N. J. Lamman,
Cotton Press.

No. 4,818. Patented Oct. 17, 1846.

Fig. 1.

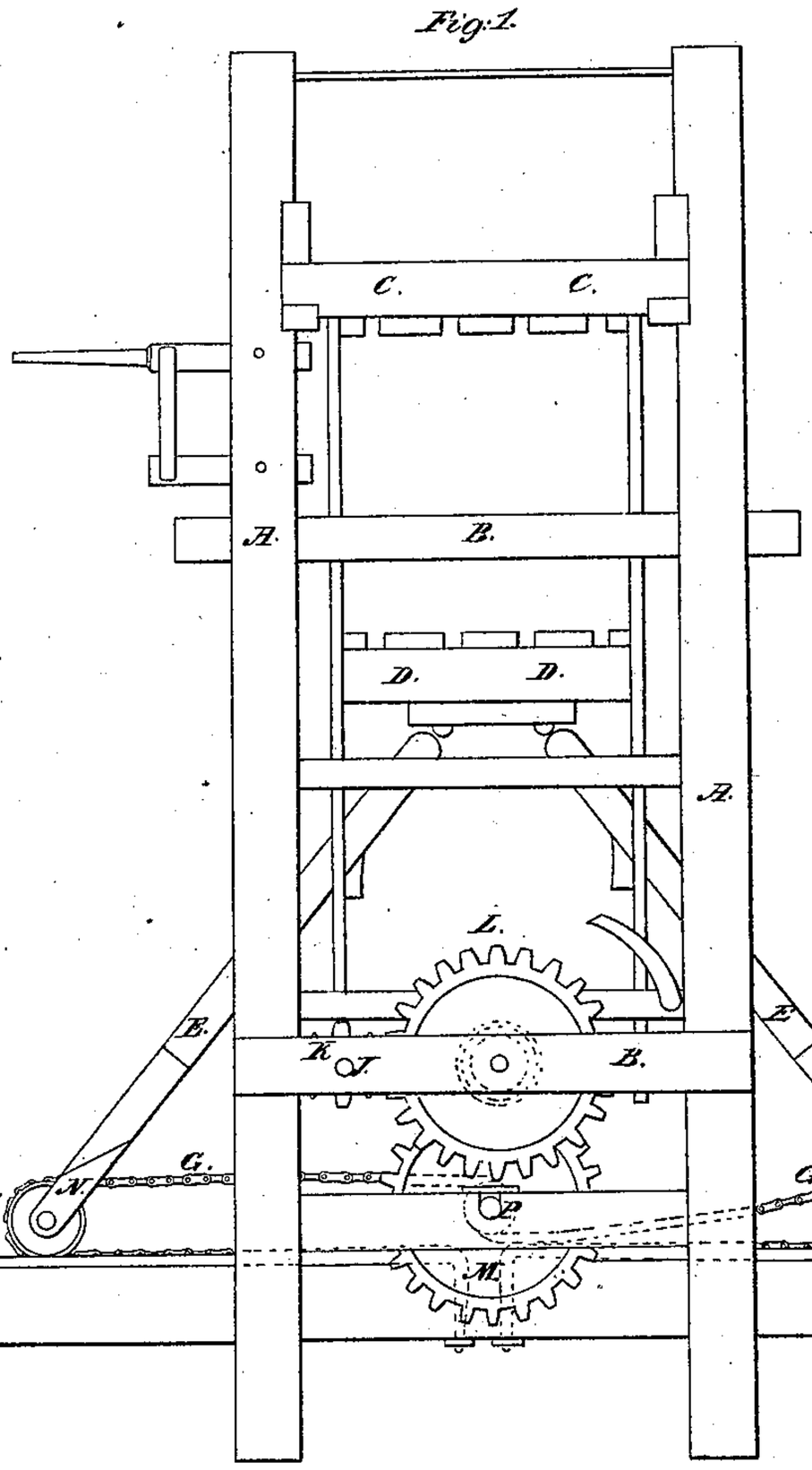


Fig. 2.

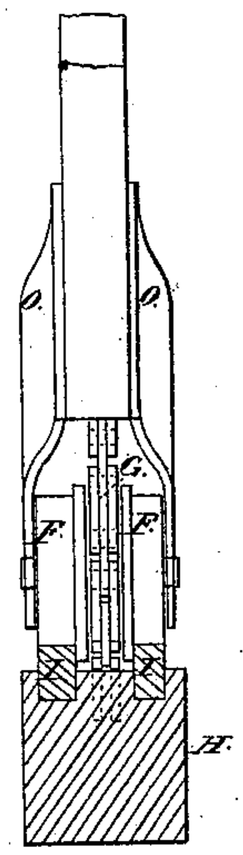


Fig 3.

