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PATENTED SEPT. 3, 1907.

C. W. WILLETT.
LATH MILL.

APPLICATION FILED APR. 22, 1907.

2 SHEETS—SHEET 1.

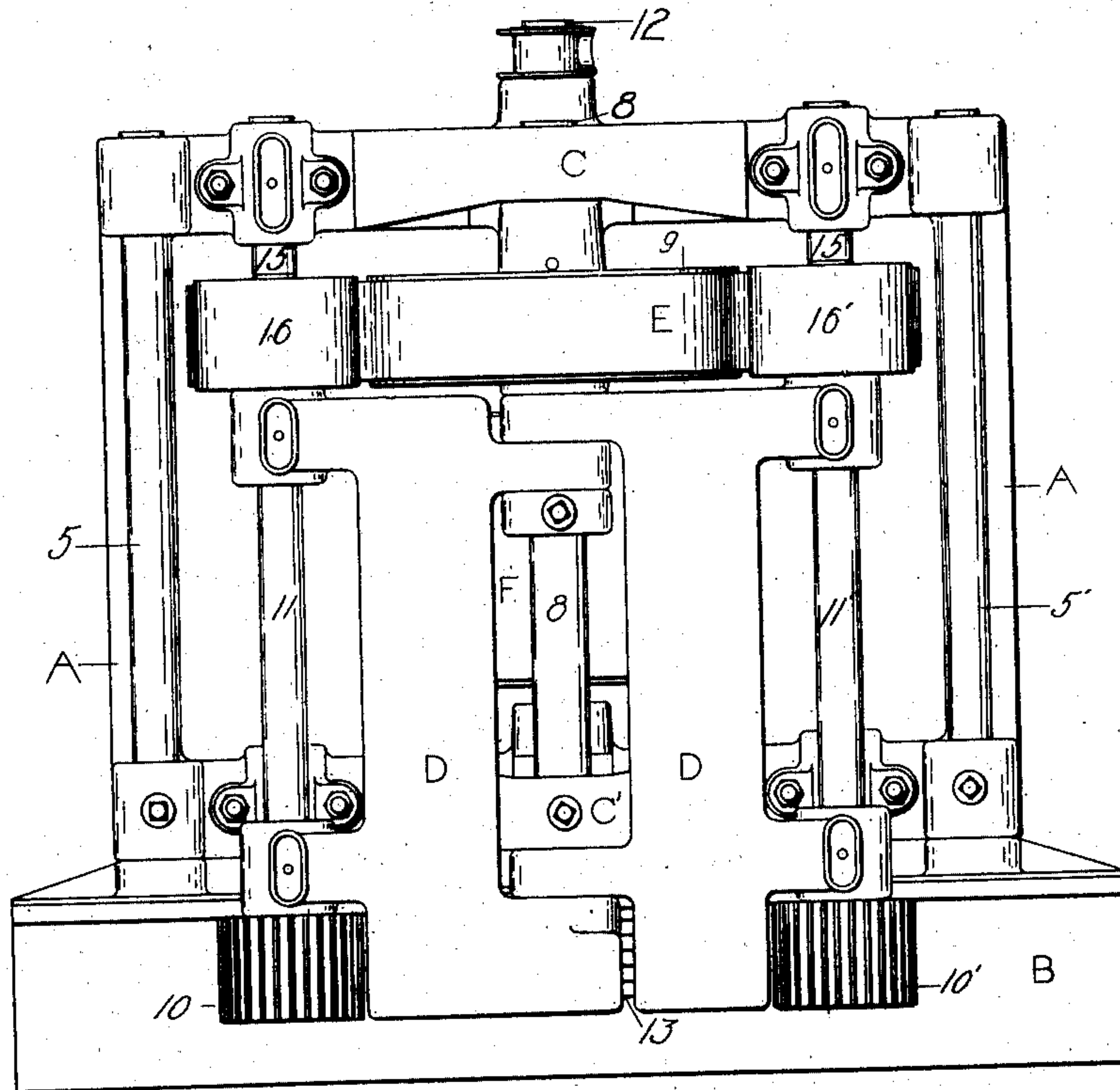


Fig. 1.

