

(No Model.)

L. P. SHERMAN.

MACHINE FOR DRAWING IN WARP THREADS.

No. 487,938.

Patented Dec. 13, 1892.

FIG. 1.

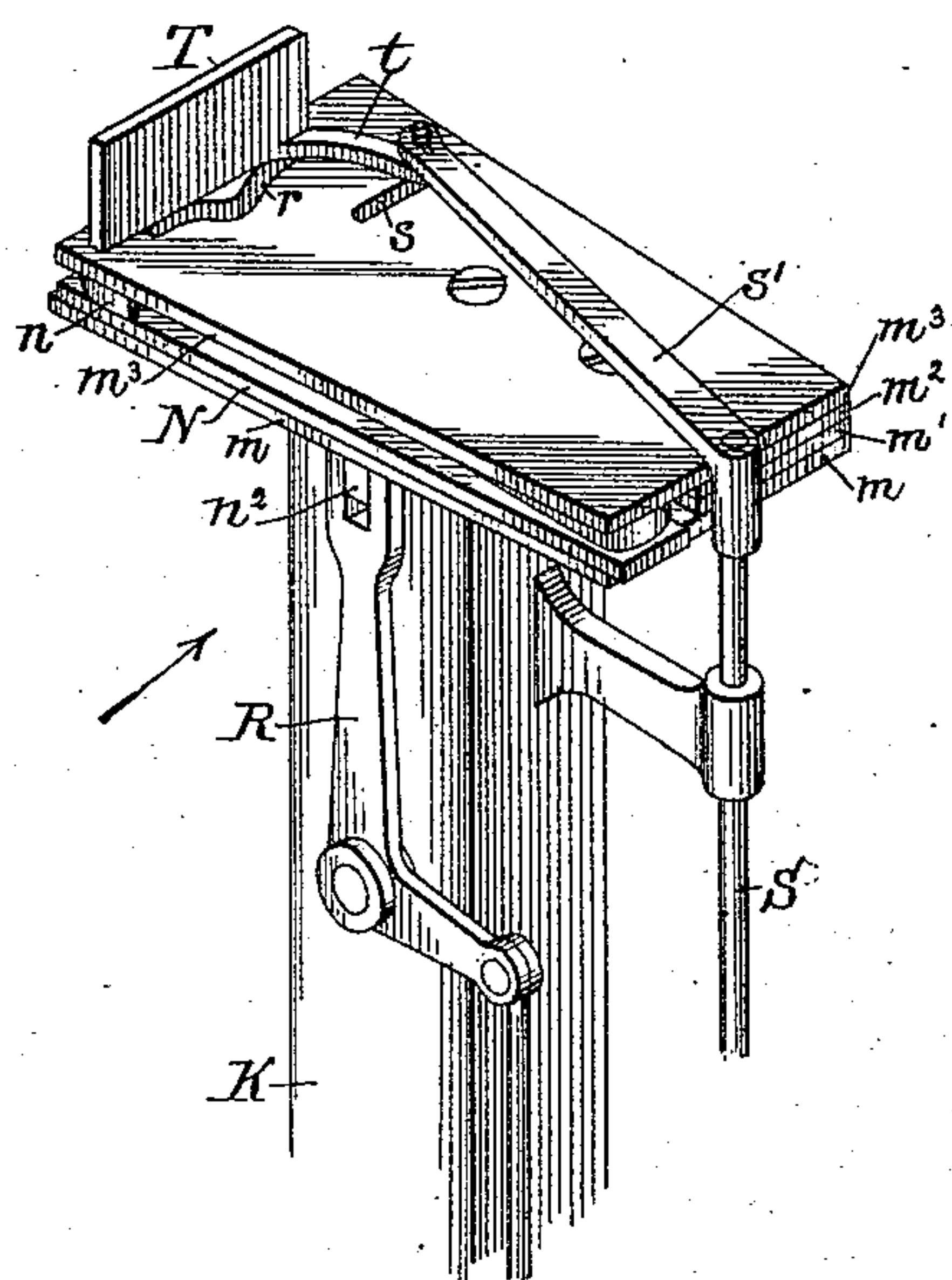


FIG. 2

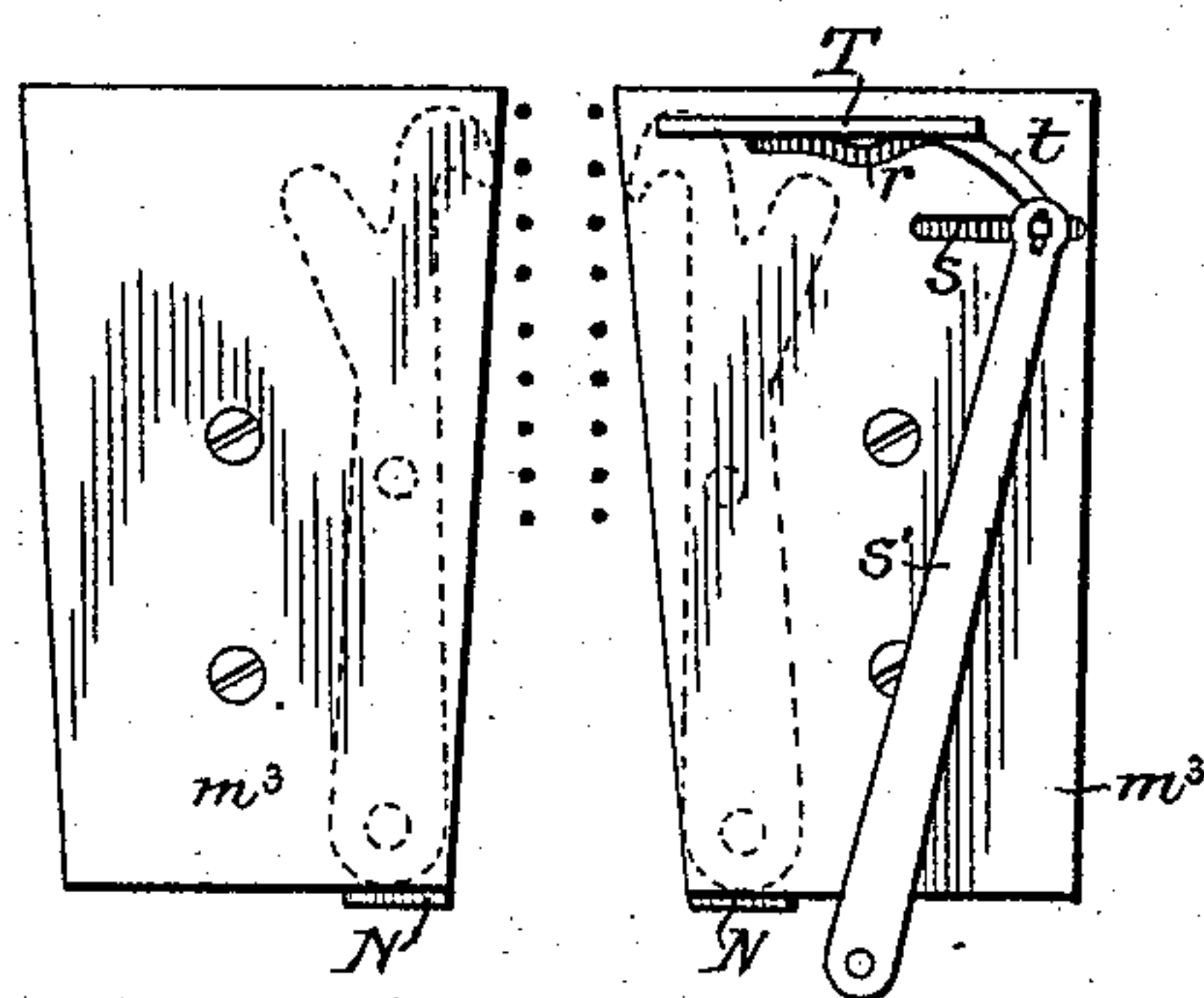


FIG. 3.

