

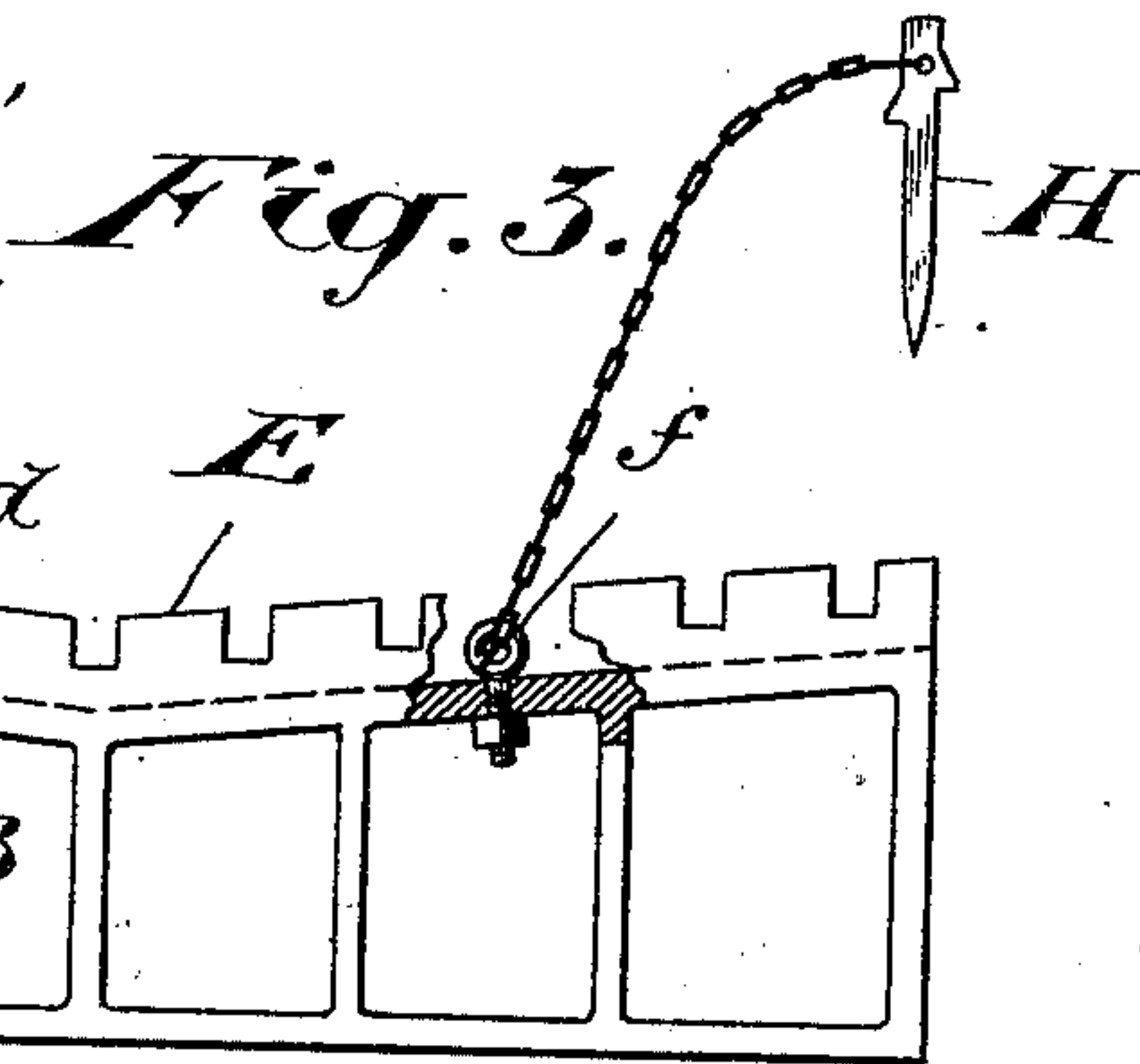
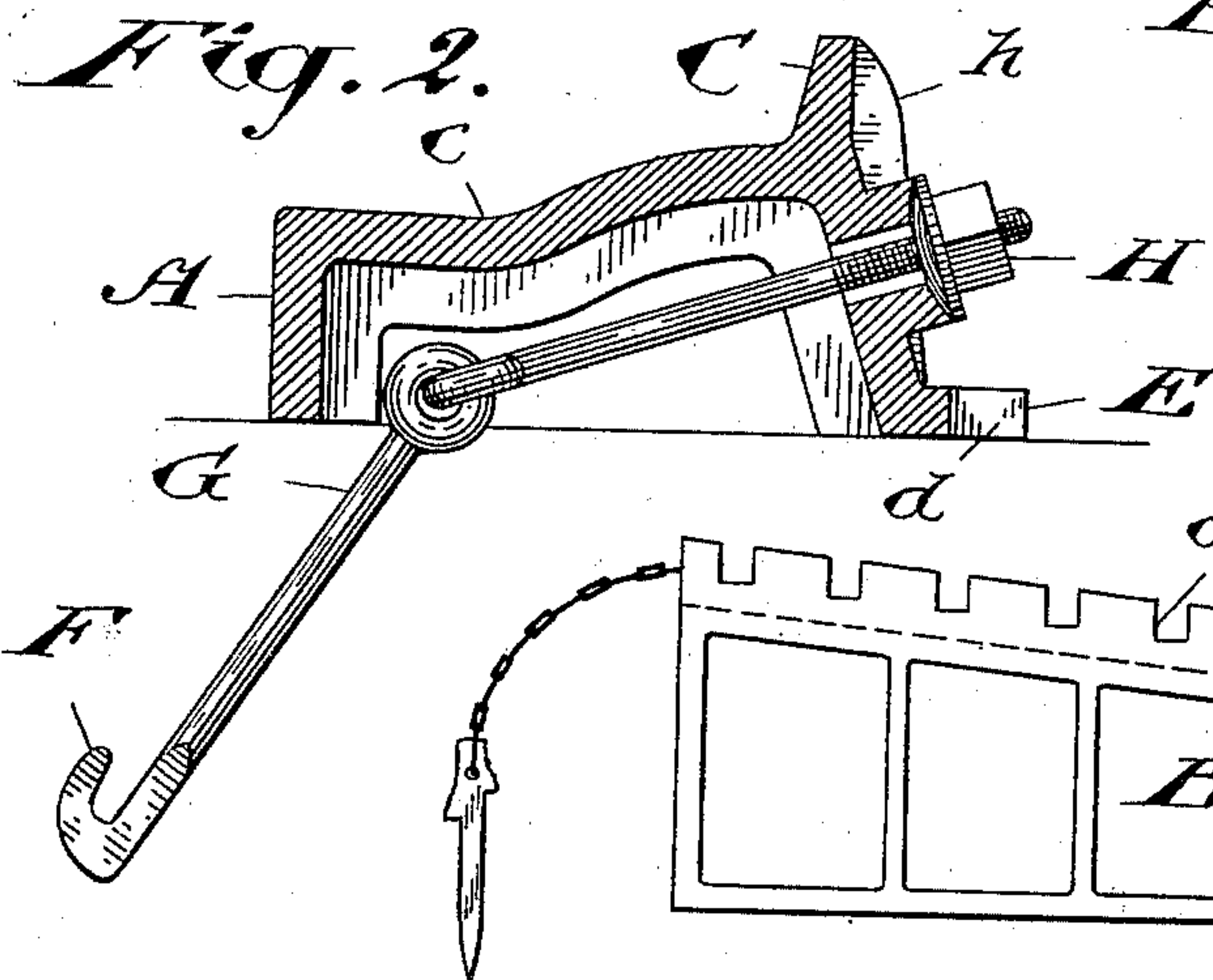
