

A. E. GRANT.

MACHINE FOR ROLLING POINTS OF COLLARS.

No. 545,688.

Patented Sept. 3, 1895.

Fig. 1.

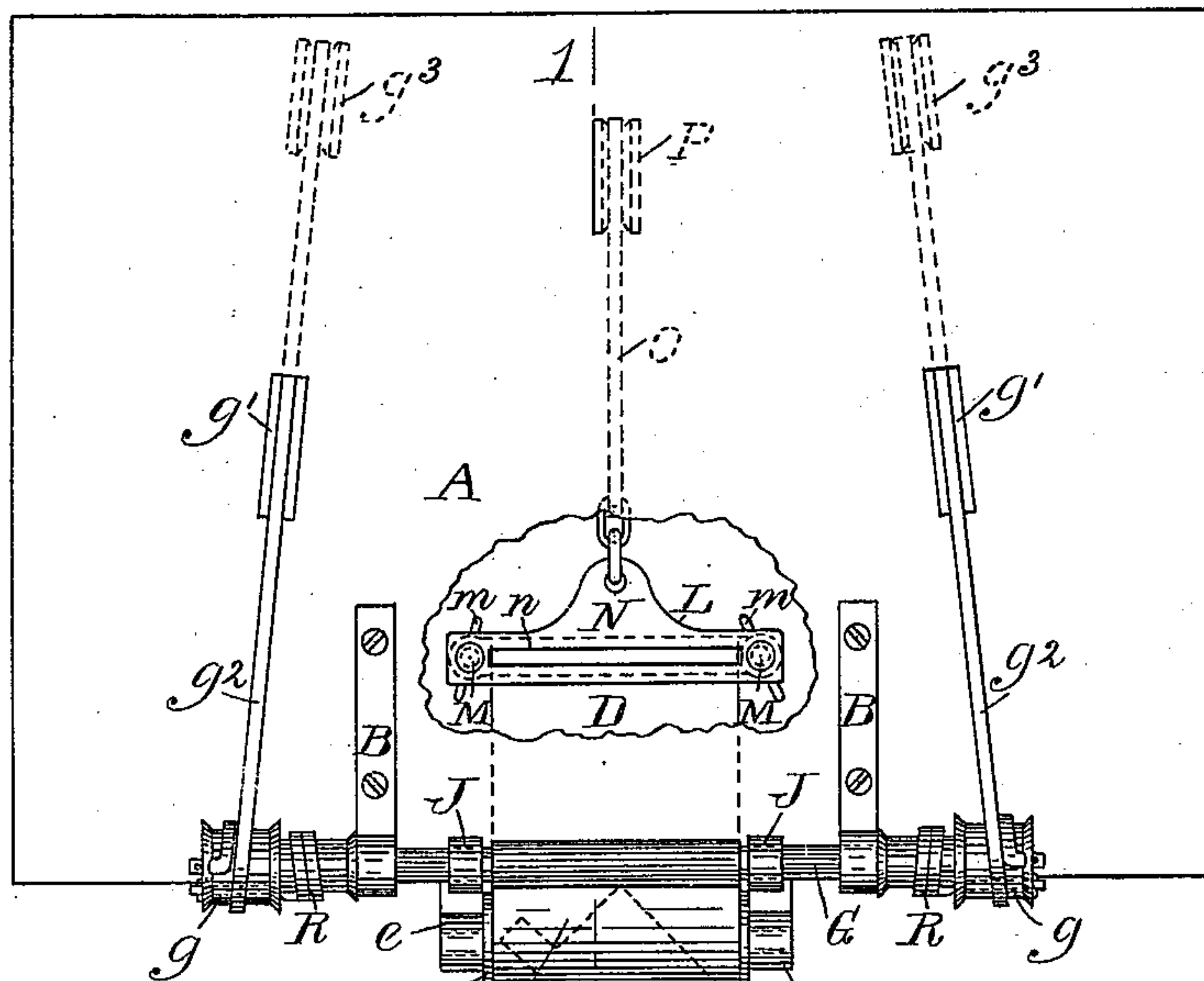
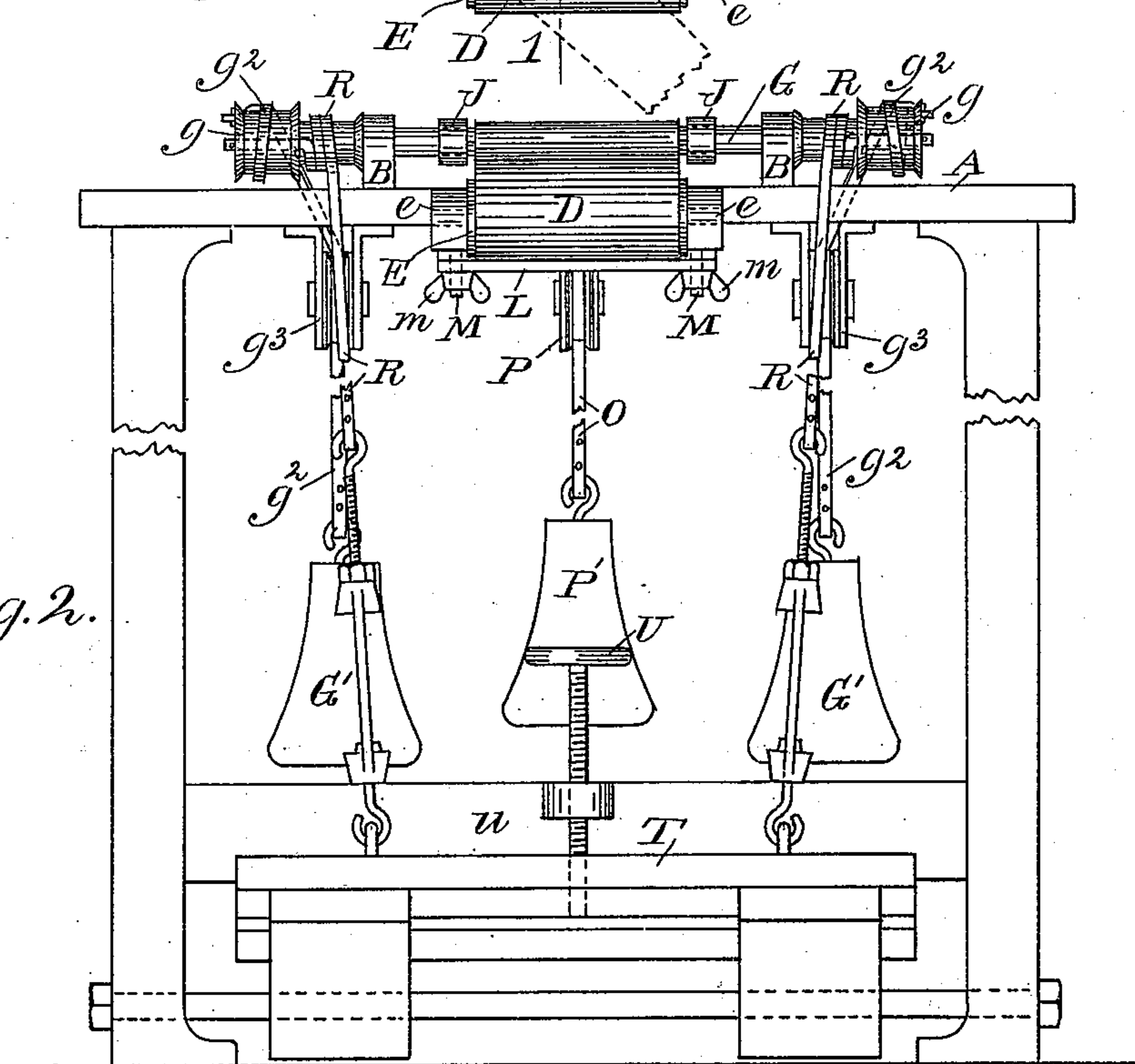


