

No. 649,748.

Patented May 15, 1900.

G. A. & T. F. PENROSE.

RAM.

(Application filed Apr. 22, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

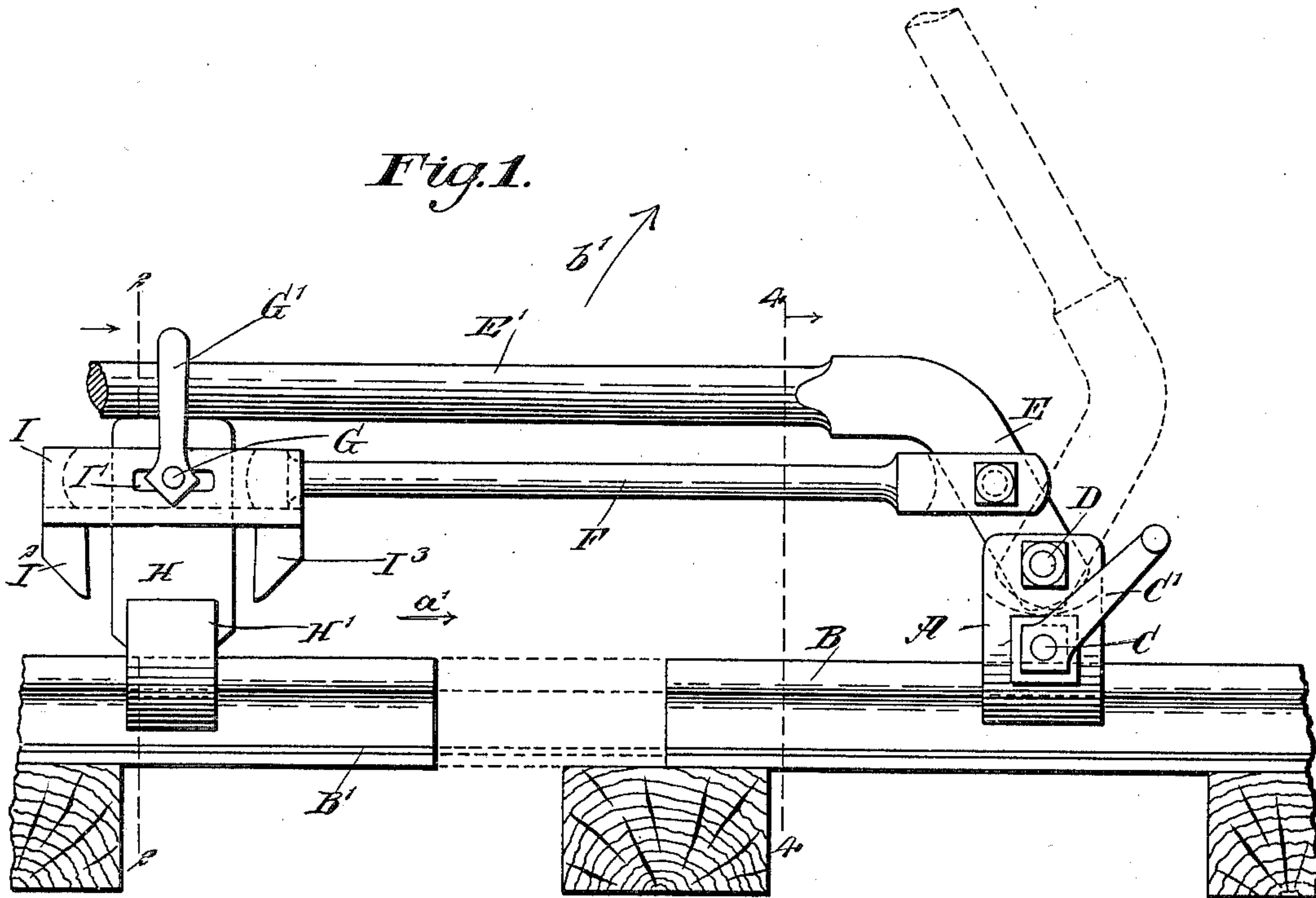


Fig. 2.

