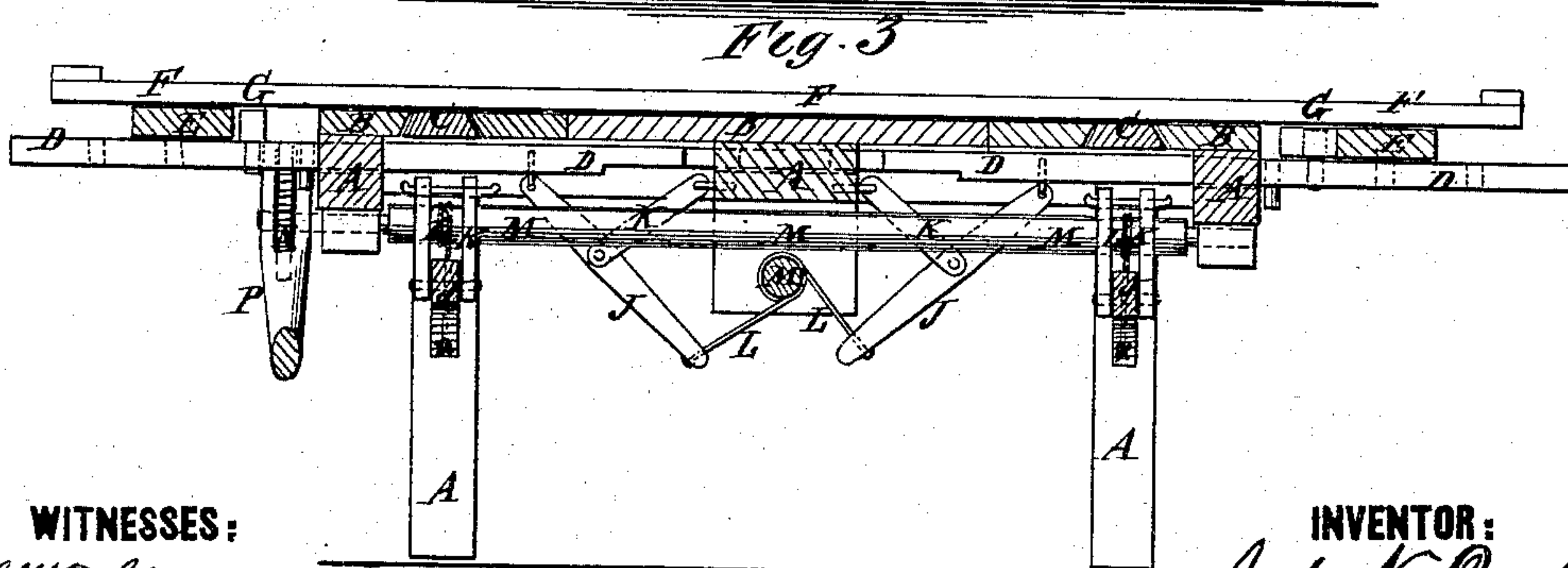
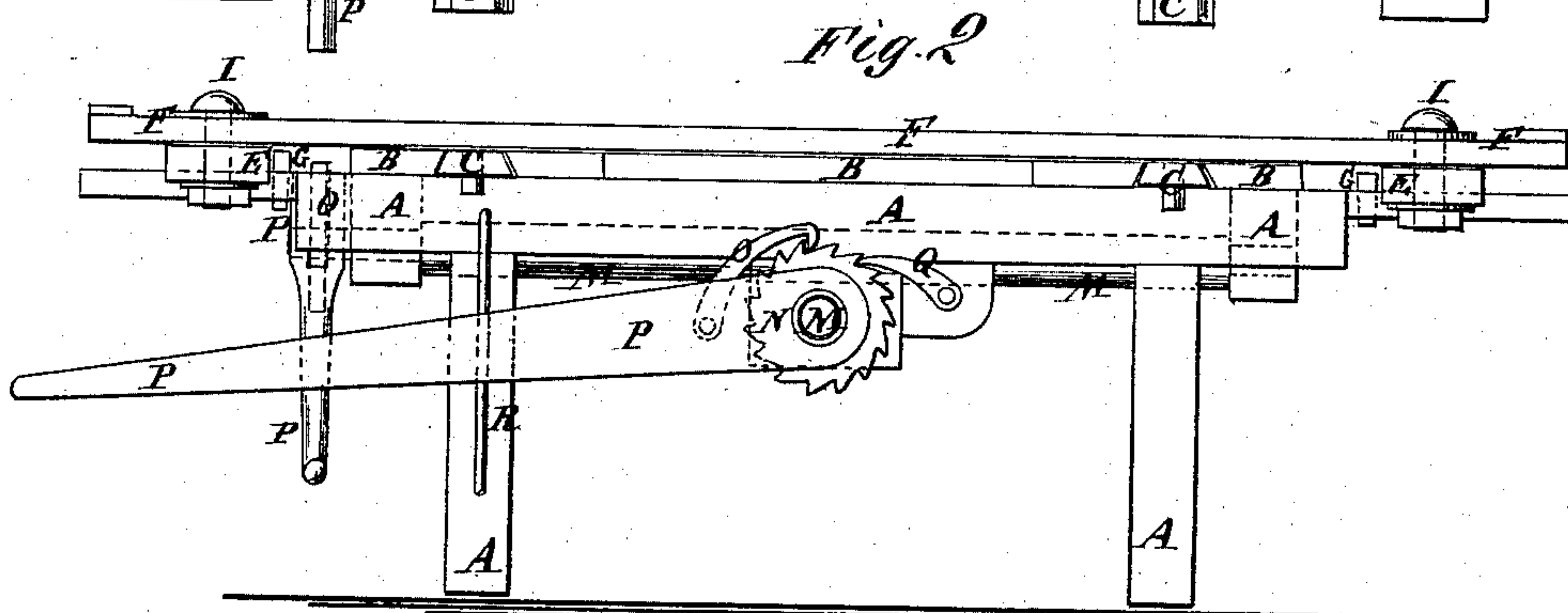
