

No. 614,815.

Patented Nov. 22, 1898.

A. D. LANE.  
SAWMILL DOG.

(Application filed June 10, 1898.)

(No Model.)

FIG. 2.

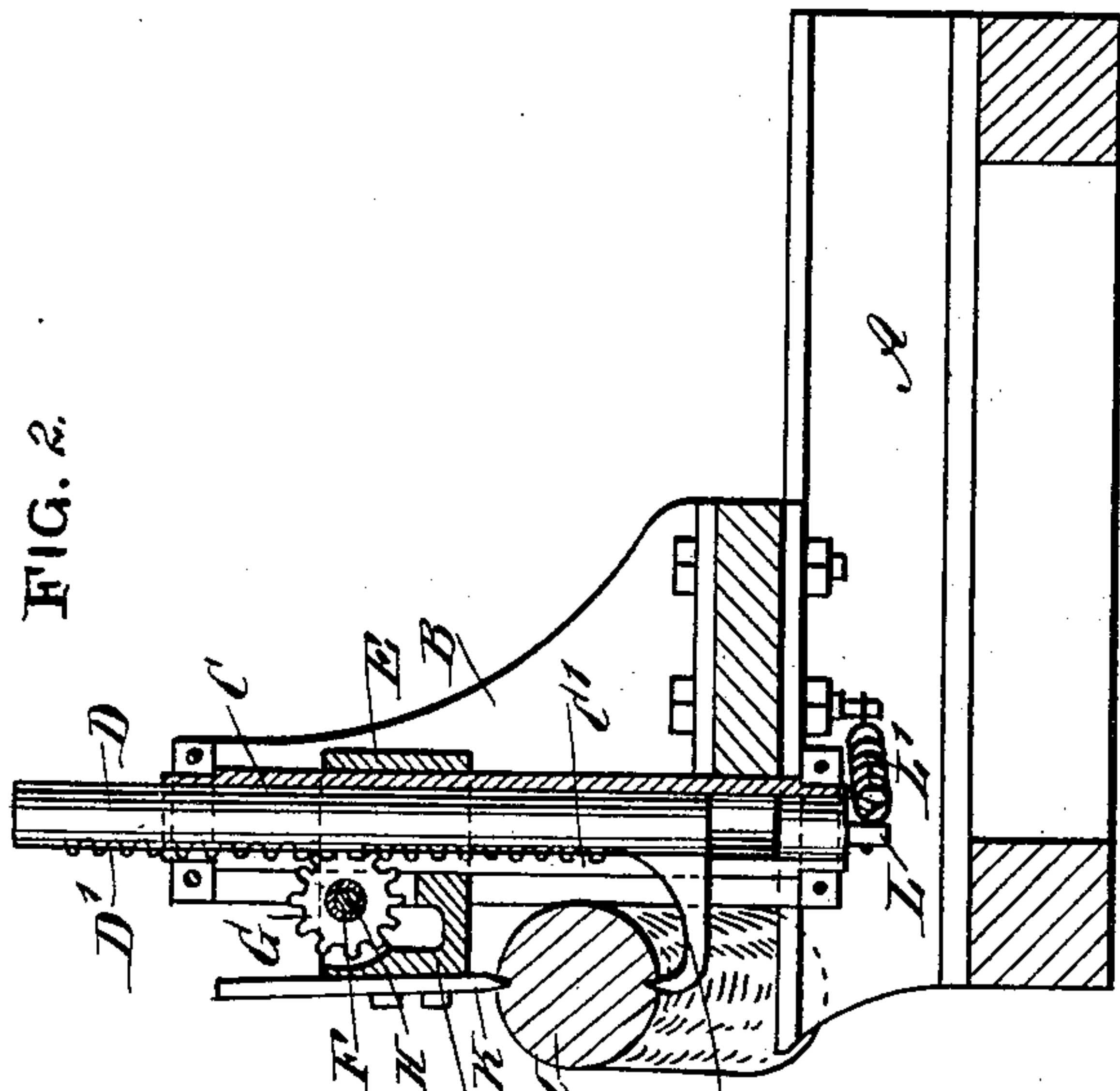


FIG. 3.