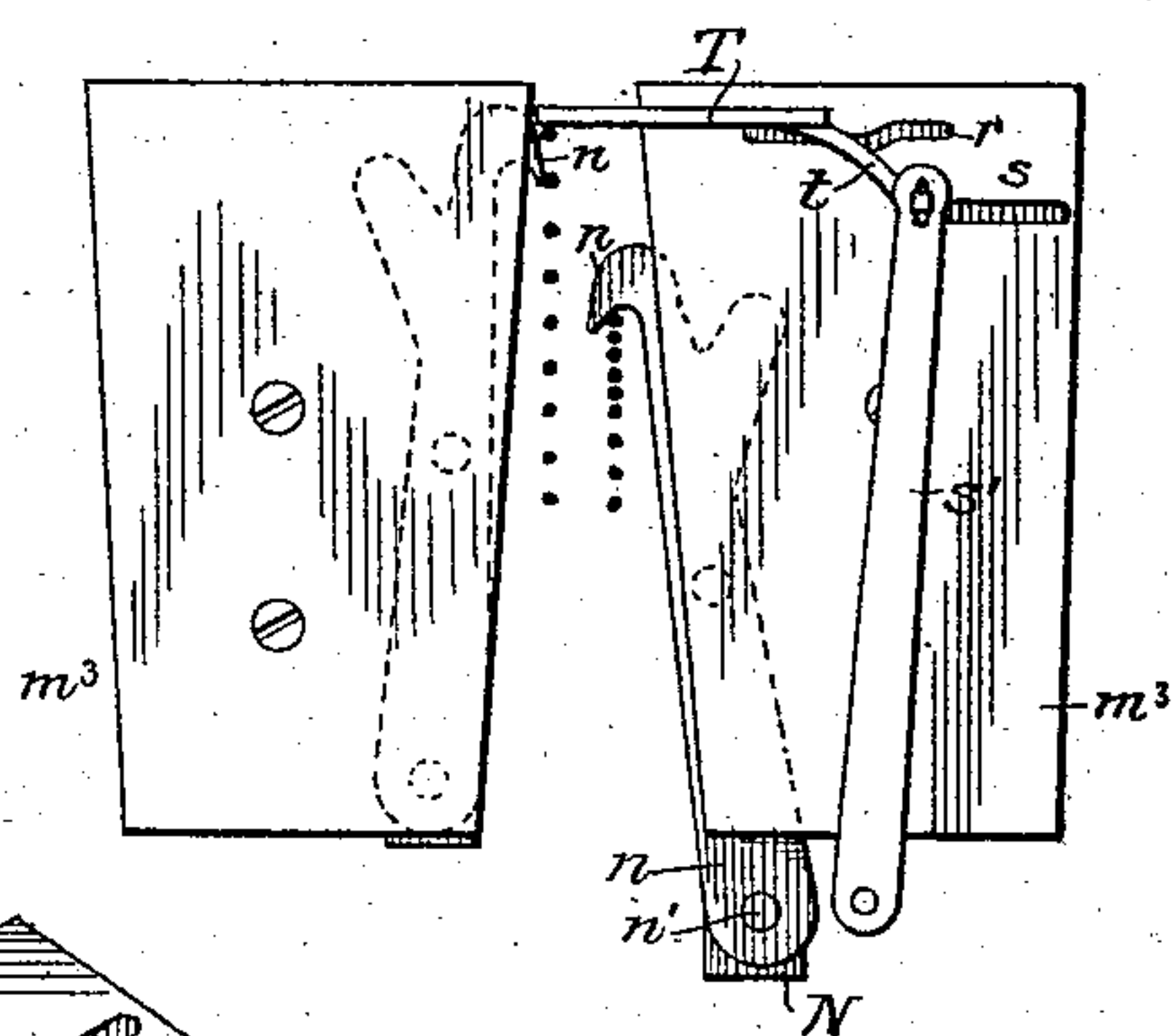


FIG. 4.

