

J. F. HUDSON.

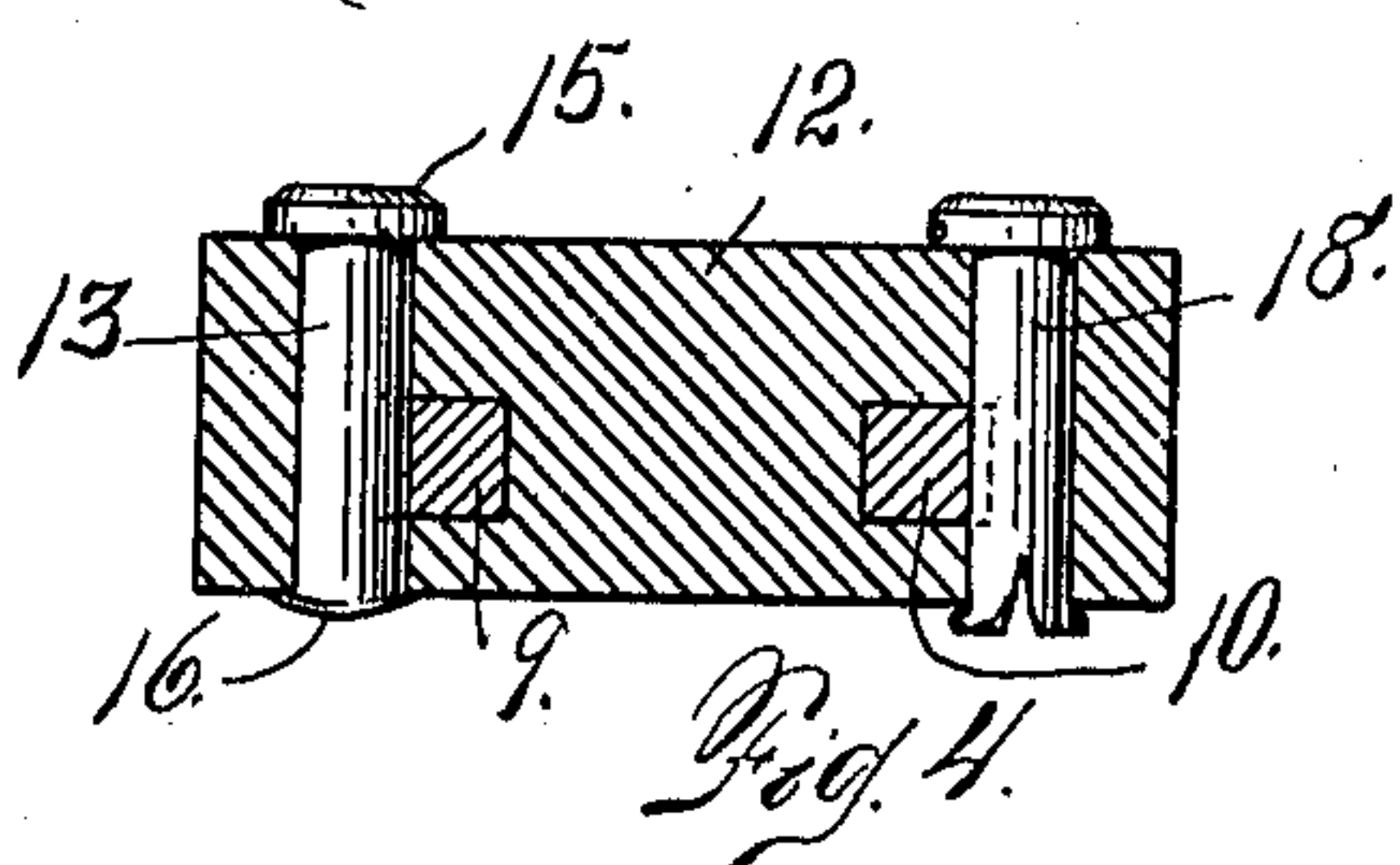