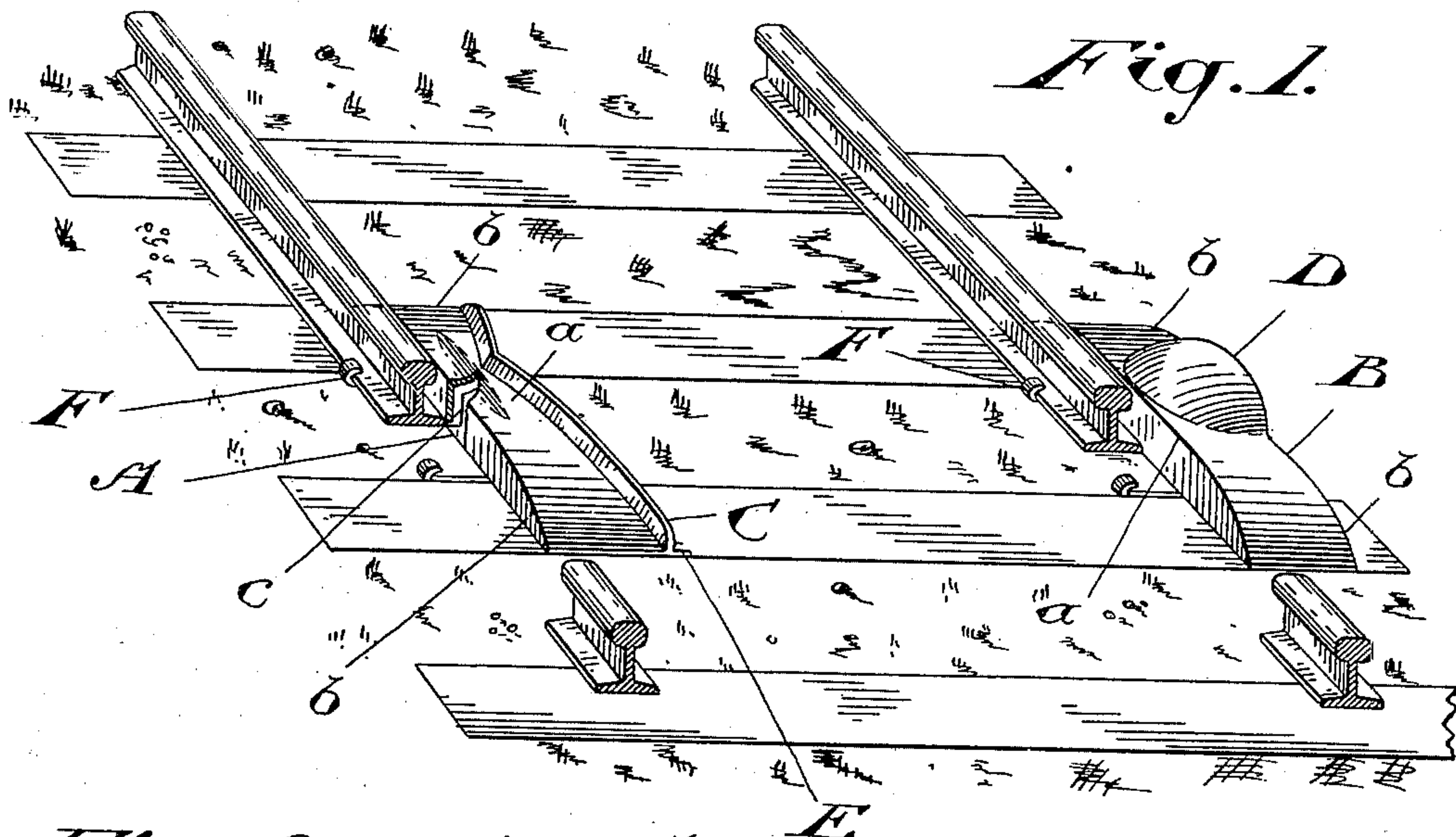
No. 652,205.

