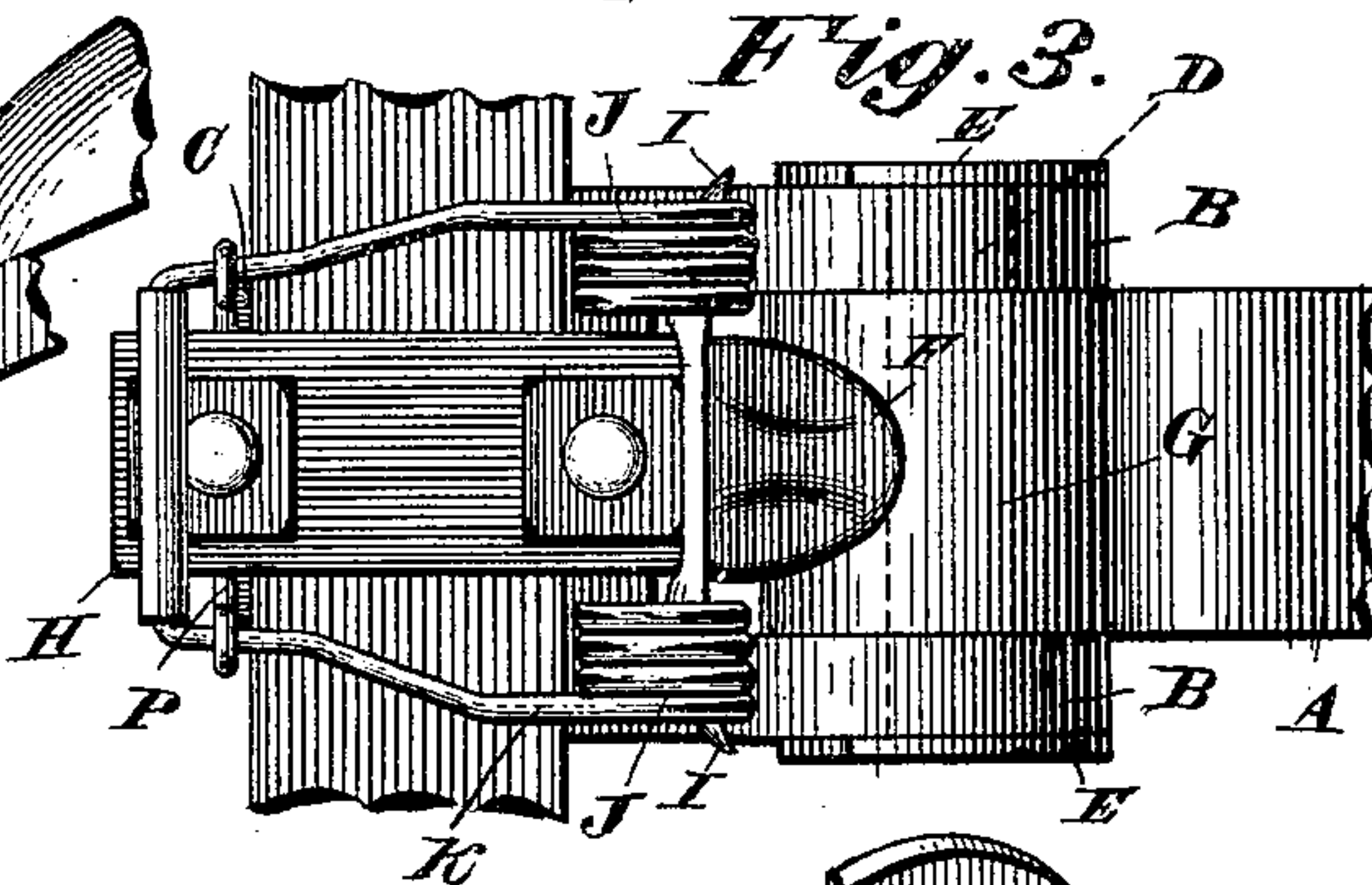


Fig. 6.