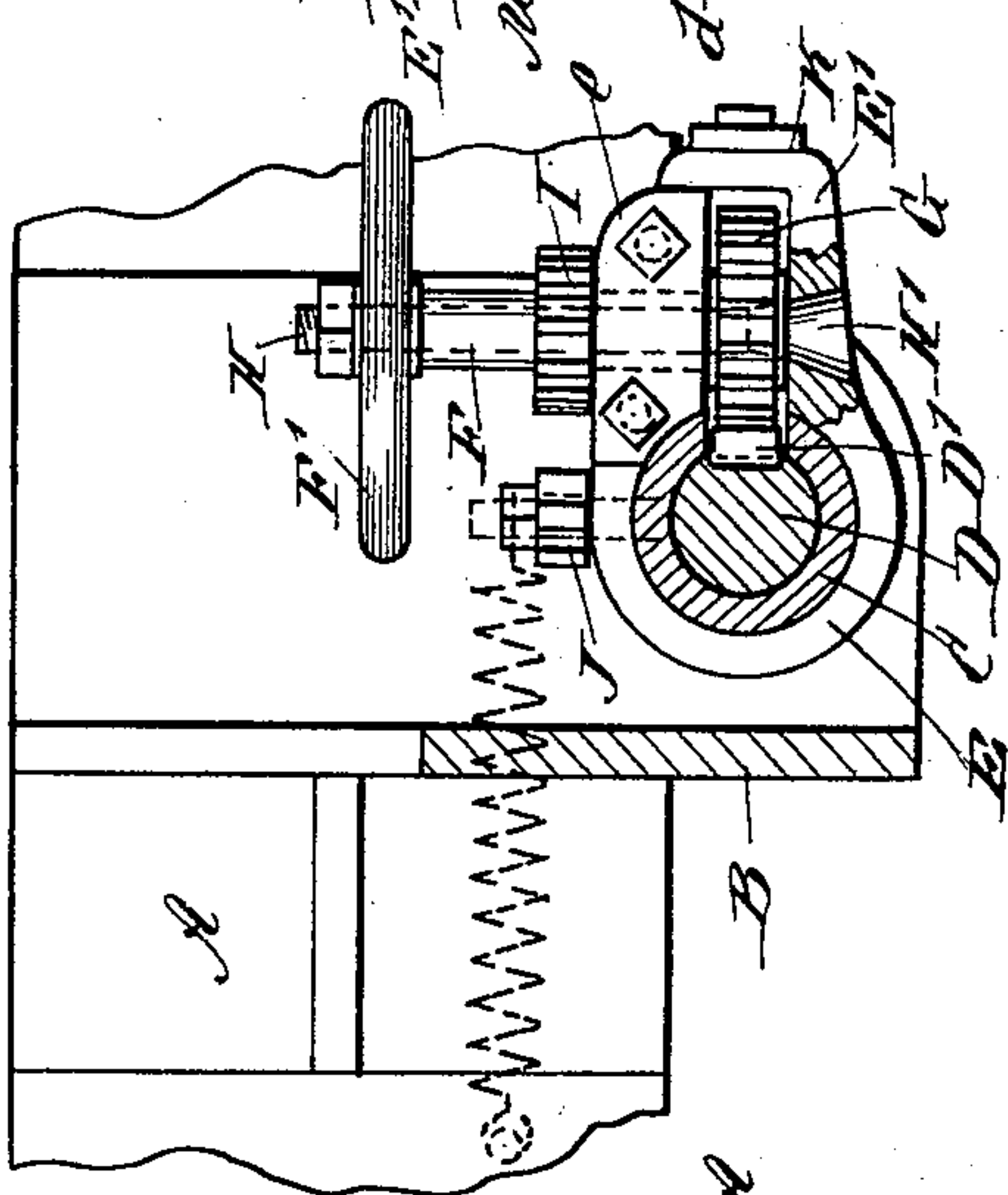
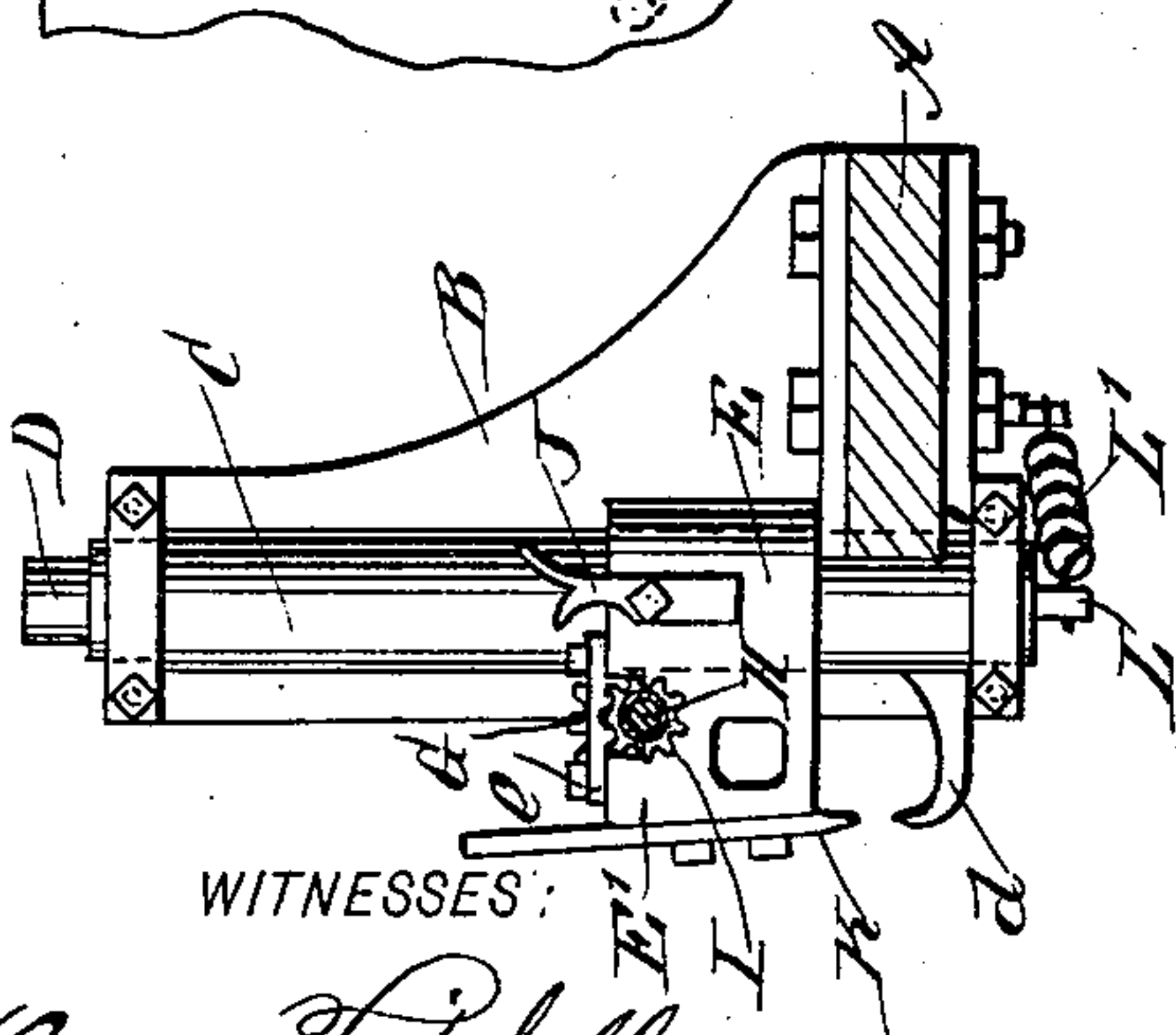


