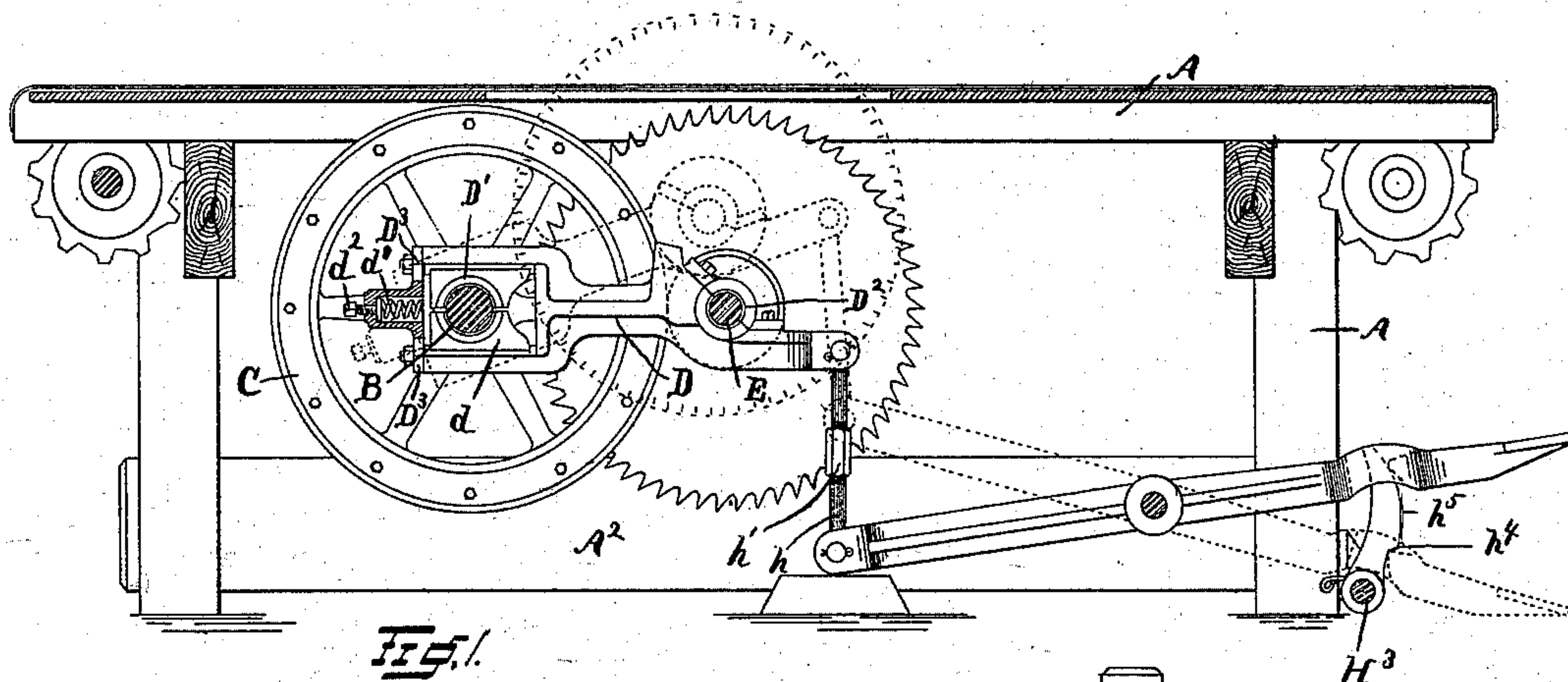


(No Model.)

W. M. WILKIN.
SAWMILL TRIMMER.

No. 559,430.

Patented May 5, 1896.



UNITED STATES PATENT OFFICE.

WILLIAM M. WILKIN, OF ERIE, PENNSYLVANIA.

SAWMILL-TRIMMER.

SPECIFICATION forming part of Letters Patent No. 559,430, dated May 5, 1896.

Application filed April 25, 1895. Serial No. 547,086. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. WILKIN, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Sawmill-Trimmers; 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 trimmers for sawmills; and it consists in certain improvements in the construction thereof, as will be hereinafter fully described, and pointed out in the claims.

The invention is illustrated in the accompanying drawings as follows:

Figure 1 shows a side elevation of the part of the machine embodying my invention. Fig. 2 shows a plan of the same parts with the table-top removed to better show construction.

