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DENNIS LANE.

Improvement in Head Blocks for Saw Mills.

No. 122,263.

Patented Dec. 26, 1871.

Fig. 1.

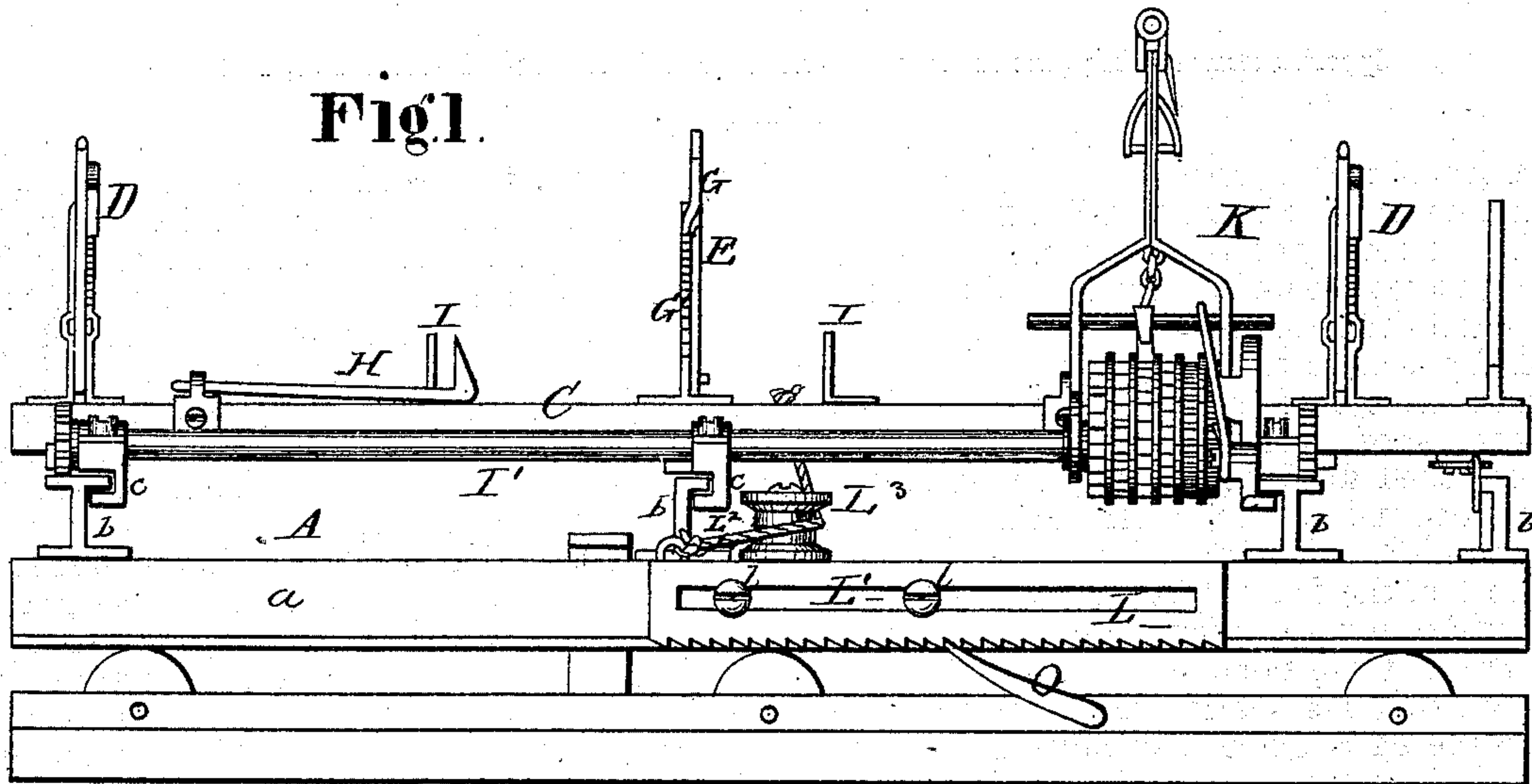
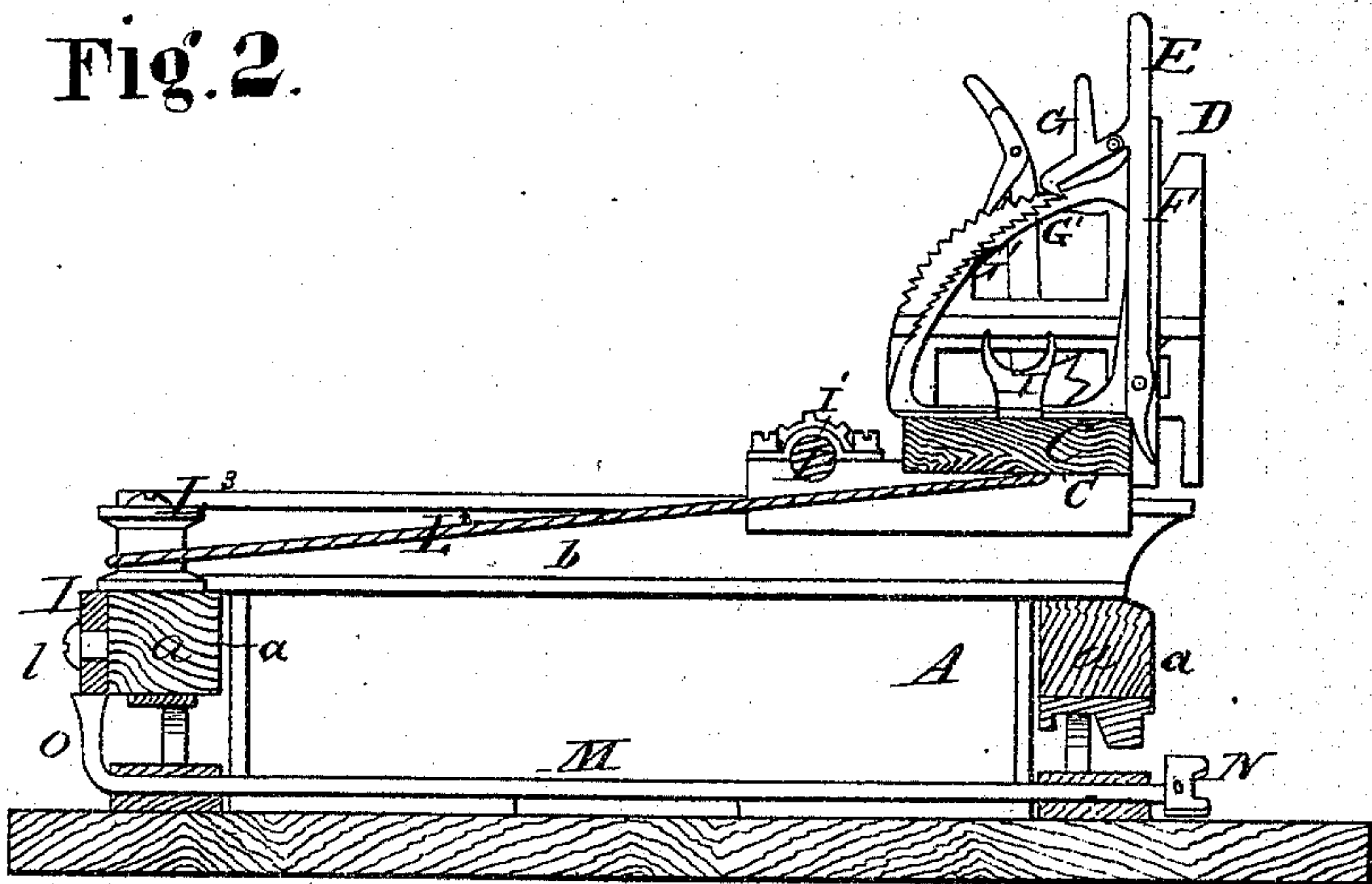


Fig. 2.



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DENNIS LANE, OF MONTPELIER, VERMONT.