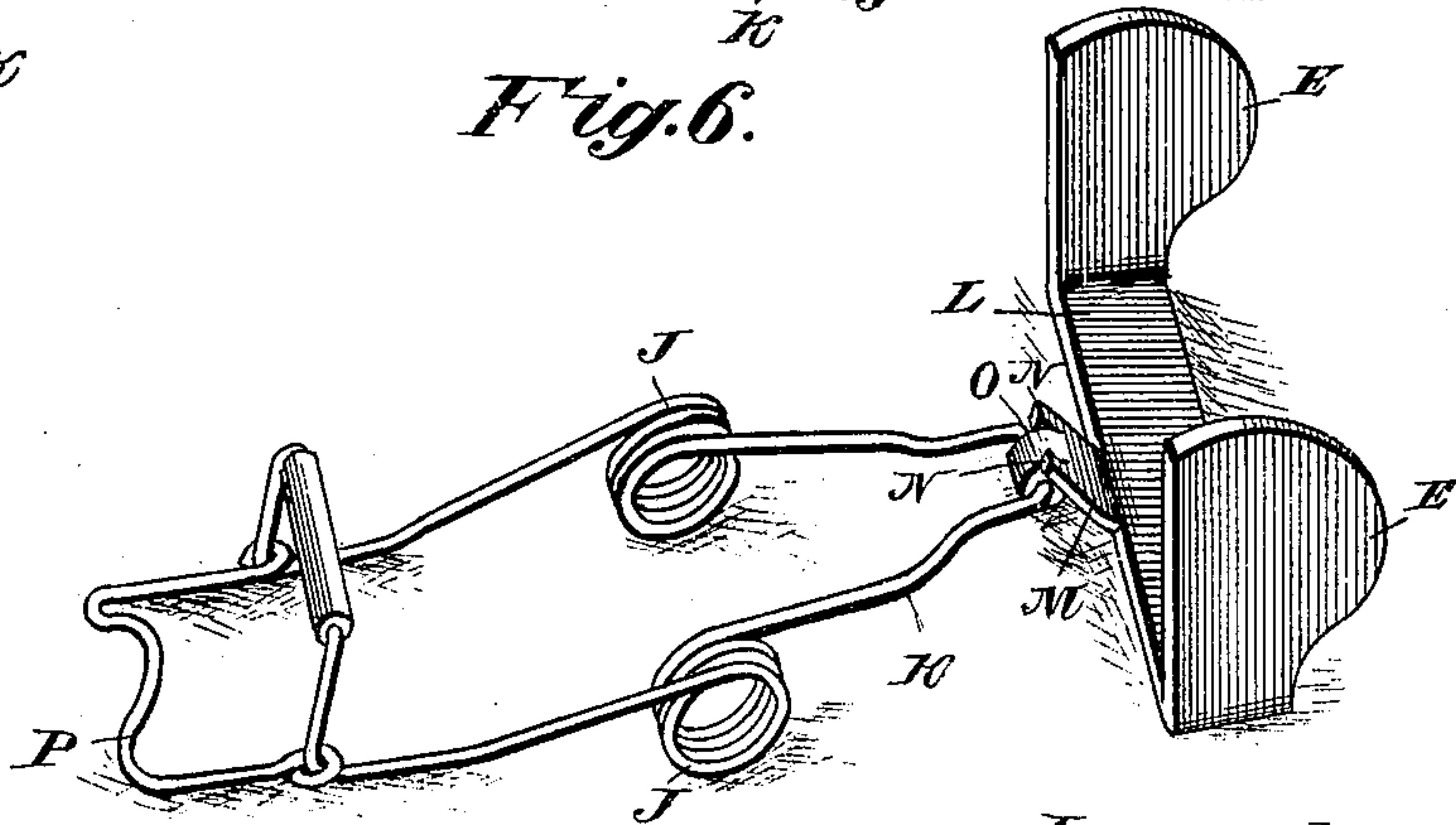
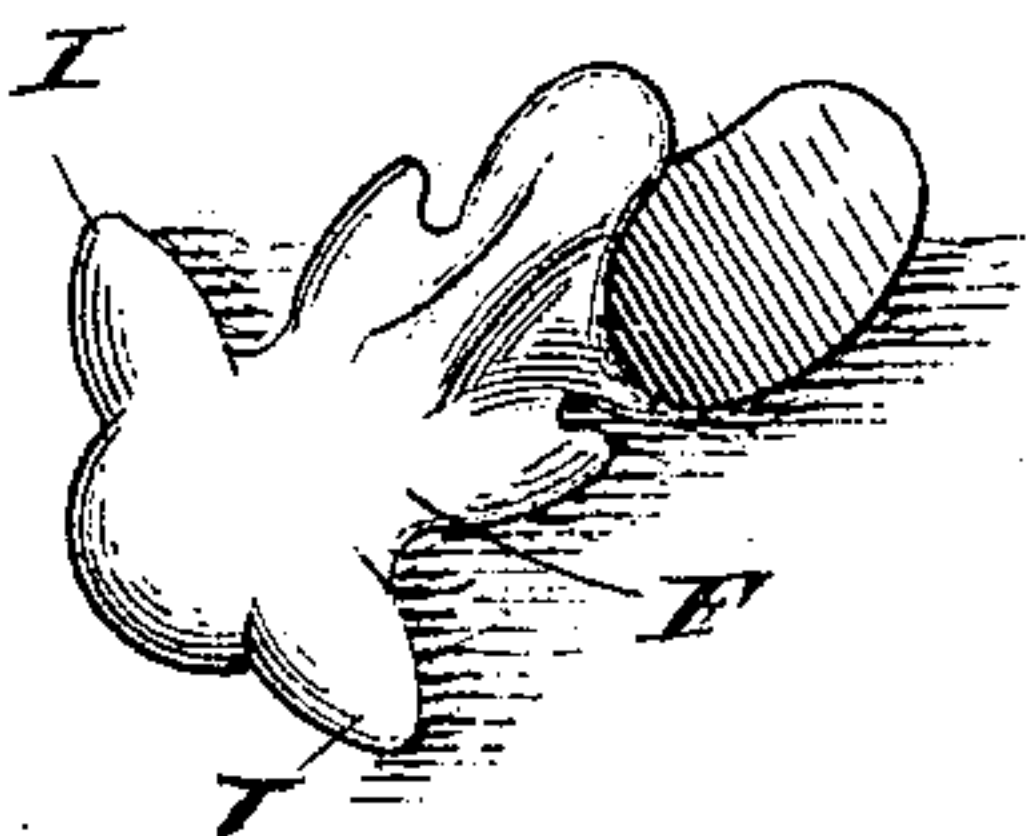


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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ANTIRATTLING THILL-COUPPLING.

