

(No Model.)

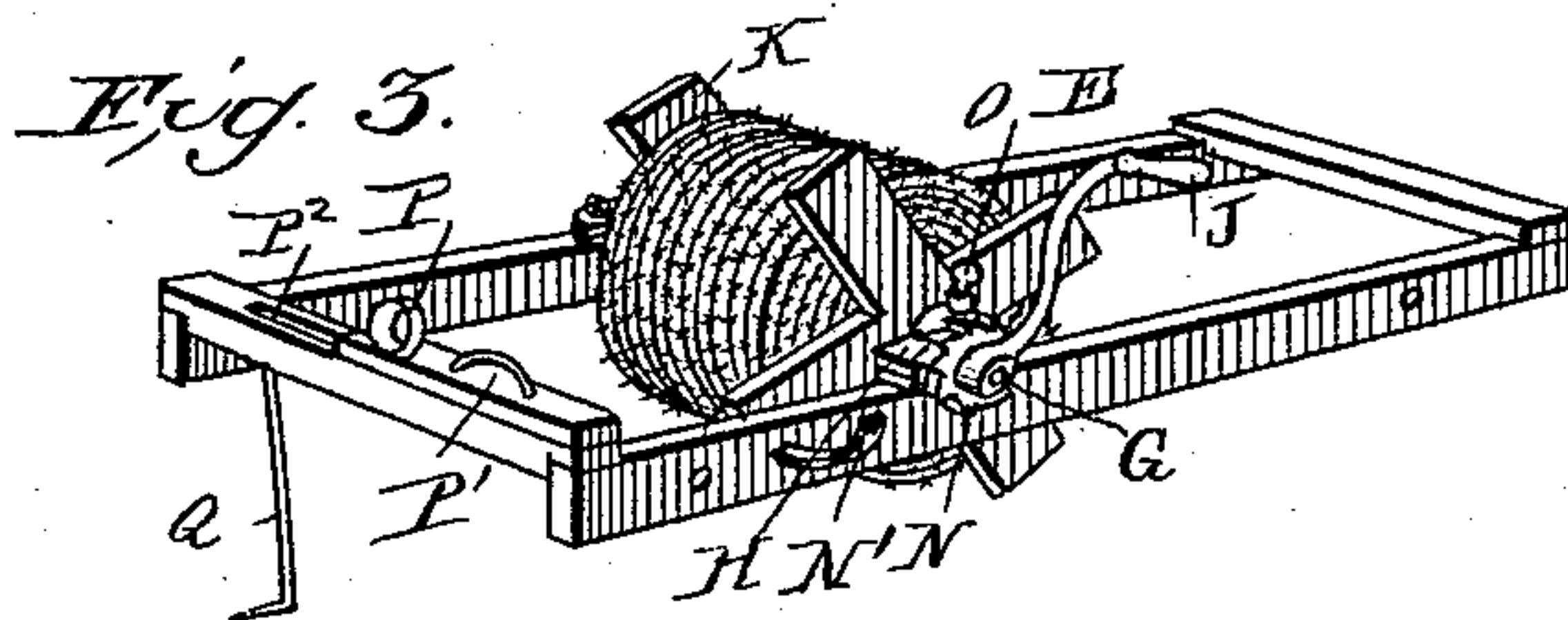
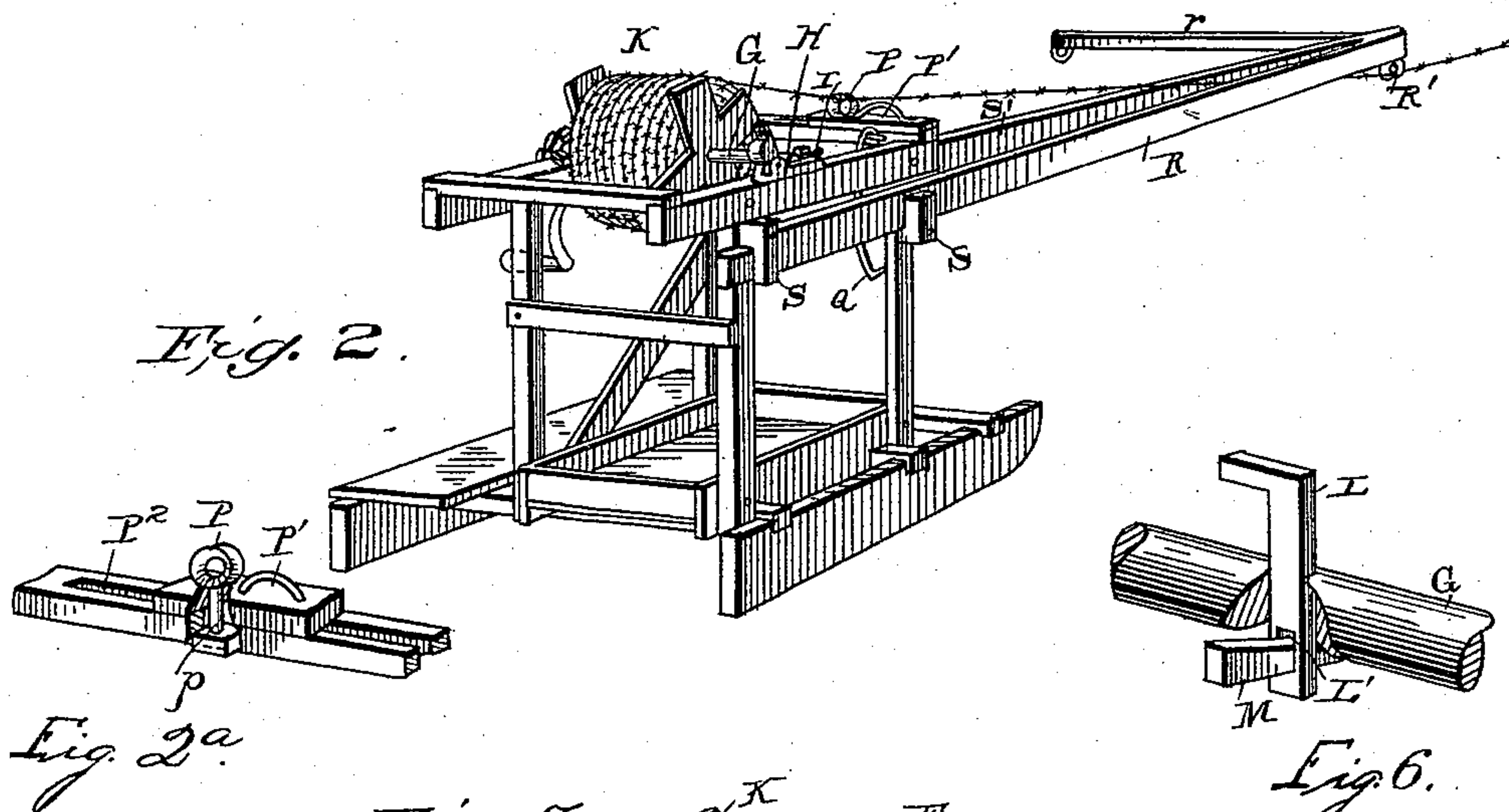