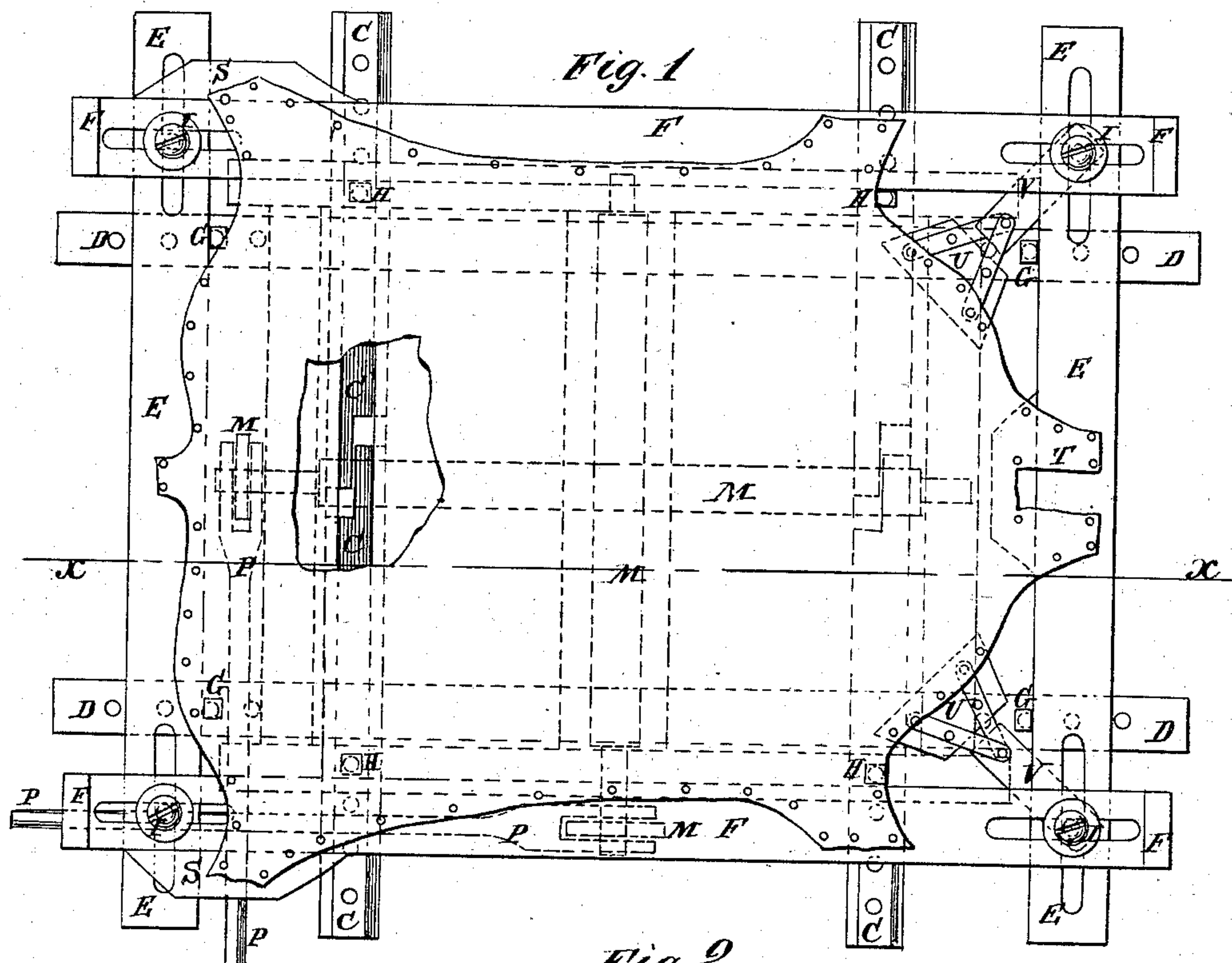


