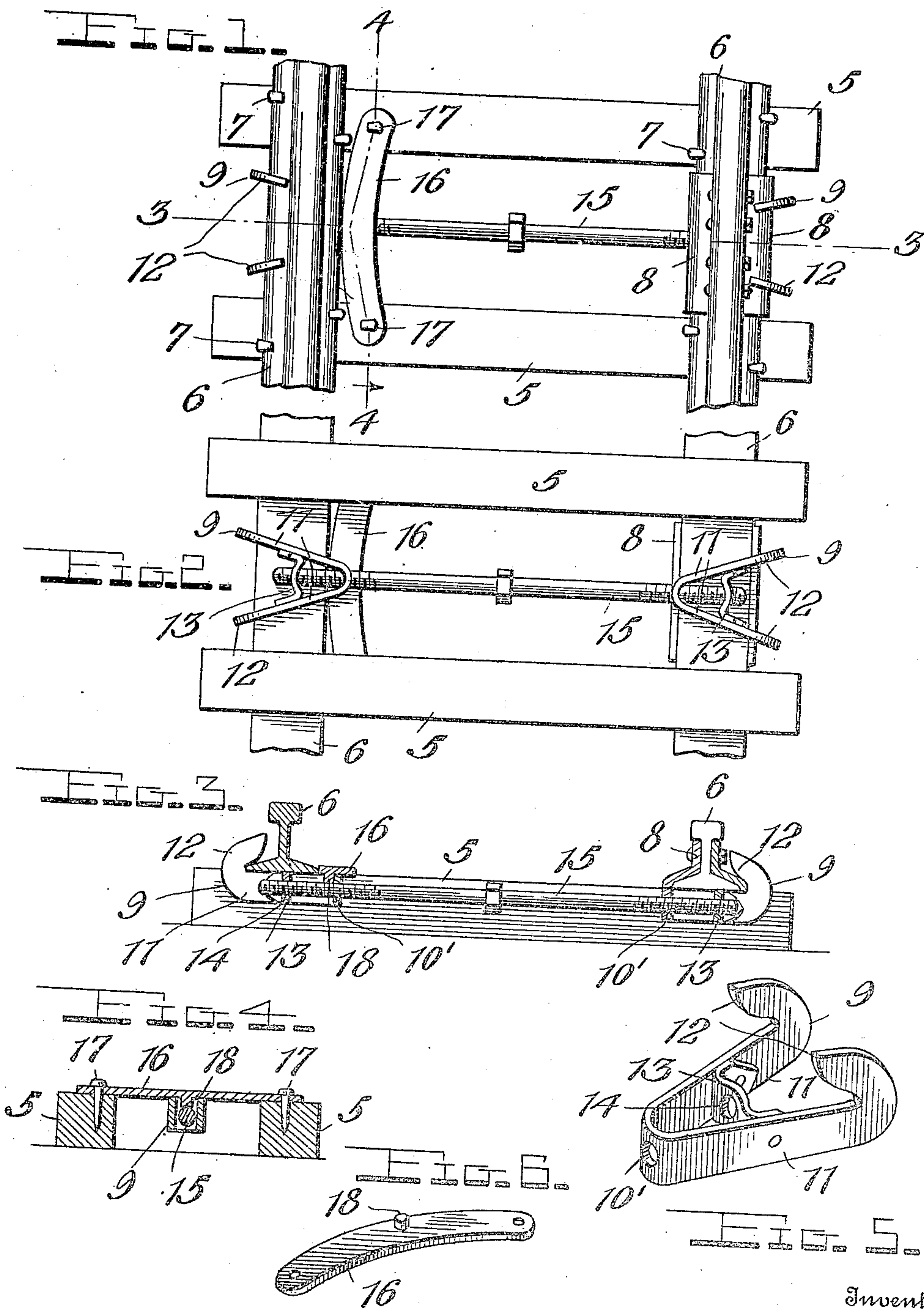


APPLICATION FILED JAN. 31, 1910.

958,103.

Patented May 17, 1910.



Witnesses

Chas. R. Griebauer.
E. M. Ricketts.

Inventor

T. J. Donovan,

ପୌର

Watson E. Coleman

Attorney

UNITED STATES PATENT OFFICE.

TIMOTHY J. DONOVAN, OF SYRACUSE, NEW YORK.

RAIL-RETAINER.

958,103.

Specification of Letters Patent. Patented May 17, 1910.

Application filed January 31, 1910. Serial No. 541,076.

To all whom it may concern:

Be it known that I, TIMOTHY J. DONOVAN, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Rail-Retainers, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain new and useful improvements in rail clamps and has for its object to provide an extremely simple and inexpensive device of this character adapted to be arranged between the rail ties and engaged upon the outer flanges of the rails to prevent the rails from spreading.