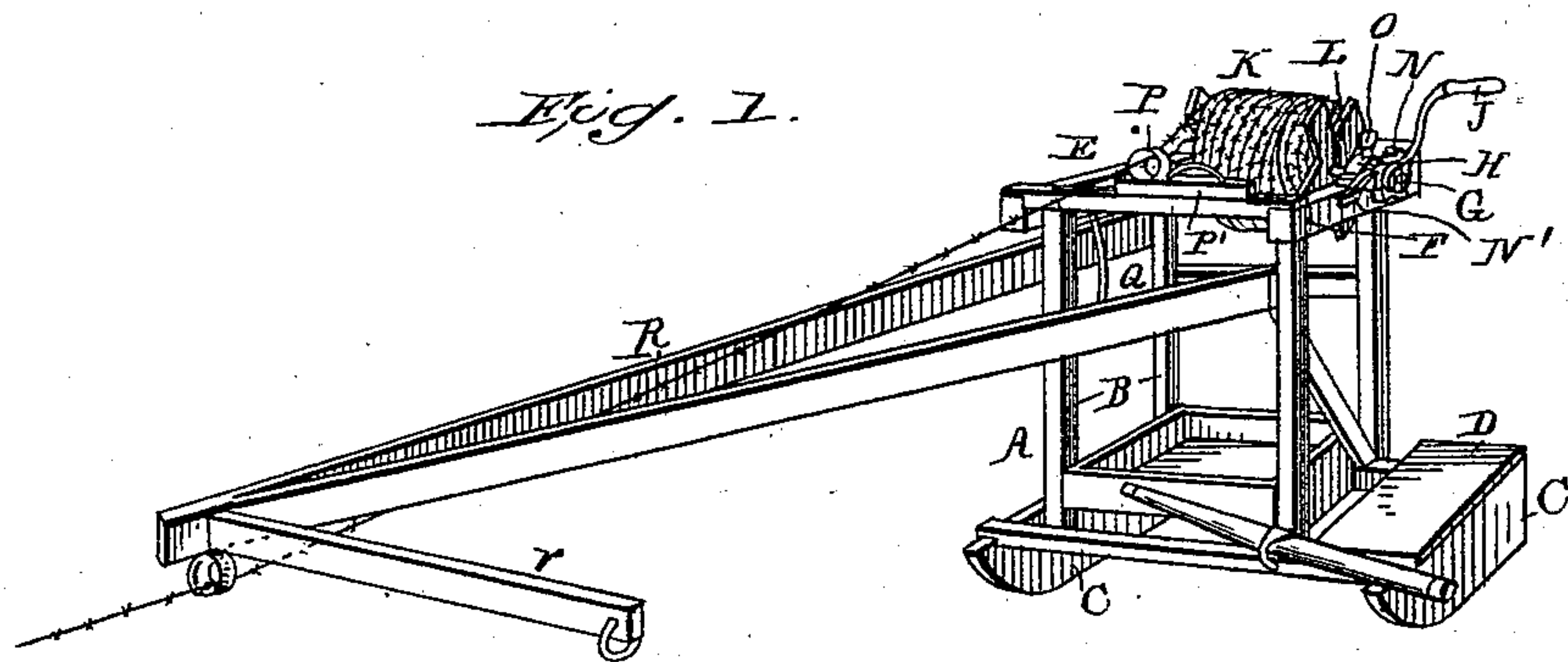
2 Sheets—Sheet 1.