J. N. DUFFY.

APPARATUS FOR DRYING HIDES.

No. 184,352.

Patented Nov. 14, 1876.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JAMES N. DUFFY, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN APPARATUS FOR DRYING HIDES.

Specification forming part of Letters Patent No. 184,352, dated November 14, 1876; application filed October 14, 1876.

*To all whom it may concern:*

Be it known that I, JAMES N. DUFFY, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Machines for Drying Hides, of which the following is a specification:

Figure 1 is a top view of my improved machine, a hide being represented as arranged upon it. Fig. 2 is a side view of the same. Fig. 3 is a vertical section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved means for drying and stretching hides, which shall be simple in construction and convenient and effective in use, being so constructed that the hide may be stretched in any desired direction and to any desired extent, and thus dried without fold or wrinkle.

The invention consists in the extensible frame to receive the hide, formed of the four bars, having their ends slotted, and the clamping-bolts; in the combination of the sliding bars and their pins with the extensible frame and with the table; in the combination of the levers and the pivoted fulcrum-bars, the ropes, the shafts, the ratchet-wheels, the pawls, and the hand-levers with the table and the sliding bars; and in the combination of the swinging blocks and their pivoting-straps with the extensible frame and the clamping-bolts, as hereinafter fully described.

A is the frame of the table, and B is its top. C are two pairs of bars, the bars of each pair being placed end to end across the table, near its ends, and which are let into the table-top B, so that their upper sides may be flush with the upper surface of the said table-top B. The adjacent ends of the bars C are halved to each other, as shown in Fig. 1. D are two pairs of bars, which cross the table longitudinally near its sides, beneath the bars C. The inner ends of the bars D abut against the center cross-bar of the table-frame A. E are the two end bars, and F are the two side bars, of the frame, to which the hide is attached. The end bars E are placed upon the projecting ends of the bars D, and their inner edges rest against pins G, inserted in holes in the said bars D. The side bars F are placed upon the outer parts of the bars C

and E, and their inner edges rest against pins H, inserted in holes in the bars C. Several holes are formed in the end parts of the bars C D to receive the pins G H, to enable the bars E F to be adjusted according to the size of the hide to be dried. The ends of the bars E F are slotted longitudinally to receive the bolts I, by which the said ends are clamped to each other when the hide has been sufficiently stretched. To the under side of each of the bars C D is pivoted the upper end of a lever, J, the middle part of which is pivoted to the lower end of a bar, K. The bars K serve as fulcrums to the levers J, and their upper ends are pivoted to the frame A of the table. To the lower ends of the levers J are attached the ends of cords L, the other ends of which are attached to the shafts M. The shafts M revolve in bearings attached to the table-frame A, and cross each other at right angles beneath the center of the table. To the end of each of the shafts M is attached a ratchet-wheel, N, with the teeth of which engages the hook of the hook-pawl O, which is pivoted to the lever P. The inner ends of the levers P are slotted to receive the ratchet-wheels N, and are pivoted to the shafts M, so that, by operating the levers P, the shafts M will be turned, winding up the cords L, and operating the levers J to push the bars C D outward, and thus spread the bars E F of the stretching-frame. The shafts M are held in any position into which they may be turned by the pawls Q, which are pivoted to the frame A, or to supports attached to said frame. The free ends of the levers P move up and down along a leg of the frame A, and are kept from lateral movement by keepers R, attached to said leg.

In using the machine the bars E F are adjusted to the size of the hide, and the pins G H are inserted in the proper holes in the bars D C. The edges of the hide are then tacked to the bars E F, blocks S being attached to the bars F to receive the hind legs of the hide, and a block, T, being attached to the end bar E to receive the neck of the hide. The shoulders of the hide are tacked to blocks U, to which are attached metal straps V, which are pivoted to the clamping-bolts I, between the overlapped ends of the bars E F, so that the blocks U



may swing as they are drawn by the hide, while being stretched.

When the hide has been properly secured, the levers P are operated to spread the bars E F and stretch the hide, which will thus be stretched in every direction. The nuts of the clamping-bolts I are then tightened to hold the bars E F in place, and the pawls Q are raised from the ratchet-wheels N, which releases the frame E F, and allows it to be removed from the table and set away to dry.

Another frame E F is then placed upon the table and another hide secured to it, and so on.

The levers may be omitted, and the bars C D forced out to spread the bars E F by screws or other suitable device; but I prefer the levers, as they allow the bars C D to be set free to release the frame E F, and enable the said bars C D to be slid in to receive another frame E F more quickly than would be possible if screws were used.

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

1. The extendible frame to receive the hide, formed of the bars E F, having their ends slotted, and the clamping-bolts I, substantially as herein shown and described.

2. The combination of the sliding bars C D and the pins G H, with the extendible frame E F I, and the tables A B, substantially as herein shown and described.

3. The combination of the levers J, the pivoted fulcrum-bars K, the ropes L, the shafts M, the ratchet-wheels N, the pawls O Q, and the levers P with the table A B, and the sliding bars U D, substantially as herein shown and described.

4. The combination of the swinging blocks U and the pivoting-straps V with the extendible frame E F, and the clamping-bolts I, substantially as herein shown and described.

JAMES N. DUFFY.

Witnesses:

JAMES T. GRAHAM,  
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