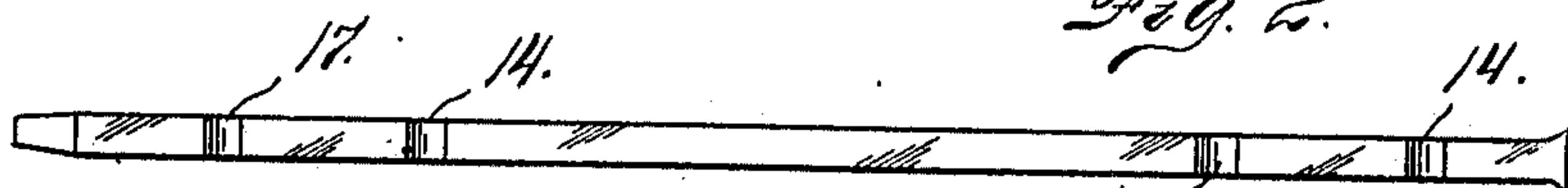
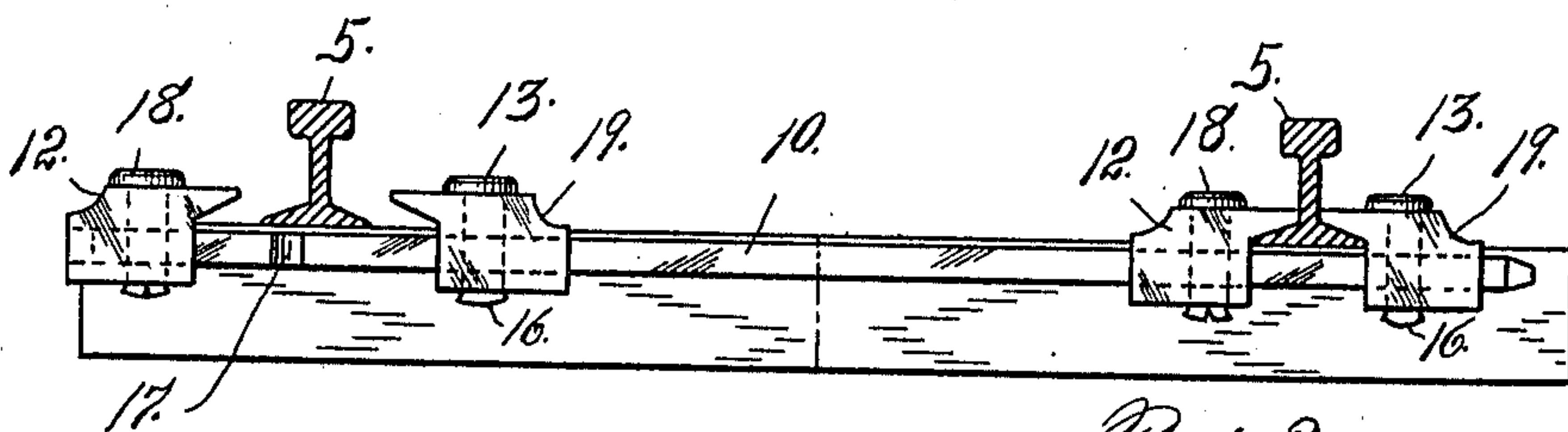