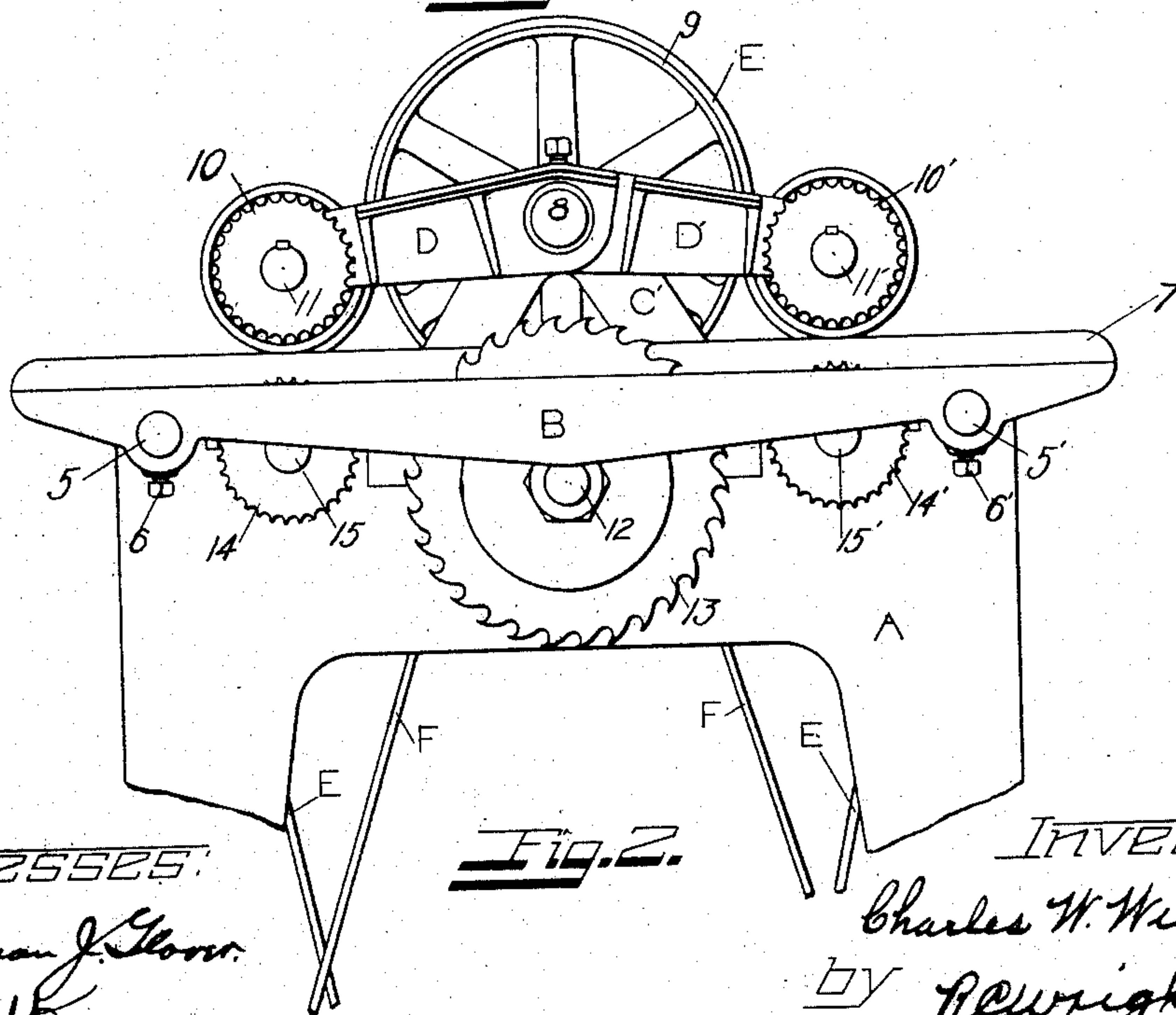


Fig. 2.

WITNESSES:
Freeman J. Glover.
Jas. H. Kouns.