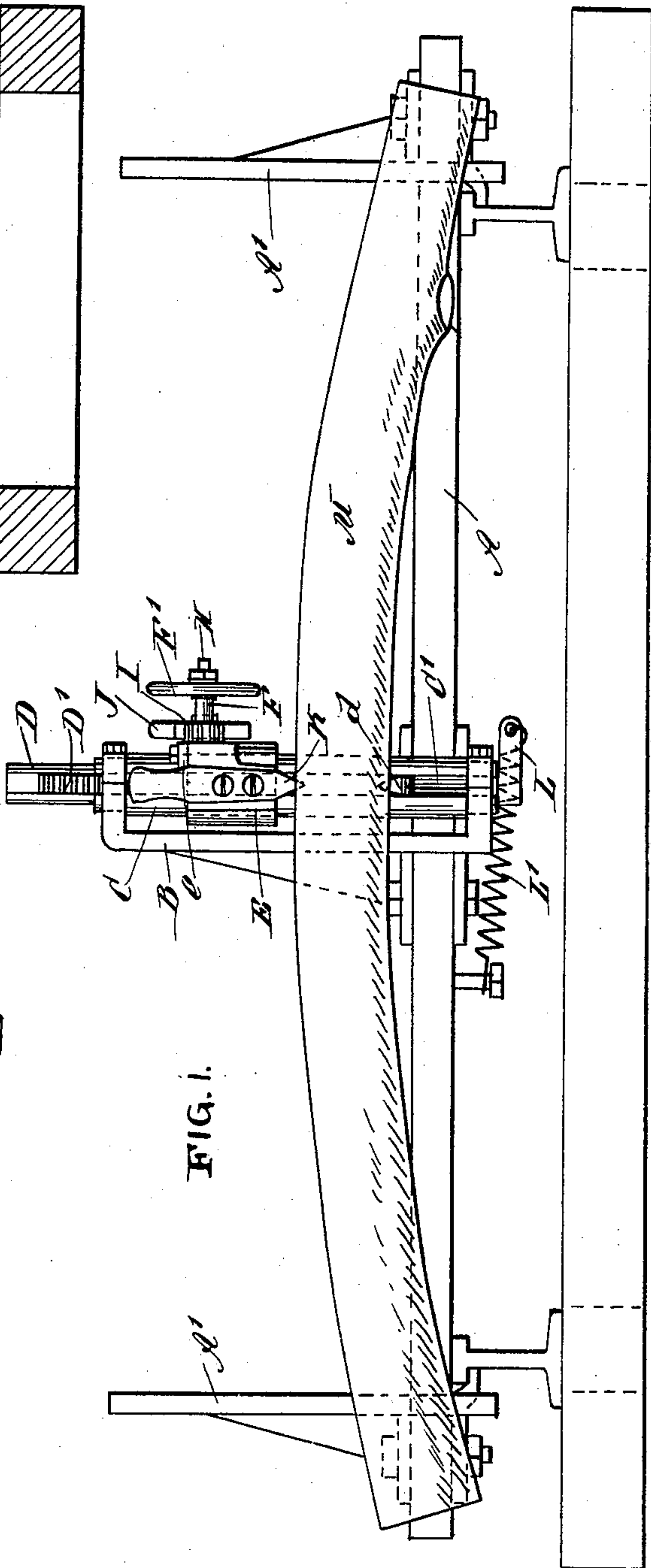
FIG. 4.



