M. L. Andrew,

Molding Machine.

No. 99,803. Patented Feb. 15. 1870.

Fig. 1.

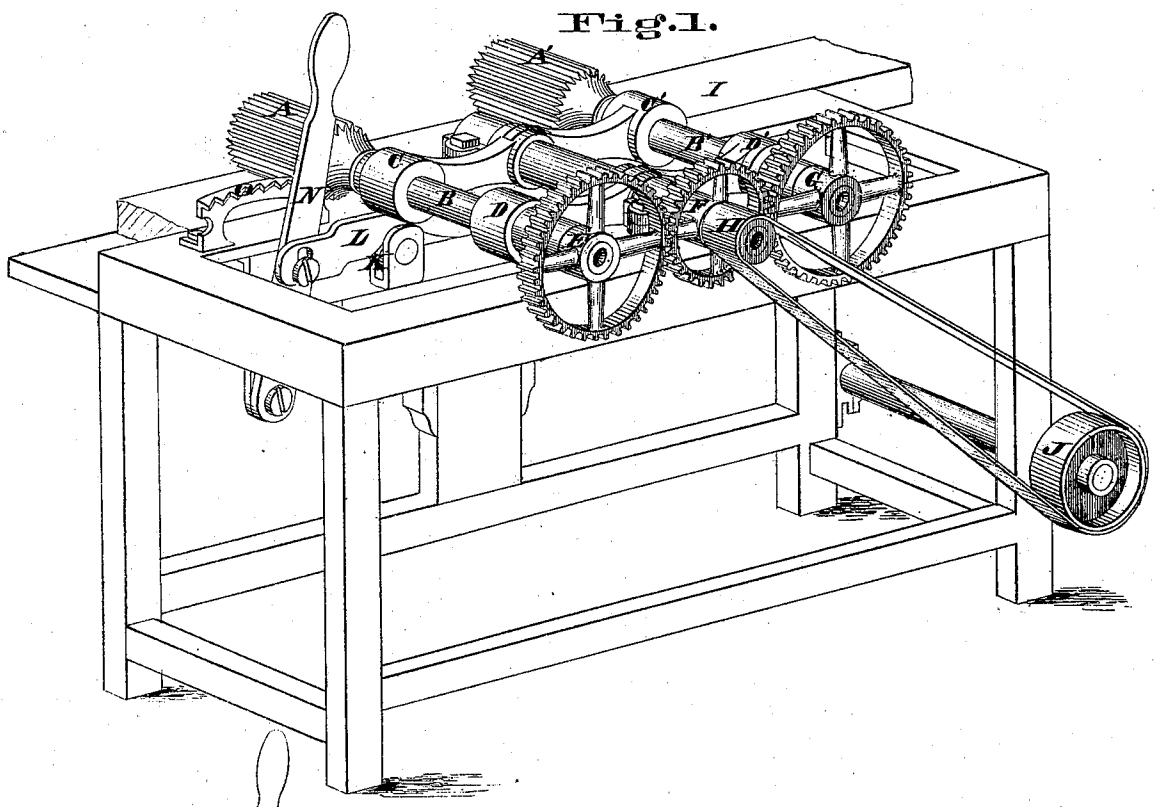
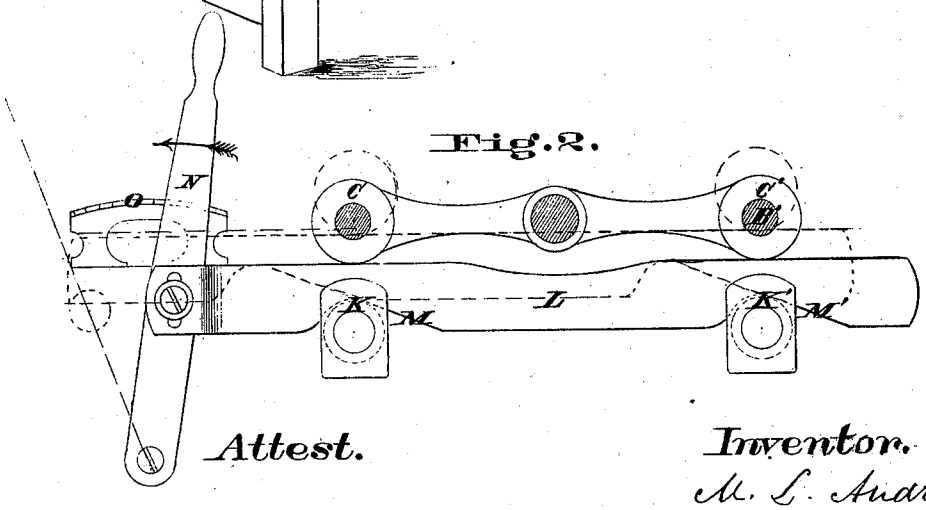


