

No. 676,367.

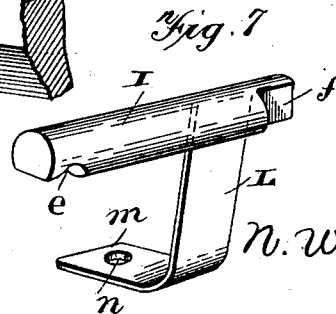
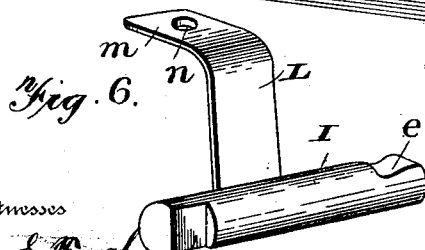
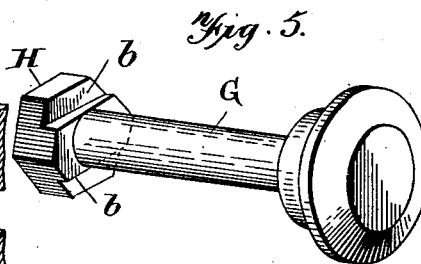
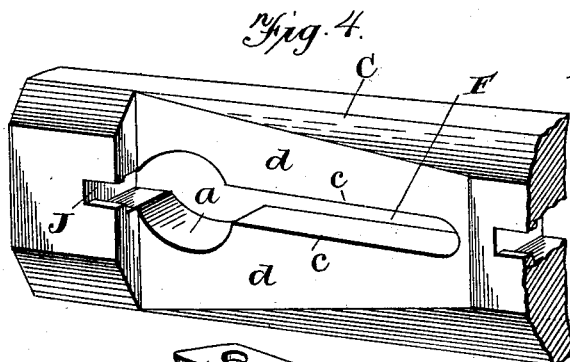
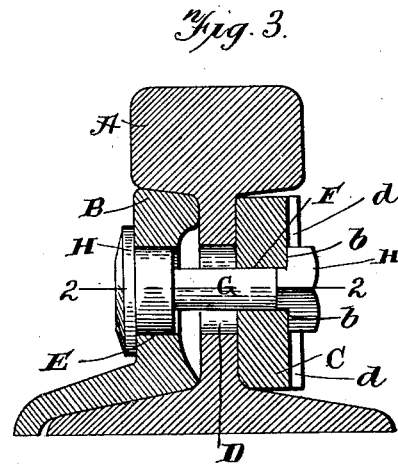
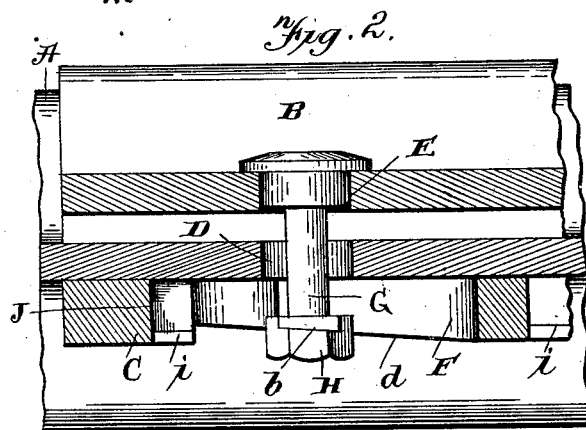
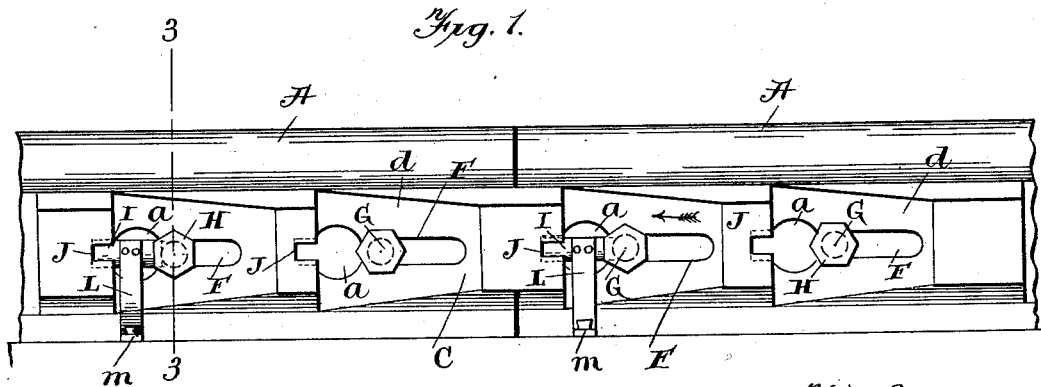
Patented June 11, 1901.