WITNESSES:

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FIG. 1.



INVENTOR

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# UNITED STATES PATENT OFFICE.

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## SAWMILL-DOG.

SPECIFICATION forming part of Letters Patent No. 614,815, dated November 22, 1898.

Application filed June 10, 1898. Serial No. 683,126. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT D. LANE, of Montpelier, in the county of Washington and State of Vermont, have invented a new and Improved Sawmill-Dog, of which the following is a full, clear, and exact description.

My invention relates to an improved sawmill-dog, and has for its object to securely hold crooked logs while being slabbed or straightened.

My invention comprises the novel features hereinafter described and claimed.

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 views.

Figure 1 is a side elevation of a sawmill-carriage, showing my improved dog applied thereto. Fig. 2 is a cross-sectional view through the guide carrying the dog. Fig. 3 is a sectional plan view of part of the same, and Fig. 4 is a sectional end elevation of the same.

In sawing crooked logs it is difficult to use ordinary dogs to hold the log securely, so as to prevent it rolling. With my device two dogs are used, one engaging the log from the under side and the other from the upper side, and both are readily adjustable in height to suit any requirement.

In the drawings, A represents the body of any ordinary sawmill-carriage, and A' the knees employed in connection therewith to hold the log in position. Mounted upon this carriage, at any suitable point, is a knee B, upon which my improved dog is secured. This knee is provided with bearings at top and bottom, receiving a hollow guide C and permitting said guide to turn upon its axis. This guide C is preferably formed as a tube, having a slot C' on one side thereof. To the lower end of the guide is attached an arm L, and to this arm is attached a spring L', having its other end connected with the carriage, the two acting to turn the guide back to such a position that the dogs are normally inoperative.

Within the tube C, forming the guide, is mounted a rod D, so that it may slide freely therein. This rod has rack-teeth D' formed in one side thereof and projecting slightly into the slot C' in the guide, and thus pre-

venting the rod from turning in the guide. The lower end of the rod D is also provided with a side extending arm d, having its end turned upwardly and forming one of the dogs for engaging the log.

Mounted to slide upon the tube C, forming the guide, is a slide-block E, which has arms E' extending from one side thereof and separated sufficiently to receive between them an operating-pinion. Mounted in the projecting arms of the slide is a shaft F, which carries thereon the operating-pinion G, adapted to mesh with the rack, said shaft also carrying a locking-pinion I. The shaft F is journaled in a recess formed in the upper side of one of the arms E', said recess being covered by a cap or plate e, secured to the arms by bolts. This permits the shaft and pinion to be removed by lifting the shaft out after the cap e has been removed.