IMPROVEMENT IN HEAD-BLOCKS FOR SAW-MILLS.

Specification forming part of Letters Patent No. 122,263, dated December 26, 1871.

To all whom it may concern:

Be it known that I, DENNIS LANE, of Montpelier, in the county of Washington and State of Vermont, have invented a new and valuable Improvement in Head-Blocks for Saw-Mills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of my invention. Fig. 2 is a vertical cross-section of the same.

My invention has relation to certain improvements in the carriages of saw-mills, having laterally traveling "setting-up" bars, and adapted for use in the sawing of logs. My invention consists in the construction and novel arrangement of a pivoted dog which is attached to the setting-up block, operates in connection with a pawl and stationary ratchet, and is designed to grasp and aid in keeping the log in its proper position. My invention also consists in the construction and novel arrangement of devices operating under the control of an attendant, and adapted to act in connection with the saw-mill carriage, so as to cause the "setting-up" block to recede laterally when the carriage gigs after the cutting of the last board from the log.

In the accompanying drawing illustrating my invention, A designates the carriage of a saw-mill, adapted to longitudinal reciprocating travel on its bearings. The carriage is composed of the longitudinal side bars *a* and elevated cross-ties *b*. C represents the setting-up bar, placed on the cross-ties *b*. This bar is allowed lateral travel, and is kept in its proper relative position by guides *c*. D indicates the adjustable rests and their appurtenances, located near the ends of the setting-up bar, and employed in the adjustment of the log in its relation to the setting-up bar, and according to its peculiarities of form. E designates a dog, which is pivoted to a standard, F, connected with the bar C and located midway between the ends thereof or at any other suitable point. This dog is designed to aid in holding the log, especially during the last sawing, when the co-operating supports to the log have least power.

The dog is arranged and adapted to bite low on the log; but is adjustable to take its hold at different heights and with the same effect, whether the adjacent surface of the log be close to or at a distance from the setting-up bar. The dog is held at any desired position by means of a pawl, G, hinged to it and engaging with a properly-arranged segmental rack, G'. H represents the ordinary saw-mill dog, connected to the setting-up bar. I represents the rests for said dogs H. I' indicates the shaft, with which are connected the mechanical devices by which the setting-up bar is moved forward during the progress of the work of sawing a log. These devices are shown at K in the drawing, and are at the control of an operator, under whose guidance they are made to adjust the setting-up block so that all the boards from a log shall be sawn to the same thickness, or to various thicknesses, as may be desired. L designates a slotted rack-plate or bar, which is attached to outer side of one of the bars *a* in the rear of the bar C by means of headed bolts or their equivalents *l*, which enter the bar *a* through the longitudinal slot L¹ of the rack-bar L. The bar L is connected to the bar C by means of a flexible connection, L². The connection C may be a chain or rope, and passes from the bar C around a vertical pulley-drum, L³, journaled to the bar A, and is attached to the bar L near its rear end, or if required near its forward end. The rack-teeth are cut in the lower edge of the bar L. M represents a shaft, journaled transversely underneath the carriage A. On one end of said shaft is a foot-plate, N. The other end thereof is provided with a dog, O, which, by pressing on the foot-plate N may be brought to bear on the rack. After a log has been sawn and the carriage begins to gig back the operator places his foot on the plate N and raises the dog O into contact with the rack, thereby preventing the rack from following the carriage. Now, as the connection between the rack and the setting-up bar cannot lengthen, the setting-up bar is drawn back as the carriage progresses, and thereby leaves room in front of it for the reception of another log. By a slightly-modified arrangement of parts the setting-up bar may be made to recede as the carriage moves forward.

I claim as my invention—

1. In a sawing-machine, the pivoted dog F, in combination with the pawl G and segmental rack G', substantially as specified.

2. The sliding rack L, applied to the carriage of a sawing-machine, the shaft M and the dog O, in combination with the setting-up bar C, rope or chain L², and pulley L, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

DENNIS LANE.

Witnesses:

F. B. CURTIS,
D. D. KANE.

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