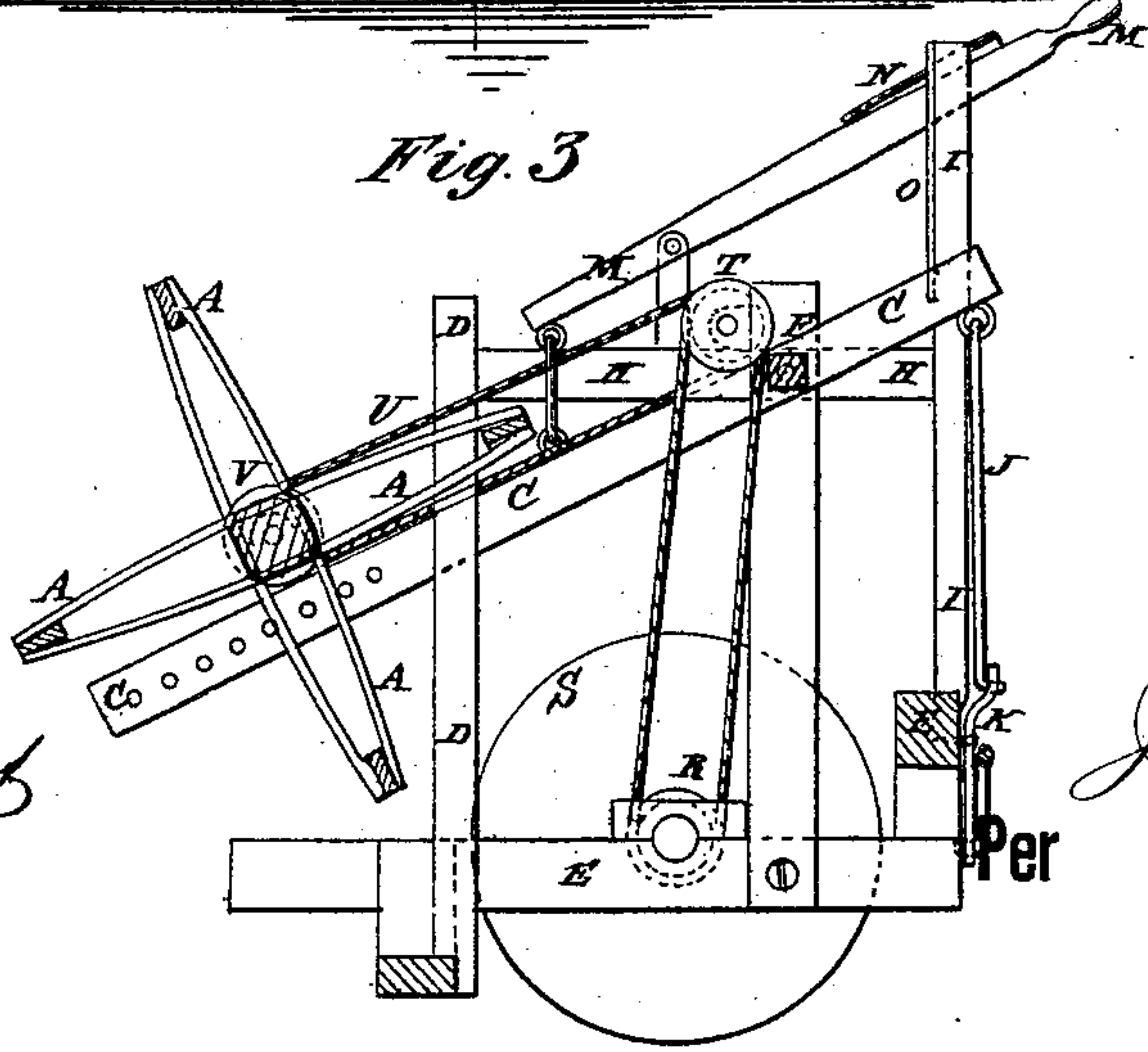
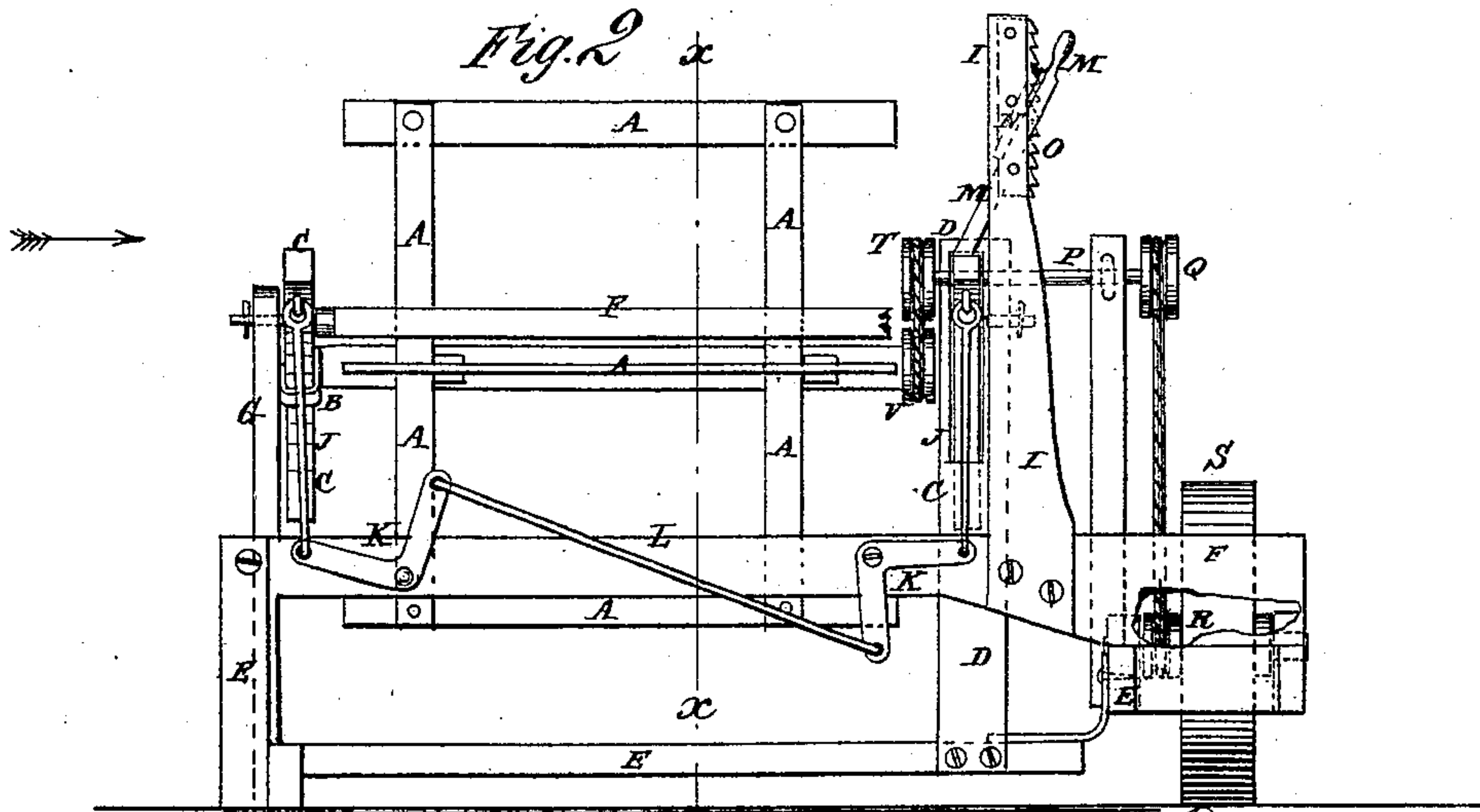