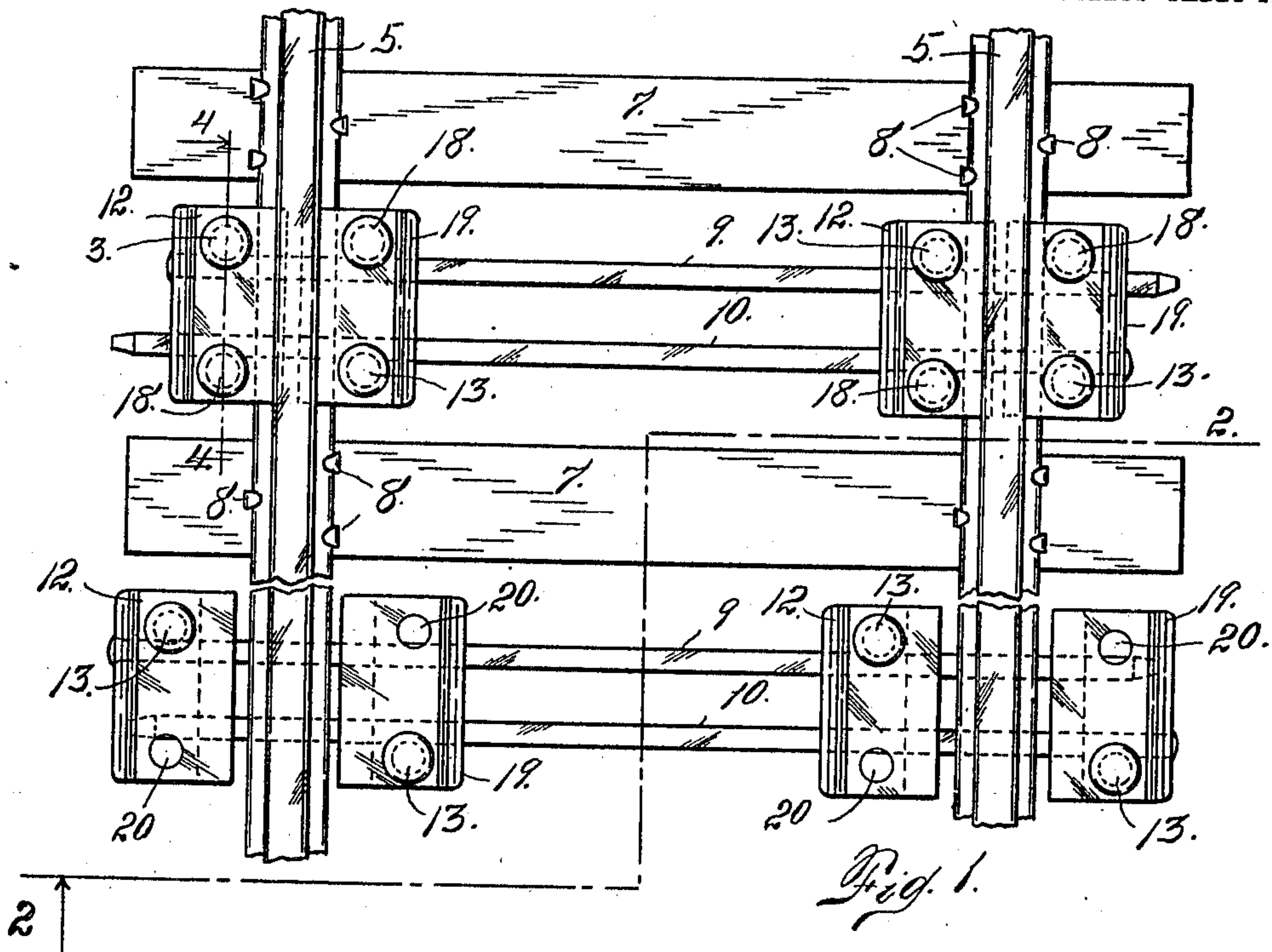
TRACK BINDER.