Fig. 2.



Witnesses:

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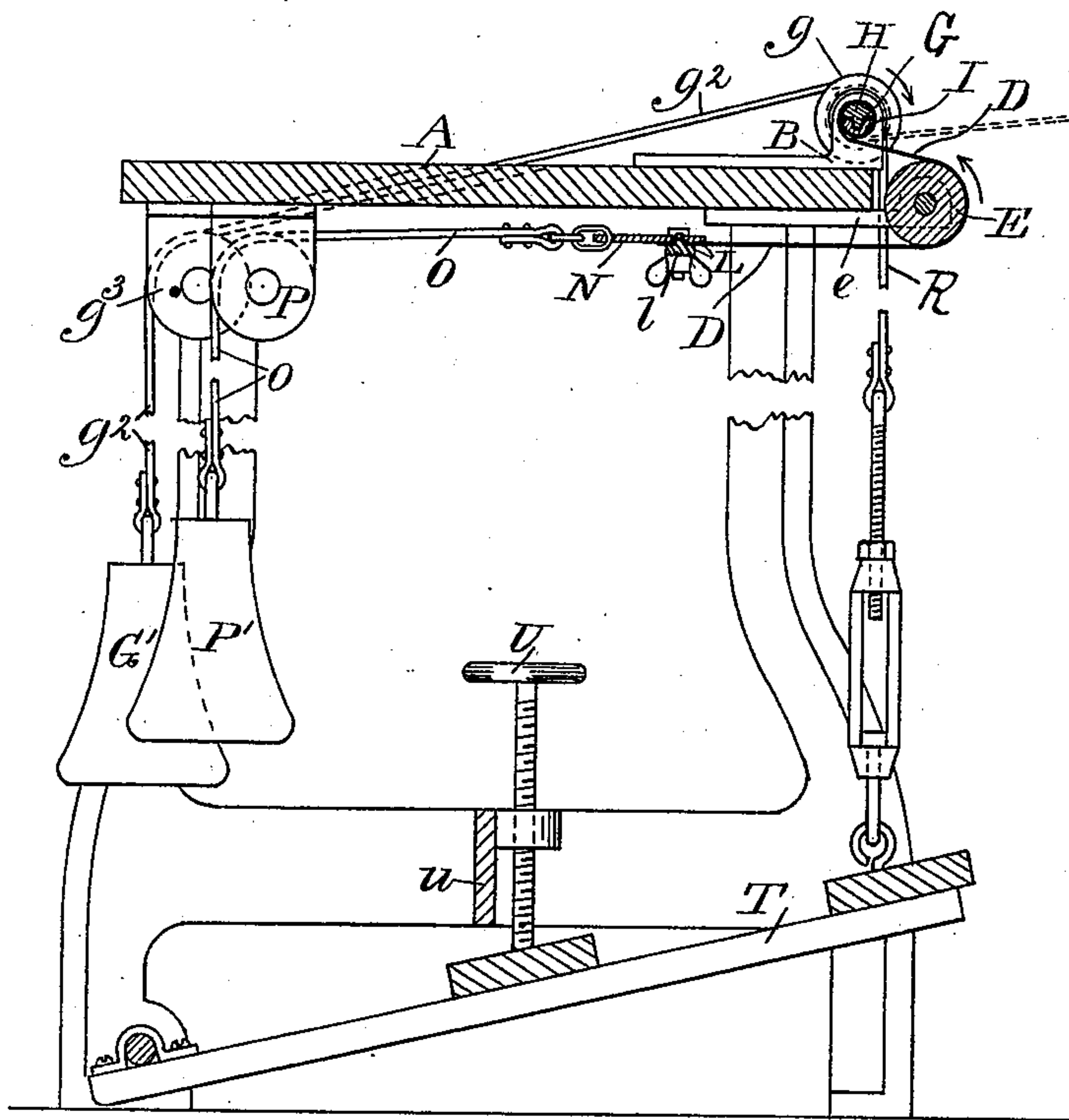


Fig. 3.

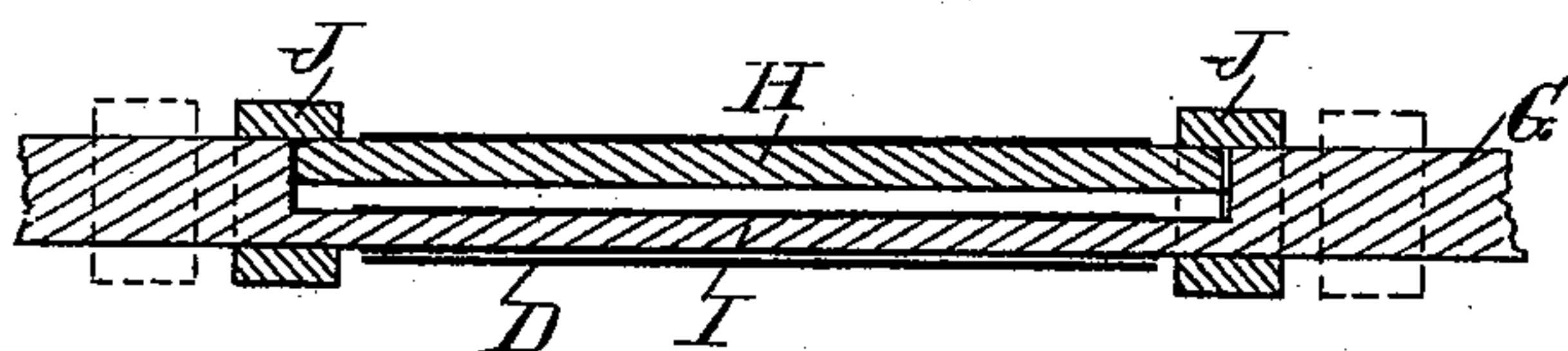


Fig. 4.

