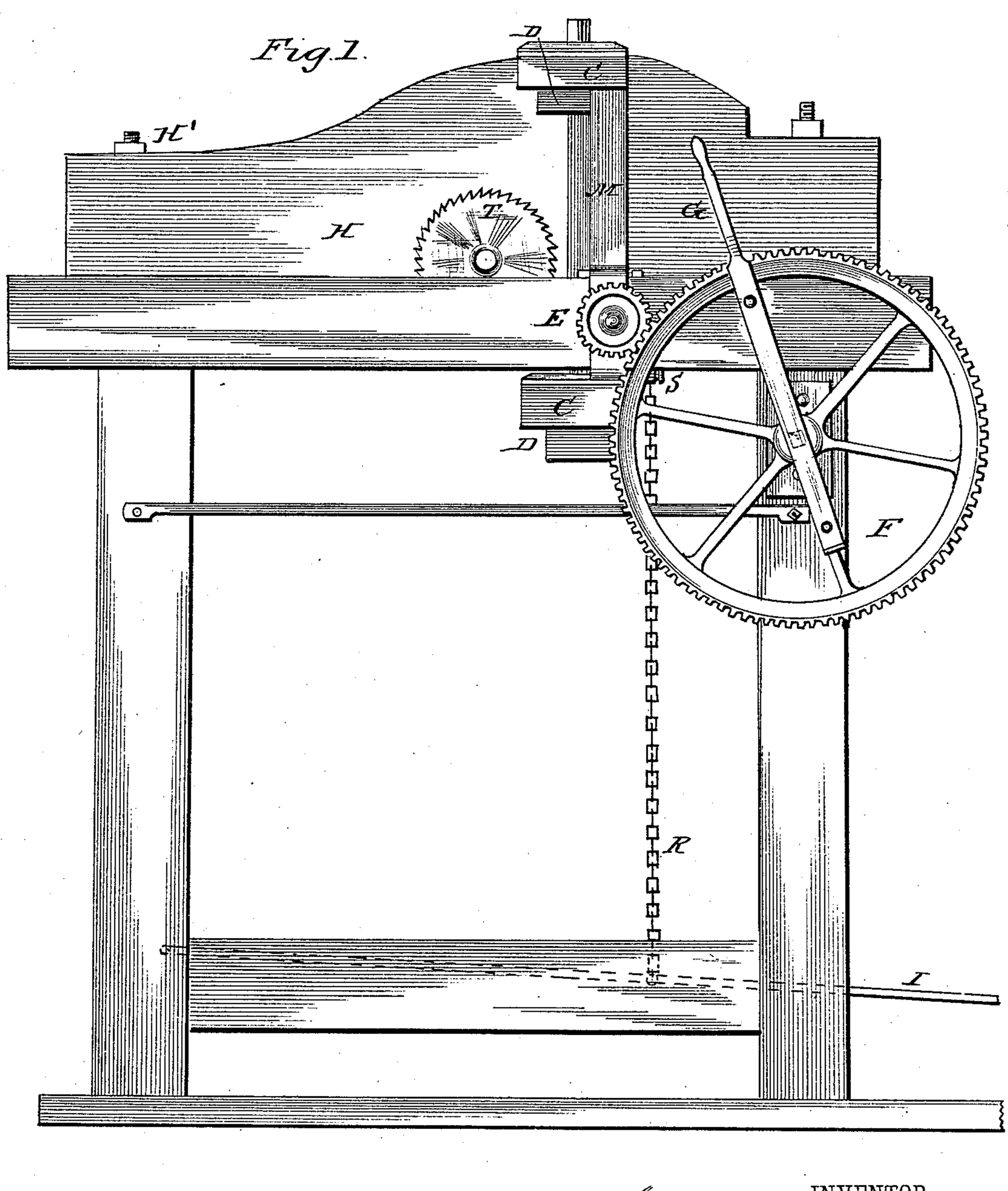
(No Model.) 2 Sheets—Sheet 1.

J. A. GRANT.

MACHINE FOR CUTTING HOOPS.

No. 285,612. Patented Sept. 25, 1883.

Fig. 1.