N. W. McCourt.
BOLT CLAMPING DEVICE.

(Application filed June 8, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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Chas. R. Wright.

Inventor

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By

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No. 676,367.

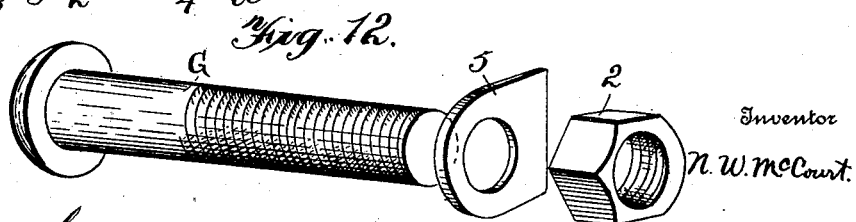
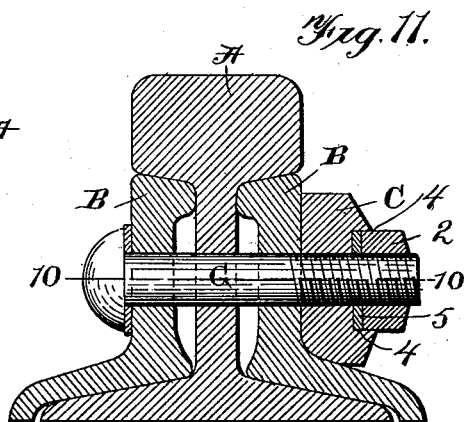
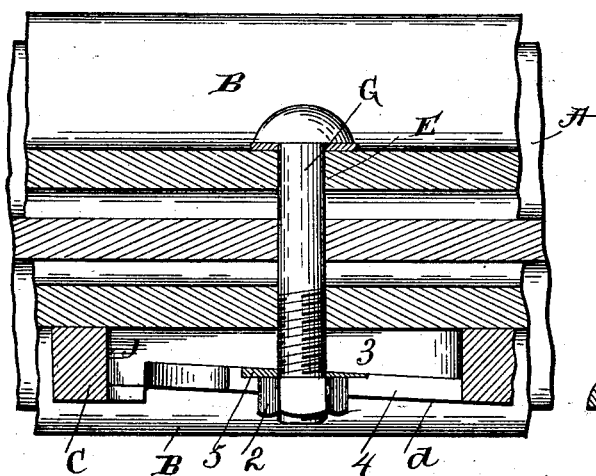
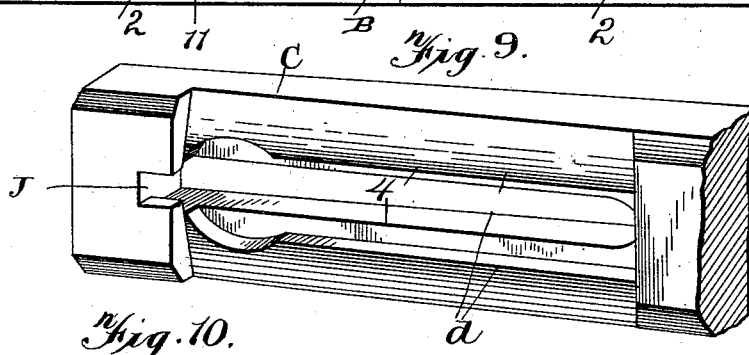
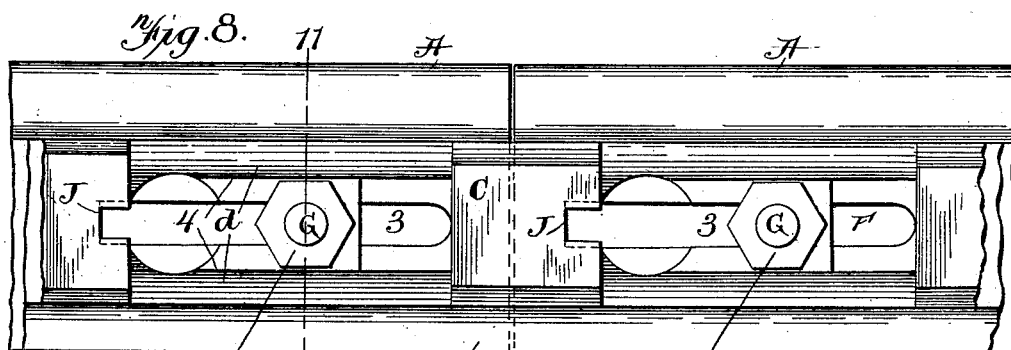
Patented June 11, 1901.