Another object is to provide suitable means for locking the clamping members against all possibility of accidental release.

A further object is to provide a rail clamp of very durable construction and one which may be manufactured at an extremely low cost.

With these and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of a rail clamp embodying my improvements; Fig. 2 is a bottom plan view thereof; Fig. 3 is a central longitudinal section taken on the line 3—3 of Fig. 1; Fig. 4 is a section taken on the line 4—4 of Fig. 1; Fig. 5 is a detail perspective view of one of the clamping members; and Fig. 6 is an inverted perspective view of the locking bar.

My present invention is devised with a view to the elimination of several undesirable features of my former construction upon which a Patent #902,384 was granted to me October 27, 1908, and furthermore to simplify the construction of the rail clamp as therein shown and described and to increase its efficiency and durability and reduce the cost of construction to a minimum.

Referring more particularly to the drawings 5 indicates the ordinary cross ties and 6 the rails positioned thereon in spaced relation and secured by means of the spikes 7. One of the rails is shown at the joint therein, the usual fish-plates 8 being employed to secure the ends of the adjacent rails.

The clamping members 9, shown in de-

tail in Fig. 5, are each formed from a single bar of metal which is centrally bent and formed with the hooks 12 which are adapted for engagement upon the outer flange of the rail base, or when arranged at the joint, the hooks are disposed upon opposite sides of the longitudinal center of the flange of the fish-plate. The arms 11 of the clamping members are connected and braced by means of the plates 13 which may be secured thereto by means of suitable rivets. This brace is centrally bent and provided with an opening 14 disposed in alinement with a similar opening 10' formed in the central bent portion of the clamping members. These openings are threaded to receive the ends of the transversely positioned adjusting rod 15. These end portions of the rod are provided with right and left hand screw threads whereby it will be seen that the clamping members will be moved outwardly or inwardly as the rod is rotated.

In order to lock the adjusting rod 15 to prevent accidental rotation thereof and outward movement of the clamping members from the rail flanges, I provide a locking bar 16. The ends of this bar are secured to the rail ties 5 by means of the spikes 17. A stud 18 depends from the under side of the locking bar and is positioned between the inner ends of the diverging arms 11 of the clamping members. This stud bears upon the threads of the adjusting rod 15 and effectually prevents any accidental turning movement thereof after the clamping members have been adjusted upon the rails.

In the application of my improved rail clamp, the clamping members are disposed over the outer flanges of the rails in the manner above described, and the rod 15 adjusted to draw said clamping members inwardly toward each other and securely clamp the rails upon the ties whereby the spreading of the rails is prevented. The locking bar 16 is then secured to the cross ties, and the stud 18 engaged with the threaded end portion of the adjusting rod. In this manner a device is provided which is of extremely simple construction, may be very quickly applied and is strong, durable and efficient in use.

While I have shown and described the preferable embodiment of my invention, it will be understood that the same is susceptible of many minor modifications without

materially departing from the essential features or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:

1. In a rail clamp, the combination with ties and rails secured thereon, of clamping members engaged upon the rail flanges, an adjusting rod provided with screw threads on its ends connecting said clamping members to secure the same in clamping engagement with the rails, and a locking plate arranged upon the ties having a central depending stud engaging with the threads on one end of said rod to lock the same against rotation.

2. In a rail clamp, the combination with ties and rails supported thereby, of clamping members each comprising outwardly diverging arms integrally connected at their inner ends, the extremities of said arms engaging over the outer base flanges of the rails, an adjusting rod movably engaged with the inner ends of said arms and adapted to secure said clamping members upon the rail flanges, and means secured to the ties engaging with said adjusting rod to lock the same against rotation.

3. In a rail clamp, the combination with ties and rails supported thereby, of clamp-

ing members each comprising outwardly diverging arms integrally connected at their inner ends, the extremities of said arms being hooked for engagement over the outer base flanges of the rails, an adjusting rod oppositely threaded on its ends for engagement with the inner ends of said clamping members, and a locking plate secured to the rail ties carrying means engaging with the adjusting rod to lock the same against rotation.

4. In a rail clamp, the combination with ties and rails supported thereby, of clamping members each comprising two arms connected at their inner ends, the outer ends of said arms being engaged upon the outer base flanges of the rails, an adjusting rod connecting the inner ends of said clamping members, a locking bar having its ends secured to the rail ties, and a stud depending from said bar between the arms of one of the clamping members for engagement with said adjusting rod to lock the same against rotation.

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

TIMOTHY J. DONOVAN.

Witnesses:

E. W. SMITH,

L. M. CLARK.