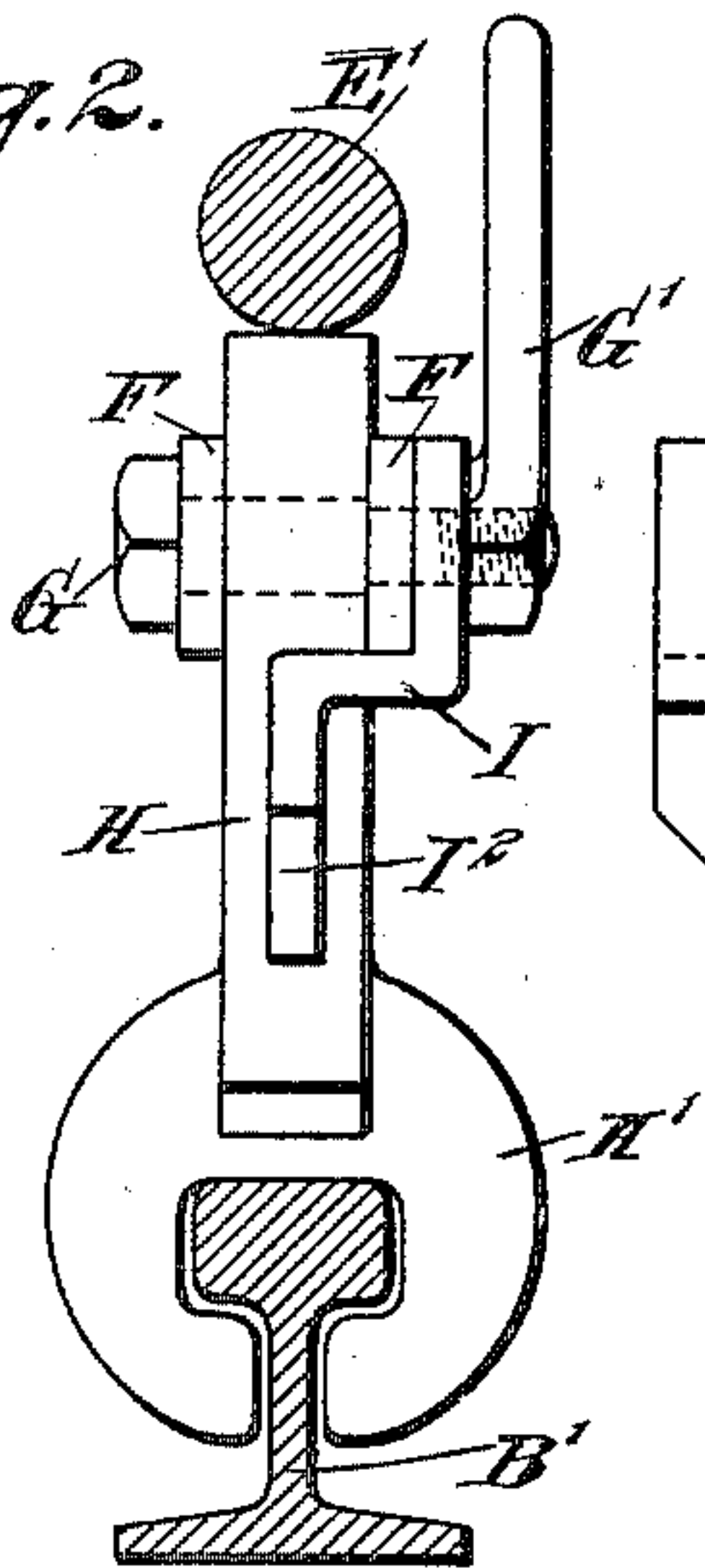


Fig. 3.

