(No Model.) 2 Sheets—Sheet 1.

F. H. SWEET.

MOLDING MACHINE.

No. 265,887. Patented Oct. 10, 1882.

FIG. 1.

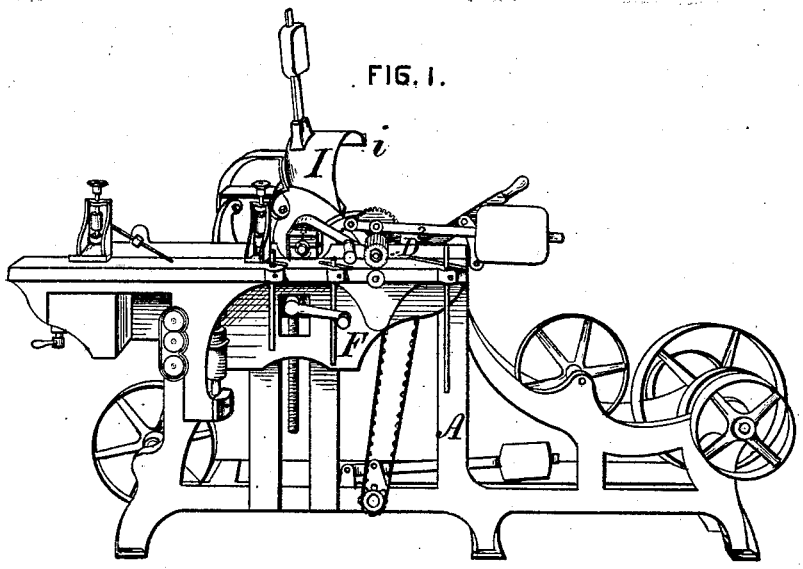
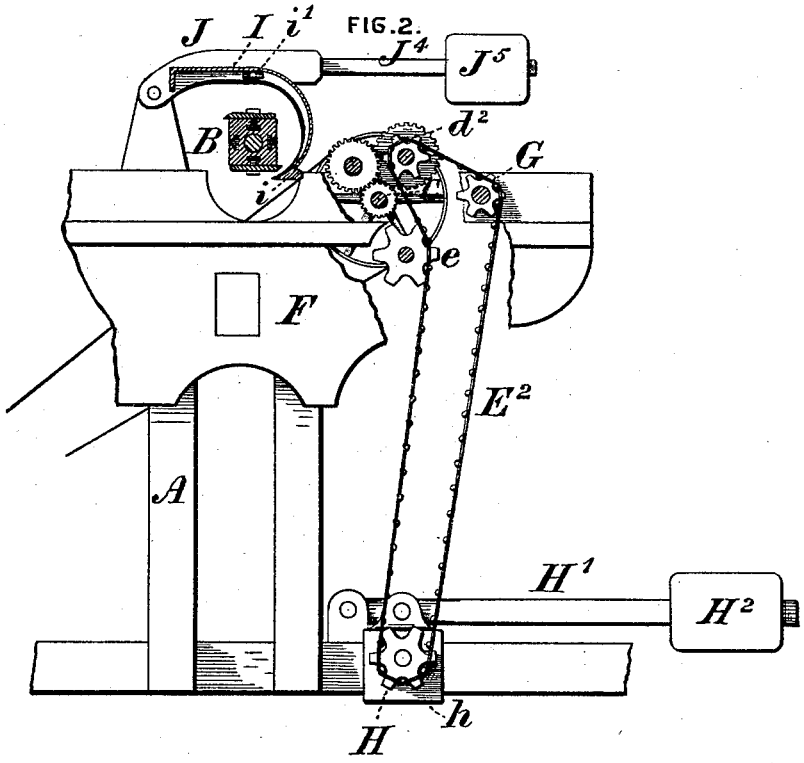


FIG. 2.



WITNESSES:
N. H. Culver
Geo. T. Kelly.

INVENTOR
Frederick H. Sweet.
by Collier & Bell,
Attys.

(No Model.) 2 Sheets—Sheet 2.

F. H. SWEET.

MOLDING MACHINE.

No. 265,887. Patented Oct. 10, 1882.

FIG. 3.

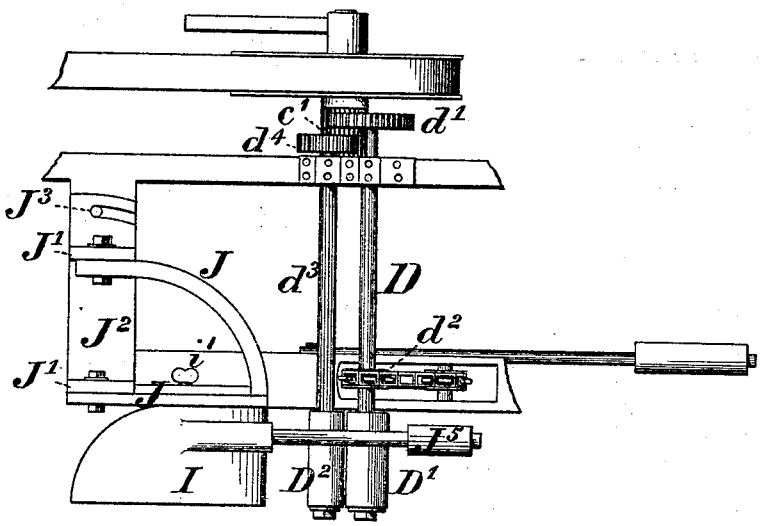
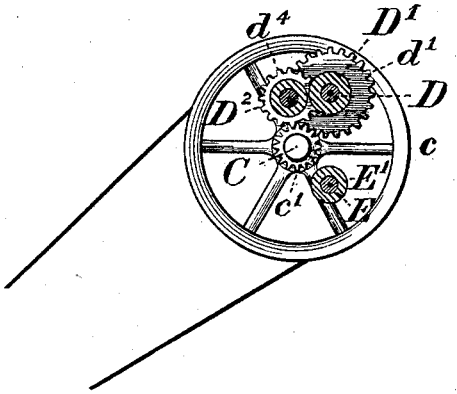


FIG. 4.