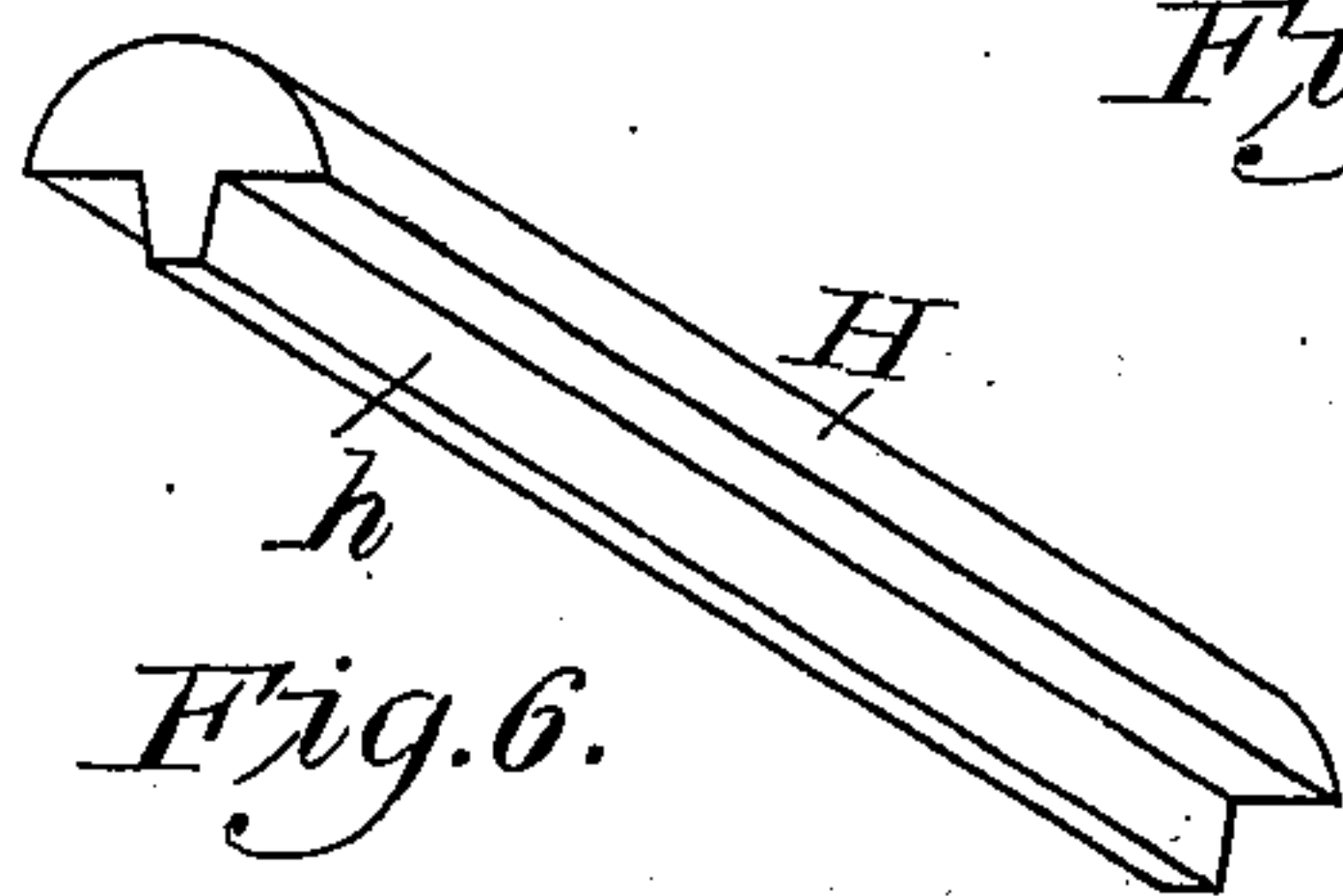


Fig. 6.