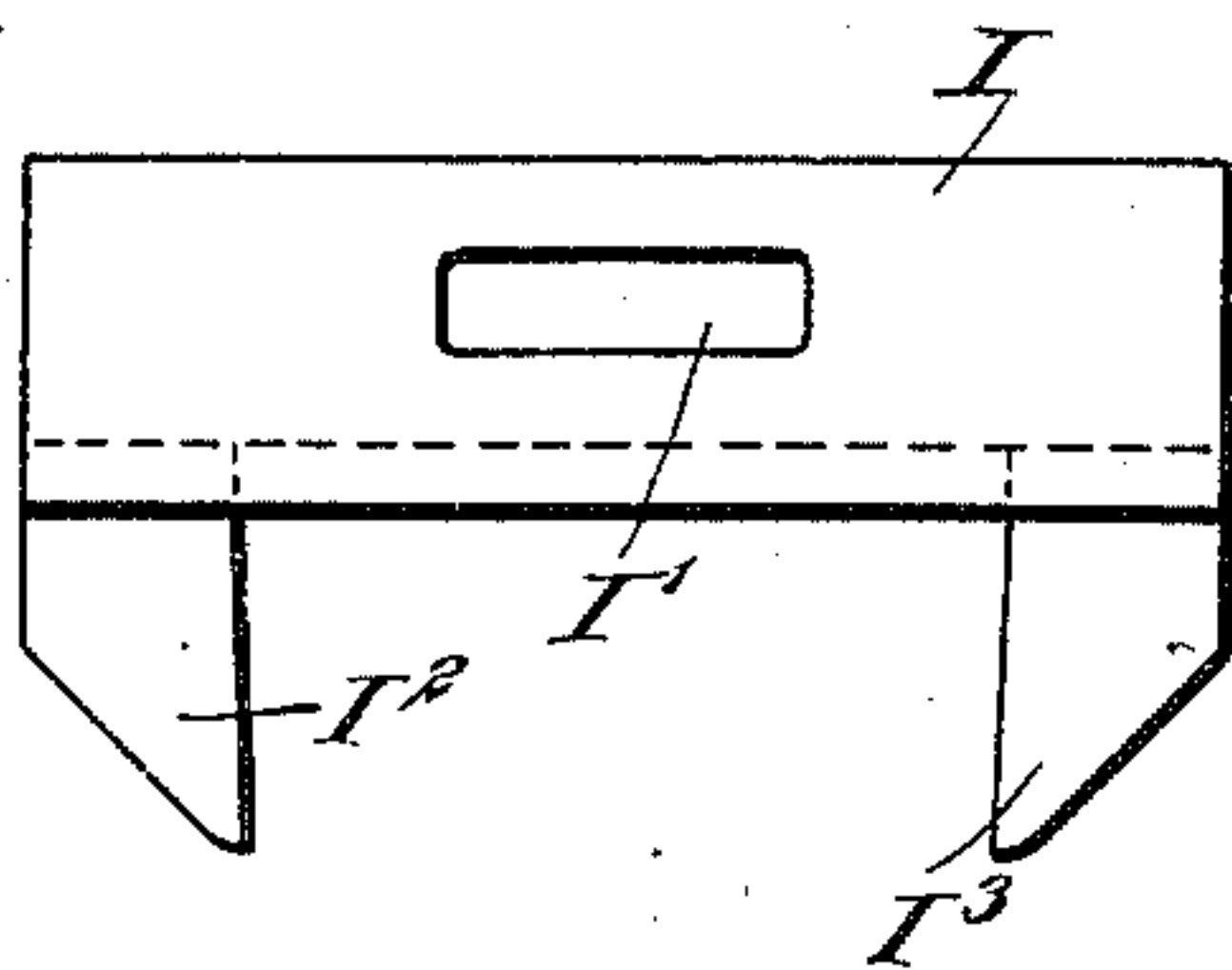
