(No Model.)

O. OLESON.

CROSS TIE.

No. 601,101. Patented Mar. 22, 1898.

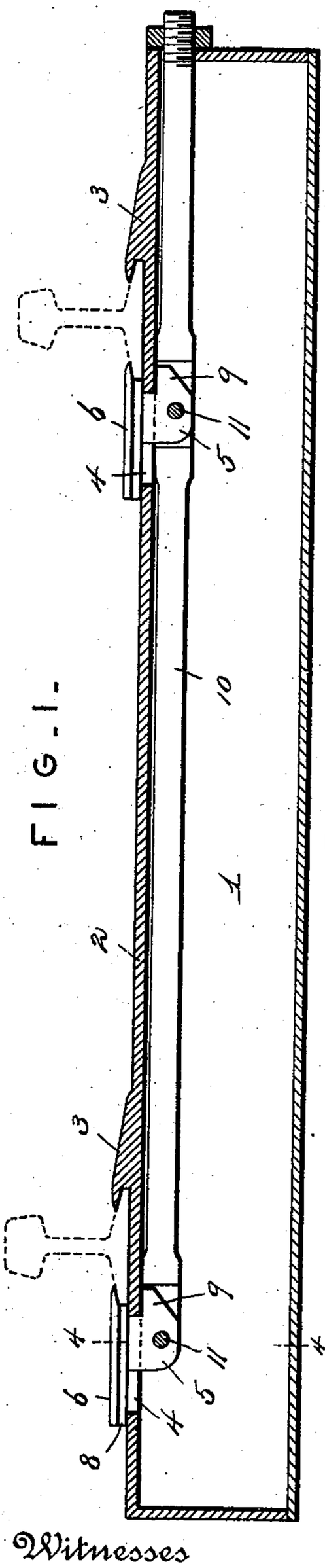


FIG. 1.

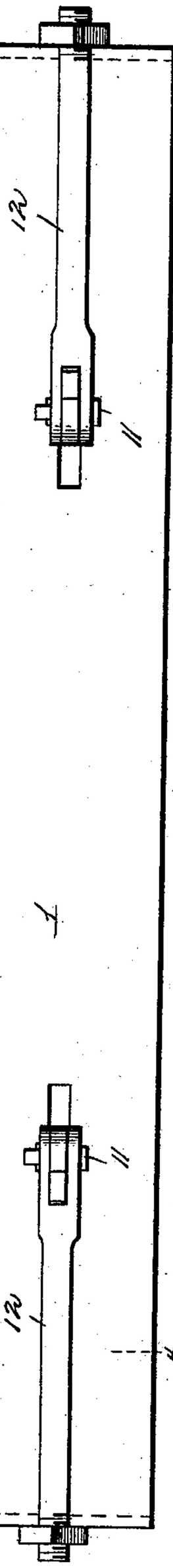


FIG. 2.

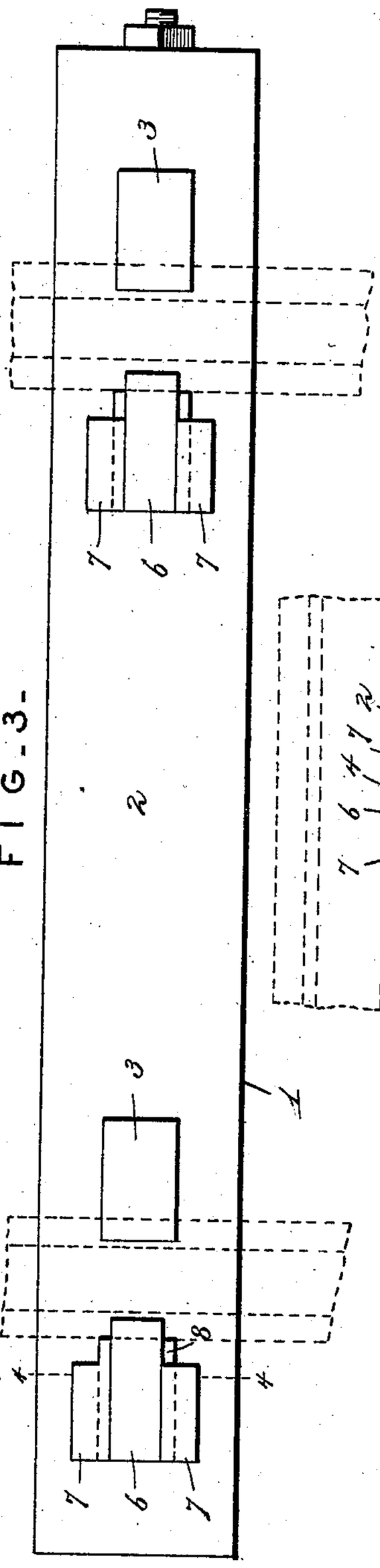


FIG. 3.