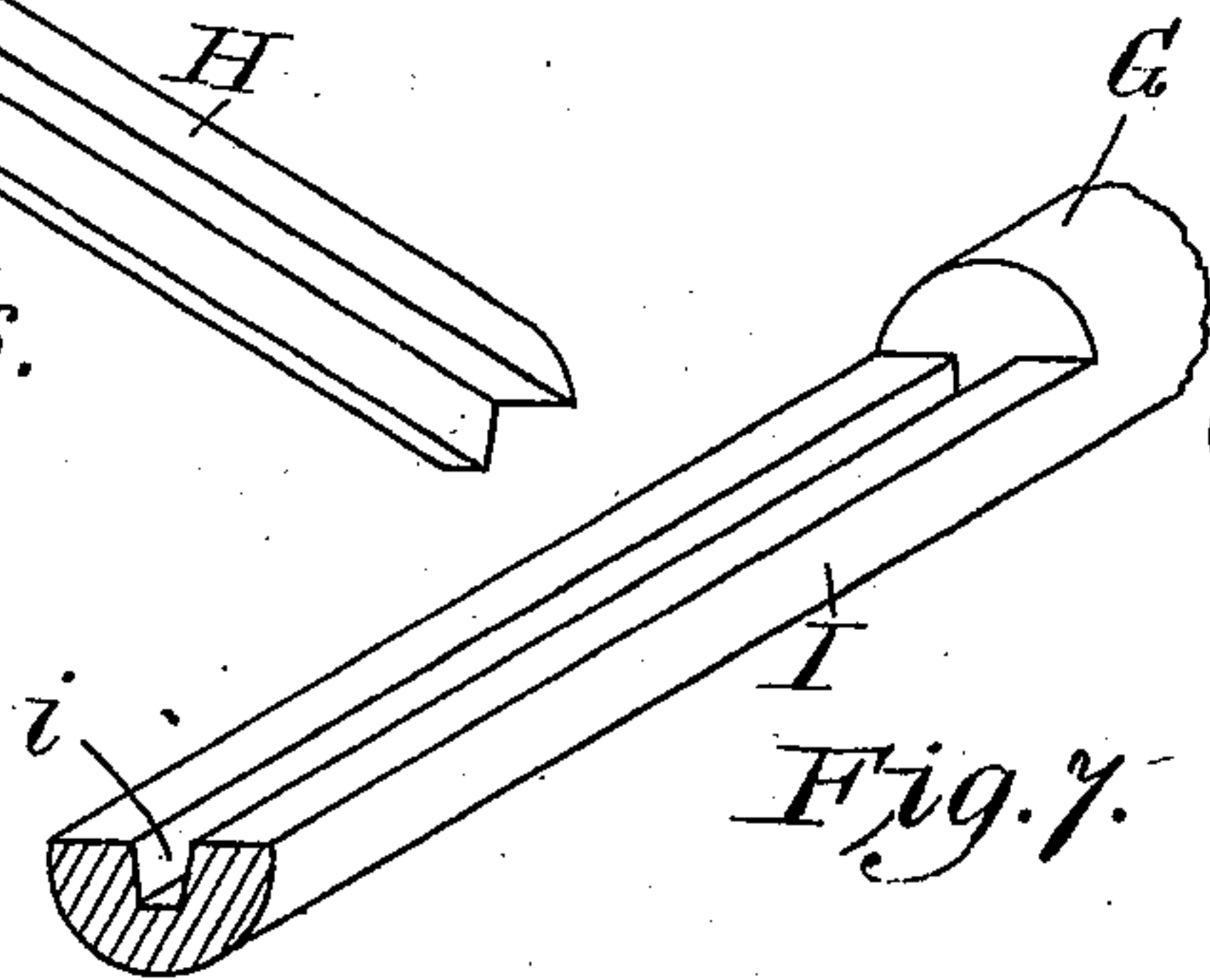


Fig. 7.