Fig. 4.

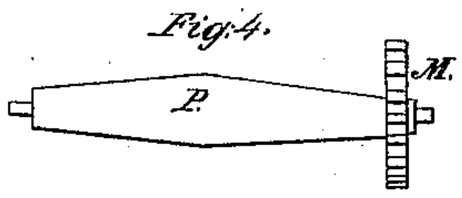
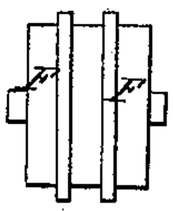


Fig. 5.



Witnesses:

Paul R. Hodge

Robert Brown

Inventor:

Nicholas J. Lamman

UNITED STATES PATENT OFFICE.

NICHOLAS J. LAMPMAN, OF COXSACKIE, NEW YORK.

IMPROVEMENT IN HAY AND COTTON PRESSES.

Specification forming part of Letters Patent No. 4,818, dated October 17, 1846.

To all whom it may concern:

Be it known that I, NICHOLAS J. LAMPMAN, of Coxsackie, in the county of Greene and State of New York, have invented a new and useful Improvement in the Press for Pressing Hay, Cotton, &c.; and I hereby declare that the following is a full, clear, and exact description of the principle or character thereof, which distinguishes it from all other presses before known, and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation of the press; Fig. 2, an end elevation of part of the same, on an enlarged scale; Figs. 3 and 4 separate views of the windlass, and Fig. 5 a separate enlarged view of one of the compound rollers and pnlleys.

The same letters indicate like parts in all the figures.

In the press patented by Wm. C. Van Hoesen on the 1st of February, 1842, the progressive levers that are attached to and operate the follower are worked by cords or chains attached directly to them, the lower ends of the levers being provided with rollers that run on the bed of the machine. If it be desired to apply a double purchase to these progressive levers, a pulley must be attached to each of them, around which to pass the ropes or chains, so that, in addition to the friction of the rollers that run on the floor of the press, there is the friction of the pulleys and the additional complexity of parts.

The object of my improvement is to obviate this difficulty and attain the desired end by making use of the rollers on which the ends of the levers run to answer the additional purpose of pulleys by making each roller with two treads to run on rails, each tread having an inner flange to guide it, and making a groove between the flanges of the same diameter as the treads, for the reception of the rope or chain, to avoid the slip of the rollers on the rails. This arrangement, in addition to the advantages above enumerated, admits of making the parts stronger, and of working the levers up to a vertical line, which cannot be done with the old plan, for the space which would be occupied by the windlass and the pulleys, with their attachments, would necessarily be greater than the space between the levers where they are jointed to the follower.

In the accompanying drawings, A A represent the side pieces of the frame of the press, and B B the cross-ties. C is the head of the press, (generally called the "bed,") against which pressure is made by the follower D, which is carried up by two progressive levers, E E, one of their ends being jointed to the under part of the follower, and the other provided with rollers F F, that run on rails I I, laid on the floor H of the frame. These rollers have their bearings in cast-iron plates *o o*, bolted to the ends of the levers, and they are each of them provided with two treads—one for each of the rails I—and a flange on the inside of each tread, so that in running on the rails the flanges guide and steady them. Between the two flanges the rollers are of the same diameter as the treads, and are there adapted to the reception of the chains G G, (or ropes, if preferred,) which are attached by one end to the bed H, pass around the rollers, and then are affixed to and wind on the windlass P on the shaft of the cog-wheel M. The body of this windlass should be formed with spiral grooves, as represented in section at Fig. 3, or in the form of two frustums of cones, connected by their bases, as represented in Fig. 4, to prevent the chains in winding on from overriding. Motion is communicated to the wheel M of the windlass by a pinion (represented by dotted lines) on the shaft of a cog-wheel, L, which is turned by the pinion K on an arbor, J, operated by a crank-handle, or in any other desired manner. By the turning of the windlass the chains G G wind on the windlass—one above and the other below—and draw the levers E E inward or toward each other, the treads of the rollers traveling on the rails with the same velocity as the chains move, so as to avoid all

tendency to bight or slip, thus attaining the desired end with less complexity and friction than by any other known means.

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

The method herein described of forming the connection between the windlass and the ends of the progressive levers by passing the chains or ropes by which they are operated around the rollers that run on the two rails, the treads of the rollers and the pulleys around which the chains or ropes pass being of equal diameters, to prevent slipping or bighting, all substantially as herein described.

NICHOLAS J. LAMPMAN.

Witnesses:

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