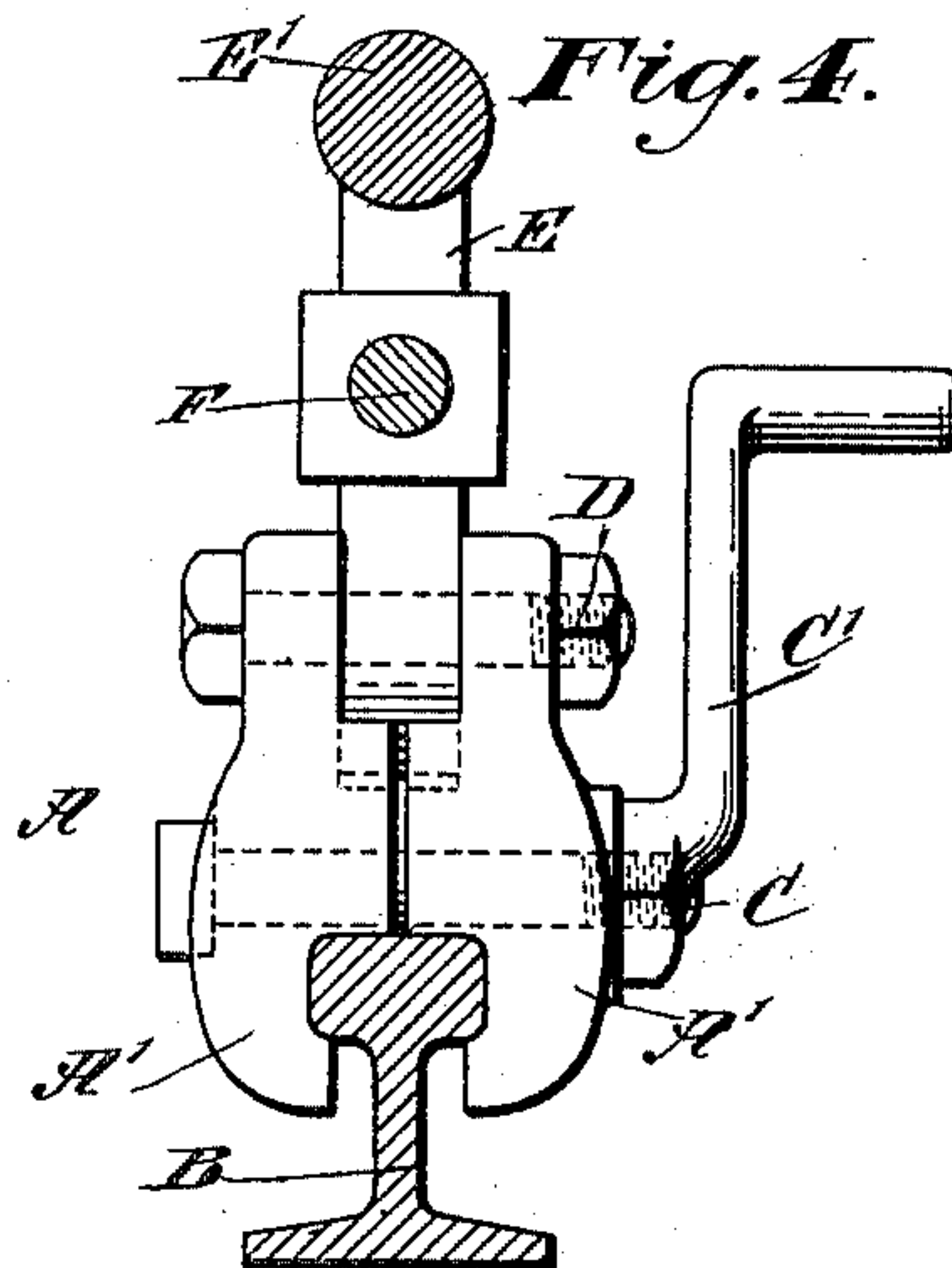