APPLICATION FILED APR. 26, 1909.

970,054.

Patented Sept. 13, 1910.

2 SHEETS—SHEET 1.



Witnesses

Otto E. Hoddick.

J. D. Thornburgh.

Inventor

John F. Hudson.

By *[Signature]*

Attorney

J. F. HUDSON.
TRACK BINDER.

APPLICATION FILED APR. 28, 1909.

970,054.

Patented Sept. 13, 1910.

2 SHEETS—SHEET 2.

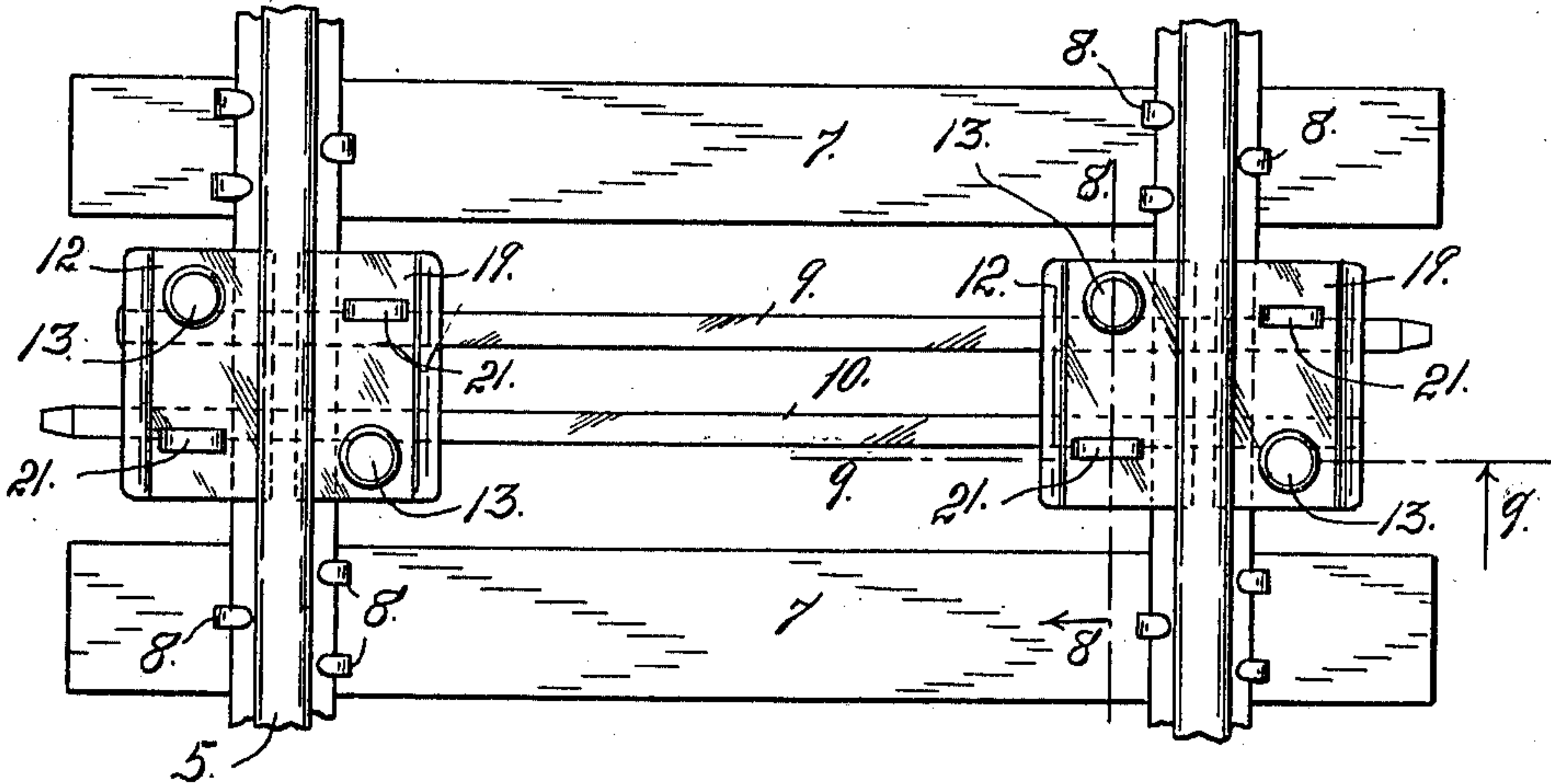


Fig. 6.

