(No Model.)

J. B. HART.

SET GEAR FOR SAWMILLS.

No. 575,521. Patented Jan. 19, 1897.

Fig. 2

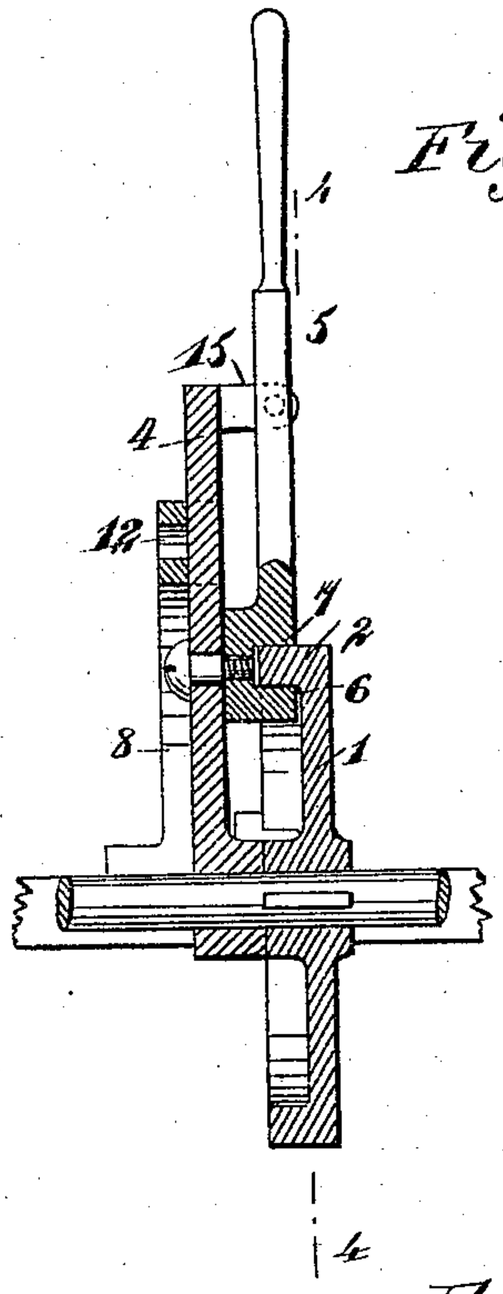


Fig. 4

Fig. 1

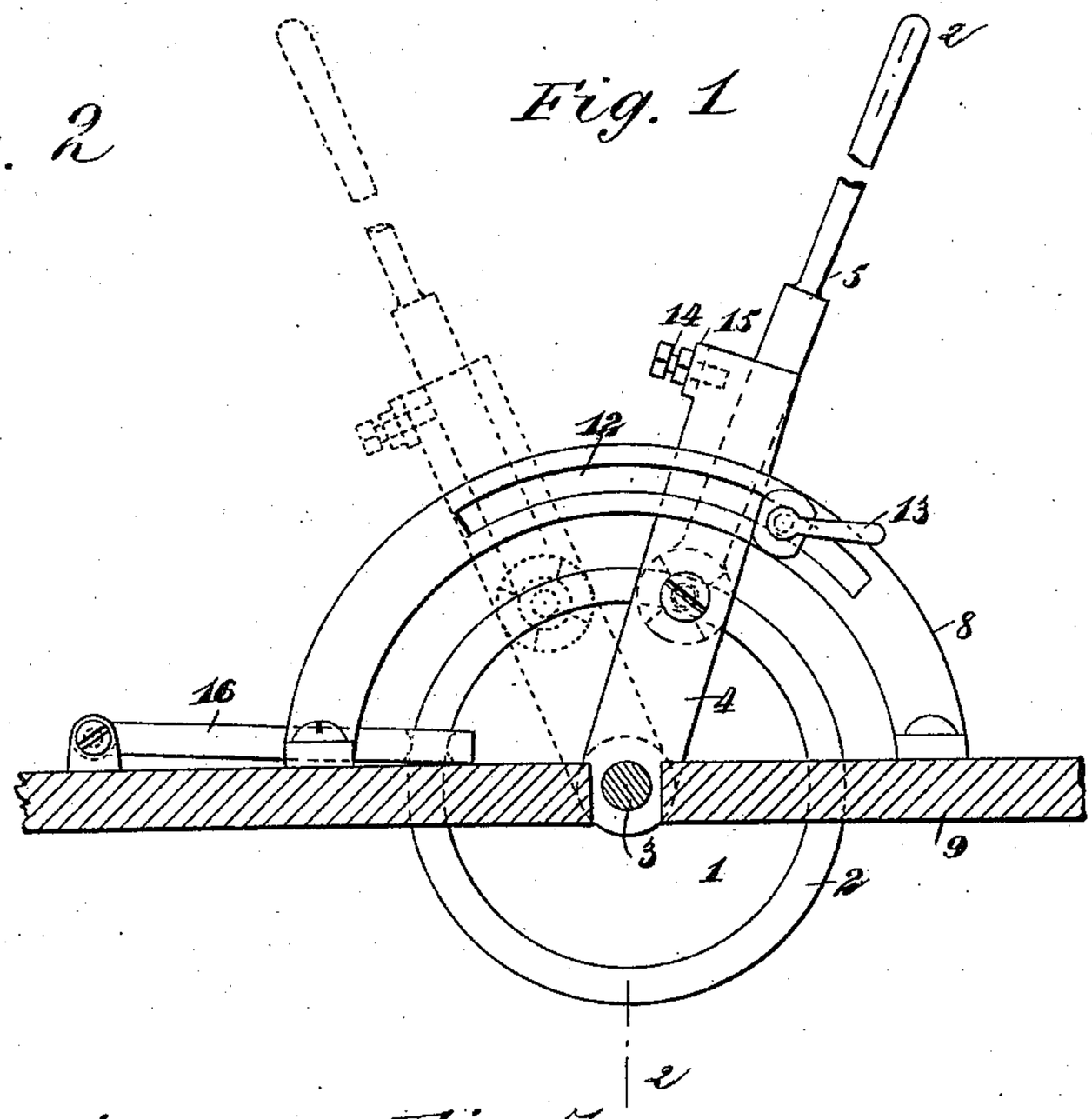