J. HARPER.

WIRE REELING AND STRETCHING MACHINE.

No. 485,541.

Patented Nov. 1, 1892.



Witnesses

A. J. Schwartz  
George E. Reily

Inventor

John Harper

By his Attorney

J. Fred Reily

(No Model.)

2 Sheets—Sheet 2.

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Fig. 4.

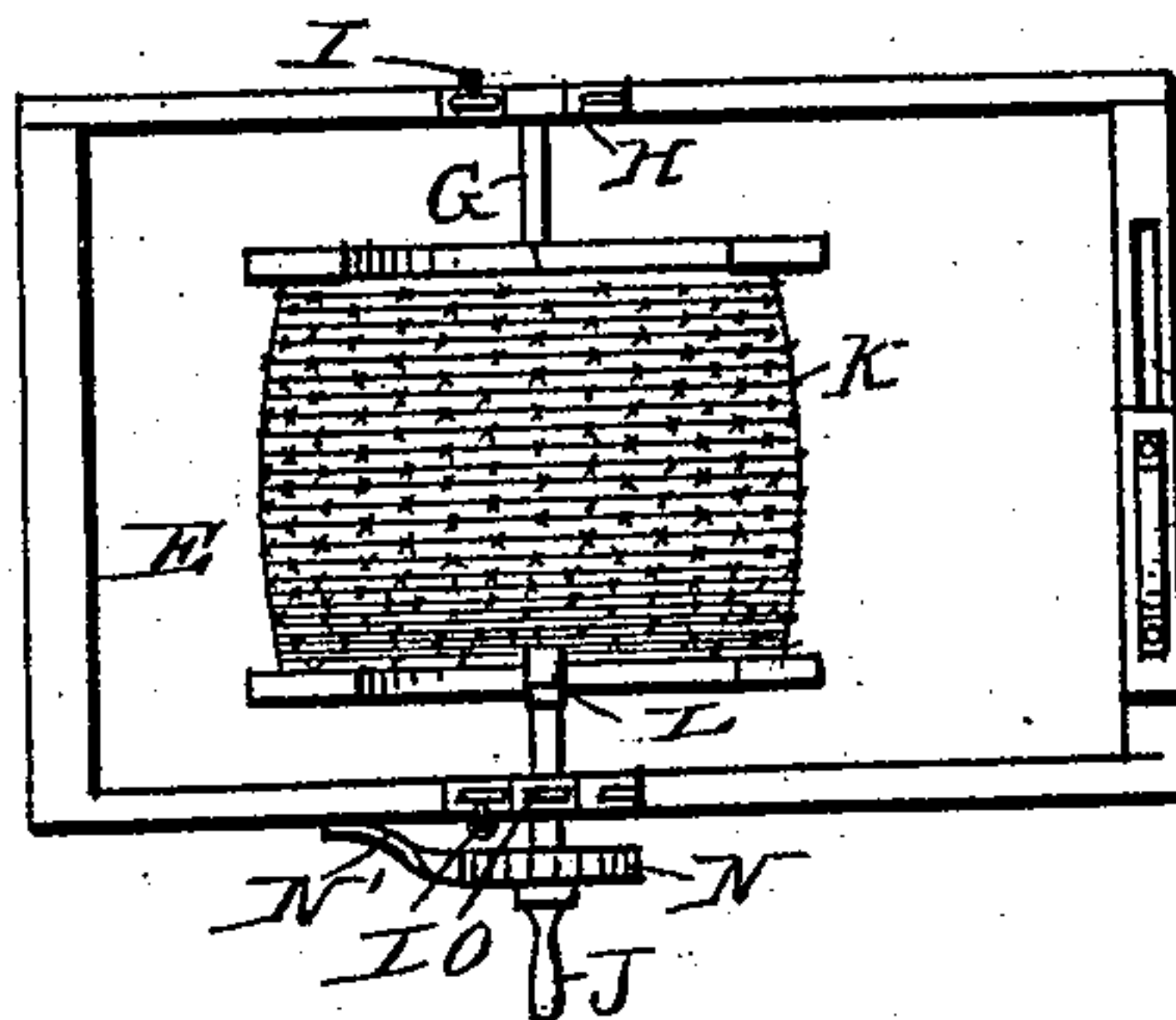
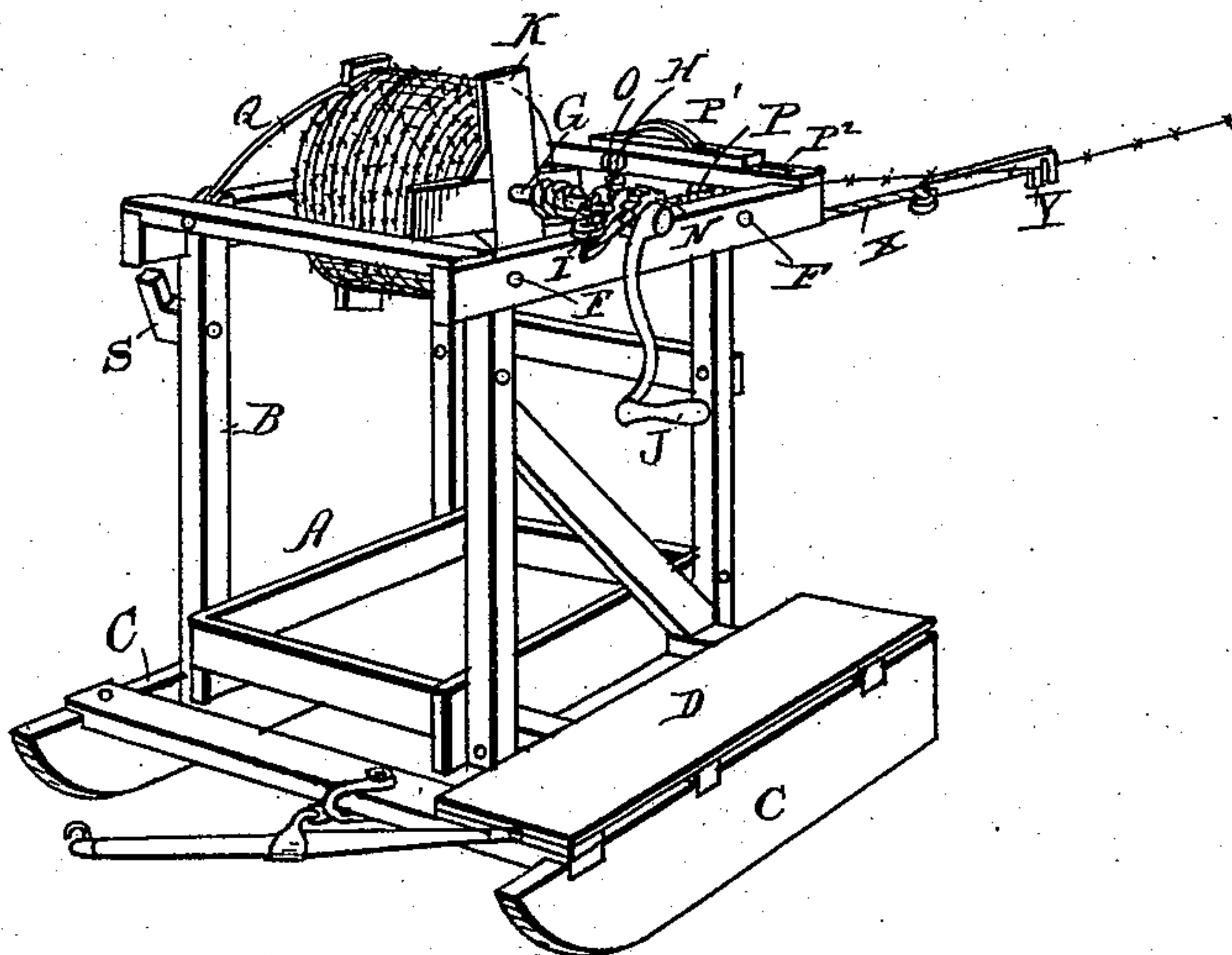


