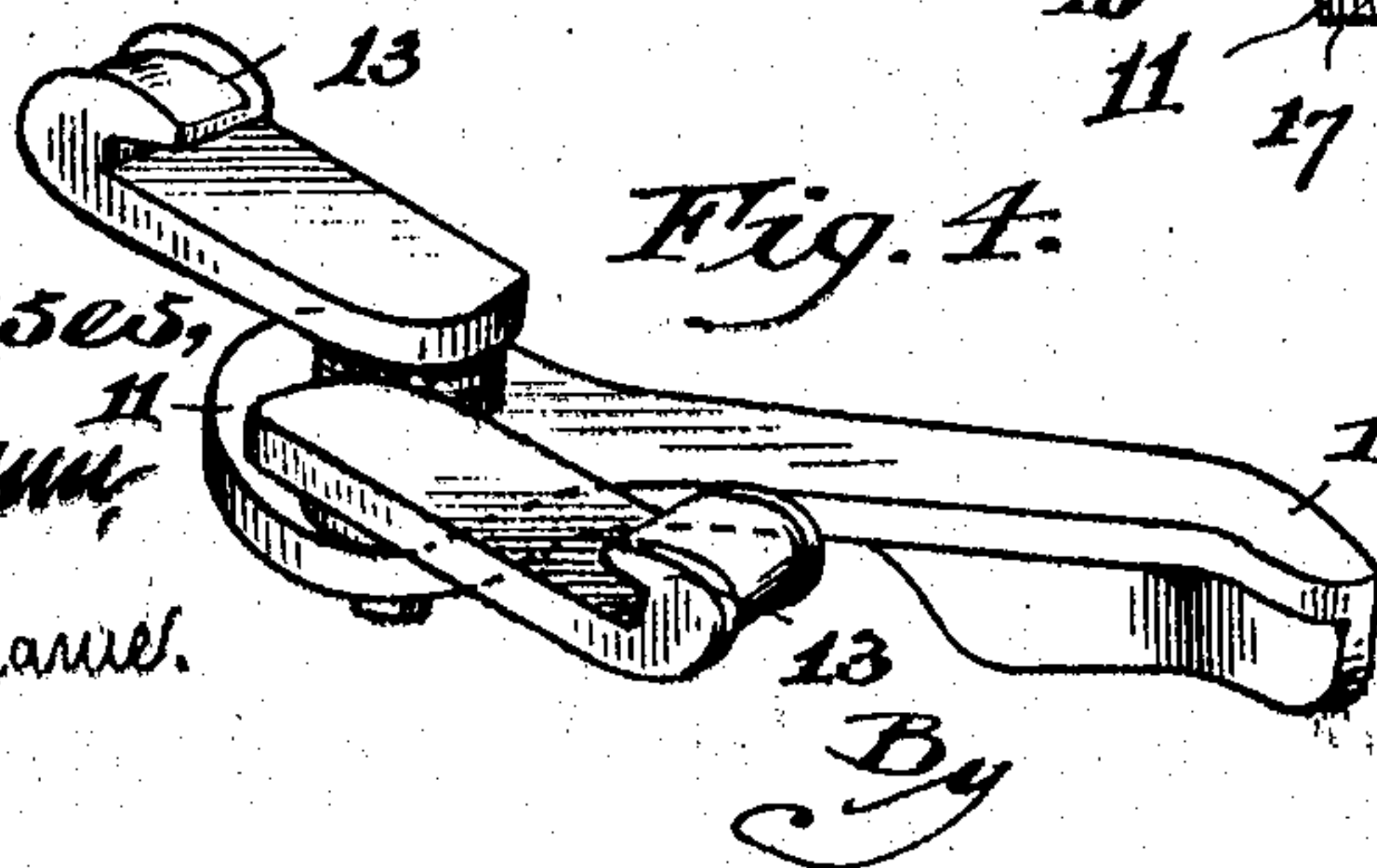