INVENTOR.
Charles W. Willett
BY R. E. Wright.
ATTORNEY.

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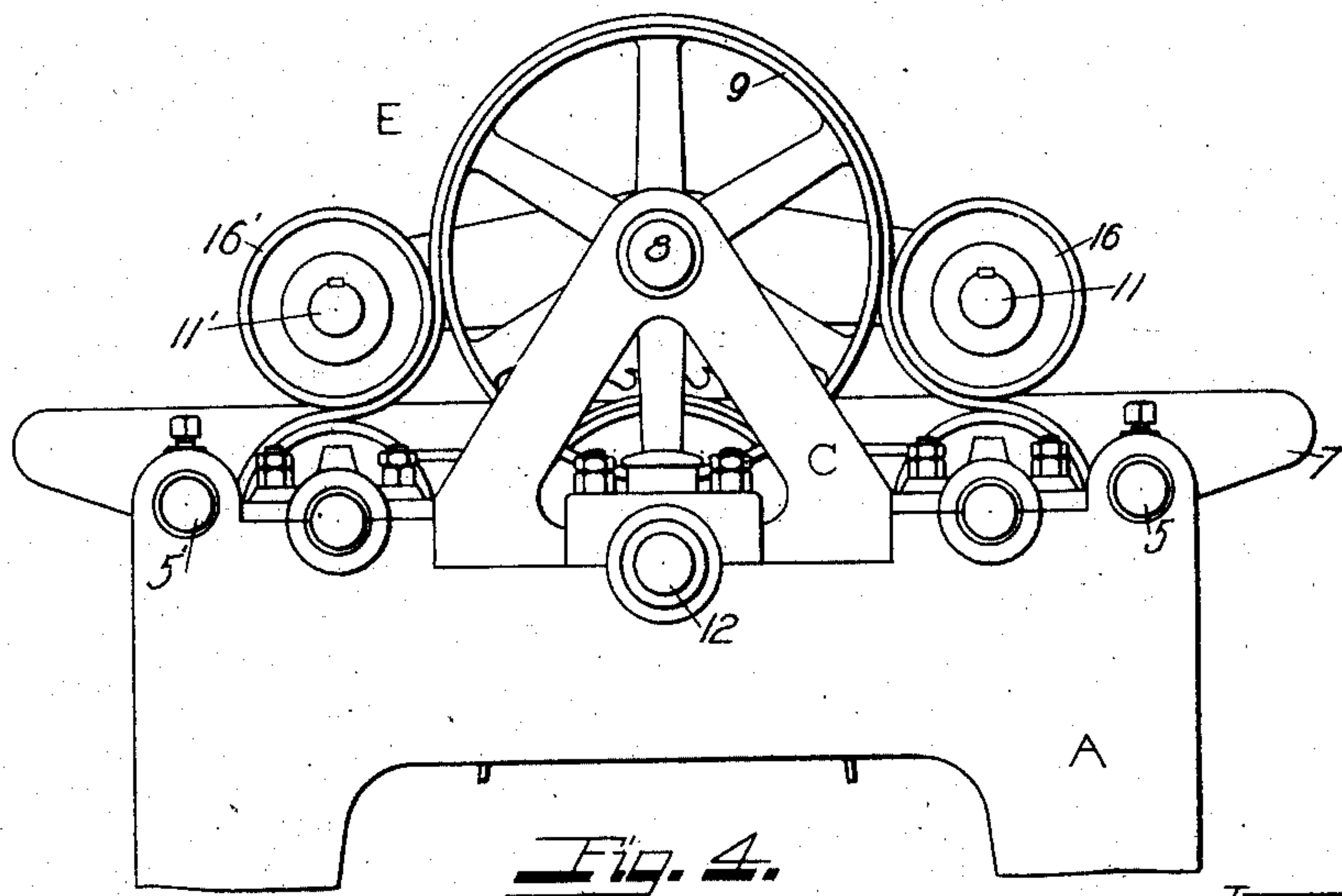