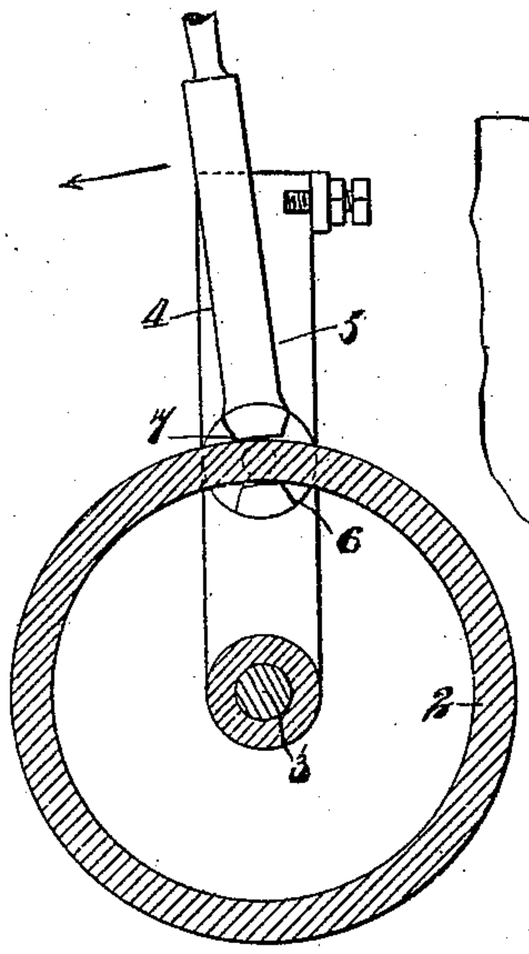
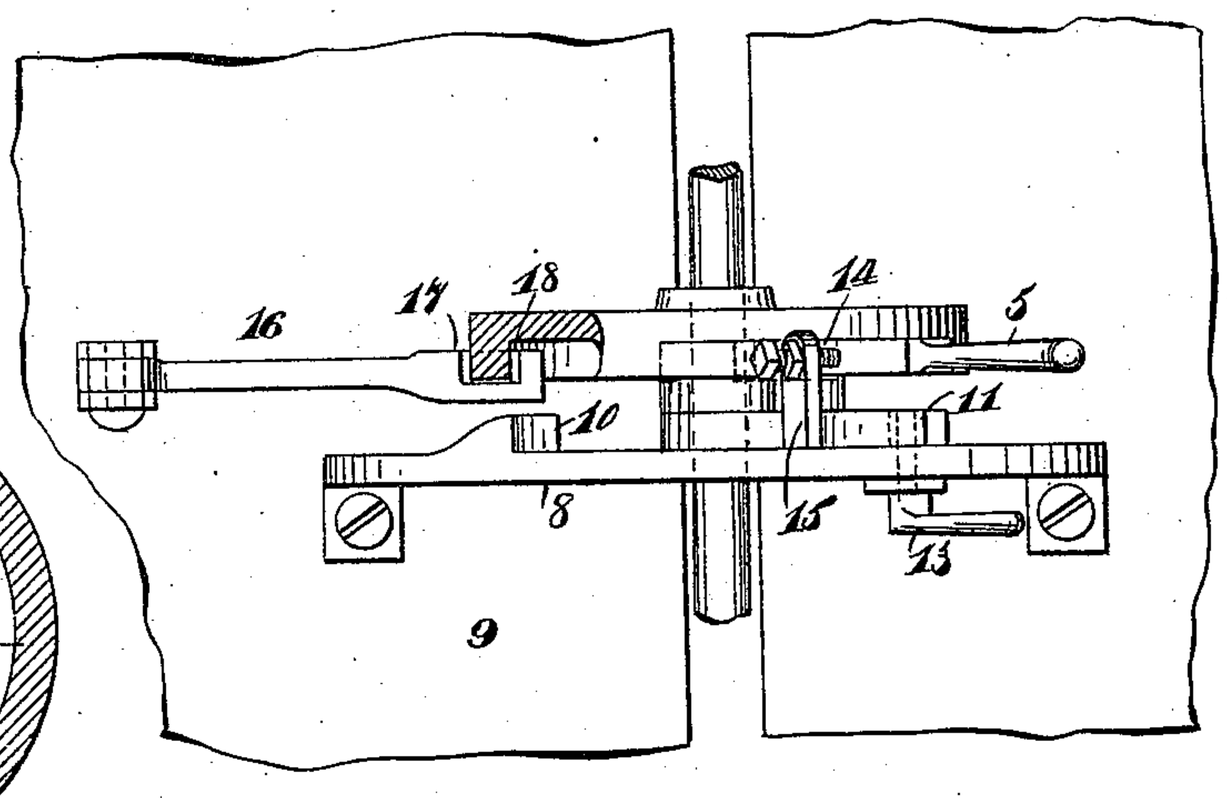