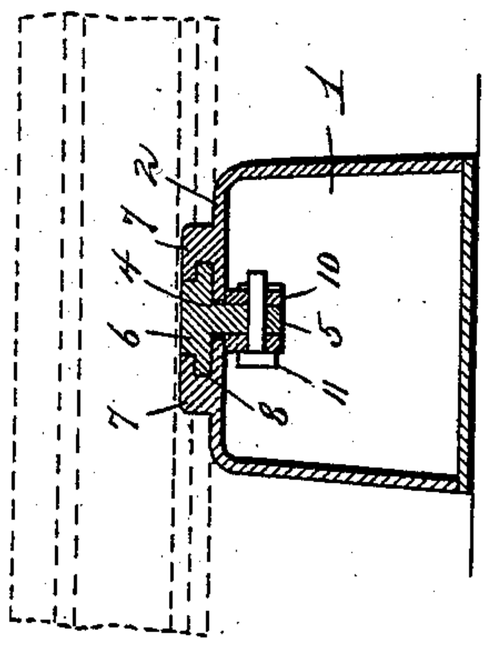
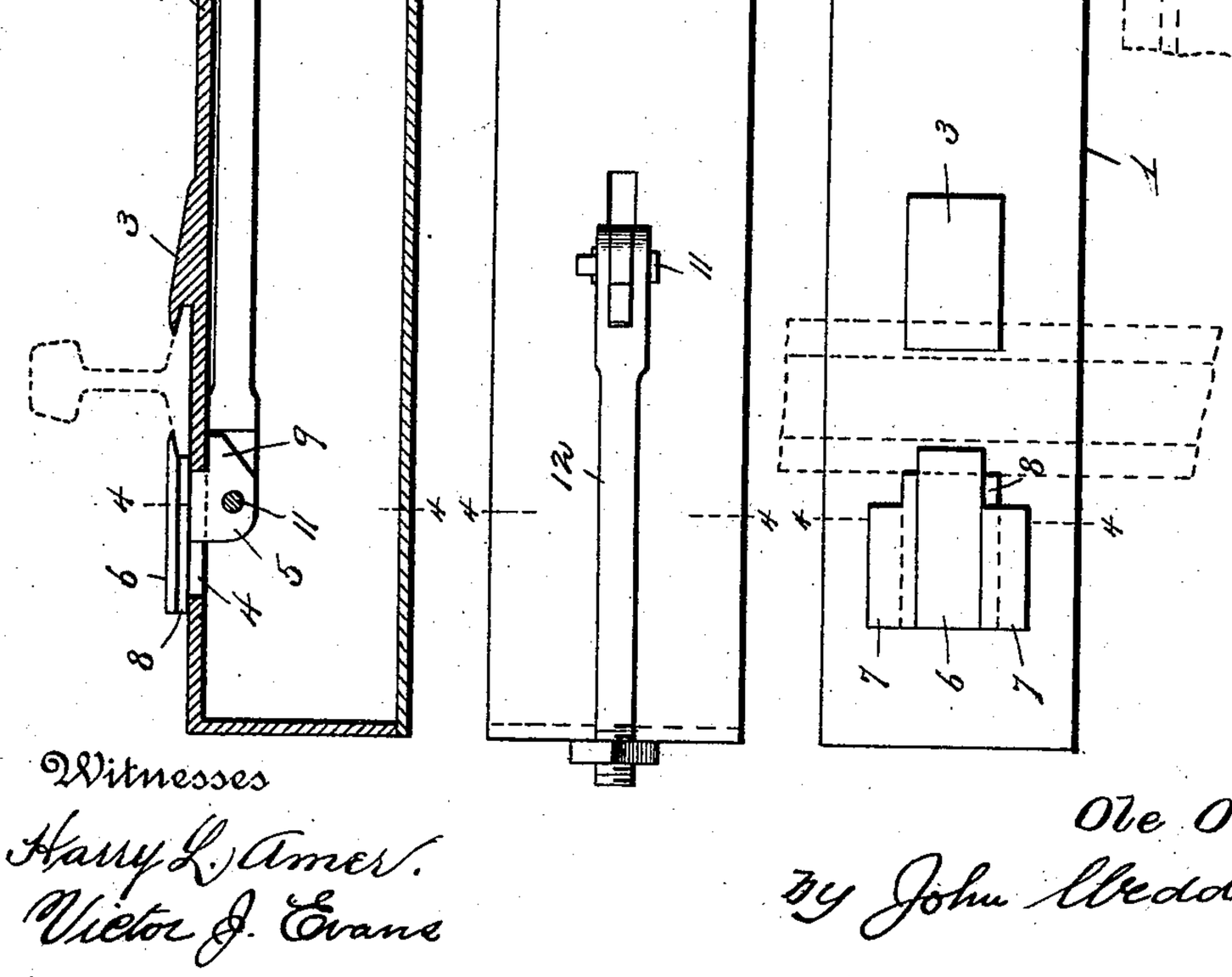


FIG. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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CROSS-TIE.

SPECIFICATION forming part of Letters Patent No. 601,101, dated March 22, 1898.

Application filed September 27, 1897. Serial No. 653,166. (No model.)