In order to furnish a bearing for the opposite side of the pinion G, the shaft F is made hollow, and a bolt H is extended through the same, the head H' of the bolt being utilized as the bearing in the arm E' upon this side of the pinion G. As herein shown, the head H' is made conical, although this feature is not essential. By this means the pinion G is supported upon both sides, and the shaft carrying the same is made readily removable, and no portion projects to such a distance as to interfere with the saw.

Upon the outer ends of the arms E' is fixed a dog K, the point of which extends downwardly and opposite the dog d. The locking-pinion I is engaged, if necessary, by a pawl J, pivoted upon one of the arms E'. This pawl is weighted so that normally it will drop out of engagement with the pinion. If the guide C and the slide E, surrounding the same, be made of sufficiently light material, the spring of the parts will cause them to bind to such an extent as to hold the two dogs d and K in adjusted position without using the pawl J. The latter is, however, provided for safety and to insure that there will be no slip under any conditions.

In using my device the log, which is represented in the drawings by M, is placed in position against the knees A' and the knee B. The hand-wheel F', which is mounted on one end of the shaft F, is then engaged, and the



device is swung around until the dogs *d* and *K* are in position to engage the log. The hand-wheel is then turned so as to cause the two dogs to be drawn toward each other, and thus to engage opposite sides of the log. The dogs are to be forced into the log by turning the wheel *F'* until a firm engagement has been secured. If necessary, in order to retain the dogs in their position the pawl *J* is thrown down into engagement with the pinion *I*. In most cases, however, this will not be necessary. The two dogs engaging the log from the top and bottom hold the same securely and prevent the possibility of its removal. When the log has been slabbed and it is desired to turn it, the dogs may be loosened either by giving the hand-wheel a slight backward rotation or in many cases by knocking out one end of the log. When the dogs have been released, the hand device is swung back into inoperative position by means of the spring *L'*, acting upon the arm *L*. The dog ordinarily used for holding the log will then be brought into operation for holding the log while sawing.

The use of this dog will enable crooked logs to be securely held, which would not be possible with the ordinary dogs. It will thus save a great deal of time and make it possible to utilize much lumber which would otherwise be too crooked, and also prevent the possibility of accident in sawing crooked logs while endeavoring to hold them by the ordinary dogs.

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

1. A sawmill-dog, comprising a vertical guide-tube mounted to turn, and having a longitudinal slot in one side, a bar sliding within the tube and having an upwardly-pointed dog extending outward from its lower end, a rack upon one side of the rod and entering the slot in the tube and preventing its turning therein, a slide surrounding the tube and carrying a dog opposing the one on the rod, a pinion mounted in the slide and engaging the rack, and means for turning the pinion, whereby the two dogs may be drawn toward each other, or separated.

2. A sawmill-dog, comprising a vertical guide-tube mounted to turn, and having a

longitudinal slot in one side, a bar sliding within the tube and having an upwardly-pointed dog extending outward from its lower end, a rack upon one side of the rod and entering the slot in the tube and preventing its turning therein, a slide surrounding the tube and carrying a dog opposing the one on the rod, a pinion mounted in the slide and engaging the rack, means for turning the pinion, whereby the two dogs may be drawn toward each other or separated, and a lock for said pinion.

3. A sawmill-dog, comprising a vertical guide-tube mounted to turn, and having a longitudinal slot therein, a bar sliding in the tube and having rack-teeth entering the slot and an upwardly-pointing dog extending outwardly from its lower end, a slide embracing the tube, a dog thereon opposing the other dog, a hollow shaft mounted in the slide, a hand-wheel and a pinion on the shaft, the pinion engaging the rack, and a rod passing through the shaft and projecting at one end to form a bearing for one side of the pinion in the slide.

4. A sawmill-dog, comprising a rack mounted to slide longitudinally and having a dog attached thereto, a connected pinion, hollow shaft and hand-wheel, the pinion being adapted to engage the rack, a slide having two arms adapted to receive the pinion between them, one arm having a slot adapted to form a bearing for the shaft and the other arm having a hole opposite said bearing, and a bolt entering the pinion end of the shaft and the hole in the arm and forming a support for this side of the pinion.

5. A sawmill-dog-operating device, comprising a hollow shaft having a pinion on one end and a hand-wheel on the other, a support therefor consisting of two arms lying close alongside the pinion and on opposite sides thereof, one arm having a side opening-slot receiving the shaft, a cap for confining the shaft in the slot, the other arm having a hole in line with the shaft, and a bolt passing through said hole and the hole in the shaft and forming an outboard support for the shaft.

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Witnesses:

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