

(No Model.)

J. BARNES.
SAWING MACHINE.

No. 546,803.

Patented Sept. 24, 1895.

Fig. 1.

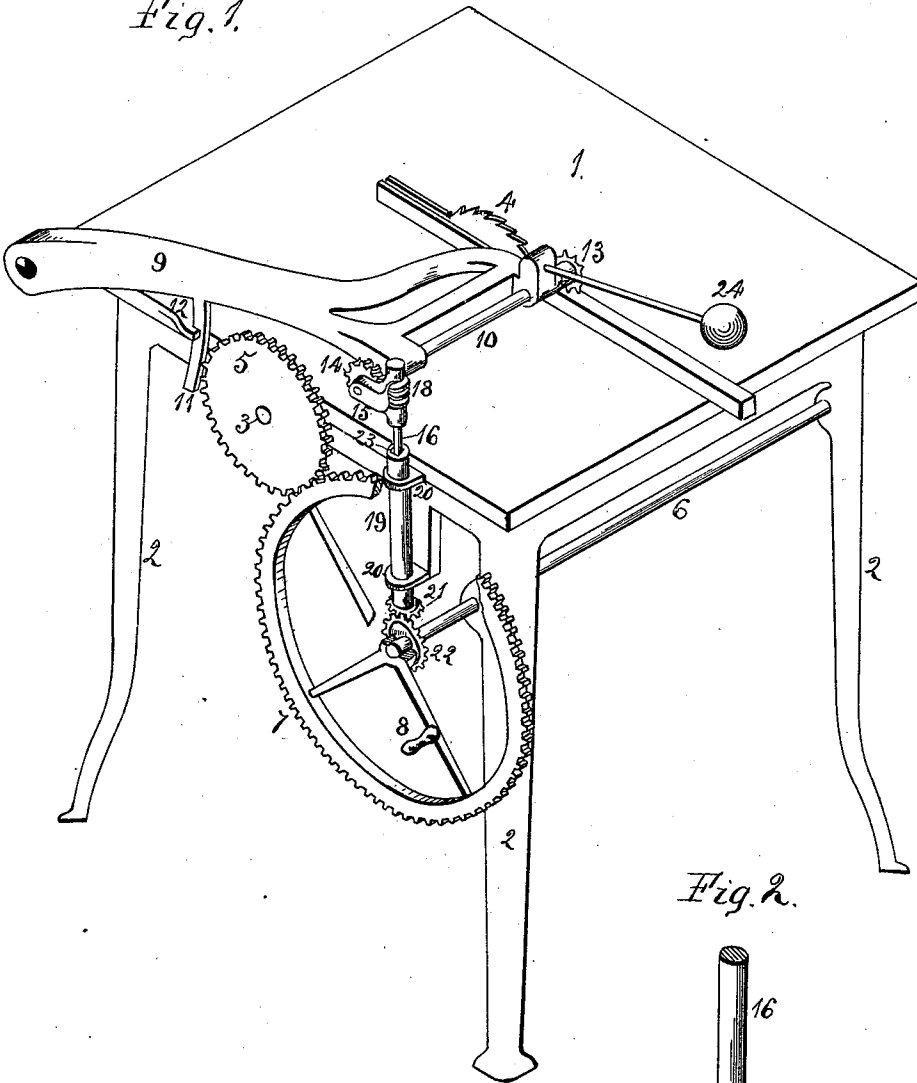
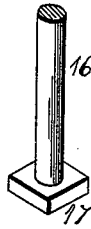


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN BARNES, OF ROCKFORD, ILLINOIS, ASSIGNOR TO THE W. F. & JOHN BARNES COMPANY, OF SAME PLACE.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 546,803, dated September 24, 1895.

Application filed July 1, 1895. Serial No. 554,668. (No model.)

To all whom it may concern:

Be it known that I, JOHN BARNES, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Sawing-Machines, of which the following is a specification.

The object of this invention is to provide means for automatically feeding the material to a saw of wood-sawing machines and made self-adjustable to the different thicknesses of material.

In the accompanying drawings, Figure 1 is an isometrical representation of a sawing-machine containing my improvements. Fig. 2 is an isometrical representation of the plunger forming the driving connection.

The table 1 is supported upon legs 2 and has a central shaft 3, supporting a saw 4 at one end and having a gear-wheel 5 secured to its outer end. A shaft 6, held in bearings in the frame of the machine, has a gear-wheel 7 secured to one end. The teeth of this gear-wheel mesh with the teeth of the gear-wheel 5, connected to the driving-shaft of the saw. A handle 8, connected to the gear-wheel, forms the means by which the saw may be rotated. To the rear edge of the table is pivoted an arm 9, its free end supporting a horizontal shaft 10, and has a depending lug 11, moving within a guide 12 formed in the table, which prevents lateral movement of the arm. To the end of the shaft in advance of the saw is secured a toothed wheel 13, and to the other end of the shaft is secured a worm-wheel 14. A yoke is held supported by the shaft 10 and supports a shaft 16, having its lower end squared. A worm 18 is secured to the upper end of the shaft 16 and engages the teeth of the worm-wheel 14. A tubular shell 19 is held in bearings 20 in a rotatable manner, and has a beveled gear-wheel 21 secured to

its lower end, which meshes with a beveled gear-wheel 22, secured to the main driving-shaft 6. The opening 23 in this tubular shell is square in form and extends in its lengthwise direction. Upon the rotation of the driving-shaft a rotary motion will be imparted to the saw, also to the tubular shell, and through the shaft 16 and worm and worm-wheel connection to the shaft 10, carrying the toothed wheel 13 with it. The arm 9 is raised to allow the placing of the material under the toothed wheel, which when set in motion will carry the material toward the saw. By pivoting the arm the toothed wheel can rise and fall to conform to the surface of the material, and the tubular shell permits the vertical movement of the headed shaft without breaking the connection; but when the saw is raised for work where the self-feed is not required, the arm is turned rearward upon its pivotal connection with the table, thereby withdrawing the headed shaft from the tubular shell and allowing the arm to hang vertically. If necessary, a weight 24 is connected to the arm to hold the toothed wheel 13 to its work. By this arrangement the toothed wheel will travel over irregular-shaped material.

I claim as my invention—

In a sawing machine, the combination of a supporting frame, an arm having a pivotal connection therewith, a toothed wheel carried by the arm, a shell having a lengthwise central rectangular opening, means for rotating the shell, a shaft carrying a head corresponding to the opening in the shell, and movable therein, and means forming a connection between the shaft and toothed wheel. .

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Witnesses:

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