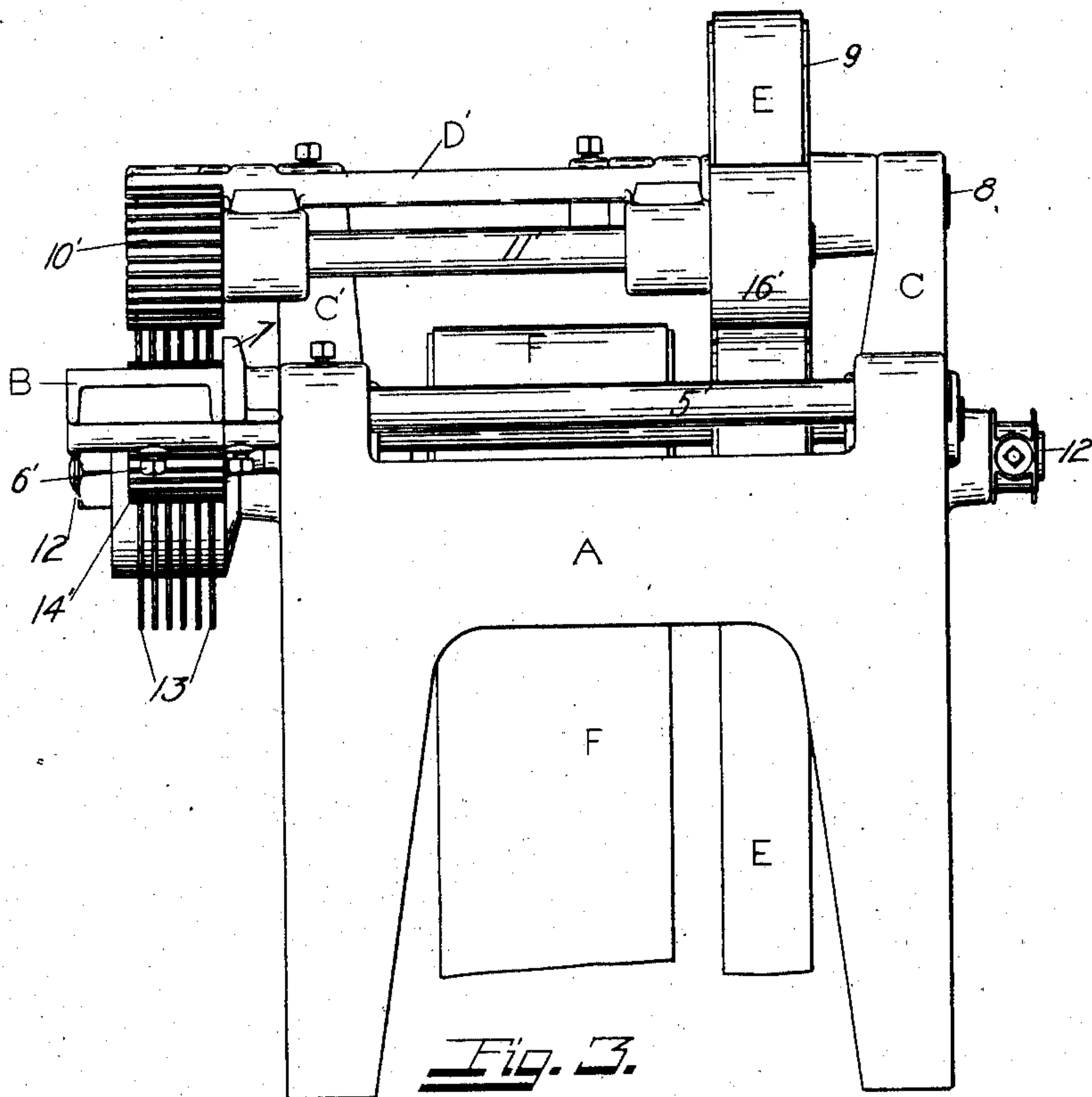
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2 SHEETS—SHEET 2.



