No. 680,078. Patented Aug. 6, 1901.

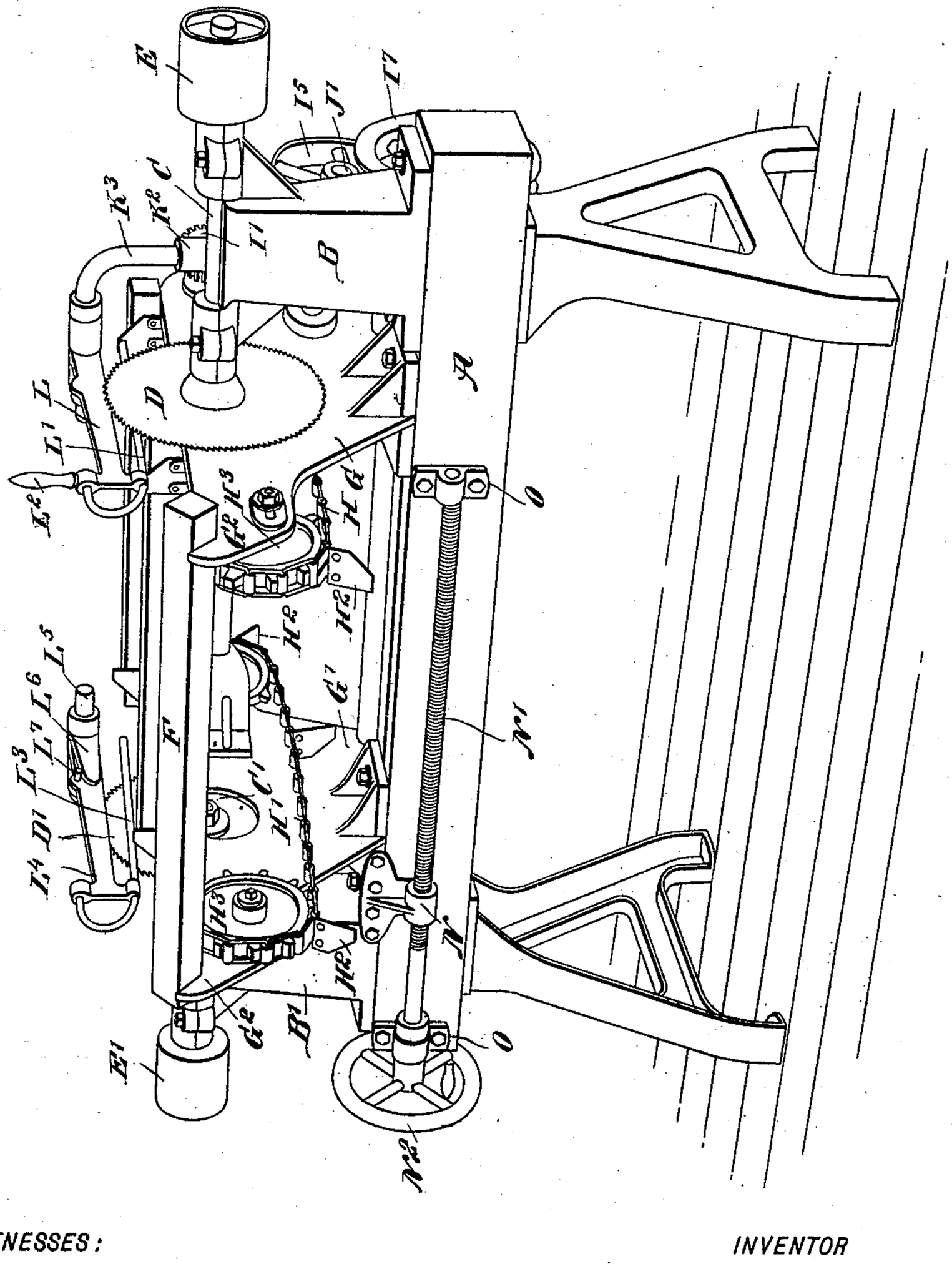
# C. SEYMOUR.

## SAWING MACHINE.

(Application filed Apr. 9, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.




WITNESSES:

