

(No Model.)

J. CONNELL.  
SAW GUIDE.

No. 575,416.

Patented Jan. 19, 1897.

Fig. 1.

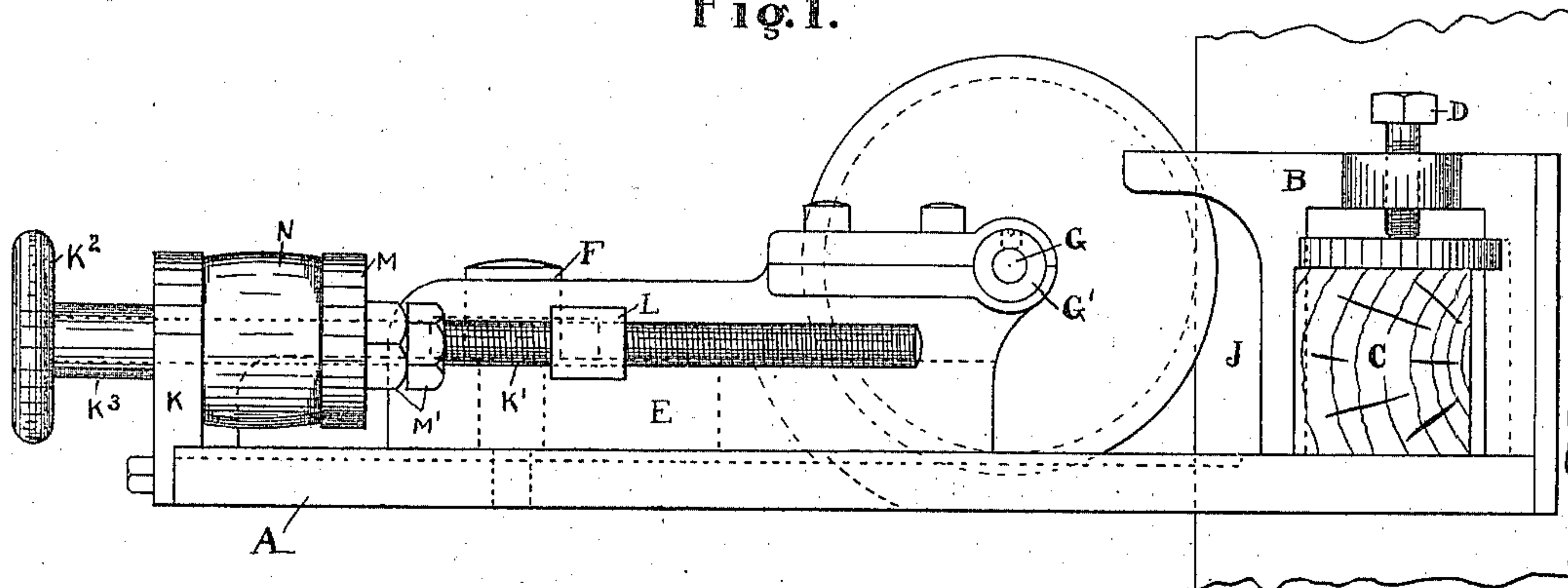
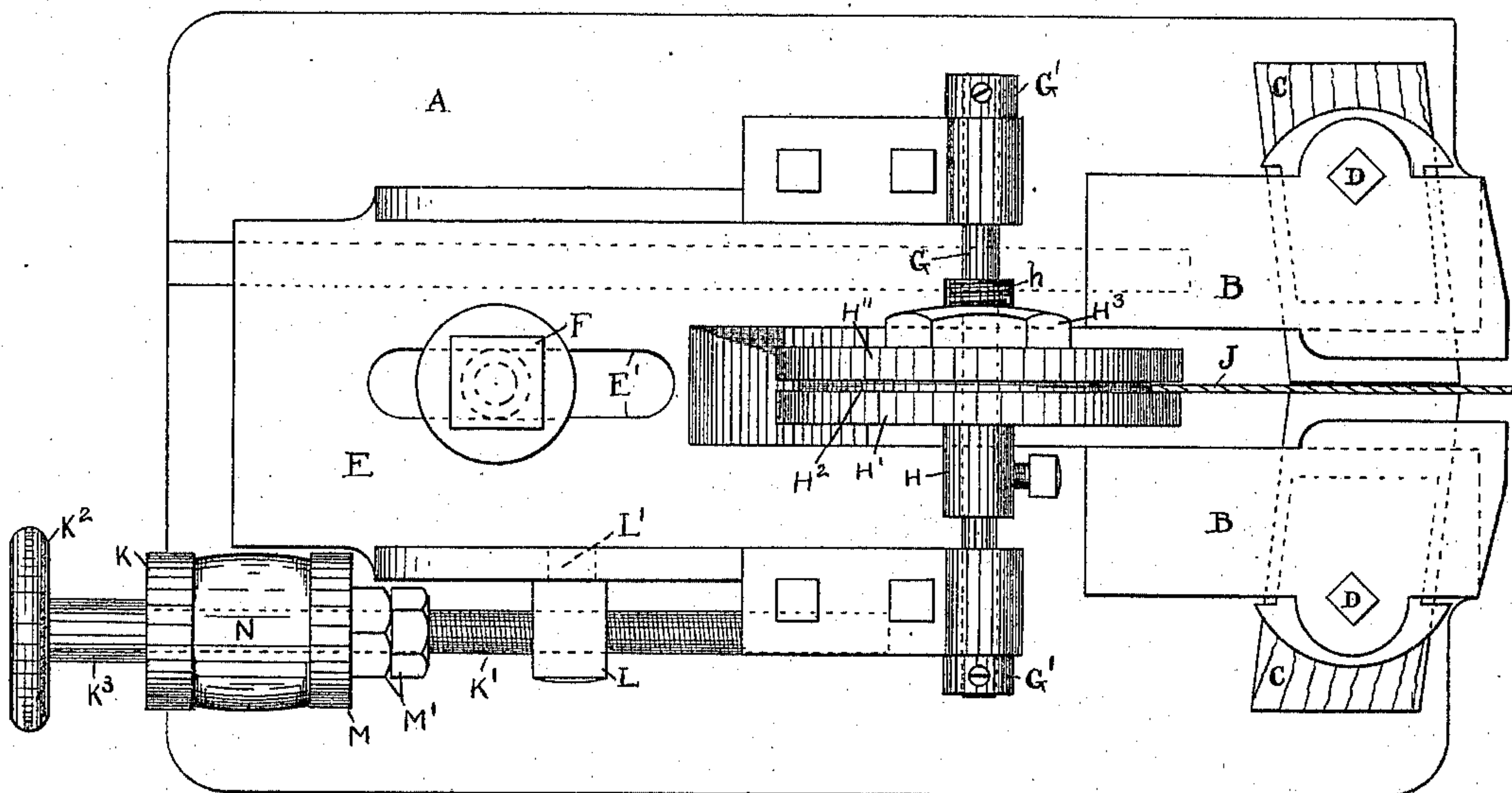