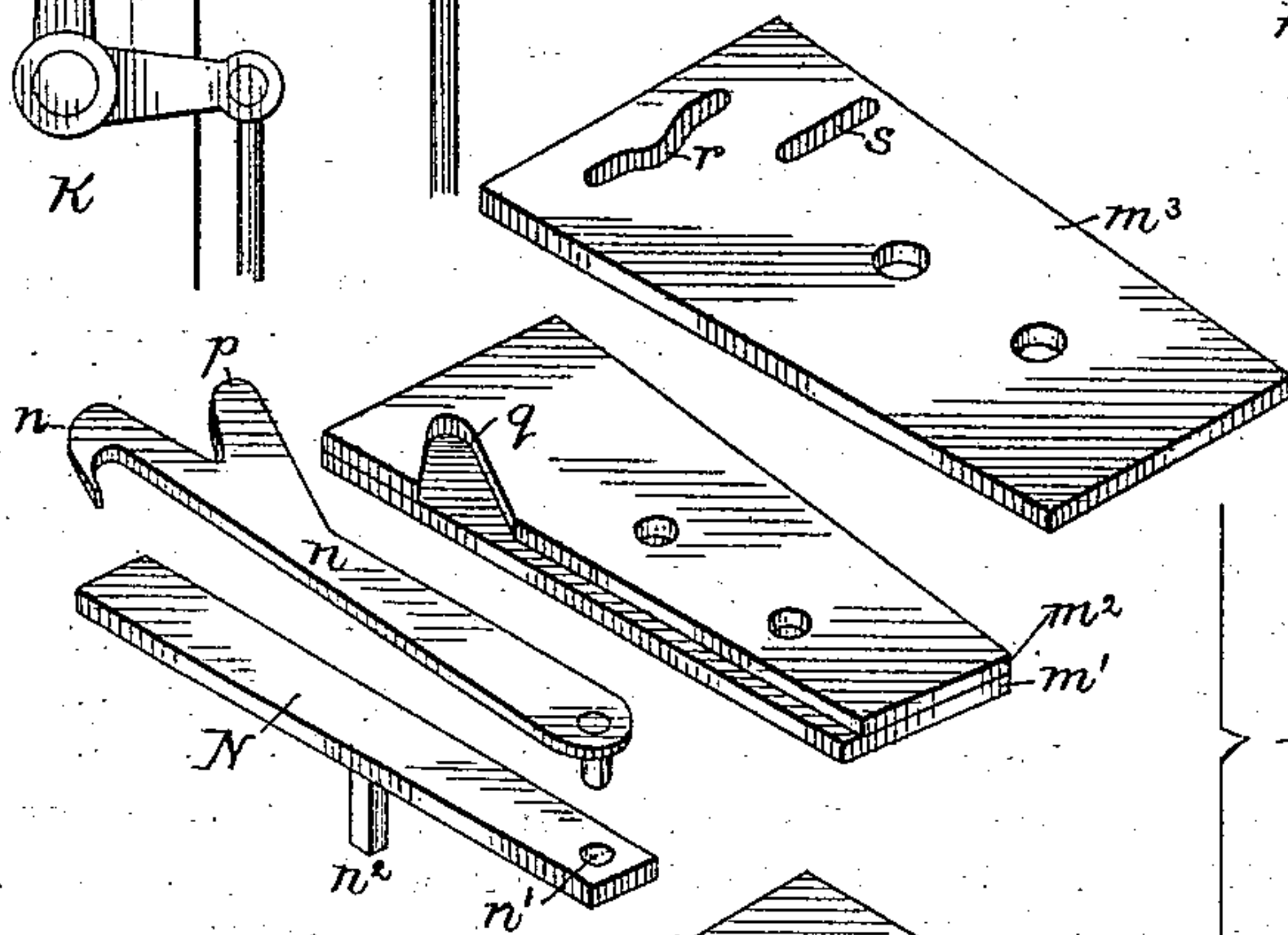