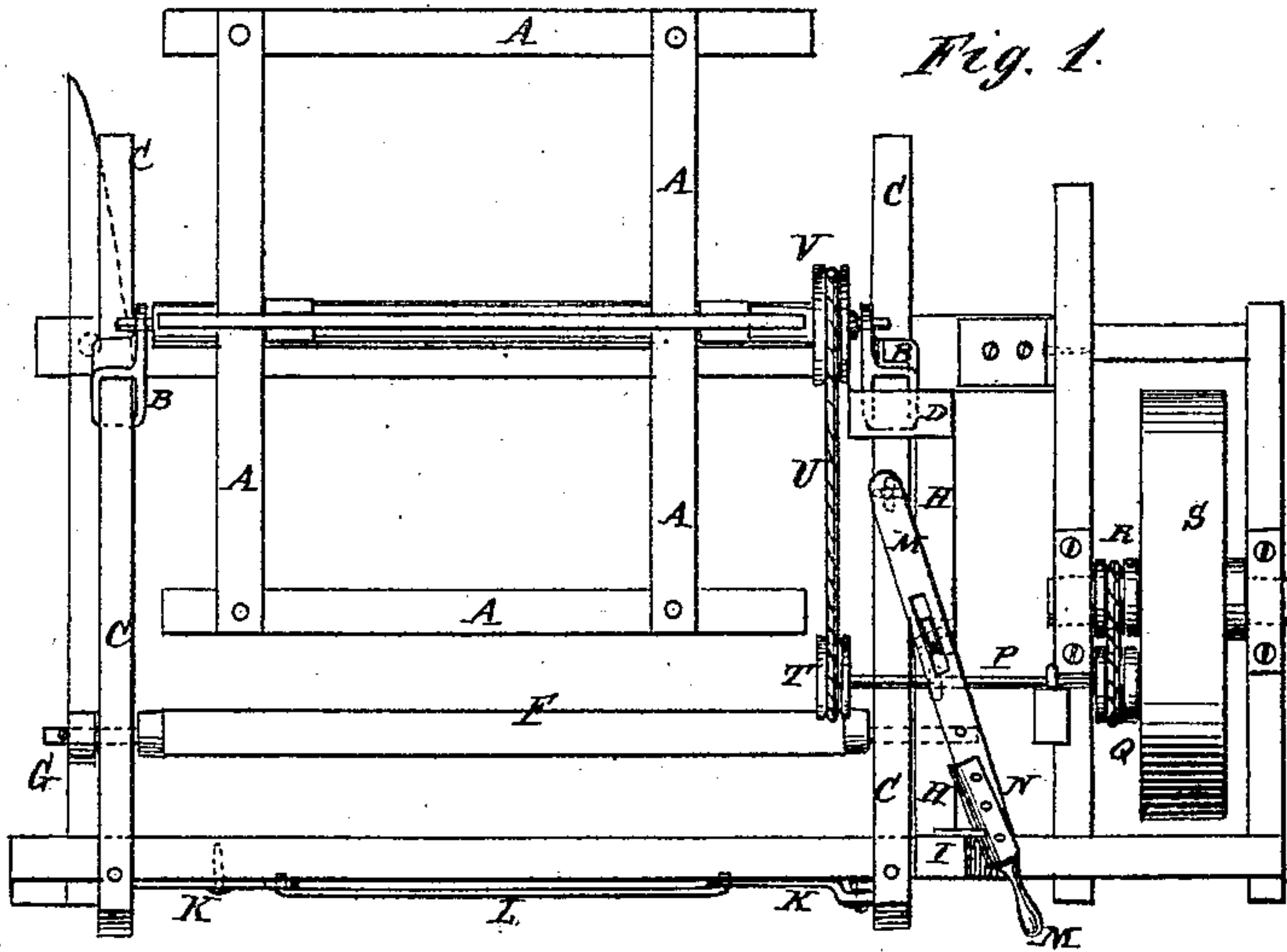