Fig. 4.



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Fig. 5.

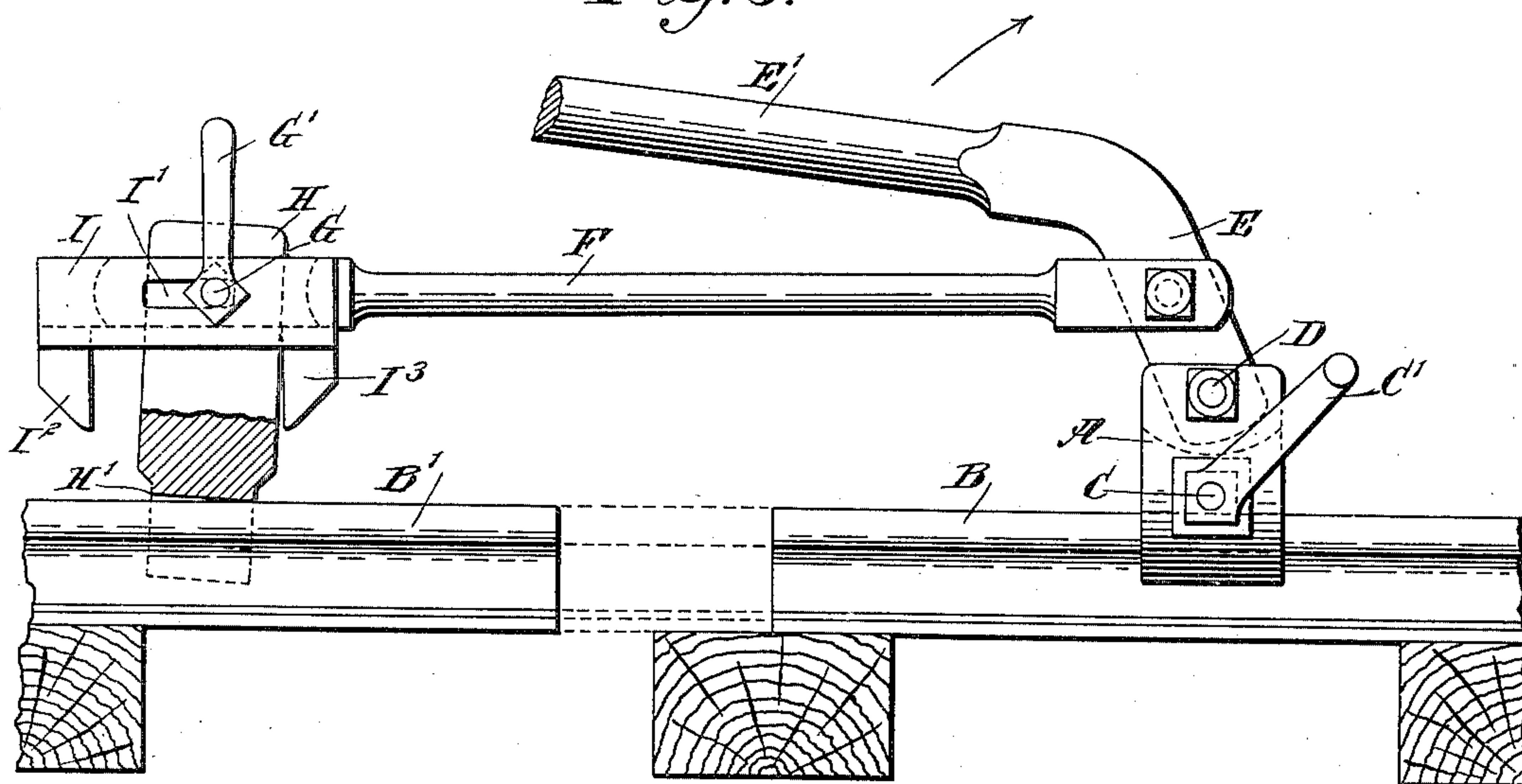
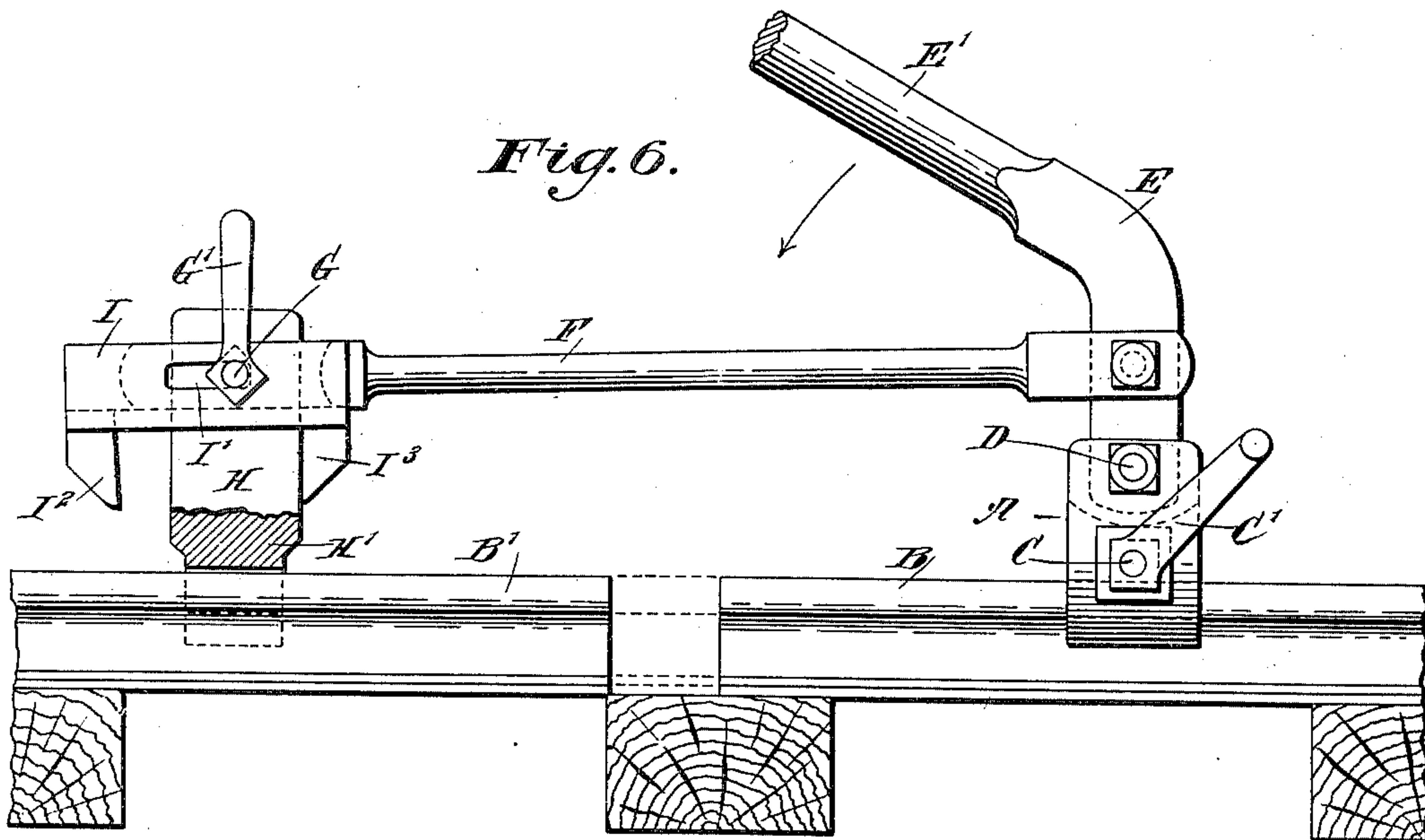