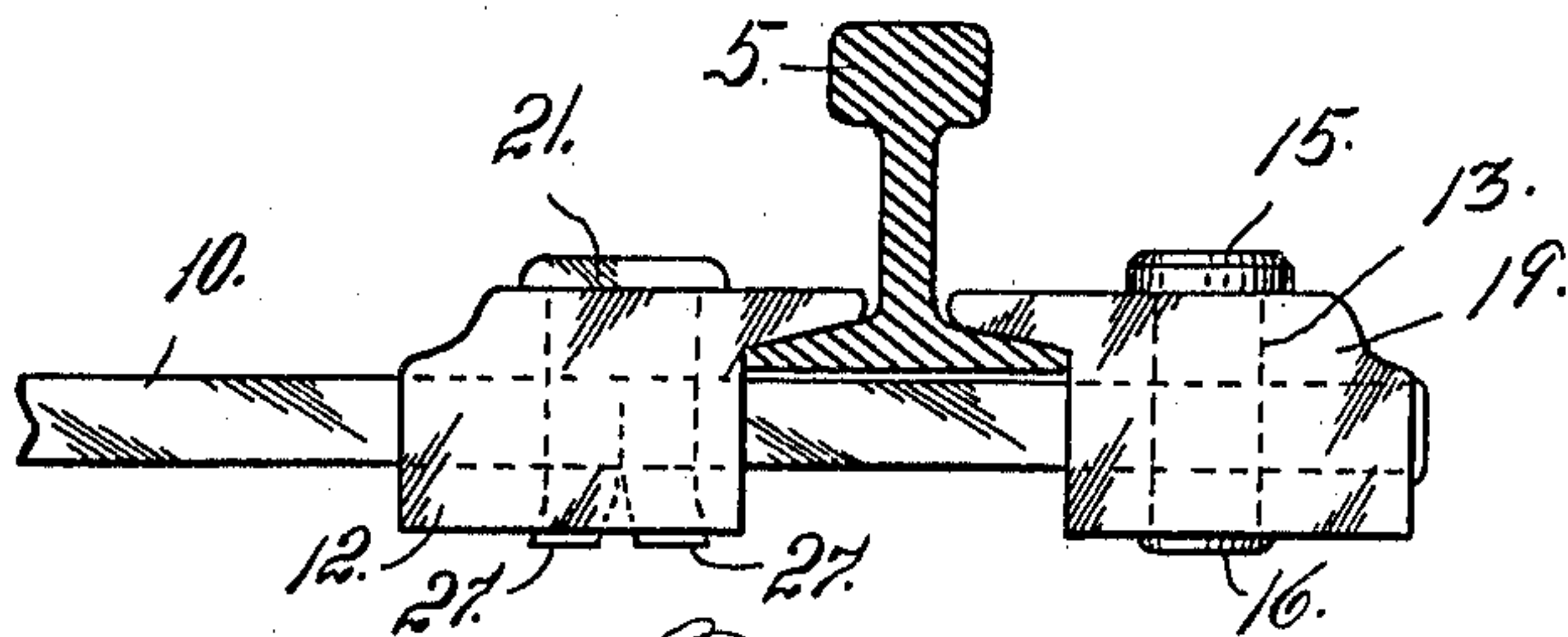


Fig. 7.