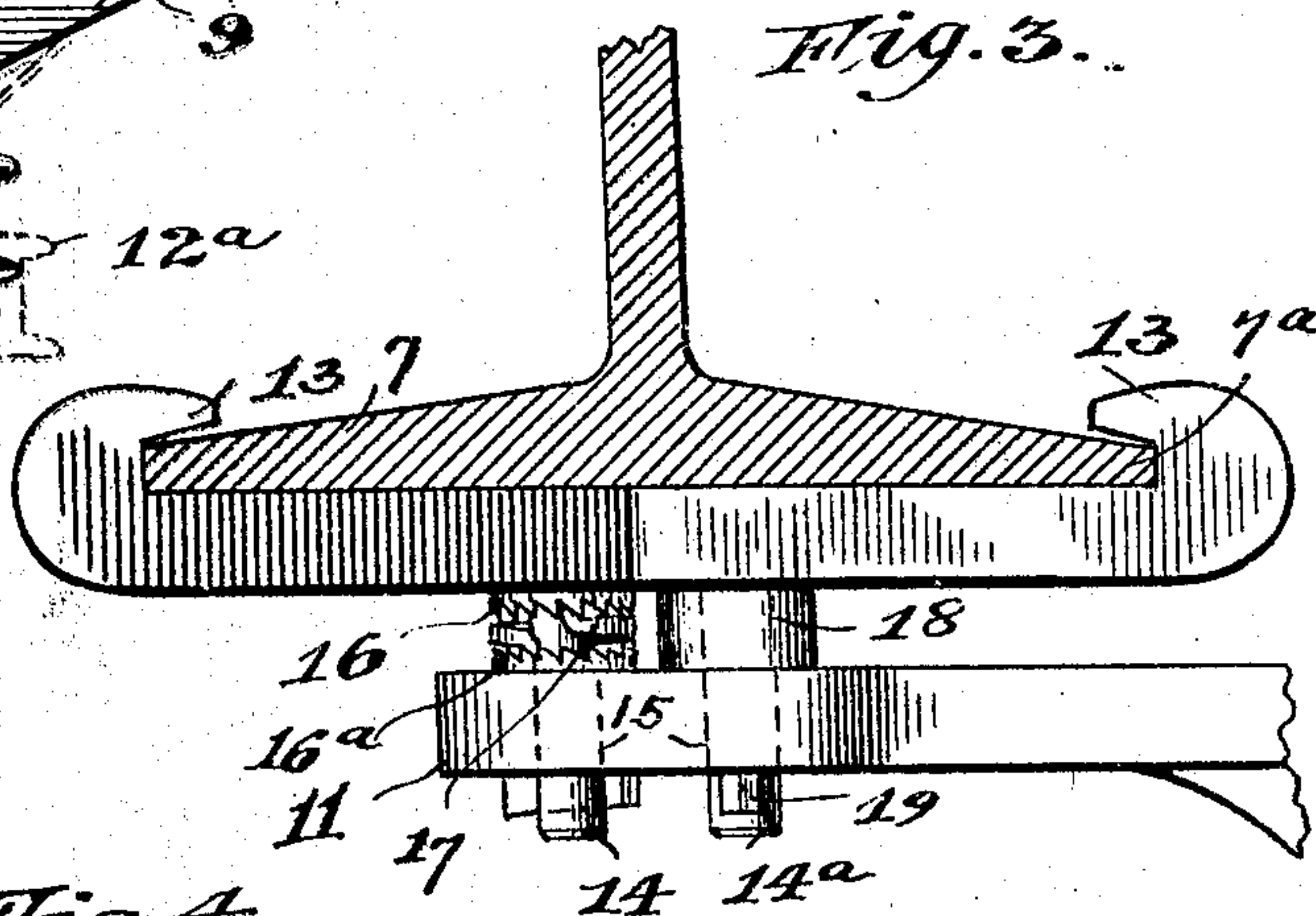