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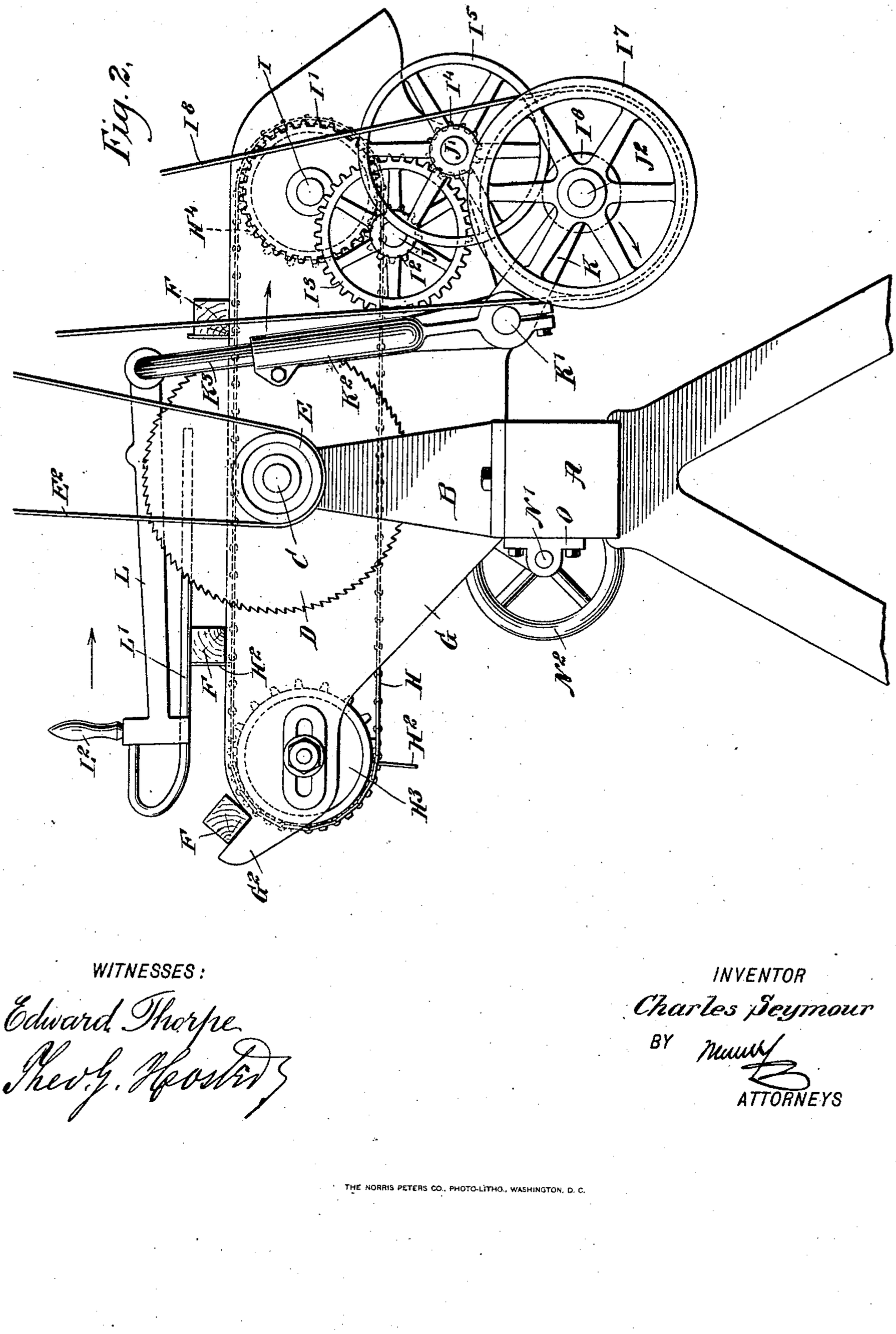
Fig. 2.

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# UNITED STATES PATENT OFFICE.

CHARLES SEYMOUR, OF DEFIANCE, OHIO, ASSIGNOR TO THE DEFIANCE MACHINE WORKS, OF SAME PLACE.

## SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 680,078, dated August 6, 1901.

Application filed April 9, 1901. Serial No. 55,020. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES SEYMOUR, a citizen of the United States, and a resident of Defiance, in the county of Defiance and State of Ohio, have invented a new and Improved Sawing-Machine, of which the following is a full, clear, and exact description.

The invention relates to woodworking machinery; and its object is to provide a new and improved sawing-machine, more especially designed for sawing off at one operation both ends of a spoke, handle, neck-yoke, singletree-blank, or other articles requiring to be the same length, the machine being simple and durable in construction, readily adjusted for any length of work required, and not liable to get out of order.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the views.

Figure 1 is a perspective view of the improvement, and Fig. 2 is an enlarged end elevation of the same.

The improved sawing-machine is mounted on a suitably-constructed bed A, on which are adjustably secured-bearings B B′ for spindles C C′, carrying at their outer ends pulleys E E′, connected by independent belts $E^2$ with suitable machinery for rotating the spindles and the saws D D′. The work F to be sawed off at both ends by the saws D D′ is placed by an operator on forwardly-extending hooks $G^2$, arranged on heads G G′, adjustably secured on the bed A inside of the bearings B B′, as is plainly illustrated in Fig. 1, and said work F is removed from said hooks $G^2$ by the arms $H^2$ of endless carriers H H′ in the form of sprocket-chains passing over front sprocket-wheels $H^3$ and over rear sprocket-wheels $H^4$, secured on a shaft I, extending longitudinally and journaled in suitable bearings in the heads G G′.