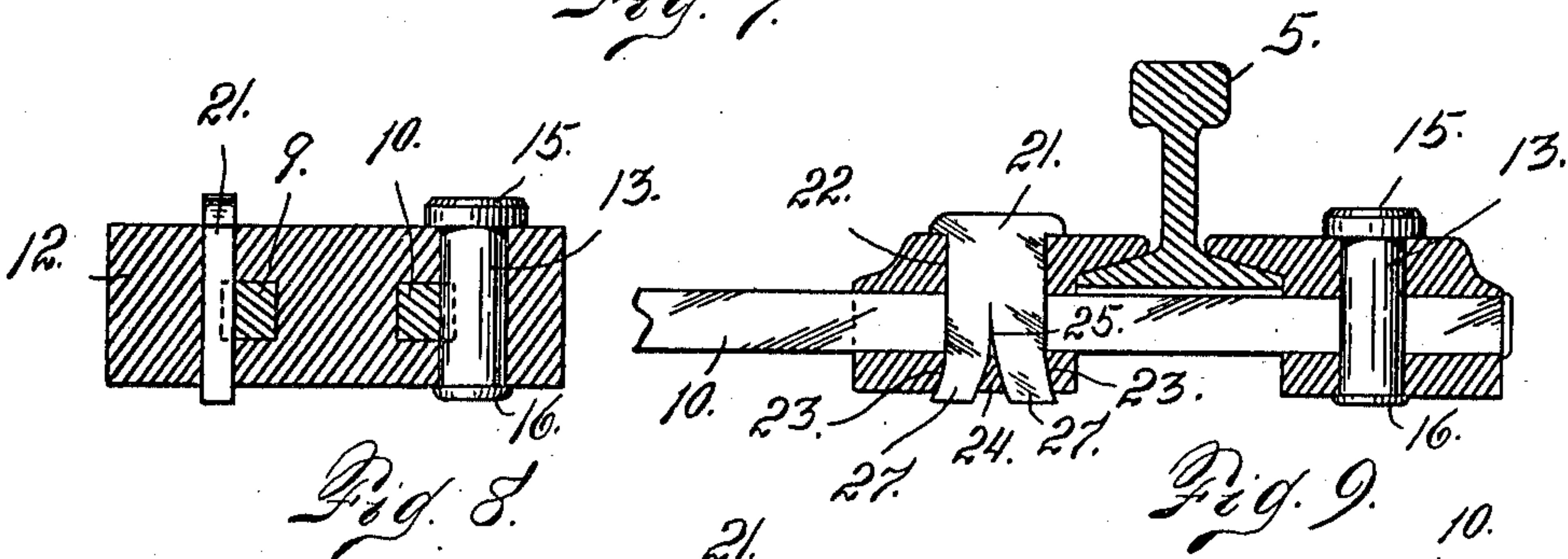


Fig. 8.

Fig. 9.