Fig. 5.

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# UNITED STATES PATENT OFFICE.

JOHN HARPER, OF FAIRFIELD, IOWA.

## WIRE REELING AND STRETCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 485,541, dated November 1, 1892.

Application filed June 22, 1891. Serial No. 397,021. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN HARPER, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented certain new and useful Improvements in Wire Reeling and Stretching Machines; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention consists in a new and improved machine for reeling and stretching wire, this invention being largely an improvement on the machine for which Letters Patent No. 443,442 were granted me; and my invention will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of my new and improved machine. Fig. 2 is a perspective view taken from the side opposite to that from which Fig. 1 is taken. Fig. 2<sup>a</sup> illustrates in detail the guide-collar P and its adjacent parts. Fig. 3 illustrates the upper part of the machine removed from the body. Fig. 4 illustrates the device arranged for straining the wire, the frame E having been reversed. Fig. 5 is a top plan view. Fig. 6 illustrates in detail the clamp L and its wedge-shaped key M.

The same letters of reference indicate corresponding parts in all figures.

Referring to the several parts by their designating-letters, A indicates the lower part, and B the upright supporting-frame, of the machine, which is mounted on the runners C for convenience in drawing it from place to place.

The above-described parts are similar to those shown in my previous patent, except that the lower part of the frame is extended at one side to form the platform D, upon which the operator stands when operating the machine.