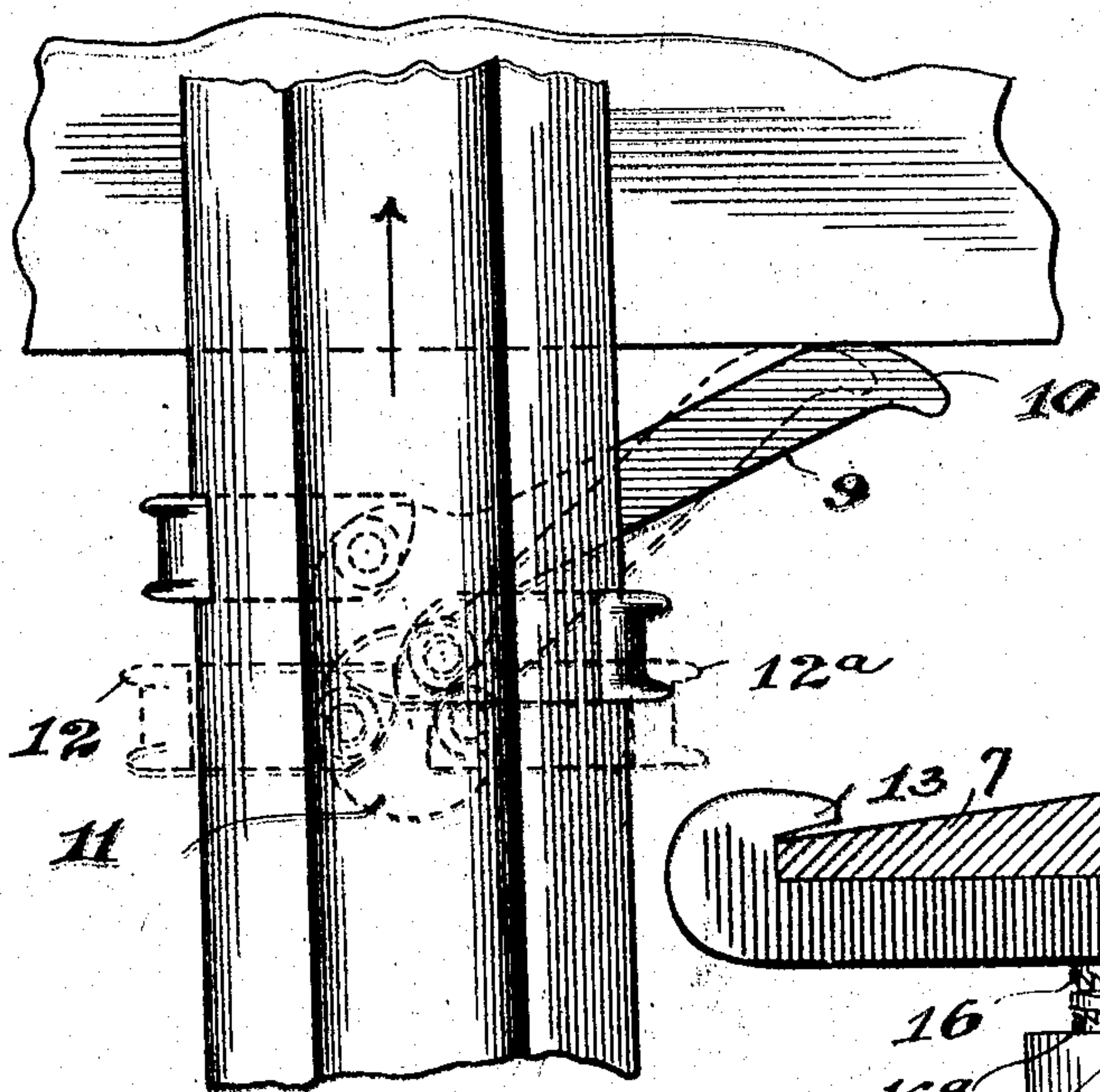