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOHN CONNELL, OF ROCHESTER, NEW YORK.

## SAW-GUIDE.

SPECIFICATION forming part of Letters Patent No. 575,416, dated January 19, 1897.

Application filed November 23, 1895. Serial No. 569,929. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN CONNELL, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Saw-Guides; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-letters marked thereon.

My present invention has for its object to provide an improved back guide particularly adapted for band-saws; and it consists in certain improvements which will be hereinafter described and the novel features pointed out in the claims at the end of this specification.

In the drawings, Figure 1 is a side elevation of a saw-guide constructed in accordance with my invention; Fig. 2, a plan view of the same.

Similar reference-letters in the two figures indicate similar parts.

My present invention is an improvement upon the back guide for band-saws contained in my pending application, Serial No. 555,431, filed July 9, 1895, which embodies a roller having a groove, and against which the back edge of the saw operates, and the particular feature of my present invention is the provision of means for quickly adjusting the guide for saws of various widths, and also permitting a slight yielding of said guide if an unusually hard obstruction, such as a knot, is encountered in sawing a board, and also in the event of imperfections in the saw itself.

A indicates a bracket or support adapted to be applied in any suitable manner to the frame of a saw, having secured to or formed upon it yokes B, in which are secured blocks C of wood arranged on opposite sides of the saw and secured in position by bolts D or other suitable fastening devices.

E indicates a frame or casting adapted to slide upon the support A and having a slot E', through which passes a bolt F, secured to the support and holding the frame down upon it, though permitting its longitudinal movement thereon. This frame is provided with suitable bearings, in which is arranged a shaft G, held from longitudinal motion by collars G', upon which shaft is secured a roller for engaging the saw, in the present instance

composed of a sleeve H, having disks H' H'', and arranged between them a slightly smaller disk H<sup>2</sup> of hard steel, against which the back of the saw J abuts. The disk H'' is clamped upon the sleeve H (which is threaded at  $h$  for the purpose) by means of a nut H<sup>3</sup>. Secured to the support A is a bracket or arm K, having an aperture therein, through which passes loosely an adjusting-screw K', the outer end of said screw having a hand-wheel K<sup>2</sup>, provided with a collar or sleeve K<sup>3</sup>, engaging the outer side of the bracket K, while the inner threaded end screws into a block L, attached to the frame E by means of a threaded shank L' on said block, as in Fig. 2.

M indicates a collar or washer loosely arranged on the screw and held in adjusted position thereon by means of locking-nuts M', and between said washer M and the bracket K is arranged a spring N, preferably composed of a block of rubber, though a spiral spring could be used for the same purpose, if desired.

It will be understood that by the operation of the screw K' the frame E may be adjusted back and forth on the support A to bring the saw-guiding roller close up against the back of the saw J, which is its normal position, but should the saw encounter an unusually hard obstruction, such as a knot, said back guide is permitted to yield slightly by reason of the spring N, which forms the abutment between the frame E and the support A. Not only is this elastic connection between the frame carrying the guiding-roller and the support A useful to permit the backward yielding when a hard obstruction in the wood is encountered, but it sometimes happens that there are imperfections on the rear side of the saw, caused by unequal wear, and if the back guide were rigid there would be an objectionable pounding each time said projection came in contact with the rear guide-wheel.

The particular construction of the roller or guide in contact with the rear of the saw is immaterial as far as my present invention is concerned, but I prefer to employ the device shown, as I find in practice that it is admirably adapted for the purpose.

I claim as my invention—

1. In a sawing-machine, the combination with the saw and a table or support in rear



thereof, of the frame resting loosely on the support, and a roller to contact with the saw carried by the frame, the movable adjusting-screw entering a threaded part of the frame  
5 and having a rigid collar thereon engaging the support, and a spring arranged between an abutment on the screw and the frame, whereby the position of the roller may be changed without varying the tension of the  
10 spring, substantially as described.

2. The combination with the support, and the abutment thereon, the frame movable on the support and the roller carried by the frame and adapted to engage a saw, of the  
15 movable adjusting-screw engaging and passing through the abutment on the support and

entering a threaded portion of the frame, the adjustable collar on the screw, and the spring between the collar and the abutment on the support, substantially as described.

3. The combination with the support having the yokes and the blocks therein, of the frame E having the slot E', and the roller thereon adapted to engage the back of the saw, the bracket K, the screw K', the block L, collar M, nut M', and spring N, substantially as described.

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Witnesses:

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