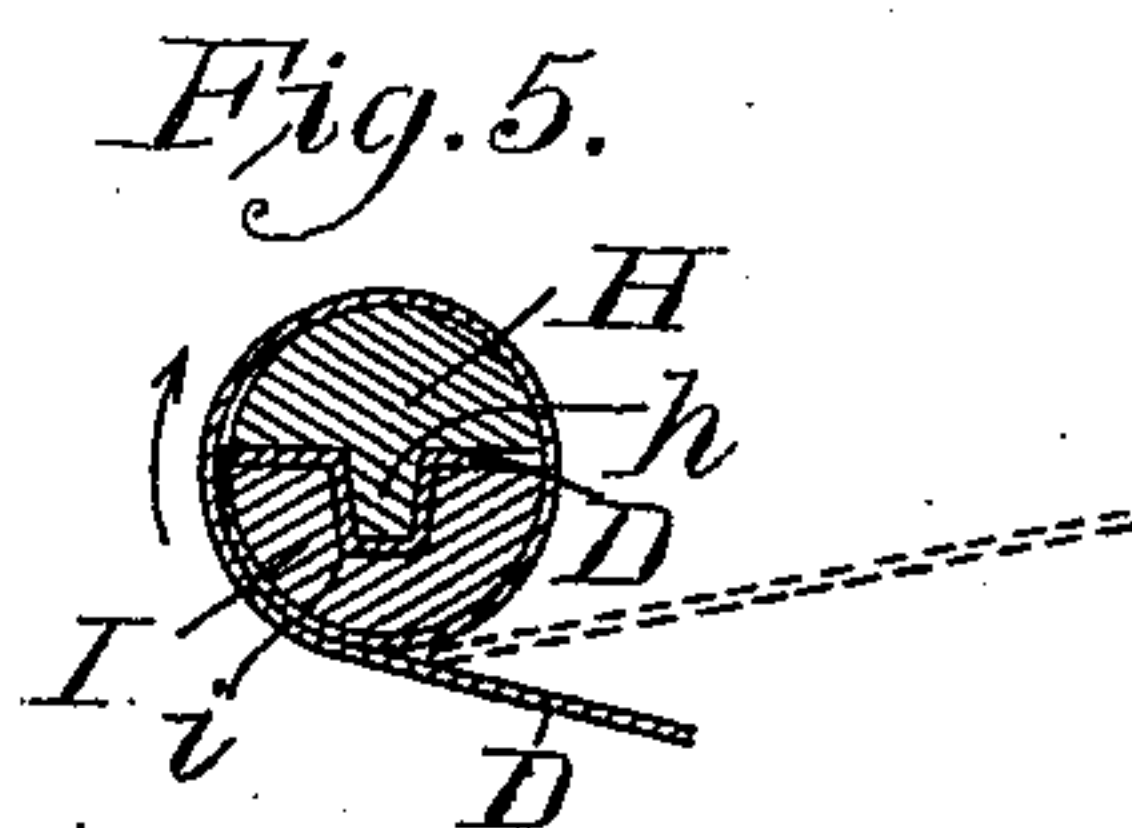


Fig. 5.