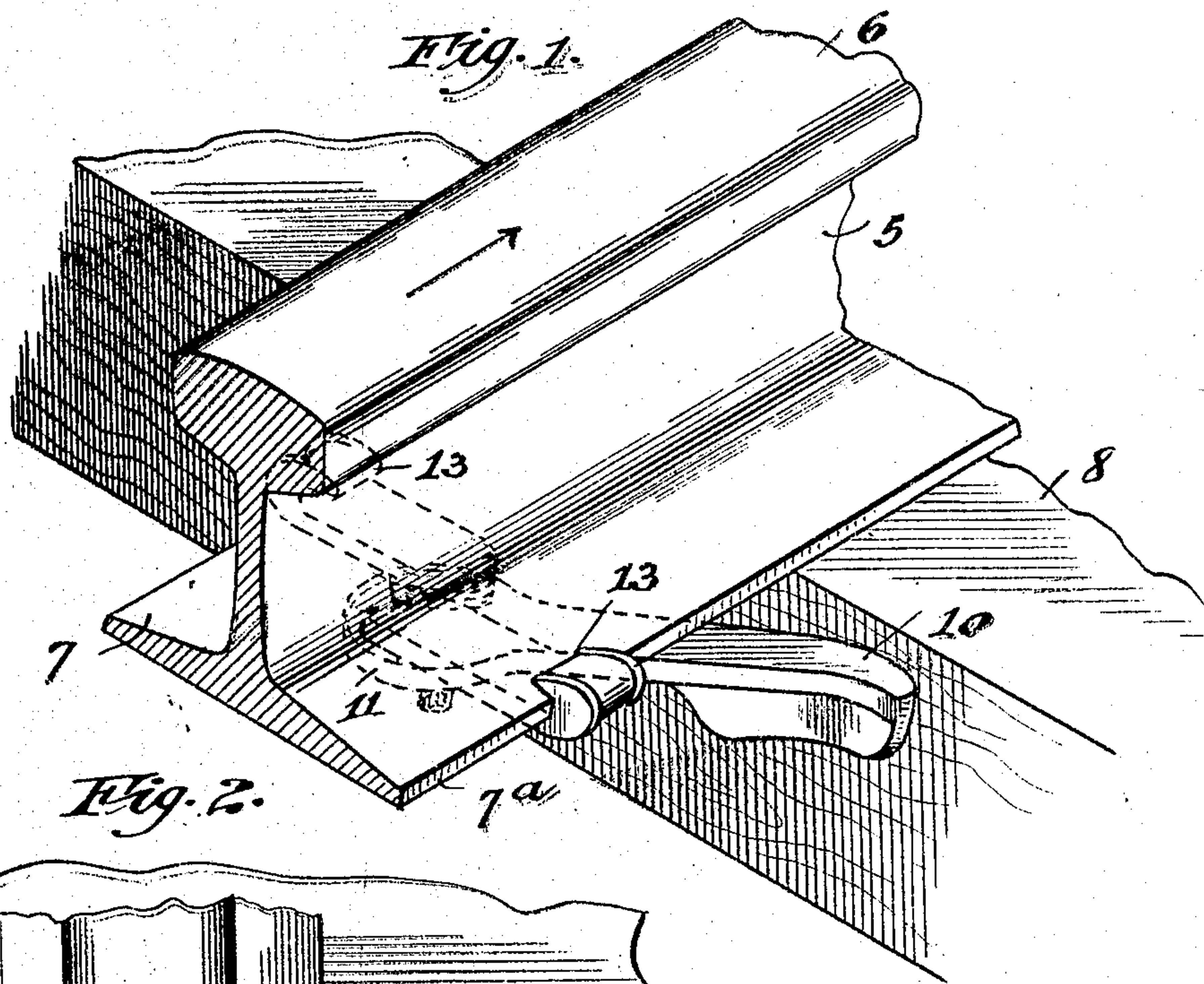