In the ordinary trimmer there are usually several adjustable saws besides the stationary or end saw. In the drawings I have shown two adjustable saws; but the series may be extended as desired by duplicating of the parts.

The saw-table A has the ordinary frame and top. The main shaft B is journaled on the bearing *a*, secured to a part of the frame. Along this main shaft, one for each saw, are friction-wheels C, preferably coated with some friction material. Yokes D are journaled on the shaft B and include within their arms the friction-wheels C. At the bows of the yokes are bearings D², in which are journaled the saw-spindles E, on which are the saws G. Friction-pulleys F are keyed on the saw-spindle between the arms of the yokes. The arms of yokes have forks D' at their ends, in which are the sliding boxes *d*. Straps D³ are placed on the ends of the forks, in which are springs *d'*, the forces of which are exerted against the straps pulling the friction-pulleys through the intermedium of the yokes against the friction-wheels. The tensions of these springs are adjusted by set-screws *d*².

The saws remain normally in the horizontal position shown in full lines in Fig. 1. One

saw at a time is thrown up to the position shown in dotted lines, so as to saw a length of board for which it is gaged. By hinging the bearing carrying the friction-pulleys F on the same center as the friction-wheels C the pulley F as it is moved up follows the periphery of the friction-wheels and maintains its contact at each position. At the upper position (the position for use) there is added to the contact-pressure exerted by the spring *d* the pressure exerted by the weight of the arbor and of the yoke owing to its inclination, so that only sufficient contact is necessary at normal to keep the saw revolving, this added pressure being sufficient, or nearly so, to effect the driving of the saw when in labor at the upper position. Owing to the multiplicity of the saws and the shortness of the space this friction mechanism for driving the saws I find is much more efficient as constructed by me than are the belt mechanisms ordinarily used.

It is desirable that as one saw is thrown up the other saw, which has been previously operated, shall be released and allowed to fall below the table, so that only the saw that it is desired to operate shall be above the table. This is accomplished by the following mechanism: Foot-levers H are attached to the bows of the yokes. They are intermediately hinged on the rod H' and extend to the front of the table, the ends being shaped and positioned conveniently for operation with the foot. Near the forward end of each lever is a slot *h*³, through which extends a catch *h*⁴. The catches *h*⁴ are keyed on a shaft H³, which is actuated by a spring H⁴ to press the catches forward. The catches are provided with cam-surfaces *h*⁵. As a lever is depressed it acts upon the cam-surface *h*⁵ and rocks the shaft H³ against the spring H⁴. When the lever reaches a point just over the catch, the shaft has been rocked sufficiently to carry the other catches in sufficiently far to release any other lever that may have been depressed previously, and so allows the saw connected with that lever to drop below the saw-table. At the completion of the depression the saw connected with the lever operated upon is brought above the table into position for use, and the shaft H³ is rocked by the spring H⁴, carrying

the catches forward and so locking the operated lever down, and consequently the saw in position.

What I claim as new is—

- 5 1. In a sawmill-trimmer, the combination with the saw-table; a main shaft; a friction-wheel on said shaft; a saw-spindle; a saw and friction-pulley contacting with said friction-wheel on said spindle; means of throwing
10 said saw into and out of position for use; and a bearing-support for said saw-spindle which increases the frictional contact of the friction-pulley on the friction-wheel as the saw is thrown into use.
- 15 2. In a sawmill-trimmer, the combination with the saw-table; a main shaft; a friction-wheel on said shaft; a saw-spindle; a saw and a friction-pulley on said spindle, the said
20 main shaft and spindle having axes normally in a substantially horizontal plane; a bearing for said spindle that supports said spindle free to move in a direction radial to said friction-wheel and into contact therewith; and means of moving said saw to a position

for use with the saw-spindle in a plane at an 25 inclination to said main shaft.

3. In a sawmill-trimmer, the combination with the saw-table; of a main shaft; a friction-wheel on said main shaft; a spindle-bearing hinged with the main shaft as a hinge-center; the saw-spindle in said bearing and free 30 to move toward said center; the saw on said spindle; a friction-pulley on said spindle and in contact with said friction-wheel; said saw-table main shaft and spindle being so relatively positioned that the radial line from the 35 main shaft to the spindle shall normally be parallel to or at a slight angle to the table-surface; and means of moving said saw to a position for use with said saw-spindle at an 40 inclination to said main shaft for the purposes set forth.

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

WILLIAM M. WILKIN.

Witnesses:

H. A. STRONG,

J. KEESE HALLOCK.