WITNESSES:

Fred. L. Dieterich

Arthur L. Morsell.

INVENTOR.

John A. Grant

By Louis Bagger & Co.

ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

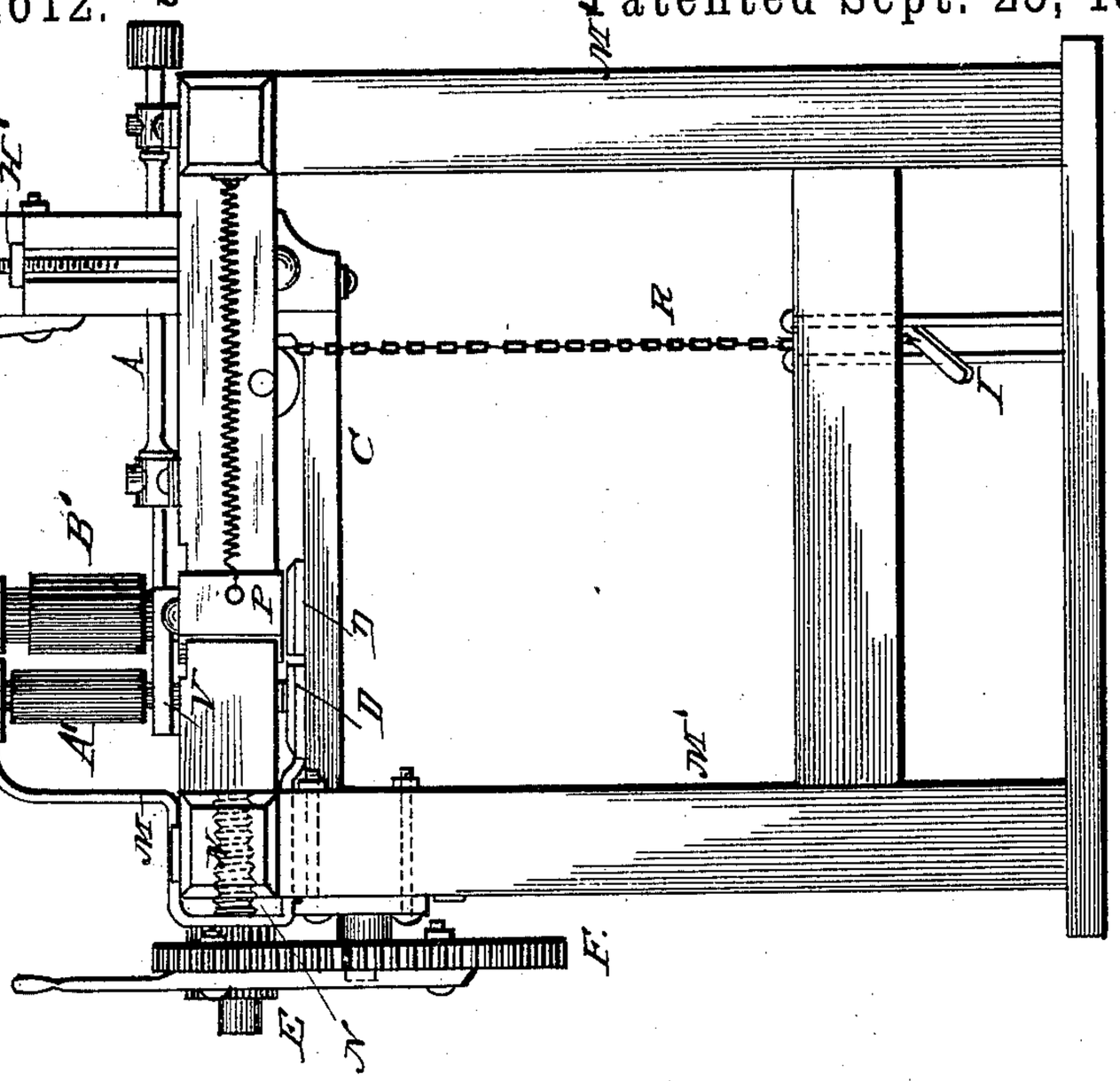
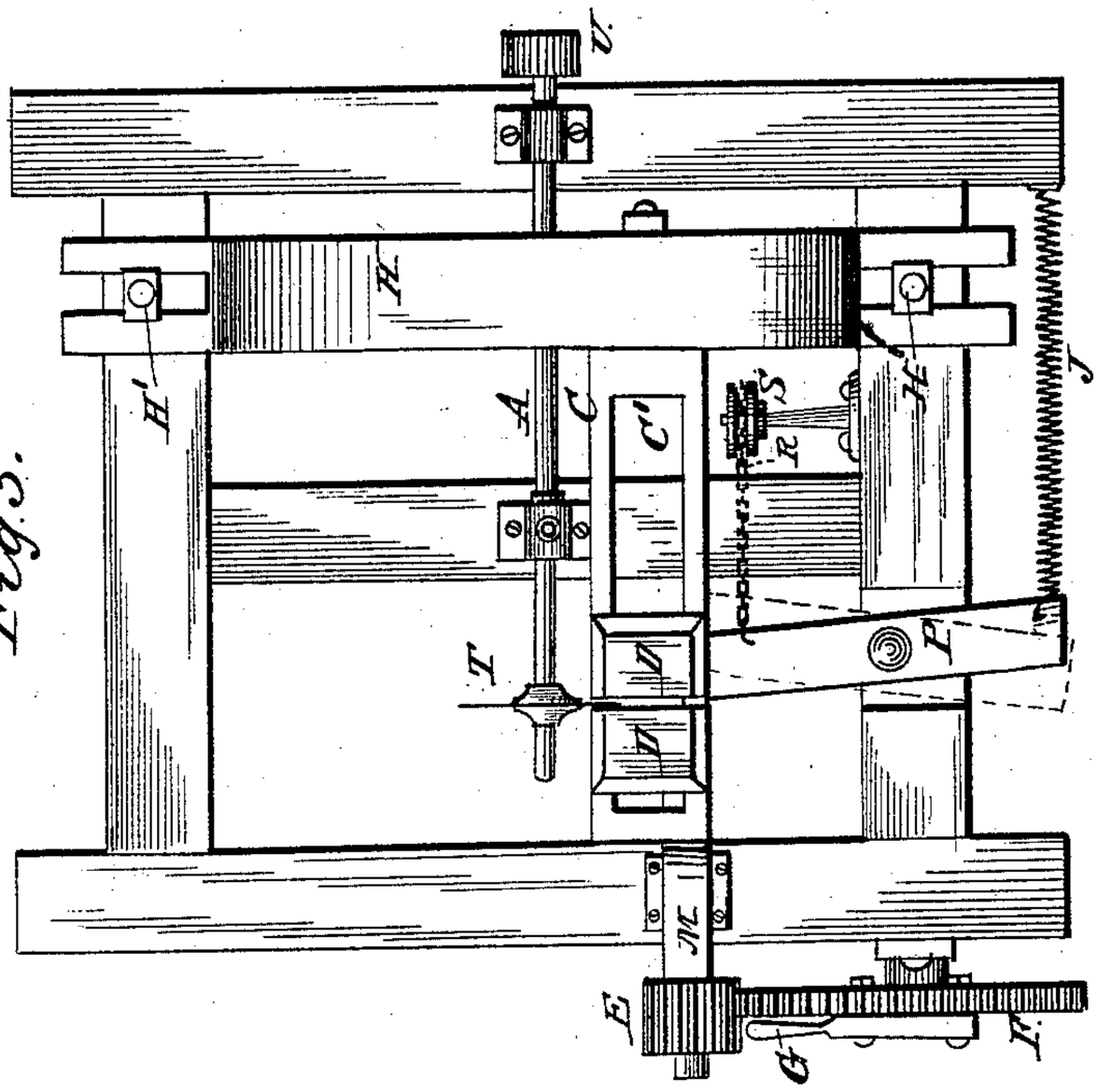