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INVENTOR.

Frederick H. Sweet,

by Collier & Bell,

attys.

UNITED STATES PATENT OFFICE.

FREDERICK H. SWEET, OF WILLIAMSPORT, PENNSYLVANIA, ASSIGNOR TO ROWLEY & HERMANCE, OF SAME PLACE.

MOLDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 265,887, dated October 10, 1882.

Application filed June 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. SWEET, of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Molding-Machines, of which improvements the following is a specification.

The objects of my invention are to provide improved means for driving the lower feed-roller in such manner as to admit of ready vertical adjustment to suit different thicknesses of lumber and to insure a uniform application of the driving-power in any position in which the bed may be placed; also to simplify and perfect the devices for arresting the chips and shavings thrown off from a cutter and for imparting the necessary pressure to the stock which is being worked.

To these ends my improvements consist in the combination of an upper feed-roller and a chain-wheel, each secured upon a shaft driven by gearing from a driving or counter shaft, with a lower feed-roller and chain-wheel secured upon a shaft mounted in bearings in a movable bed or table, and rotated by a driving-chain passing around the chain-wheel of the upper feed-roller and around idlers located respectively in fixed and in yielding bearings in the frame.

My improvements further consist in a shaving-hood formed in a continuous body with a chip-breaker and pressure-shoe, and adjustable toward and from the cutter-head upon arms pivoted to a stand secured adjustably to the frame of the machine.

The improvements claimed are hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a view in perspective of a molding-machine embodying my invention; Fig. 2, a side view, partly in section, of the feed mechanism and shaving-hood, chip-breaker, and pressure-shoe; Fig. 3, a plan or top view of the same, and Fig. 4 a transverse section through the feed-rollers.

The frame A of the machine supports in suitable bearings a cutter-head, B, which is rotated by a belt from the counter-shaft of the machine, to which power is imparted from the prime mover, and the shaft C, by which rotation is imparted to the feed-rollers, is driven by a belt from the same counter-shaft passing around a pulley, *c*, on one of its ends. A spur-pinion, *c'*, secured upon the feed-shaft C, meshes with a similar gear, *d'*, upon the shaft D of the main upper feed-roller, D', upon which is also secured a chain-wheel, d^2, and a supplemental upper feed-roll, D^2, is secured upon a shaft, d^3, carrying a spur-gear, d^4, which likewise meshes with the pinion *c'*. The lower feed-roller, E', is secured upon a shaft, E, which is mounted in bearings in a frame or table, F, over the top of which the lumber is passed to the cutter B, and which is adjustable vertically toward and from said cutter in the ordinary manner, in accordance with the thickness of the stuff to be worked. A chain-wheel, *e*, is secured on the lower feed-roller shaft, E, and rotation is imparted thereto by a driving-chain, E^2, passing around said chain-wheel, around the chain-wheel d^2 of the upper feed-roller shaft, D, around an idler, G, rotating in the upper portion of the frame A, and around an idler, H, mounted in a bearing, *h*, which is movable in a slot or recess in the lower portion of the frame, and is pivoted to a lever, H', one end of which is pivoted to the frame and the other connected to a weight, H^2, or to a spring, the tendency of which is to exert downward pressure upon the bearing *h*.

It will be seen that by the above construction I am enabled to substitute the positive action of a chain in lieu of belting for the rotation of the lower feed-roller, and by the provision of a weighted movable bearing for the lower chain-wheel the requisite tension of the chain is insured in all positions of the table and lower feed-roller, thus providing a uniform application of power to the feed-rollers in the various adjusted positions of the table and obviating a leading objection to prior machines of the class to which my invention relates—to wit, the insufficient strength of the feed mechanism and the consequent waste of time and labor on the part of the operator.

As heretofore constructed, the shaving-hoods of molding-machines have been provided with an adjustable section at the end nearest the lumber, and the objection obtained that the

adjustment could not be readily made; and, further, that when made a shoulder was formed inside the hood, in which the chips collected and clogged; and, also, the upper feed-rollers were prevented from being placed as near the cutter-head as is desirable. Under my invention I construct in one continuous piece a shaving-hood, I, and a chip-breaker and pressure-shoe, *i*, the latter forming the toe or free end of the shaving-hood. The shaving-hood is secured adjustably, by a thumb-screw, *i'*, passing through a slot in one of its sides, to a pair of arms, J, pivoted to standards J' upon a rest, J^2, supported upon the frame of the machine and capable of being swung laterally upon a pin, J^3, thereon, so as to give free access to the cutter-head whenever required. An arm, J^4, having a weight, J^5, secured upon it, serves to impart the required frictional resistance to the pressure-shoe and the lumber passing beneath it.

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

1. An upper feed-roller and chain-wheel secured upon a shaft mounted in bearings on a fixed frame, and a lower feed-roller and chain-wheel mounted in bearings on a movable bed or table, combined with a driving-chain passing around the said feed-roller chain-wheels, which are on the shaft between the feed-rollers and their gears, and, with two idlers, around which the chain passes, one rotating in fixed and the other in yielding weighted bearings, substantially as set forth.

2. A weighted shaving-hood having a chip-breaker and pressure-shoe forming the toe or free end thereof, combined with arms to which it is adjustably secured, said arms being pivoted to the frame of the machine, substantially as set forth.

FRED H. SWEET.

Witnesses:
THOS. H. HARTMAN,
J. S. TAYLOR.