W. H. WALKER.
RAIL ANCHOR.
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911,856.

Patented Feb. 9, 1909.



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UNITED STATES PATENT OFFICE.

WARREN H. WALKER, OF RACINE, WISCONSIN.

RAIL-ANCHOR.

No. 911,856.

Specification of Letters Patent.

Patented Feb. 9, 1909.

Application filed November 19, 1908. Serial No. 463,480.

To all whom it may concern:

Be it known that I, WARREN H. WALKER, a citizen of the United States, residing at Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Rail-Anchors, of which the following is a specification.

My invention pertains in general to rail anchors or anti-creeping devices, the principal object of which is to provide means which will automatically grip or grasp a rail and as the rail has a tendency to creep the device will automatically increase its grip upon the base of the rail and thereby prevent the creeping or longitudinal movement thereof.

In the preferred form of construction, the invention consists in a pair of jaws, one or both of which are pivotally mounted to a lever member and the lever member being adapted to engage a tie; the pivotal points at which the jaws are secured to the lever being so arranged as to cause the jaws to have an opening or closing movement according to the movement of said lever.

A further object of the invention is to provide means whereby the anchor will not lose its grip upon the base of the rail if it so happens that a backward movement of the rail occurs relative to the direction of travel, due to the contraction of the rail or other causes.

Further advantages will appear throughout the specification and claims and are shown in the drawings in which—

Figure 1 is a perspective view of my device in attached position. Fig. 2 is a top plan view of Fig. 1, the device being shown in open position by dotted lines. Fig. 3 is an enlarged detailed end view of Fig. 2 with parts broken away. Fig. 4 is a perspective view of the device with the jaw members partially closed.

Referring now more particularly to the drawing, 5 represents as a whole a rail having the usual tread 6 and base flanges 7 and 7^a, the two flanges constituting the base but herein given separate terms for a better explanation of the operation of the device as applied thereto.

8 is a railroad tie of the ordinary construction and it is to be understood that the direction of travel over the rail 5 is in the

direction of the arrow, as shown in Figs. 1 and 2: it being a well-known fact that rails creep in the direction of the movement of the trains passing thereover.

The rail anchor consists of a lever member 9 having a curved end piece 10 adapted to engage a tie or the like; the opposite end of said lever from said end piece being somewhat enlarged to form a base plate 11 to which are pivoted a pair of jaws 12 and 12^a. The jaws are provided with hooked or curved ends 13 adapted to engage the marginal edges of the flanges 7 and 7^a. The inner ends of said jaws are provided with pivot pins 14 and 14^a, which may be formed integral with the respective jaws and adapted to extend through suitable apertures 15 formed in said base plate 11. Said pivot pins are preferably formed integral with the jaw members, but it is obvious of course that they might be formed separate therefrom and secured thereto, or that they might be formed integral with the base plate or separate therefrom and secured thereto. The location of the pivot points upon the base member 11 forms a very essential part of the invention in that they are so arranged, when in transverse alinement relative to the rail, that the jaws will be opened the widest and as the pivot points approach longitudinal alinement relative to the rail, bringing the jaws into different parallel planes, they will have a clamping movement according to the extent of the movement of the lever.

In the preferred form of construction, when the jaws are pivoted to the plate and are in alinement, the lever will be tangentially disposed relative to the jaw 12^a, and it is in this position that the jaws are opened the widest and there is a sufficient margin between the curved ends 13 of the jaws to permit them to pass upon either side of the flanges of the rail, whereby they are applied to the under side of the rail and moved along said base until the lever arm comes in contact with the side of a tie. By continuing the pressure of the lever arm against the tie, which is of course a fixed point, the base end 11 of the lever will cause a movement of the pivot pins on said base relative to the rail so as to bring one jaw in advance of the other jaw, and before the pivot pins are in longitudinal alinement relative to the

rail the jaws will firmly grasp both sides of the rail base.