SPECIFICATION forming part of Letters Patent No. 641,560, dated January 16, 1900.

Application filed November 14, 1899. Serial No. 736,938. (No model.)

To all whom it may concern:

Be it known that I, JOHN SYKES, a citizen of the United States, residing at Greensburg, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Antirattling Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to thill-couplings, but more particularly to that class of couplings commonly known as "antirattlers."

The object of my invention is to provide a durable and substantial antirattling device which may be attached to any of the ordinary thill-couplings now in use.

A further object of my invention is to provide a safe and efficient substitute for the ordinary bolt-head, nut, and screw-threads of the common thill coupling-pin, thus dispensing with wrenches and tools and enabling the coupling to be manipulated entirely by hand.

With these objects in view I have constructed an antirattling device for thill-couplings which is composed of a minimum number of parts, the construction and operation of which will hereinafter be more fully explained in the specification and specifically pointed out in the claims.

Referring to the annexed drawings, Figure 1 is a side elevation showing my device in an operative position. Fig. 2 is a top plan view of the same. Fig. 3 is a bottom plan view of the same. Fig. 4 is a side elevation of my attachment in an uncoupled position with one of the ears E and clip-ear B broken away, showing the cross-plate L in section and the journal-bearing O and cam M. Fig. 5 is a perspective view of the shoe F. Fig. 6 is a perspective view of the cross-plate L and ears E E, showing bearing O, cam M, and tangs N N.

Referring to the drawings by letters, A is the ordinary thill-iron and is secured in the usual manner between the clip-ears B B of the clip C by means of the coupling-pin D. This pin D has neither head, nut, nor screw-threads and is held securely in position by ears E E.

F represents the shoe, which bears against the thill-eye G and the clip-plate H. This

shoe is provided at its lower ends with engaging lugs I I, around which the coils J of the spring K are wound. This spring K passes behind the shoe F and is journaled to the cross-plate L, which connects the ears E E.

M is a cam which is held by the spring K against the back of the shoe F and is provided with tangs N N and the bearing O, which bearing is formed between the tangs N N by bending a portion of the metal which forms the cam up and around the wire spring K, as shown in Fig. 6.

P represents the yoke which engages the spring K and is hooked upon the clip-plate H, as shown in Fig. 1.

Having thus explained the different parts, the operation is as follows: The shoe F, holding the spring K and ears E E, is inserted between the clip-ears B B, the cross-plate L resting against the clip-ears B B and holding the shoe in position. The thill-eye is then inserted between the clip-ears B B and against the shoe, as shown in Fig. 4. The coupling-pin is then inserted from either side. The ears E E are then turned over the clip-ears B B and the coupling-pin. The spring-yoke is then carried up and over the clip-plate, as shown in Fig. 1. When the ears E E are turned over the clip-ears B B and the coupling-pin and the spring-securing device is caught over the clip-plate, the upper portion of the spring behind the shoe presses the shoe against the thill-eye with approximately the same force as the yoke pulls on the clip-plate, the arms of the spring being approximately the same length, taking the coils as the fulcrum. Now the extreme upper portion of the spring is journaled to the cross-plate L, which connects the ears E E in rear of the shoe F, thus holding the cam M and tangs N N forcibly against the back of the shoe F and the ears E E over the clip-ears B B, thus securely holding the coupling-pin in place and forming a most durable and efficient substitute for the ordinary head, nut, and screw-thread and at the same time making a strong and serviceable antirattling attachment.

In the production of my improved device for preventing the displacement of thill-bolts the cross-plate, ears, cam, and bearing are made integral. To do this I use ordinary sheet-steel, and by suitable dies I punch out

blanks of suitable size and shape. I then turn the ears of the attachment to the required angle, curving the cross-plate, and bend the tongue that forms the journal-bearing up and
5 around the upper portion of the spring. This attachment may be secured to any of the well-known antirattlers without changing the the irons. To this spring attachment I make no claim of invention; but
10 What I do claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a thill-coupling, the combination of the connecting cross-plate L, the ears E, E
15 provided with tangs N, N forming a cam M,

and a bearing O, with the shoe F, and spring-securing device, substantially as and for the purposes set forth.

2. As an article of manufacture, the thill-coupling attachment comprising the cross- 20 plate L, the ears E, E, the cam M, and the bearing O, stamped out of a single piece of metal, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN SYKES.

Witnesses:

JOHN F. WENTLING,
SAMUEL B. FOIGHT.