J. WERNER, Jr.
Reels for Harvesters.

No. 142,881.

Patented September 16, 1873.



Witnesses.

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

JOHN WERNER, JR., OF PRAIRIE DU SAC, WISCONSIN.

IMPROVEMENT IN REELS FOR HARVESTERS.

Specification forming part of Letters Patent No. **142,881**, dated September 16, 1873; application filed June 14, 1873.

To all whom it may concern:

Be it known that I, JOHN WERNER, Jr., of Prairie du Sac, in the county of Sauk and State of Wisconsin, have invented a new and useful Improvement in Adjustable Reel for Harvesters, of which the following is a specification:

Figure 1 is a top view of my improved reel. Fig. 2 is a rear view of the same. Fig. 3 is a vertical section of the same taken through the line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved harvester-reel, which shall be so constructed that it can be readily raised and lowered, while the machine is in operation, to adjust it to the height of the grain to be cut, which may be moved forward or back, as required, and which shall be simple in construction, effective in operation, strong, and durable. The invention consists in the improvement of harvester-reels, as hereinafter described, and pointed out in the claim.

A represents a reel, the journals of which revolve in bearings B, which slide upon the bars C, and which are kept in place upon said bars C by pins or bolts, which pass through holes in the said bearings B, and in the said bars C. Several holes are formed in the bars C to receive the said pins or bolts, so that the bearings B may be moved to adjust the reel forward and back, as required. The forward part of the inner bar C moves up and down in a vertical slot in the post D, the lower end of which is attached to the frame-work E of the harvester. The rear parts of the bars C are connected by a bar, F, one end of which is pivoted to the upper end of the post G, the lower end of which is attached to the frame-work E. The other end of the bar F is pivoted to a cross-bar, H, the forward end of which is attached to the post D, and its rear end to the post I, the lower end of which is attached to the frame E. To the rear ends of the bars C

are pivoted the upper ends of the connecting-rods J, the lower ends of which are pivoted to the outer arms of the bent levers K, which are pivoted at their angles, and in a reversed position, with respect to each other, to a bar of the frame E. To the inner arms of the bent levers K are pivoted the ends of the bar L. By this arrangement the two bars C will be made to move exactly together, so that the reel A will always be raised and lowered squarely. M is a lever, which is pivoted to a stud attached to the cross-bar H, and its forward end is pivoted to the inner bar C, between its pivoting-point and the reel, so that the reel may be raised and lowered by operating the lever M. To the lever M is attached, or upon it is formed, a plate or catch, N, which catches upon the teeth of the bar or plate O attached to the upwardly-projecting end of the post I, so as to hold the reel securely in any position into which it may be adjusted. P is a short shaft, which revolves in bearings attached to the frame E. To one end of the shaft P is attached a pulley, Q, to receive a band or chain, which also passes around a pulley, R, attached to the journal of the drive-wheel S. To the other end of the shaft P is attached a pulley, T, around which passes a chain, U, which also passes around a pulley, V, attached to the reel-shaft. The chain U is so formed that links or short pieces may be put into it, and taken out, to adjust its length to the position of the bearings B upon the bars C.

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

The combination of the connecting-rods J, angle or bent levers K, and connecting-rod L with the pivoted bars C that support the reel, substantially as herein shown and described.

JOHN WERNER, JR.

Witnesses:

ALBERT WOOD,
THOMAS BAKER.