Fig. 6.



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RAM.

SPECIFICATION forming part of Letters Patent No. 649,748, dated May 15, 1900.

Application filed April 22, 1899. Serial No. 714,064. (No model.)

To all whom it may concern:

Be it known that we, GEORGE ALBERT PENROSE and THOMAS FLORISTON PENROSE, of Meredith, in the county of Woodruff and State of Arkansas, have invented a new and Improved Ram, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved ram designed for use in railroad-work and arranged to enable the workmen to conveniently shift a railroad-rail longitudinally toward or from an adjacent one, the working of the jack for the purpose mentioned requiring but little manual effort on the part of the operator.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of our invention is represented in 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 the improvement as applied. Fig. 2 is an enlarged transverse section of the same on the line 2 2 in Fig. 1. Fig. 3 is an enlarged side elevation of the shifting plate for the grip. Fig. 4 is an enlarged transverse section of the improvement on the line 4 4 in Fig. 1. Fig. 5 is a side elevation of the improvement with part in section and with the working parts in a different position, and Fig. 6 is a like view of the same with parts in still another position.

The improved ram is provided with a clamp A, adapted to engage and be fastened temporarily in position on a rail B, near one end thereof, said clamp being preferably made in two parts A', adapted to be clamped upon the head of the rail B by a bolt C, extending transversely through the parts A' and having a handled nut C' for allowing the operator to readily draw the parts together for clamping purposes or for releasing the parts when it is desired to remove the clamp from the rail.

In the upper portion of the clamp A is arranged a pivot D, on which is fulcrumed a lever E, having an angularly-extending handle E', and on said lever is pivoted one end

of a link F, pivotally connected at its other end with a bolt G, held transversely in a grip H, fitting upon the head of the rail B' in alignment with the rail B and adapted to be drawn up to the same or pushed away therefrom, as the case may be.

The lower portion H' of the grip H is made in the form of a jaw fitting the head and a portion of the web of the rail, said portion H' normally riding on the top surface of the rail-head, as is plainly indicated in Fig. 2. When, however, the grip H is tilted forward toward the other rail B, then the forward edge and bottom of the portion H' engage the rail B' to cause a forward movement of the rail B' upon pulling on said grip; but when the latter is tilted in an outward direction—that is, away from the other rail B—then the other edge of the portion H' engages the top of the rail when the grip H is pushed and the rail B' is caused to slide away from the rail B.