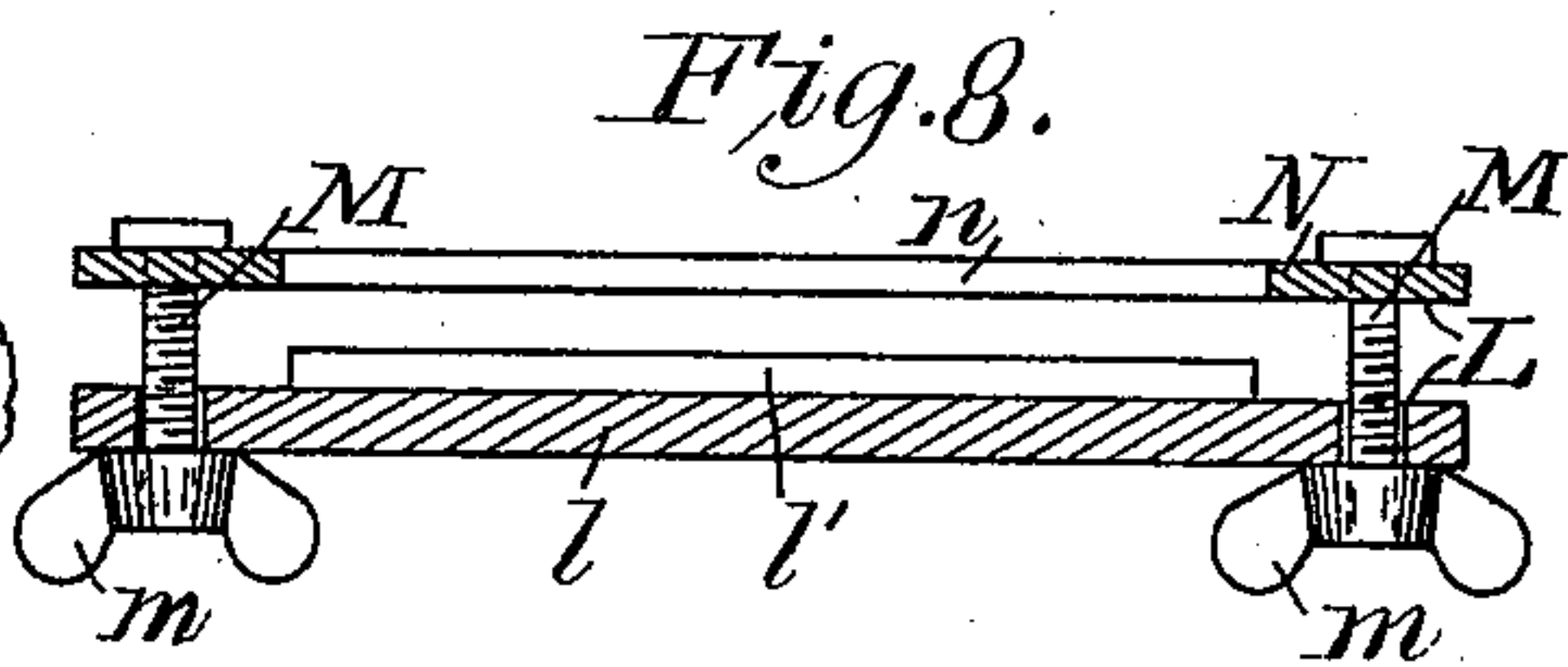


Fig. 8.

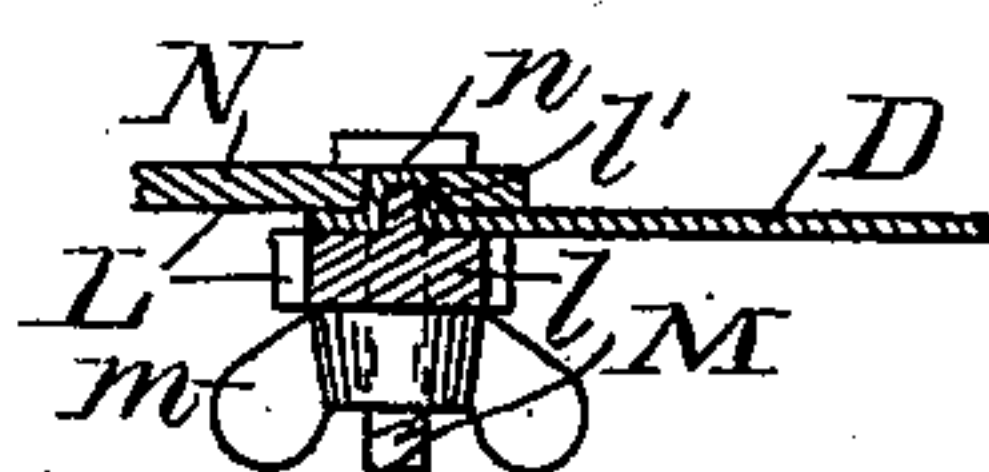


Fig. 9.

Witnesses:

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UNITED STATES PATENT OFFICE.

ALBERT E. GRANT, OF TROY, NEW YORK.

MACHINE FOR ROLLING POINTS OF COLLARS.

SPECIFICATION forming part of Letters Patent No. 545,688, dated September 3, 1895.

Application filed November 17, 1894. Serial No. 529,169. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. GRANT, a citizen of the United States, residing at the city of Troy, county of Rensselaer, State of New York, have invented a new and useful Improvement in Machines for Rolling the Points of Collars, of which the following is a specification.

My invention relates to improvements in mechanism for forming collars; and the object of my invention is to produce a machine for rolling the points of collars, cuffs, or other fabrics after they have been starched and ironed and are in a stiffened condition in a positive and uniform manner. I attain this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan. Fig. 2 is a front elevation. Fig. 3 is a cross-section along the line 1 1 on Fig. 1. Fig. 4 is a longitudinal section of the shaft G. Fig. 5 is a cross-section of the shaft G. Fig. 6 is a perspective view of the clamping-piece H. Fig. 7 is a perspective view of part of the shaft G. Fig. 8 is a longitudinal section of the clamping device L, shown loosened, with the apron omitted. Fig. 9 is a cross-section of the clamping device L and apron secured. Fig. 10 is a cross-section of the shaft G, showing the position of the collar when in operation; and Fig. 11 is a view of part of a collar, showing one of its points rolled.