N. W. McCOURT.
BOLT CLAMPING DEVICE.

(Application filed June 6, 1900.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses

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334

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UNITED STATES PATENT OFFICE.

NEWTON W. McCOURT, OF BRADFORD, PENNSYLVANIA.

BOLT-CLAMPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 676,367, dated June 11, 1901.

Application filed June 6, 1900. Serial No. 19,308. (No model.)

To all whom it may concern:

Be it known that I, NEWTON W. McCOURT, a citizen of the United States, residing at Bradford, in the county of McKean and State of Pennsylvania, have invented new and useful Improvements in Bolt-Clamping Devices, of which the following is a specification.

My invention relates to improvements in bolt-clamping devices which are especially adapted to be used in connection with railroad-rails, though they may be used in other connections to which they are applicable, all of which will be fully described hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my invention, showing it applied to a railroad-rail. Fig. 2 is a longitudinal horizontal sectional view on the line 2 2 of Fig. 3. Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 1. Fig. 4 is a detached perspective view of a portion of the longitudinally-movable inclined member. Fig. 5 is a detached view of one of the double-headed bolts. Fig. 6 is a detached view of the locking-rod looking at it from the inner side thereof. Fig. 7 is a similar view looking at it from the under side. Fig. 8 is a side elevation of a modified construction of my invention. Fig. 9 is a detached view of the sliding wedge-shaped member of my modified construction. Fig. 10 is a longitudinal horizontal sectional view on the line 10 10 of Fig. 11. Fig. 11 is a transverse sectional view on the line 11 11 of Fig. 8. Fig. 12 is a detached view of the bolt, nut, and its washer used in my modified construction.

Referring now to the drawings and my preferred construction, A A indicate the meeting ends of two railroad-rails.

B is the ordinary or any desired form of fish-plate, which is situated at one side of the rails, and situated at the opposite side of the rails is my slidable or longitudinally-movable wedge-shaped member C. I here show this member C abutting directly against the vertical web of the rails and acting as a fish-plate, though if desired this member may be situated upon the outer side of the fish-plate, as shown in my modified construction, Fig. 10, without affecting in any manner my invention.

The two rails A A have their vertical webs provided with any desired number of transverse bolt-openings D, and the fish plate or plates (as the case may be) are provided with

a corresponding number of registering bolt-openings E.