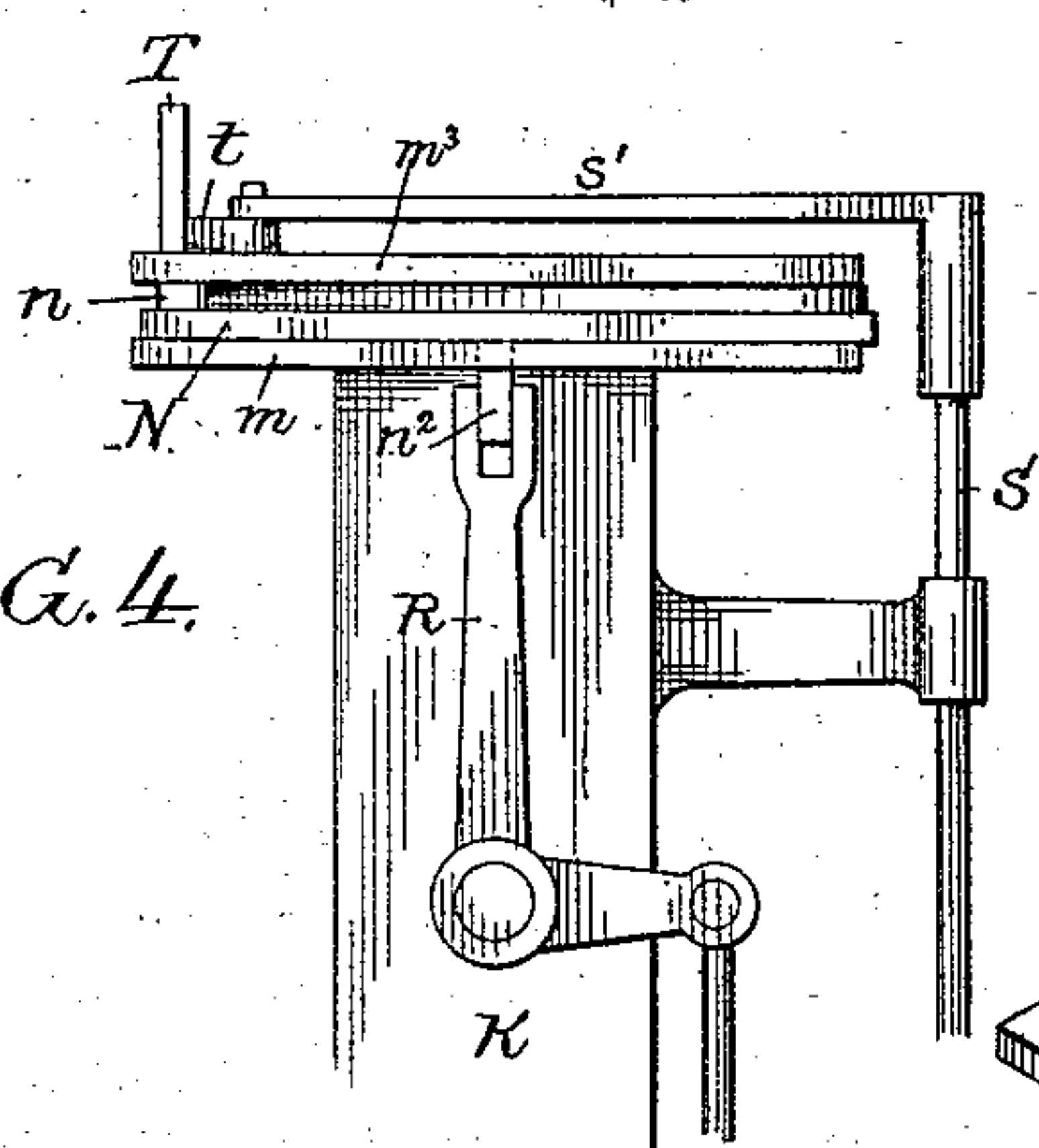