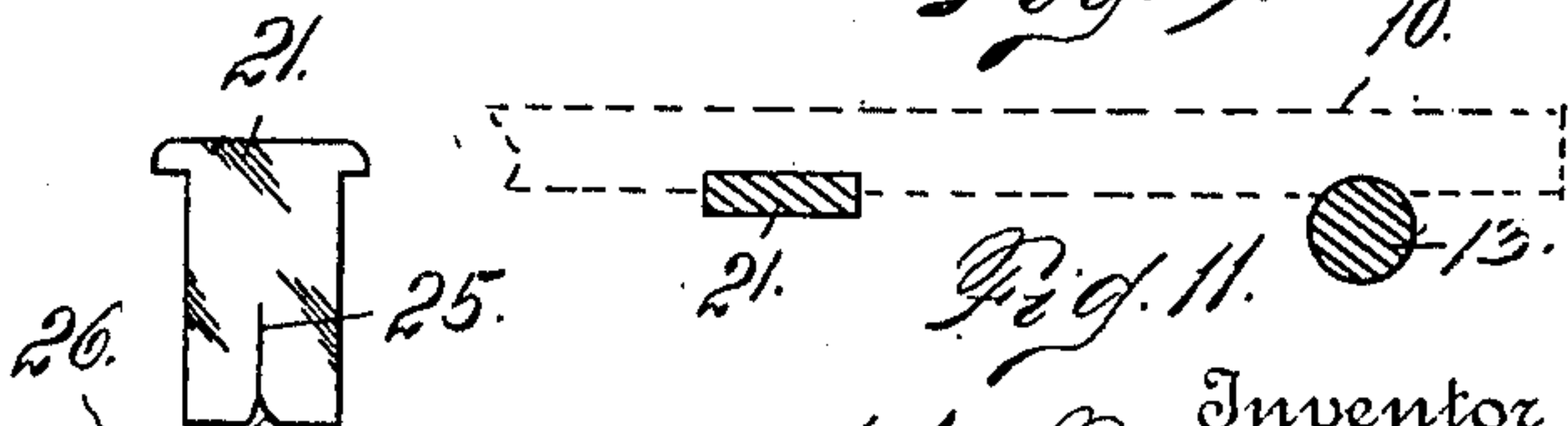


Fig. 10.

Fig. 11.

Witnesses

Otto E. Hoddick.

J. W. Thornburgh.

Inventor

John F. Hudson.

Attorney

UNITED STATES PATENT OFFICE.

JOHN F. HUDSON, OF RADIIUM, COLORADO.

TRACK-BINDER.

970,054.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed April 26, 1909. Serial No. 492,376.

To all whom it may concern:

Be it known that I, JOHN F. HUDSON, a citizen of the United States, residing at the city of Radium, county of Grand, and State of Colorado, have invented certain new and useful Improvements in Track-Binders; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in track binders or means for connecting the track rails, whereby they are prevented from spreading.

One of the valuable features of this invention consists in the fact that the device is adjustable, whereby it may be readily attached to a permanent railroad track and also readily detached therefrom.

In my improved construction, I employ two bars upon which clamping blocks are mounted, there being two blocks for each rail. Each of the blocks forming the clamping means for each rail is normally fast on one bar and slidable upon the other bar, but in reverse relation, that is to say one block of each pair is fast on one bar, while the other block of the same pair is fast on the other bar, and the two blocks on the same side of the two rails are respectively loose and fast on the same bar. This arrangement makes it practicable to clamp the two rails by the movement of the two blocks on the right hand side of the rails, together with the bar to which they are attached in one direction, while the two blocks on the left hand side of the rails, together with their bar are moved in the opposite direction for rail clamping purposes. When properly adjusted, the track binding members are locked in the adjusted position by the use of suitable keys which engage recesses in the bars which by virtue of the loose adjustment are brought into register with key openings formed in the clamping blocks.

Having briefly outlined my improved construction, I will proceed to describe the same in detail, reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a top plan

view of a section of track showing my improved track binding mechanism in place, one set of the devices being shown in the rail clamping or binding position and the other set in the disengaged position. Fig. 2 is a section taken on the line 2—2, Fig. 1. Fig. 3 is a detail view of one of the track binding bars. Fig. 4 is a section taken on the line 4—4, Fig. 1, the parts being shown on a larger scale. Fig. 5 is a detail view illustrating one of the removable locking keys. Fig. 6 is a top view similar to a part of Fig. 1 illustrating a slightly modified form of construction. Fig. 7 is a cross section taken through one of the rails showing a pair of clamping blocks in the rail binding position and on a larger scale than in Fig. 6. Figs. 8 and 9 are sections taken on the lines 8—8 and 9—9 respectively of Fig. 6. Fig. 10 is a detail view of one of the removable locking keys. Fig. 11 is a horizontal section taken through one of the removable and one of the fast locking keys, the position of the track binding bar being indicated by dotted lines.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate each of the two track rails and 7 the ties to which the rails are secured by the use of spikes 8 in the ordinary way. Between the ties and at any suitable intervals, my improved track binding devices are located. A set of these devices includes two parallel bars which for convenience will be designated 9 and 10 respectively, though they are substantially identical in construction. Upon the bar 9, two clamping or binding members 12 are secured by means of fastening pins or keys 13 which are passed through vertically arranged openings formed in the blocks and engage recesses 14 formed in the edge of the bar and arranged to register with the openings in the members 12 through which the pins 13 are passed. The one extremity of each pin is provided with a head 15, while its opposite extremity is upset or riveted as shown in Fig. 4. These same members 12 which are fast on the bar 9 are slidable on the bar 10 until their openings 16 are brought into register with recesses 17 formed in the bar 10, when removable keys 18 are introduced, thus locking the members 12 in the clamping position. The other two clamping members which I will designate 19, are normally loose on the bar 9, but se-