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN A. GRANT, OF FREMONT, OHIO.

MACHINE FOR CUTTING HOOPS.

SPECIFICATION forming part of Letters Patent No. 285,612, dated September 25, 1883.

Application filed July 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. GRANT, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Machines for Cutting Hoops; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a front view of my improved machine for cutting hoops. Fig. 2 is a side view of the same, and Fig. 3 is a top view.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to machines for cutting hoops; and it consists in the improved construction and combination of parts of the same, as will be hereinafter more fully described and claimed.

In the accompanying two sheets of drawings, M′ represents the frame which supports my improved hoop-cutting machine.

A′ and B′ represent the rollers between which the end of the pole from which the hoop is to be cut is inserted.

H represents a timber or beam, extending parallel with the side of the frame, and secured adjustably upon the top of the frame, near one of its sides, by means of bolts H′, passing through slots in its ends. To the timber or beam H are secured the arms C, extending parallel to the front of the frame M, one arm extending above the top of the frame and the other below, the arms C being provided with slots C′, for the reception of the journal-boxes D, which slide in said slots, and in which boxes the ends of the rollers A′ and B′ are journaled.

F represents a gear-wheel pivoted upon one of the uprights or standards of the frame M, and provided with a handle, G, by which it may be turned.

N represents a set-screw or screw-bolt working in one of the side pieces of the frame M′, and provided with a pinion, E, with which the gear-wheel F meshes. A curved metal bar or frame, M, connects the set-screw N and the roller A′ together.

T represents the saw, which is secured upon the saw-arbor A, to the outer end of which is secured the pulley U, over which the endless belt by which motion is transmitted to the machinery passes. The saw T runs directly behind and between the rollers A′ and B′. In order to pass a pole with a knot on it between the rollers, the roller A′ is slid to the left by the operator taking hold of the handle G of the gear-wheel F and drawing it toward him, when, by means of the mechanism previously described, the roller A′ will be drawn to the left, so as to enlarge the space between the rollers.

P represents a bar which is pivoted upon the top of the front cross-piece of the frame M′. The inner end of this bar is secured to the lower journal-box of the roller B′. A spring, J, is fastened to the outer end of the bar P, and serves to hold the roller B′ firmly against the pole which is inserted between the rollers A′ and B′, while at the same time the spring J has sufficient elasticity to admit of the roller B′ yielding to any slight inequality in the thickness of the pole which is being operated upon.

I is a lever which is hung in the lower part of the frame M′, so as to be within convenient reach of the foot of the operator. A sprocket-chain, R, is secured by one end to the inner end of the bar P, and passes over a sprocket-wheel, S, hung in suitable bearings in the upper part of the frame M′, the lower end of the chain being secured to the lever I. When it is desired to insert a pole of large size between the rollers A′ and B′, the operator presses with his foot upon the lever I, which draws upon the chain R, and thereby moves the roller B′ to the right, as shown in dotted lines in Fig. 3 of the drawings, so as to increase the distance between the two rollers to any desired extent.

V indicates a rest upon which the weight of the pole is supported while it is being operated upon.

The timber or cross-beam H, as already described, is secured upon the top of the frame M′ by means of bolts H′, passing through slots in its ends, so that the rollers A′ and B′, which

are supported between the arms C of the cross-beam H, may be moved either backward or forward, according to the size of the saw T.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of my improved machine for cutting hoops will readily be understood without requiring further explanation.

It will be seen that my improved machine is simple in construction, exceedingly convenient to operate, and, being devoid of all complicated parts, is not liable to break or get out of order.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a machine for cutting hoops, the combination of the roller B′, adjustably secured between the arms C C, pivoted bar P, secured at one end to the roller B′, lever I, sprocket-wheel S, chain R, connecting-lever I, and pivoted bar P, and spring J, adapted to hold the roller B′ in operative position, substantially as described, for the purpose set forth.

2. In a machine for cutting hoops, of substantially the described construction, the combination, with the saw-arbor A, having pulley U and circular saw T, of the adjustable cross-beam H, having longitudinally-slotted arms C C, within which the laterally-adjustable rollers A′ B′ are secured, all constructed and arranged to operate substantially in the manner and for the purpose shown and described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN A. GRANT.

Witnesses:

HENRY KLOPFER,

MORRIS E. TYLER.