As means for preventing the jaws from loosening when in their gripping position, 5 due to any contraction of the rail or vibration thereof, I provide ratchet faces 16 and 16^a upon the oppositely disposed faces of one of the jaw members and the base member, the teeth of said ratchets being oppositely arranged and a spring washer 17, hav- 10 ing oppositely bent ends, is adapted to surround one of the pivots and the curved ends thereof adapted to engage the ratchet teeth. It can therefore be readily seen that when 15 the device is applied to a rail and the lever moved so as to turn the lever member relative to the jaw, the turned end of the washer that engages the teeth formed on the base will advance successively from tooth to 20 tooth until the device is in locked position, whereupon said spring washer will prevent the jaw from backing up and opening whereby the device will drop from the rail base.

When the ratchets are placed between a 25 jaw and the base, a spacer 18 is employed that is adapted to surround the other pivot pins and cotter pins 19 are adapted to extend through suitable apertures at the ends of said pivot pins whereby the lever mem- 30 ber is firmly secured to said pivot pins.

It is of course obvious that instead of placing the ratchets in the position shown, the base plate might be in contact with the jaw member and one of the ratchet faces 35 formed upon the under side of the base plate, and the other ratchet members secured to the pivot pin at its lower end with the spring washer interposed between the faces of said ratchets, suitable means, however, be- 40 ing provided for preventing the rotation of the ratchet member that is secured to the pivot pin. In this construction the spacer 18 would not be employed.

It is of course obvious that I am not 45 limited to the precise construction herein shown, nor to a construction wherein the lever is adapted to abut against a tie, as said lever might be secured to a tie in any suitable manner or to suitable retaining means 50 for preventing the movement thereof, the construction shown herein being only the preferred embodiment of the device, and,

therefore, without confining myself to the particular construction,

I claim:

1. A rail anchor comprising a pair of jaws and a lever member to which one of said jaws is pivoted, substantially as described. 55

2. A rail anchor comprising a pair of jaws and a lever member to which said jaws are 60 independently pivoted, substantially as described.

3. A rail anchor comprising a lever member adapted to engage a tie or the like and having a pair of jaws secured thereto and 65 adapted to grip the base of a rail upon opposite sides thereof; one of said jaws being movable relative to said lever member, as and for the purposes described.

4. A rail anchor comprising a pair of 70 jaws, a lever member to which said jaws are pivoted and means on one of said jaws for preventing the rotation thereof when in set position, substantially as described.

5. In a rail anchor, the combination of a 75 lever member adapted to engage a tie at one end thereof and provided with a base plate, a pair of jaws pivoted to said base plate and having curved ends adapted to grip the marginal edges of a rail base, said jaws be- 80 ing arranged in longitudinal alinement when in open position and adapted to be moved into different parallel planes upon a movement of said lever member, for the purposes described. 85

6. A rail anchor comprising a lever member and a pair of jaw members pivotally mounted thereon, whereby the jaw members will be moved into different parallel planes upon a movement of said lever member, sub- 90 stantially as described.

7. In a rail anchor, the combination of a pair of jaws adapted to engage the marginal edges of a rail base, a lever member to which each of said jaws is independently pivoted, 95 and means upon one of said jaws for preventing a backward pivotal movement of one of said jaws relative to said lever when said jaws are in a gripping position, substantially as described.

WARREN H. WALKER.

Witnesses:

JAMES R. OFFIELD,
M. E. ADAMS.

DISCLAIMER.

911,856.-- *Warren H. Walker*, Racine, Wis. RAIL-ANCHOR. Patent dated February

9, 1909. Disclaimer filed November 3, 1909, by the assignee, *Otto R. Barnett*.

Enters this disclaimer--

"To that part of the claim in said specification which is in the following words.
to wit:

"1. A rail-anchor comprising a pair of jaws and a lever member to which one of
said jaws is pivoted, substantially as described.

"3. A rail-anchor comprising a lever member adapted to engage a tie or the like
and having a pair of jaws secured thereto and adapted to grip the base of a rail upon
opposite sides thereof; one of said jaws being movable relative to said lever member,
as and for the purposes described."—[*Official Gazette*, November 16, 1909.]