cured to the bar 10 by pins 13 in the same manner as heretofore described in explaining the connection between the bar 9 and the members 12. When the devices are in the track binding or clamping position, the members 19 together with the bar 10, are so adjusted with reference to the members 12 fast on the bar 9, that keys 18, are inserted in openings 20, the keys engaging recesses 17 formed in the bar 10. After the locking or fastening keys 18 are introduced, their lower extremities which are split for the purpose are spread by the use of a suitable tool (not shown) sufficiently to lock the keys in place to prevent accidental removal.

The form of construction shown in Figs. 6 to 11 inclusive, is substantially the same as that shown in the other views, except that the removable keys are of somewhat different construction which also necessitates that the openings formed in the clamping blocks 12 and 19 and also the recesses formed in the track binding bars 9 and 10 shall be made to conform to the shape of the said keys. These keys are for convenience designated by the numeral 21. The lower part of the opening 22 for the reception of the keys 21, is bifurcated as shown at 23, by a wedge-shaped spreader 24 formed integral with the clamping block. This spreader enters a split 25 formed in the key, having its lower extremity normally V-shaped as shown at 26 to facilitate the entrance of the spreader. As the key is driven downwardly, the spreader acts upon the key to cause its parts 27 on opposite sides of the split 25, to separate and enter the two parts of the opening on opposite sides of the spreading device. By virtue of this construction and arrangement the keys are automatically upset as they are driven into the binding or clamping members. This is considered an important feature since it obviates the necessity of a tool for upsetting the keys after they have been inserted, the use of the tool being more or less difficult since the key extremities to be upset are inaccessible, except by reaching underneath the clamping blocks between the ties.

From the foregoing description, the use of my improved device will be readily understood. Assuming that the bars 9 and 10 are in position under the track rails and that the track binding members are mounted thereon as shown at the lower part of Fig. 1, the outermost members 12 and 19, together with the bars 9 and 10 upon which they are mounted, are moved toward the

track rails or in opposite directions until the track binding members are caused to engage the rails as shown at the upper part of Fig. 1. The fastening keys 18 or 21 as the case may be, are then inserted whereby the clamping members are securely locked in the track binding position.

Having thus described my invention, what I claim is.

1. A track binder comprising two bars arranged in parallel relation and two pairs of clamping members mounted upon the said bars, the two members of the two pairs on the right hand side of the two rails being normally fast to one bar and the two members on the opposite side of the rails being normally fast to the other bar, the members which are fast on one bar being normally loose and slidable on the other bar, and means for securing the track binding members to the bars upon which they are normally loose, substantially as described.

2. A device of the class described comprising a pair of bars and two pairs of rail clamping members mounted thereon, each pair being adapted to engage one of the rails on opposite sides and in opposing relation, and suitable means for securing the clamping members to the bars when in clamping engagement with the rails, substantially as described.

3. In a track binder, means for connecting the two rails of the track to prevent spreading, comprising two pairs of clamping members, two parallel spaced bars upon which the said members are mounted, said bars passing through perforations of the track clamping members, whereby the two pairs of members engage the respective track rails, and means for locking the clamping members upon the bars when in engagement with the track rails, substantially as described.

4. A track binder composed of two parallel bars, two pairs of clamping members mounted on the bars, one pair being adapted to engage each rail, the members on one side of the two rails being normally fast upon one bar and loose on the second bar, while the two members on the opposite side of the two rails are normally loose on the first named bar and fast on the second bar, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN F. HUDSON.

Witnesses:

JESSIE F. HOBART,
A. EBERT O'BRIEN.