Similar letters refer to similar parts throughout the several views.

Near one edge of the table A, I mount in suitable brackets B B the shaft G. I divide the portion of the shaft which is between the brackets B B into two pieces H and I, (shown in Figs. 6 and 7,) one of which H is provided with a tongue *h*, which fits into the groove *i* in the other piece I. I place the apron D around the lower side of the shaft G and secure the end of the apron D within the groove *i* by removing the clamping-piece H, laying the apron D across the portion I of the shaft G, and then replace the clamping-piece H, forcing the tongue *h* into the groove *i*, together with the apron D, holding the apron firmly in position. When the piece H is placed on the piece I, the tongue *h* fitting into the groove *i*, the contour of the shaft G is the same as that portion adjacent thereto.

For the purpose of keeping the clamping-piece H in contact with the apron and in position on the piece I, I arrange the rings J J on the shaft G, which may be slipped along the shaft and upon the clamping-piece H and piece I, holding them firmly together. The apron D extends from the shaft G forward and over the roller E, secured in the brackets *e* in front of the forward edge of the table A, and passing around the roller E it is clamped in the clamping device L, composed of a plate N, provided with a slot *n*, and at each end a thumb-nut *m* and screw M, together with a strip *l*, provided with a tongue *l'*, which fits into the slot *n*. The apron D passes between the plate N and strip *l*, and the tongue *l'* is brought into contact therewith by operating the thumb-nuts *m*, forcing the apron upward into the groove *n*, where it is held firmly in position by the tongue *l'*, as shown in Fig. 9. The plate N is attached to a strap O, which extends toward the rear of the machine over a pulley P, and has attached to its end a weight P'. Each end of the shaft G is extended beyond the brackets B B, and at the extreme end has a spool *g g* thereon, about which and extending over the same and backward, passing through the table at *g' g'*, I arrange the straps *g² g²*, which pass over the pulleys *g³ g³* and have attached to their ends the weights G' G'. The tendency of the weights is to cause the shaft G to revolve in the direction opposite to that shown by the arrows in Fig. 3.

To the ends of the shaft G, between the spools and the brackets, I secure the straps R R, which pass from the under side of the shaft G, over the shaft toward the forward part of the table, and downward, where they are secured to the treadle T. The operation of the treadle T downward revolves the shaft G and roller E in the direction indicated by the arrows in Fig. 3. Upon releasing the power from the treadle the weights G' G' and P' cause a reverse motion to be imparted to the shaft G and roller E.

For the purpose of regulating the motion of the treadle T I arrange the screw U in the brace *u* on the table A in such a manner that the end of the screw may be brought into contact with the treadle T and limit the upward movement of the treadle.

The operation of my machine is apparent. The point of the collar or other fabric is placed upon the apron D closely adjacent to the shaft G, the treadle is forced downward, causing a revolution of the shaft, which will draw the apron, together with the collar or other fabric, around the shaft, the collar being between the apron and the shaft, as shown in Fig. 10. When a sufficient curve or curl has been given to the collar or other fabric, by releasing the treadle the weights G' G' and P' will cause a reverse revolution to the shaft G and roller E, which will release the collar or other fabric formed as desired.

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

In a machine for rolling the points of collars, the combination of a shaft, brackets within which it is mounted, a table to which said brackets are secured, said shaft between said brackets constructed of two pieces, one of said pieces of said shaft provided with a tongue, the other portion of said shaft provided with a groove adapted to receive said tongue, an apron having one end thereof secured by said tongue within said groove in said shaft, rings adapted to hold the portions

of said shaft together, a roller about which said apron is placed, brackets secured to said table within which said roller is mounted, a clamping device composed of a plate provided with a slot, a thumb nut and a screw at each end together with a strip provided with a tongue, which fits into said slot, for the purpose of holding the apron in position, a strap attached to said plate, a pulley about which said strap is placed, a weight attached to the end of said strap, a spool placed on each end of said shaft, straps passing over said spools, pulleys about which said straps pass, weights attached to the ends of said straps, straps secured to the shaft between the spools and the brackets passing over the shaft, a treadle to which said straps are attached, a brace attached to the table, a screw mounted therein which may be brought in contact with said treadle, for the purpose of limiting the upward movement of the treadle, all substantially as described and for the purpose set forth.

A. E. GRANT.

Witnesses:

GRACE T. MANY,
JOHN N. MAYER.