FIG. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

LEWIS P. SHERMAN, OF BIDDEFORD, MAINE.

MACHINE FOR DRAWING IN WARP-THREADS.

SPECIFICATION forming part of Letters Patent No. 487,938, dated December 13, 1892.

Application filed August 21, 1890. Serial No. 362,644. (No model.)

To all whom it may concern:

Be it known that I, LEWIS P. SHERMAN, a citizen of the United States, and a resident of Biddeford, York county, Maine, have invented certain Improvements in Machines for Drawing in Warp-Threads, of which the following is a specification.

My invention relates to certain improvements in the construction of devices for separating and holding the eyes of heddles in machines for drawing in warp-threads of that general class shown in Letters Patent granted to me on the 31st day of July, 1883, Serial No. 282,124.

In the accompanying drawings, Figure 1 is a perspective view of a device for separating the heddle-eyes of a heddle constructed in accordance with my invention. Fig. 2 is a plan view of a pair of such devices. Fig. 3 is a view similar to Fig. 2, illustrating the device in a different position. Fig. 4 is a side elevation looking in the direction of the arrow, Fig. 1; and Fig. 5 is a perspective view illustrating the parts detached from each other.

K represents a post or standard, which may be similar to that described in the above-mentioned patent and mounted in the same manner upon the reciprocating carriage of the machine, one of such posts being mounted on each side of each heddle to be threaded, and each post being provided with devices for operating upon the heddles in such manner as to separate a single heddle-eye from the remainder of the eyes of the heddle and to allow such separated heddle-eye to be fed forward to the jaws which hold and clamp the eye during the passage of the needle. At the upper end of this post K is mounted a plate m , and clamped to this plate m are three other plates m' , m'' , and m''' , the plates m' and m'' being cut away and somewhat narrower than the plates m and m''' , thus forming a slideway between the two latter plates for a slide N, to the rear end of which at n' is pivoted a hook n . The slide N has a pin n^2 , which passes through a slot in the plate m and is given a reciprocating motion by the lever R, pivoted to the post M. At the rear of the hook n is an inclined projection p , which when the parts are in the

position shown in Fig. 2 passes into a recess q in the plate m'' , the projection acting in conjunction with the recess to throw the hook n into and out of engagement with the heddle-cords, as shown in Figs. 2 and 3, as the slide N is moved to and fro by the bell-crank lever R, the hooks acting alternately on the rows of heddle-eyes to hold back all of the eyes in the heddle except the one which is about to be presented to the holding and clamping fingers, which present the heddle-eye to the threading-needle, as fully set forth in the above-mentioned patent.

In the upper face of the plate m''' are two slots—one r in the form of a flattened V and the other s a straight slot—and adapted to bearings on the post is a vertical shaft S, carrying an arm s' , carrying a pin adapted to the slot s , the outer end of this arm being pivoted to an arm t , carrying a plate T, having a pin adapted to the V-shaped slot. On the vibration of the arm s' , therefore, the plate T passes forward between the heddle-cords and separates the mass of eyes from the one which is to be fed forward.

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

1. The combination of the reciprocating slide and its guides, with heddle-separating hooks pivoted to said slides, and devices for advancing and retracting said hooks during their reciprocation, substantially as specified.

2. The combination of the plate T, a lever for vibrating the same, the plate having guiding-slots for controlling the movement of said plate and its lever, substantially as specified.

3. The combination of the upper and lower guiding-plates, the recessed plate held between the two, and a reciprocating hook having a projection adapted to said recessed plate, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEWIS P. SHERMAN.

Witnesses:

JOHN C. HURD,
GEO. MOORE.