Patented June 19, 1900.

E. BEST.
CAR REPLACER.

(Application filed Aug. 8, 1899.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD BEST, OF LONDON, CANADA, ASSIGNOR OF ONE-HALF TO ALBERT R. PINGEL, GEORGE TAYLOR, WILLIAM S. BARKWELL, AND GEORGE BURNES, OF SAME PLACE.

CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 652,205, dated June 19, 1900.

Application filed August 8, 1899. Serial No. 726,553. (No model.)

To all whom it may concern:

Be it known that I, EDWARD BEST, railroad employee, of the city of London, in the county of Middlesex and Province of Ontario, Canada, have invented certain new and useful Improvements in Car-Replacers, of which the following is a specification.

The object of my invention is to devise a light easily-handled car-replacer which may be easily and securely placed in position, which will work with cars moving in either direction, and which will do its work easily and under all conditions of use.

With this object in view my invention consists, essentially, of such details of construction as are hereinafter more specifically described, and then definitely claimed.

Figure 1 is a perspective view, partly broken away, showing my improved replacer in position. Fig. 2 is a cross-section through the inside replacer, showing one of the rail-clips. Fig. 3 is a bottom plan view of the outside replacer, showing the notched flange and the spikes connected and the method of attaching spikes to the replacer.

In the drawings like letters of reference indicate corresponding parts in the different figures.

