

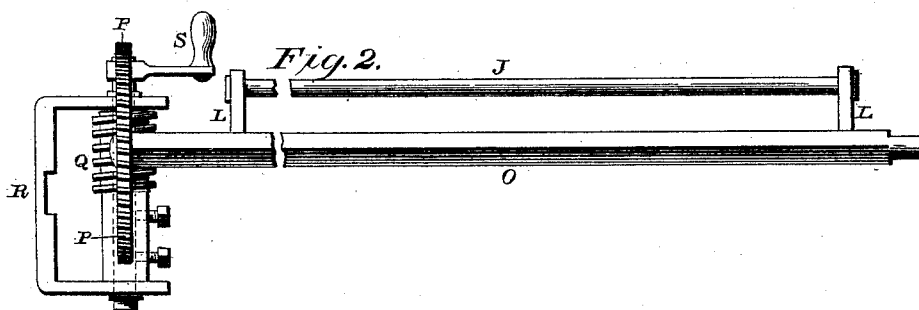
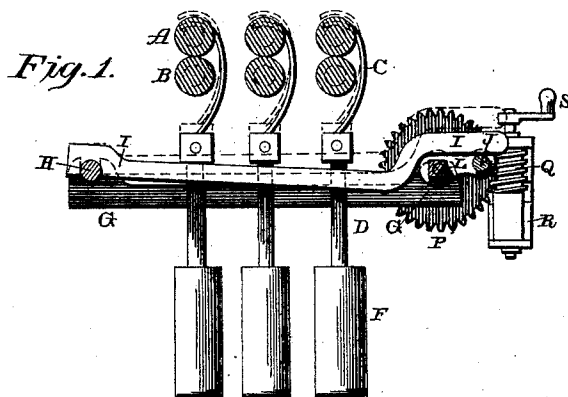
(No Model.)

R. LUCAS.

MECHANISM FOR RAISING THE WEIGHTS OF DRAWING ROLLERS.

No. 460,302.

Patented Sept. 29, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT LUCAS, OF MACON, GEORGIA.

MECHANISM FOR RAISING THE WEIGHTS OF DRAWING-ROLLERS.

SPECIFICATION forming part of Letters Patent No. 460,302, dated September 29, 1891.

Application filed February 13, 1891. Serial No. 381,330. (No model.)

To all whom it may concern:

Be it known that I, ROBERT LUCAS, of Macon, in the county of Bibb and State of Georgia, have invented certain new and useful Improvements in Mechanism for Raising the Weights of Drawing-Rollers; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in mechanism for raising the weights in cotton, woolen, or worsted machinery; and it consists in the combination and construction of parts which will be fully described hereinafter, and particularly referred to in the claim.

The object of my invention is to provide a means whereby all of the weights can be lifted from the top rolls at the same time, thus saving time, labor, and covering for the rolls, and trouble in removing and replacing the top rolls.

Figure 1 is a vertical section taken through the top rolls of a cotton, woolen, or worsted spinning or twisting machine, to which my invention is applied. Fig. 2 is a detail view of the same.

A represents the top roll; B, the bottom roll; C, the usual top hooks which catch over the top rolls; D, the bottom hooks, and F the weights, which are hung upon the hooks D in the usual manner.

Extending transversely across the frame below the top rolls and below the lower ends of the top hooks are the bearings G, which form supports or bearings for the rod H, which extends parallel with the rolls. For each set of weights there is a lever I, which is supported at its rear end upon the rod H, and each lever extends across under the rolls and engages with the bottom hooks in any suitable manner, so that all of that set of hooks and weights can be raised, so that the top roll will be freed from them all at once.

The front end of each of the levers I is preferably shaped as shown, and rests upon the rod J, which is secured by brackets L to the angular shaft O, which is supported upon the

opposite end of the bearing G from the rod H. This shaft O has secured to one end a worm or other suitable wheel P, by means of which the shaft is made to revolve for the purpose of causing the rod J to sweep through a portion of a circle, and thus act as a cam to raise one end of all the levers I at the same time. The wheel P is preferably operated by a worm Q, which is journaled in a suitable frame R and provided with a handle S. By turning the handle the shaft is made to revolve, and as the rod J sweeps around the front ends of the levers I are raised and lowered at will for the purpose of applying the weights to or removing them from the top rolls all at once.

By means of the mechanism here shown and described the weights can be raised to any desired height, or can be raised just high enough to take the top hooks off without the bottom hooks falling down, thus saving the operator the time and trouble of raising the weights by hand when putting on the top rollers. This construction also effects a great saving in the covering of the rolls, for the weights can all be raised when not in use, and saves time and trouble in taking the rollers out and returning them to position, as no skilled labor is required.

Having thus described my invention, I claim—

In a device of the character described, a supporting-frame, levers pivoted therein at one end, a shaft journaled in the opposite end of the said frame, carrying an eccentric or crank which the free ends of the levers engage, a cog-wheel secured to the said shaft, a shaped frame secured to the supporting-frame and carrying a worm-gear which engages the said wheel, the rolls, weights connected with the rolls, and stops connected with the weights which engage the upper sides of the levers, the parts combined substantially as shown and described.

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

ROBERT LUCAS.

Witnesses:

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