To all whom it may concern:

Be it known that I, OLE OLESON, a citizen of the United States, residing at Lesterville, in the county of Yankton and State of South Dakota, have invented certain new and useful Improvements in Cross-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to a novel construction in a cross-tie to be used in building railroad-tracks, the object being to provide a metallic tie provided with means for conveniently fastening and unfastening the rail.

The invention consists in the features of construction hereinafter fully described and specifically claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a vertical longitudinal section of a tie constructed in accordance with this invention. Fig. 2 is a bottom plan view of the top plate of the tie. Fig. 3 is a top plan view of the same. Fig. 4 is a vertical transverse section taken on the line 4 4 of Figs. 1, 2, and 3.

Referring now to said drawings, 1 indicates the tie, which is hollow and constructed of steel or iron in the manner shown. The bottom of the tie 1 is flat to afford a firm base and bearing, while the top is conveniently rounded at the edges, although a flat space is left in the center to permit the movable clamps to slide.

In the embodiment shown in Figs. 1, 3, and 4 the movable clamps are controlled by a single operating-rod from one end of the tie, while in Fig. 2 the movable clamps are each controlled by a short operating-rod and at opposite ends of the tie.

Referring now specifically to Figs. 1, 3, and 4, 2 indicates the top plate of the tie, upon which is fastened stationary clamps 3, that are situated near the end thereof and which extend in the same direction. The said top plate is provided with longitudinal slots 4 opposite the ends of the stationary clamps 3 to receive the shanks 5 of the movable clamps 6, it being noted that said stationary and movable clamps have overhanging portions to engage the base-flange of the rail. Situated on opposite sides of the slot 4 are the guides 7, that can be cast integral with the top plate or securely fastened thereto, and which are adapted to receive the lateral guide-flanges 8 of the movable clamp, so as to permit the longitudinal sliding movement of said clamp. The shank 5 of the movable clamp passes through the slot 4 and is provided at one end with a projection or hook 9, that is adapted to engage the lower face of the top plate 2 when the movable clamp engages the flange of the rail, so as to prevent the clamp and rail from rising when the latter is secured. The said movable clamps 6 are operated by the single operating-rod 10, one end of which extends through the end piece of the tie, while said rod is bifurcated between its ends and at its inner end to receive the shanks 5 of the movable clamps that are secured to said rod by pins 11.

It is seen from the foregoing description that a longitudinal pull and upon the end of the rod 10 serves to move the movable clamps toward the stationary clamps, and the outer end of this operating-rod is conveniently screw-threaded to receive a nut that bears against the end piece of the tie which forcibly moves the movable clamp, as is obvious. In this way it is seen that when it is desired to fasten a rail to the tie the movable clamps can be moved away from the stationary clamp, the rail placed upon the top plate of the tie with one side of its base-flange beneath the flange of the stationary clamp, and then by moving the rods longitudinally by means of the nut the movable clamp moves toward the stationary clamp, so as to cause its overhanging flange to engage the other side of the base-flange of the rail. As before stated, the projection or hook 9 upon the shank 5 of the movable clamp prevents it or the rail from rising, and the movable clamp and rail are held rigidly in position in an obvious manner.

In Figs. 1, 3, and 4 the stationary clamps face in the same direction, while one is situated on the outside and one on the inside of the companion movable clamp; but in Fig. 2 the stationary clamps are situated near the outer ends of the tie, while the movable clamps are situated inwardly of the same and face outwardly. The said movable clamps, however, are moved in opposite directions,

and for this purpose two rods 12 are shown, each of which is secured to the shank of the movable clamp and extends downwardly and through the adjacent end piece of the tie, being provided with a screw-threaded end portion and a nut for controlling the same. It is noted, of course, that other means for moving the operating-rod can be substituted for the nut and screw-threaded end portion without departing from the spirit of this invention.

It is seen from the foregoing description that a metallic railroad cross-tie is provided having fastening means that not only permit a rail to be readily fastened and removed, but which affords secure and certain means for holding the rail in its fastened position.

Having thus described the invention, what is claimed as new is—

1. A cross-tie comprising a hollow casing, stationary clamps secured to the top plate thereof, slots in said top plate, grooved guides upon opposite sides of said slots, movable clamps resting upon the top plates and having lateral guide-flanges situated within said guides, and shanks upon said movable clamps extending through the slots, and a rod engaging said movable clamps for moving the same toward and away from said stationary clamps that are connected with the shanks, substantially as described.

2. A cross-tie comprising a hollow casing, stationary clamps mounted upon the top plate thereof, slots in said top plate, guides upon opposite sides of said slots, movable clamps provided with lateral guide-flanges extending into said guides, shanks upon said movable clamps extending through said slots, hooks or projections upon the ends of said shanks to engage the lower face of the top plate, and an operating-rod connected with said shanks and having one end extending through the end piece of the tie and provided with means for moving the same longitudinally.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

OLE OLESON.

Witnesses:
CHAS. M. PHEMB,
JOHN JANDA.