(No Model.)

J. L. BARNES.

FEED MECHANISM FOR SAWMILLS.

No. 509,859. Patented Dec. 5, 1893.

FIG. 1.

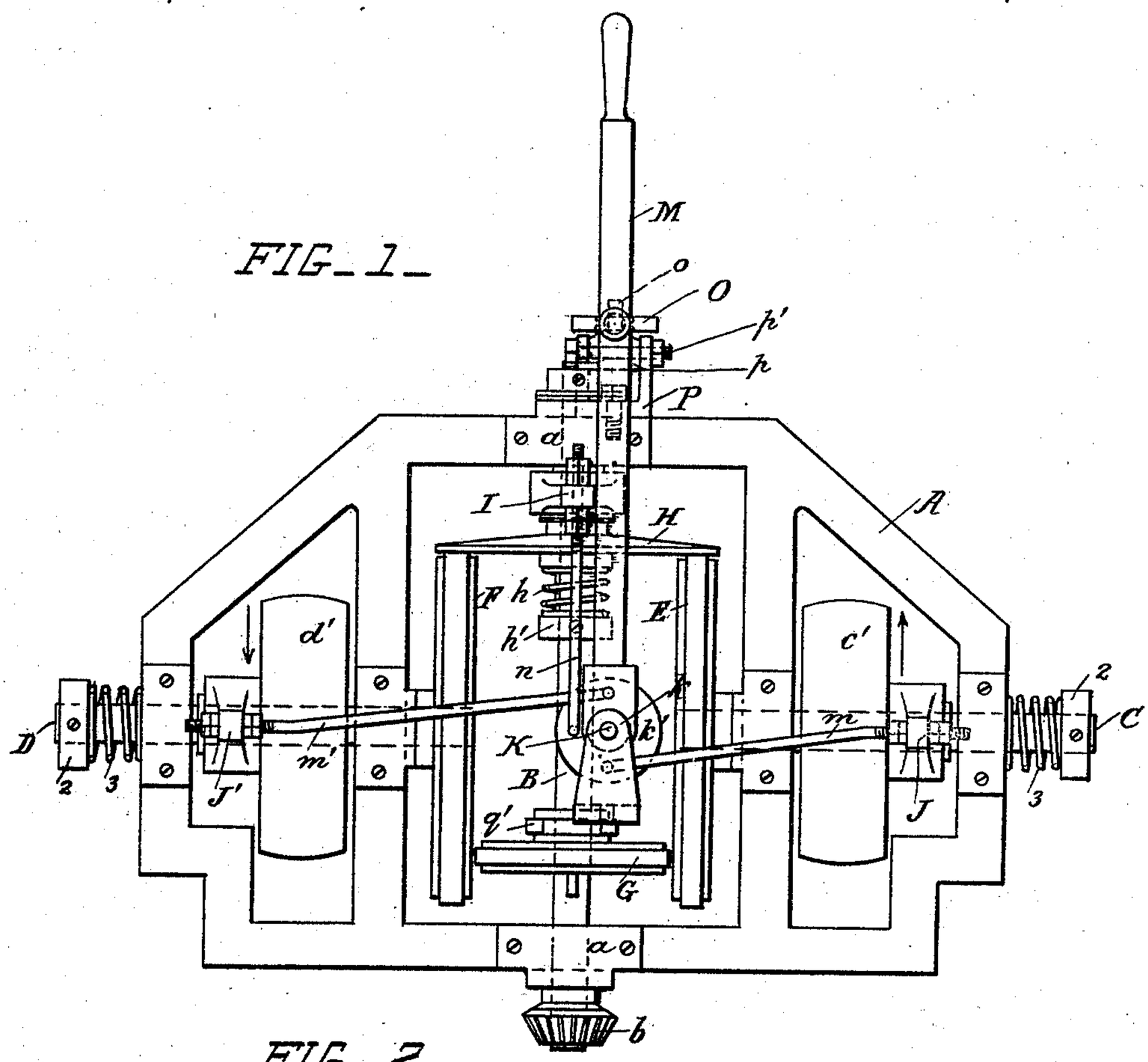
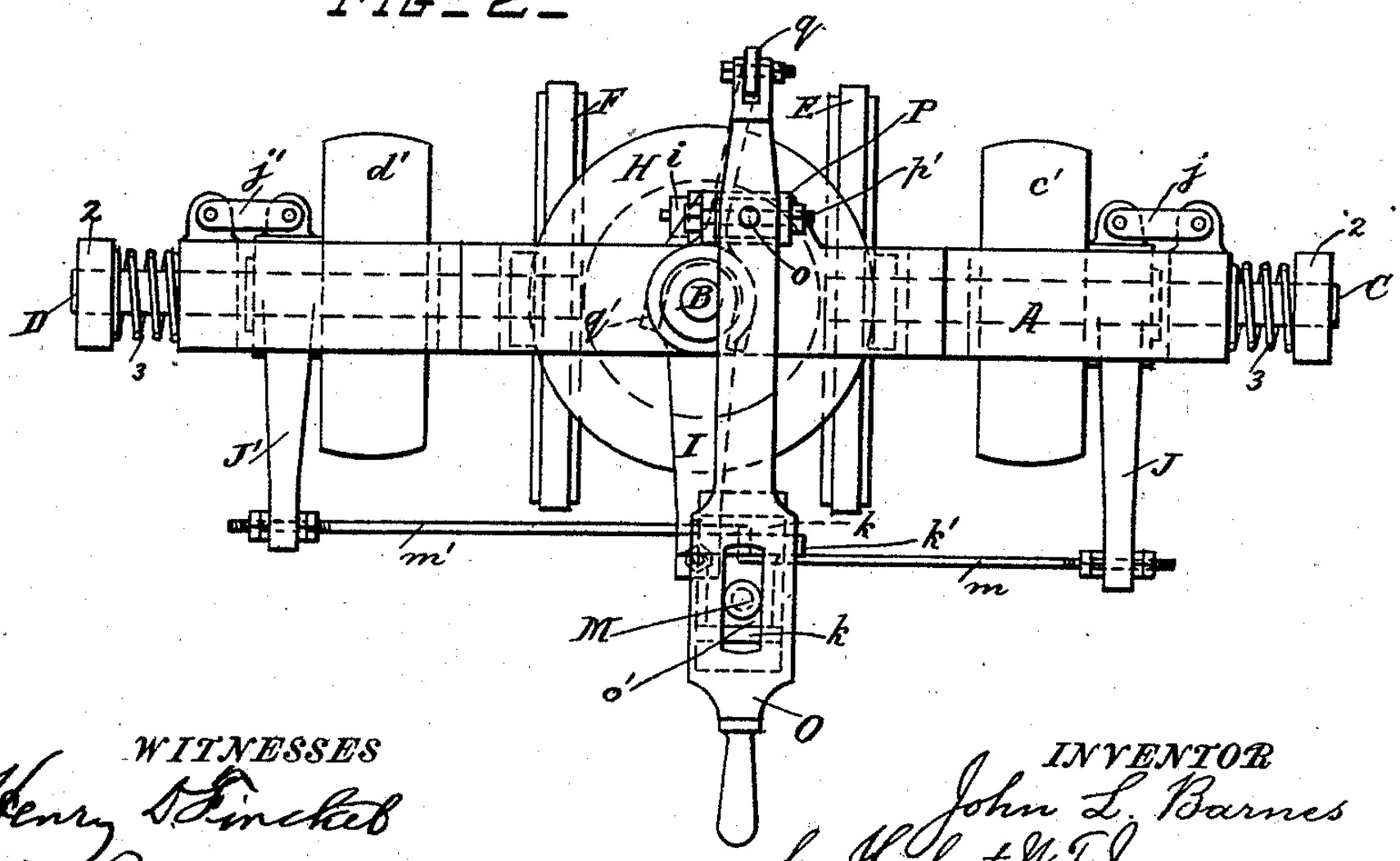