WITNESSES:
Truman J. Glover.
Jas. H. Kouns.

INVENTOR:
Charles W. Willett
by R. C. Wright.
ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES W. WILLETT, OF EVERETT, WASHINGTON, ASSIGNOR OF ONE-HALF TO SUMNER IRON WORKS, OF EVERETT, WASHINGTON, A CORPORATION.

LATH-MILL.

No. 865,142.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed April 22, 1907. Serial No. 369,662.

To all whom it may concern:

Be it known that I, CHARLES W. WILLETT, a citizen of the United States, residing at Everett, in the county of Snohomish and State of Washington, have invented a new and useful Improvement in Lath-Mills, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in lath-mills.

The object of my invention is to provide an economical, symmetrically arranged lath-mill, having a simple, safe, and reliable method of operating feed and presser rollers, and to reverse the same, eliminating parts heretofore used in such machines, also the better construction and arrangement of my sawing table, having a guide thereon, and being so formed as to adapt it to be laterally adjustable and reversible as to its guide, without a change in the pattern of the machine.

These objects and other practical advantages, I attain by the construction, combination and arrangement of parts shown in the accompanying drawings which form a part of these specifications and in which,—

Figure 1 is a plan view of the lath-mill. Fig. 2 is a side elevation on the sawing side of the machine. Fig. 3 is a front end elevation of the machine. Fig. 4 is a side elevation opposite to that shown in Fig. 2.

Like letters and numerals refer to like parts throughout the views.

A is the frame of the lath-mill.

B is an adjustable sawing table mounted on horizontal transverse rods 5, 5', fixedly secured to the frame A. The table B is secured in the desired position on the rods by means of the set screws 6, 6', and it may be removed to facilitate access to the saws. The frame A is also provided with bridge-trees C C' secured to its top on opposite sides. On the bridge-trees is rotatively mounted, an idler wheel 9, and loosely mounted on the shaft 8, are two oppositely disposed arms or members D D' which are formed with sufficient metal therein to give them the weight required for the presser rollers 10, 10'.

The presser rollers are mounted on the ends of the shafts 11, 11' which are at the outer sides respectively of the members D D' and parallel to the shaft 8. On the opposite ends of the said shafts 11, 11' are mounted the pulleys 16, 16'.

In the frame A, below the table B, is mounted in suitable bearings a saw arbor 12 carrying thereon a battery of saws 13 which extend through an opening in the table a suitable distance.

Feed rollers 14, 14' are mounted upon shafts 15, 15' respectively, having bearings in the frame and located in planes on opposite sides of the saws and below the presser rollers 10, 10', the said feed rollers extending upwards through openings in the table B a suitable distance. The power is transmitted to the machine by

means of the belt E which is so arranged that it passes over and around the pulleys 16, 16' and the idler wheel 9 as shown in Figs. 2, 4. The power is transmitted to the saw arbor by means of the belt F.

It will now be seen that when a lath bolt is placed upon the table A, adjusted to the side guide 7, and shoved into engagement with the feed roller 14' and the presser roller 10', it is carried forward to the gang saws 13, which saw it into lath of the desired thickness, and before it is completely sawed, it passes into engagement with the opposite feed roller 14 and presser roller 10 which carry the material as it is sawed away from the saws, so it may be removed from the table for bundling. If it is desired to feed bolts in the opposite direction, this may be accomplished by reversing the movement on the pulleys of the power belt E and also reversing the movement of the power belt F operating the saw arbor. By thus simply changing the moving direction of these two belts the operator is enabled to take position on the opposite side of the machine and feed material from there without changing any member of the machine. It is of course understood that the saw arbor shall be mounted for right and left rotation. In either case the presser rollers being suitably weighted and mounted on the members D D', which in turn are loosely mounted upon a central shaft 8, material can be passed through the machine without straining or clogging the parts, even though such material be of irregular dimension.

My device provides for a reversible mechanism and a convenient, reliable, and laterally adjustable table with side guide. The table may also be of such form that it will extend into spaces about the saws and feed rollers and thus permit its removal laterally without first removing any of the shafts from their bearings. When so removed, the saw arbor can be taken from its shaft without disturbing other parts of the machine. The table being made of such form, it has a decided advantage, and is an improvement over one made in two or more parts hinged or secured in other ways, or with open spaces about the saws, which forms of construction tend to permit pieces of material to be thrown off by the saws in such manner as to clog or injure the machine and increase the risk of danger to the operator. The elimination also of all tooth gearing is a decided advantage, as such gearing accumulates dirt and refuse, is less easily kept in running order and is not nearly so safe as the mechanism I have employed. My device from the nature of its construction is also most economical to manufacture and operate.