Fig. 3





WITNESSES:

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SET-GEAR FOR SAWMILLS.

SPECIFICATION forming part of Letters Patent No. 575,521, dated January 19, 1897.

Application filed April 14, 1896. Serial No. 587,454. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. HART, of Clarksburg, in the county of Harrison and State of West Virginia, have invented certain new and useful Improvements in Set-Gears for Sawmills, of which the following is a full, clear, and exact description.

This invention relates to devices for setting a log to be sawed in proper relation to the saw for the different thicknesses of lumber; and the object is to provide a mechanism whereby very fine adjustments may be obtained and the log be held with a positive grip.

I will describe a set-gear embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a set-gear embodying my invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a plan view, and Fig. 4 is a section on the line 4 4 of Fig. 2.

The set-gear comprises a wheel 1, provided at its periphery with an outwardly-extended annular gripping-flange 2. The wheel 1 is rigidly mounted on a shaft 3, and fulcrumed on this shaft 3 is an arm 4, which is extended outward beyond the periphery of the wheel.

A setting-lever 5 is pivoted to the arm 4 at a point directly opposite the flange 2 of the wheel 1, and at this point the lever is provided with jaws 6 7, adapted to engage, respectively, with the inner and outer sides of the flange 2. It will be seen the engaging ends of the jaws are quite narrow and that the distance between the jaws is slightly greater than the thickness of the flange, so that while moving the lever for setting the said lever will be deflected from a line parallel with the arm and cause the sharp edges of the jaws to firmly grip the flange. A sector 8 is mounted on the support 9 and is provided with a projection or stop 10 to limit the movement of arm 4 and lever 5 in one direction, and it is also provided with an adjustable stop to limit the movement of the said parts in the opposite direction. As here shown, this adjustable stop consists of a block 11, mounted on a bolt extended through an arc slot 12 in the sector 8 and engaged at its outer portion with a clamp-nut 13, provided with a suitable handle. By this construction it is obvious that a much finer and greater range of adjustment may be made than by the common ratchet-and-pawl devices, or with devices where a pin is employed as a stop, the said pin being inserted in one of a series of holes in a quadrant, as in such devices the adjustment is limited only by the distance between the holes. To hold the lever 5 in proper relation with the arm 4, to allow the parts to be moved backward to the position indicated in dotted lines in Fig. 1, I employ an abutment consisting of a screw 14, extended through a lateral lug on the arm 4. This screw may be adjusted to engage against the rear side of the lever 5 and support said lever in such position as to free the jaws 6 7 from the flange 2, and as the space between the jaws, as before stated, is somewhat greater than the thickness of the flange it is obvious that the parts may be quickly moved backward.

To prevent a backward rotation of the wheel 1, I employ a dog comprising an arm 16, pivotally connected at its outer end to the support 9 and having at its free end jaws 17 18, similar to the jaws 6 7, before described, and adapted to grip the flange 2. This dog is arranged in a horizontal position and its jaw end will fall by gravity to cause the edges of its jaws to grip the flange and prevent backward movement of the wheel, but the wheel may move freely forward between the jaws, as the weight of the dog will cause it to maintain a position during such movement to practically disengage its jaws from the flange.

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

1. A set-gear for sawmills, comprising a flanged wheel, an arm fulcrumed at the axis of said wheel, a lever pivoted to said arm, jaws on said lever opposite the pivotal point thereof and engaging the flange of the wheel, the space between said jaws being greater than the thickness of the flange, and a gripper engaging the wheel for preventing a backward movement of the wheel, substantially as specified.

2. A set-gear for sawmills, comprising a flanged wheel, an arm fulcrumed on the shaft of said wheel, a lever having pivotal connection with the arm at a point opposite the flange, jaws on said lever opposite the pivotal point thereof and engaging the flange, an adjustable stop for the lever and arm, and a horizontally-disposed dog pivoted at one end and having jaws to engage the flange of the wheel, the space between said jaws being greater than the thickness of the flange, substantially as specified.

3. A set-gear for sawmills, comprising a flanged disk, an arm fulcrumed on the shaft thereof, a lever pivoted to the arm opposite the flange of the wheel and having spaced jaws opposite the pivotal point thereof and engaging the flange of the wheel, an adjustable abutment for the lever carried by the arm, a sector adjacent to the arm, a fixed stop on said sector, an adjustable stop on the sector, and a gravity-dog having spaced jaws to engage the flange of the wheel, substantially as specified.

4. In a set-gear for sawmills, the combination with a flanged wheel secured to a shaft, of an arm fulcrumed on the said shaft, a lever pivoted to the arm opposite the flange of the wheel and provided opposite its pivotal point with fixed jaws, between which the flange of the wheel projects, and an adjustable stop on the arm with which the lever is adapted to engage, substantially as described.

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Witnesses:
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