On the outer end of the shaft I is secured a gear-wheel I′, in mesh with a pinion $I^2$, held on a gear-wheel $I^3$, mounted to rotate loosely on a stud J, attached to the head G, and said gear-wheel $I^3$ is in mesh with a pinion $I^4$, carrying a friction-pulley $I^5$, journaled loosely on a stud J′, likewise attached to the head G. The friction-pulley $I^5$ is adapted to be engaged by a friction-pinion $I^6$, held on a driving-pulley $I^7$, connected by a belt $I^8$ with other machinery, so that when the pulley $I^7$ is rotated and the friction-pinion $I^6$ is in frictional contact with the pulley $I^5$ then a rotary motion is given to the said pulleys, the pinion, and the gear-wheels to rotate the shaft I, and thereby impart a traveling motion to the endless carrier to cause the arms $H^2$ thereof to engage the work F at the hooks $G^2$ and move the same rearward to the saws D D′ for the latter to cut off the ends of the work.

The pulley $I^7$ is mounted on a stud $J^2$, carried by an arm K on a rock-shaft K′, journaled in the head G and provided with an upwardly-extending arm $K^2$, in which is adjustably secured a bracket $K^3$, on the upper end of which is mounted to swing a forwardly-extending arm L, having a rearwardly-extending bottom bar L′ adapted to rest on the top of the work F next to the saw D, so as to hold the work firmly in position while the saw D cuts off the end of the work. A similar bar $L^3$ is arranged on an arm $L^4$, located next to the saw D′, as is plainly shown in Fig. 1, to engage this end of the work and hold the same in position while the saw D′ cuts off this end of the work. The arm $L^4$ is hung loosely on a bracket $L^5$, attached to the head G′, and on said bracket $L^5$ are secured forwardly-extending arms $L^6$, engaged by a pin $L^7$ on the arm $L^4$ to hold the latter in position at the time the work is out of reach of the arm $L^3$.

The arm L, previously mentioned and arranged adjacent to the saw D, is provided with a handle $L^2$, adapted to be taken hold of by the operator to push the arm L rearward, and thereby impart a swinging motion by the bracket $K^3$ to the arm $K^2$ to rock the shaft K′ and swing the arm K downwardly and forwardly to move the driven friction-pulley $I^6$ out of frictional engagement with the pulley $I^5$ and stop the machine.

The head G′ and the bearing B′ may be simultaneously adjusted longitudinally on the bed A, toward and from the head G, to ac-

commodate work F of different lengths, and for this purpose the bearing B′ and the head G′ carry a nut N, in which screws a screw-rod N′, mounted to turn in suitable bearings O, attached to the front of the bed A. On the outer end of the screw-rod N′ is secured a hand-wheel $N^2$, which when turned by the operator actuates the screw-rod N′ and feeds the nut N forward or backward, according to the direction in which the hand-wheel $N^2$ is turned, to move the head G′ and the bearing B′ toward or from the other head G. When the desired adjustment has been made, the head G′ and the bearing B′ are secured in position on the bed A by suitable bolts or other fastening means in the usual manner.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A sawing-machine having circular saws for sawing off the work, an endless carrier for feeding the work to the saws, swing-arms resting on the work while the saws cut off the ends of the work, and a friction drive-gear for said endless carrier and controlled from one of said arms, as set forth.

2. A sawing-machine having an endless carrier for carrying work to the saws, and a drive-gear for said endless carrier, arms for holding the work on the carrier while the ends are being sawed off, and a connection between one of said arms and the drive-gear, to throw the latter in or out of action, as set forth.

3. A sawing-machine, having saws for sawing off the work, an endless carrier for feeding the work to the saws an arm resting on the work while the saws are operating thereon, a drive-gear for said endless carrier and means by which such gear may be thrown in or out of action by the said arm, substantially as set forth.

4. In a sawing-machine provided with an endless carrier for feeding the work, a drive-gear for said endless carrier including a shaft, a rocker having an arm provided with a bearing for said shaft and with an upwardly-projecting arm composed of adjustable members and the arm connected with the upper member and arranged to rest upon the work, substantially as set forth.

5. A sawing-machine having an endless carrier for feeding the work, a drive-gear for said carrier including a shaft movable relatively to the other shafts of the gear, a rocker supporting said shaft and having an upwardly-extending arm, and the arm arranged to rest upon the work and jointed to the said rocker-arm, whereby it may swing at such joint, substantially as set forth.

6. In a sawing-machine, the combination with the endless carrier and the drive-gear therefor including a shaft and a rocker supporting the same, and having an upwardly-extending arm composed of adjustable members, and the forwardly-extending arm jointed to the upper one of said members, and arranged to rest upon the work, substantially as set forth.

7. A sawing-machine comprising a bed-frame, the upright plate G thereon and provided with a hook and with the carrier-supporting devices, the upright plate G′ provided with a hook and with the supporting devices for the carrier, the carrier, means for adjusting the plate G′ toward and from the plate G, the saws and their operating devices, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES SEYMOUR.

Witnesses:
GEO. W. DEATRICH,
JOSEPH BAUER.