In order to slide the grip H on the rail during the return stroke of either the pushing or pulling operation, we provide a plate I, formed with an elongated slot I', through which extends the bolt G, said plate being provided at its ends with footpieces I² I³, adapted to engage opposite sides of the grip H. A nut G' on the bolt G serves to lock the plate I in either a forward or backward position—that is, with the footpiece I³ resting on the front side—that is, the one nearest the rail B—or with the footpiece I² resting on the rear side of the grip H.

When the several parts are in the position shown in Fig. 1, for instance, and it is desired to pull the rail B' toward the rail B in the direction of the arrow a', then the operator first releases the nut G' and then slides the plate I in the inverse direction of the arrow a' to bring the footpiece I³ against the front side of the grip H'. The operator now swings the handle E' of the lever E upward in the direction of the arrow b' to cause the lever to swing on the pivot D in the fixed clamp A, and thereby cause the link F to exert a pull on the grip H and slightly tilt the latter forward, as previously described, at the beginning of the upward swinging of the lever E and to then draw the rail toward the other rail B during the remainder of the for-

ward stroke of said lever. When the latter is on the return stroke—that is, in the inverse direction of the arrow *b'*—then the footpiece *I*³ presses against the grip *H* and holds the latter in a normal position, as indicated in Fig. 6, to cause the grip *H* to slide backward on the rail *B'*. At the next upward stroke of the lever *E* the above-described operation is repeated—that is, the grip *H* is again tilted and the rail *B'* is again drawn forward to bring the end of said rail *B'* nearer to the end of the rail *B*. During the return stroke of the lever the grip is again shifted loosely on the rail *B'*, and the upward and backward swinging of the lever *E* is then repeated until the ends of the rails are in the desired position relatively to each other.

When it is desired to push the rail *B'* away from the rail *B*, then the nut *G'* is temporarily loosened to allow of sliding the plate *I* on the grip *H* until the footpiece *I*² engages the outer side of said grip. The nut *G'* is then again screwed up, and on the upstroke of the lever *E* in the direction of the arrow *b'* the said footpiece *I*² will hold the grip *H* in a forward position to cause the grip to slide on the rail *B'* toward the other rail *B*, and when the lever *E'* is caused to swing backward in the inverse direction of the arrow *b'* then the grip is first caused to tilt outward to take firm hold of the rail, so that upon a further downward stroke of the lever the rail *B'* is pushed away from the rail *B*. This operation is repeated until the two rails have been moved the desired distance apart.

It will be seen that the device is very simple and durable in construction, comprises but few parts, can be readily applied, and allows the operator to either move the rails toward each other or to move the same apart, according to the work in hand.

The grip for the link may be made in sections to permit of placing the grip sidewise in position on the rail *B'* instead of endwise. This construction is especially serviceable in bridgework, as it does not necessitate taking up a rail to place the grip in position.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. A ram, comprising a clamp adapted to be fastened to one of the parts to be operated on, a lever fulcrumed on said clamp, a grip mounted loosely on the other part but adapted to grip the same upon being tilted, a link connecting said lever with said grip, to impart a tilting motion to said grip and bring the latter into a gripping position on its part, and a plate adjustably held on said grip and having a footpiece for holding the grip in a sliding position on its part, substantially as shown and described.

2. A ram, comprising a clamp adapted to be fastened to one of the parts to be operated on, a lever fulcrumed on said clamp, a grip mounted loosely on the other part but adapted to grip the same upon being tilted, a link connecting said lever with said grip, to impart a tilting motion to said grip and bring the latter into a gripping position on its part, and a plate adjustably held on said grip and provided with a footpiece on each end, for engaging either side of the grip, substantially as shown and described.

3. In a ram, the combination of a grip, a plate having a footpiece to engage the grip and hold it in one position, and means in connection with the grip for drawing on the grip to throw the grip into a second position, the said plate being adjustably mounted on the said means, for the purpose specified.

4. In a ram, the combination of a grip, a plate having two footpieces adapted to engage opposite sides of the grip, to throw the grip into inactive position, and means in connection with the grip for tilting the grip, whereby to throw the grip into active position, the plate being carried on said means.

5. The combination in a ram, of a grip, means for throwing the same into gripping position and for hauling on the grip to advance it, and a member adjustably carried on said means, the member serving to hold the grip out of gripping position during the recovery thereof.

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Witnesses:

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