Fig. 2.



Attest.

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MOSES L. ANDREW, OF CINCINNATI, OHIO.

Letters Patent No. 99,808, *dated February* 15, 1870.

IMPROVEMENT IN PLANING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, MOSES L. ANDREW, of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Feed-Gear for Planing and Molding-Machines; and I do hereby declare the following to be a sufficiently full and exact description thereof to enable one skilled in the art to which my invention appertains to make and use it, reference being had to the accompanying drawings, making part of this specification.

My invention consists of certain devices for elevating and thus relieving the feed-rollers from the work simultaneously, by which the feeding of the "stuff" may be instantly stopped without involving the necessity of stopping the revolution of the feed-rollers.

In the accompanying drawings illustrative of my invention—

Figure 1 is a perspective view of the feeding devices of a molding-machine embodying my invention.

Figure 2 is an elevation of the devices for elevating and adjusting the rollers.

The feed-rollers A A′, shafts B B′, swinging arms C C′ and D D′, gearing wheels E F G, and driving pulley H, are of the ordinary construction used in a wood "molding-machine."

These devices are used to feed the "stuff" I regularly toward the revolving cutters.

The cutting devices are not shown in the drawings, as my improvements relate only to the feeding mechanism.

In practice, the rollers A A′ and swinging arms C C′ are either made sufficiently heavy to give the required pressure upon the "stuff," or they are provided with weighted levers.

In machines of this character hitherto constructed, it has been necessary, before the feeding of the stuff could be stopped, to first stop the revolution of the rollers A A′ by the disconnection of a clutch at the driving pulley J. The rollers had to be then raised separately from the work before the stuff could be removed or changed in position.

To obviate these defects, and provide means for the rapid disconnection of the feed from the stuff without the necessity of the stoppage of the revolution of the rollers A A, and also to provide means for the adjustment of the feed-rollers and sustaining of the weight of the same, if required, so as to bring any required pressure to bear upon the work, I have designed the following devices:

K K′ are rollers fitted to the frame of the machine, so as to be free to revolve.

These rollers support a bar, L, which is designed to have a reciprocating longitudinal motion over the rollers K K′.

The bar L is constructed with two inclined planes on the under side M M′, and the upper side of the bar is brought in contact with the swinging arms C C′ of the rollers A A′.

The bar L is connected to the lever N, which is pivoted at *n*, and the lever N is provided with a suitable projection to fit into any one of the notches of the stationary arc O.

It will be seen that by the movement of the lever N in the direction of the arrow, and the action of the inclined planes M M′ moving over the rollers K K′, the feed-rollers A A′ are raised from the work simultaneously, and by the provision of the notched arc O, the rollers may be so supported that a slight degree of pressure may be brought to bear upon the work.

The elevation of the rollers is simultaneous, and may be accomplished in an instant without disconnecting the driving power. There is no necessity, therefore, for the customary clutch on the pulley J.

The anti-friction pulleys or rollers K K′ may be dispensed with, if desirable, and various modifications may be made in the construction and attachment of the devices specified.

The devices herein shown and described, as applied to machines having two feed-rollers, may be applied, and will be found equally efficient on machines having less or more than two, one incline, M, being provided for each feed-roller.

Claim.

In the described connection with the feed-rollers A A′ and swinging arms C C′, the double incline bar L M M′, lever N, and rack O, operating substantially in the manner and for the purpose specified.

In testimony of which invention, I hereunto set my hand.

MOSES L. ANDREW.

Witnesses:

FRANK MILLWARD,

CHARLES PICKLES.