FIG. 2.



WITNESSES

Henry D. Pinckett

M. B. Mayo

INVENTOR

John L. Barnes

by Herbert W. T. Jenner

Attorney

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN LAKE BARNES, OF INDIANAPOLIS, INDIANA.

FEED MECHANISM FOR SAWMILLS.

SPECIFICATION forming part of Letters Patent No. 509,859, dated December 5, 1893.

Application filed February 17, 1893. Serial No. 462,764. (No model.)

To all whom it may concern:

Be it known that I, JOHN LAKE BARNES, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Feed Mechanism for Sawmills; 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 appertains to make and use the same.

This invention relates to feed mechanism for sawmills; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings: Figure 1 is a front view of the mechanism; and Fig. 2 is a plan view of the same.

A is the supporting frame.

B is a central vertical shaft journaled in the bearings *a;* and *b* is a beveled toothed pinion secured on the shaft B and adapted to propel the sawmill carriage back and forth by means of intermediate driving mechanism, not shown in the drawings.

C and D are two similar shafts arranged in line with each other and driven at the same speed, in opposite directions, as indicated by the arrows, by means of the belt pulleys *c'* and *d'* secured on the respective shafts.

E and F are combined friction-disks and friction-wheels secured on the shafts C and D respectively.

G is a friction-wheel splined on the shaft B between the revolving disks, and H is a friction-disk splined on the shaft B above the wheels E and F.

Collars 2 are secured to the projecting ends of the shafts C and D, and 3 are spring interposed between the said collars and the frame, and adapted to press the two friction-disks away from the friction-wheel G.

J and J' are two levers pivoted to the frame by the links *j* and *j'*, and connected with the hubs of the belt pulleys *c'* and *d'*. When the free ends of the levers are moved toward each other the friction-disks are pressed on the friction-wheel G and cause the shaft B to revolve in one direction.

I is a lever pivoted to the frame by the link *i*, and connected with the hub of the friction-disk H. When the lever I is depressed it presses the disk H on the wheels E and F, and the shaft B is caused to revolve in the opposite direction. A collar *h'* is secured to the shaft B, and *h* is a spring interposed between the hub of the disk H and the said collar and adapted to sustain the said disk H clear of the friction wheels.

The above-described parts differ in no material respect from the similar parts shown and described in my Patent No. 474,435, dated May 10, 1892.

K is a rock-shaft journaled in the stationary bearings *k*. Rods *m* and *m'* pivotally connect the plate *k'* which is secured upon the rock-shaft K, with the ends of the respective levers J and J'.

N is a rod which connects the plate *k'* with the end of the lever I. The rod N is pivoted in the plate between the pivoted ends of the rods *m* and *m'* which are arranged upon opposite sides of the rock-shaft. M is a hand-lever secured to the said plate *k'*. When the hand-lever is moved to the left, in Fig. 1, the combined friction-disks and friction-wheels are moved apart, and the friction-disk H is pressed on their peripheries thereby revolving the shaft B to effect the return movement of the carriage. When the hand-lever is moved to the right the disk H is raised and the driving disks are pressed simultaneously on the wheel G and revolve it in the direction necessary to propel the carriage.

In order that the carriage may be propelled forward at different speeds, the operating hand-lever O is provided.

P is a bracket secured to the frame A, and *p* is a sleeve journaled on the fulcrum pin *p'* which passes through the said bracket. The sleeve *p* is provided with a vertical pin *o* on which the lever O is pivoted. The rear end of the lever O is pivoted to a rod *q*, the lower end *q'* of which is forked and is operatively connected to the hub of the wheel G. The wheel G is raised or lowered to change the speed of the shaft B by raising or lowering the front end of the lever O.

The sawyer grasps the lever M with one hand and the lever O with the other hand and operates them so as to run this mill to the best advantage.

In order that the lever O may at all times be convenient to the grasp of the sawyer while

operating the lever M, the two said levers M and O are coupled together. This is effected by simply forming a slot *o'* through the front end of the lever O and permitting the lever M to project through the said slot. The lever O then vibrates with the lever M in a horizontal direction, turning on the pin *o*, without changing the position of the wheel G; and the handle of the lever O is always retained in a convenient position and in front of the sawyer.

The lever O can be turned on the fulcrum pin *p'* to change the position of the wheel G irrespective of the position of the lever M and as often as required.

It will be noticed that the two speeds of the carriage remain the same when the wheel G is once set in an appropriate position, and that the hand-lever M is operated to merely change the direction of the motion, and that an adjustment of the parts at each cut, to produce the required speed, is not necessary. Nevertheless any required change of speed in propelling the carriage can be quickly made by means of the separate lever O.

What I claim is—

1. In a sawmill feed mechanism, the combination, with the two driving friction-disks revolving in opposite directions, the driven friction-wheel splined upon its shaft between the said disks, and a hand-lever and intermediate connections operating to press the said disks upon the said wheel; of a second hand-lever, for varying the speed of the feed mechanism, provided with a slot engaging with the first hand-lever whereby the said hand-levers are retained in proximity to each other, and intermediate operating devices connecting the said second lever with the driven friction-wheel.

2. In a sawmill feed mechanism, the combination, with the central shaft and the friction-wheel splined thereon, a hand-lever, a vertical pivot pin passing through the said lever and permitting it to be swung horizontally, operating devices connecting the said lever with the said friction-wheel, and a horizontally-arranged fulcrum pin supporting the said lever and its vertical pivot pin and permitting the said lever to be moved vertically to slide the said friction-wheel on its shaft; of the two driving friction-disks revolving in oppoite directions, a vertical hand-lever passing through a slot in the aforesaid hand-lever, and intermediate connections between the said vertical hand-lever and driving disks, substantially as set forth.

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

JOHN LAKE BARNES.

Witnesses:
JAMES A. WALSH,
FRANK W. WARNER.