E indicates the removable horizontal upper part of the machine-frame, which is adjustably secured to the upright frame by means of the removable bolts F, so that the upper

frame, with the windlass mounted on it, can be raised or lowered as the several strands of the wire fence are to be stretched into position.

G indicates the windlass or axle, which is mounted in bearings H on the upper part of the machine, these bearings being hinged, as shown, so that by moving the pin I the axle can be removed. The axle is provided at one end with a crank-handle J and upon it is loosely mounted the reel K, the length of which is less than that of the axle, so that it can be slipped back and forth when it is desired to stretch the wire.

When the machine is being used for reeling or unreeling the wire, the reel is slipped on the axle toward one end, preferably that to which the crank is attached, and rigidly connected with the axle by means of a hook or clamp L, which somewhat resembles the figure 7 and has its stem or longer end passed through a hole or slot in the axle. The head or upper portion of the hook engages with one of the cross-sticks and the stem or longer end is provided with a hole L' for the reception of a wedge M, which bears against the shaft and draws the hook tightly into the hole through the shaft and holds the head firmly in engagement with the reel. The backward rotation of the shaft is prevented by means of a ratchet-wheel N, that is preferably formed integral with the crank or handle J and is engaged by a pawl N', pivotally secured to one side of the frame. The tension upon the wire in paying it out or in unreeling it is secured by means of a thumb-screw O, which passes through one of the bearings H and engages with the shaft at its lower end. By turning the screw a greater or less tension is secured, as desired.

In winding wire upon the reel it passes to it through the flaring guide-collar P, secured on the upper end of the bolt p, to the lower end of which is secured a suitable sliding bar or handle P', the bolt p passing through the longitudinal slot P<sup>2</sup> in the forward cross-bar of the upper frame. By this means the guide-collar P can be moved as the wire is being coiled on the reel, for the purpose of coiling the same evenly from end to end of the reel.

The device for taking up the wire in front of the horse consists of an arm R, which is



secured to the side of the frame by means of the cleats or hooks S and projects forward about even with the breast of the horse. A guide-pulley R' is mounted on or suspended from the front end of this arm, through which the wire passes on its way to the reel. A brace-arm S' is connected with the front end of the arm R and extends back laterally to the opposite side of the frame from the rear end of the arm R. In this manner the brace also prevents the horse from getting so near the arm R as to be injured by the wire. The front end of the arm R is provided with a jockey-stick r, which is connected with the collar of the horse and guides the machine and also keeps the end of the arm, with the wire, away from the horse. As the machine is drawn forward by the horse, the attendant upon the platform D turns the reel K by means of the crank J and winds up the wire as fast as the horse travels, the collar P being moved back and forth as the reel is filled with wire.

In paying out or unreeling the wire it is delivered from the reel in the opposite direction or from the rear of the machine, the tension upon the wire being regulated by means of the thumb-screw O. When it is desired to stretch or tighten the wire preparatory to fastening it to the posts, the reel is released from the axle by loosening the hook L and it is slipped over to the opposite side of the frame, where it is fastened by a hook Q, which is pivoted to the frame of the machine, so that its

pointed upper end can be pressed into the coil of wire on the reel and thus hold the reel from rotating with the axle. A short rope X is then secured to the axle by means of the hook or clamp L and given one or two turns around the axle to prevent its slipping. The outer end of the rope is provided with a clamping-iron Y, which is precisely similar in construction to that shown in my patent, No. 443,442, and in which the wire is secured. Now by turning the axle G by means of the crank J the rope is wound up and the wire is stretched as tight as desired and can then be secured to the posts or other means of anchoring or securing it.

Having thus described my invention, I claim—

The combination, with the frame of a reel-carrier, of an arm removably secured to one side thereof and projecting in front of the same, a guide-pulley at the front end of the arm, a brace secured to the side of the frame opposite the arm and to the front of the arm, and a jockey-stick at the front end of the arm, adapted to be secured to the harness of a horse hitched to the frame, substantially as described.

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

JOHN HARPER.

Witnesses:

ROLLIN J. WILSON,  
DAVID B. WILSON.