A is the inside replacer, and B the outside replacer, which when desired for use are secured in position, as hereinafter described, the one inside one rail and the other outside the other rail. These replacers are preferably formed hollow for lightness and are strengthened with cross-ribs, as shown in Figs. 2 and 3. Each replacer is provided with a body portion *a* and two ends *b*, shaped as inclined planes. On the inside replacer A the body portion is of such a height as to be somewhat above the level of the flanges of car-wheels in position on the rail, but at the rail side is preferably cut away or channeled, as shown at *c*, so the flanges of wheels running on the rail will not come in contact with the replacer.

C is a flange starting from the outer edge of each end, running diagonally inward toward the rail to a point substantially at the center of the body portion. As indicated, the face of this flange is preferably formed

on the same level as the flanges of a car-wheel, so that the flange of any wheel running up the replacer will find a bearing against the face of the flange. This flange is preferably strengthened by vertical ribs *h*, as shown in Fig. 2. Upon the body portion of the outside replacer B is formed a double wedge D, inclined toward each end of the replacer and also inwardly toward the rail, its surface being preferably of a curved or rounded nature. Formed at the bottom of the outer side of each replacer is a flange E, provided with notches *d*, adapted to embrace spikes H. These may be ordinary railway-spikes, but are preferably formed as shown with two shoulders, one to engage the flange when the spike is driven into a sleeper and the other higher up for engagement with a withdrawing tool when the replacer is to be removed. For convenience such spikes may be attached to the replacer by being secured to chains joined to the bolts *f*, passing through holes in the wall of the replacer and held in place by suitable nuts. For convenience of attachment, when the sleepers are not in good position to enable the spikes to be used or where metal sleepers are in use, each replacer may be provided with a pair of clips F, each provided with a stem G, preferably jointed as shown. This stem passes under the inner side of the replacer and out through a hole formed in the outside wall, its outer end being screw-threaded and provided with a suitable washer and nut H'. The clips F are engaged with the rail, as shown in Fig. 1. Then by screwing up the nuts H the replacer may be securely clamped against the rail.

The operation of my replacer is substantially as follows: The wheels of a car or engine are forced up the inclined ends *b* of the replacer, and at the same time the wheels are shifted toward the rails by the flange of one wheel coming in contact with the flange C on the inside replacer. When the wheel running up the outside replacer B reaches the body portion thereof, its tread comes in contact with the double wedge D, and the flange is gradually forced over the top of the rail till it clears the inner edge thereof, when it

of course immediately drops into its proper place. The wedge D thus assists the flange C in forcing the wheels sidewise to resume their normal position. The wheel running
 5 up the inside replacer after reaching the body portion continues to be forced sidewise by the flange C, and its tread is pushed over onto the rail, its flange sliding down toward the cut-
 away portion of channel c till, when the
 10 wheels have resumed their normal position, it is entirely free from the replacer.

It should be noted that the body part of the outside replacer next to the rail is of the full height of the same, so that the flange on the
 15 wheel will readily clear the top of the rail when being forced sidewise.

If the wheels of a car are more than the width of a replacer away from the rail, they may be shifted into a suitable position by se-
 20 curing the replacer in a position to engage them and move them toward the rail, and when they have been shifted to a suitable distance from the rail the replacers may be placed in their normal position to lift them
 25 onto the rails.

Although the title given my invention in the papers is "car-replacer," it will of course be understood that it is equally useful for the largest and heaviest engine, as well as for
 30 cars of all kinds.

What I claim as my invention is—

1. A hollow car-replacer provided at its outer lower edge with a flange, and notches in said flange adapted to receive spikes, in combination with a clip adapted to engage
 35 the base of a rail and provided with a stem passing through the outer wall of the replacer, and a nut screwed on the clip-stem outside of the replacer, substantially as and for the purpose specified. 40

2. A bottom car-replacer in combination with a clip adapted to engage the base of a rail and provided with a stem passing through the outer wall of the replacer from the inside outward and a nut screwed on the clip-stem
 45 outside the replacer, substantially as and for the purpose specified.

3. A bottom car-replacer in combination with a clip adapted to engage the base of a rail and provided with a jointed stem passing
 50 through the outer wall of the replacer from the inside outward and a nut screwed on the clip-stem outside the replacer, substantially as and for the purpose specified.

London, Canada, July 27, 1899.

EDWARD BEST.

In presence of—

A. R. PINGEL,
 E. H. JOHNSTON.