Having thus described my lath-mill, I claim:

1. In a lath-mill, the combination with a sawing table B, having a side guide, of reversible presser and feed roller mechanism, consisting of an idler wheel 9, of suitable diameter, rotatively mounted on a shaft 8, placed at a suitable height on the frame, oppositely disposed members

D D', loosely mounted on the shaft 8 and carrying parallel to said shaft at their respective outer sides, shafts 11, 11', at one end of which latter shafts are mounted presser rollers 10, 10', and at the opposite ends thereof pulleys 16, 16', also feed rollers 14, 14' mounted on the shafts 15, 15' in the frame below the presser rollers, a continuous power transmitting belt E, connected with a suitable power source and so arranged upon the pulleys of the shafts 11, 11' and 15, 15' and the idler 9 as to cause the feed rollers to rotate in an opposite direction to that of the saws, and the presser rollers to rotate in the opposite direction to that of the feed rollers, substantially as described.

2. In a lath-mill, the combination with a gang saw 13, suitably mounted in a frame A, provided with a sawing table B, of reversible presser and feed roller mechanism, consisting of an idler wheel 9, of suitable diameter, rotatively mounted on a shaft 8, placed at a suitable height on the frame, oppositely disposed members D D', loosely mounted on the shaft 8 and carrying parallel to said shaft at their respective outer sides, shafts 11, 11', at one end of which latter shafts are mounted presser rollers 10, 10', and at the opposite ends thereof pulleys 16, 16', also feed rollers 14, 14' mounted on the shafts 15, 15' in the frame below the presser rollers, a continuous power transmitting belt E, connected with a suitable power source and so arranged upon the pulleys of the shafts 11, 11' and 15, 15' and the idler 9 as to cause the feed rollers to rotate in the opposite direction to that of the saws, and the presser rollers to rotate in the opposite direction to that of the feed rollers, substantially as described.

3. In a lath-mill, the combination of a continuous power transmitting belt E, connected with a suitable source of power, of reversible presser and feed roller mechanism consisting of an idler wheel 9, of suitable diameter, rotatively mounted on a shaft 8, placed at a suitable height on

the frame of the machine, oppositely disposed members D D', loosely mounted on the shaft 8 and carrying parallel to said shaft at their respective outer sides, shafts 11, 11', at one end of which latter shafts are mounted presser rollers 10, 10', and at the opposite ends thereof pulleys 16, 16', also feed rollers 14, 14' mounted on the shafts 15, 15' in the frame below the presser rollers, the belt E being so arranged upon the pulleys of the shafts 11, 11' and 15, 15' and the idler 9 as to cause the feed rollers to rotate in the opposite direction to that of the gang saws of the mill, and the presser rollers to rotate in the opposite direction to that of the feed rollers, substantially as described.

4. A lath-mill comprising a frame A, saws suitably mounted on a saw arbor, a sawing table B, having a side guide, and reversible presser and feed roller mechanism consisting of an idler wheel 9, of suitable diameter, rotatively mounted on a shaft 8, placed at a suitable height on the frame, oppositely disposed members D D', loosely mounted on the shaft 8 and carrying parallel to said shaft at their respective outer sides, shafts 11, 11', at one end of which latter shafts are mounted presser rollers 10, 10', and at the opposite ends thereof pulleys 16, 16', also feed rollers 14, 14' mounted on the shafts 15, 15' in the frame below the presser rollers, a continuous power transmitting belt E, connected with a suitable power source and so arranged upon the pulleys of the shafts 11, 11' and 15, 15' and the idler 9 as to cause the feed rollers to rotate in an opposite direction to that of the saws, and the presser rollers to rotate in the opposite direction to that of the feed rollers substantially as described.

CHARLES W. WILLETT.

Witnesses:

E. M. KERNAGHAN,
W. A. WELLS.