My longitudinally-movable wedge-shaped members C are provided with longitudinal openings F of a number corresponding to the number of bolt-openings in the fish-plates and the vertical web of the rails. Near one end of each of these longitudinal openings F is provided an enlarged or curved portion or portions *a* of a size to permit one of the heads of the bolt G to pass therethrough. These bolts G have their heads H (in my preferred construction) formed integral therewith, and the heads of the bolts situated at that side of the rails where I apply my sliding member C are provided at their inner sides with the lugs *b* for the engagement with the opposite walls of the elongated portions *c* of the openings F, whereby the bolts are prevented from having any turning movement whatever. The outer face of this sliding member C, at opposite sides of the openings F, is provided with inclined surfaces *d*, with which the heads of the bolts G engage, the incline being toward the enlarged portions *a*, whereby when the sliding member C is moved in the direction indicated by arrow, Fig. 1, the bolts are wedged tight, forcing the sliding member and the fish-plates in tight engagement with the rails, and these sliding members may be driven to the desired tension by means of a hammering action upon the end thereof.

For the purpose of preventing any longitudinal or sliding movement of the member C after it has been driven home or tightened I provide one or more locking-rods I, which are inserted within the longitudinal openings F between the end J thereof and the stem of the bolts. One end of this locking-rod is in engagement with the stem of the bolt, and the opposite end of the locking-rod is in engagement with the end J of the longitudinal opening F. If desired, there may be provided a locking-rod for each of the said openings; but in this event they will all be of the same construction, and but one will be described here for the purpose of avoiding prolixity in description.

The locking-rod I has that end adjacent the bolt provided with a cut-out portion or recess *e*, which is adapted to be inserted behind the head or nut of the bolt, (as the case may be,) and the opposite end of the locking-rod K is provided with a cut-out portion or

recess *f*, which is located in a position at right angles to the cut-out portion *e*. The ends *J* of the openings *F* are slightly enlarged at their inner sides to provide the projecting flange or flanges *i* and to form an outer contracted inlet-opening and an inner enlarged receiving portion for the end of the locking-rod *I*. This locking-rod *I* is adapted to oscillate within the openings *F* for the purpose of locking it and unlocking it in position therein. Projecting from the locking-rod *I* and at the opposite side thereof from the cut-out recess *f* is a combined handle and securing member *L*, having its outer end *m* turned outward and provided with a perforation *n* to receive a spike, screw, or nail for the purpose of holding the locking-rod *I* in its locked position.

When it is desired to place the locking-rod within the openings *F* after the wedge-shaped sliding member has been forced into its desired clamping position, that end of the locking-rod *I* having the recess *e* is inserted behind the nut or head of the bolt and the rod is in position to bring the flat or recess portion *f* in position to permit that end of the rod to pass through the contracted inlet-opening of the end *J* of the opening *F*, the handle *L* being in a horizontal position. The rod having been inserted in said opening, the handle and securing member are turned downward, when the locking-rod will be turned to carry the recess or cut-out portion *f* out of alinement with the contracted entrance to the end *J* of the opening *F*, whereby the locking-rod is locked in position within the opening *F* and cannot be removed therefrom until it is oscillated with the handle in a horizontal position, when the locking-rod can be removed by reversing the operation of placing it in position, which has just been explained.

In my modification I show the bolts with a removable nut 2, constituting one head of the bolt, and I show the sliding member *C* with a longitudinal recess 3, the adjacent edges of the recess 3 being inclined to correspond with the incline *d* of the member *C*. This arrangement constitutes horizontally-projecting flanges 4 for engagement with the washer of the nut 2, and thus prevents the nut from turning upon the bolt, as will be readily understood. For the purpose of holding the nut perfectly in alinement with the bolt and to prevent any torsional strain coming on the bolt on account of the inclines I provide a wedge-shaped washer 5, situated between the inner face of the nut and the said incline and adapted to engage therewith. The locking-rod in this case is the same as in my preferred construction and need not therefore be further described or referred to.

It will be noted by reference to Fig. 11, which is a transverse sectional view of my modified construction, that I use two fish-plates *B* instead of one, as in the construction shown in Fig. 3.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A clamping device comprising a bolt, a longitudinally-movable wedge-shaped member through which the bolt passes and adapted to engage the head of one end of the bolt, the longitudinally-movable member having an elongated opening for the stem of the bolt, and a longitudinally-arranged locking-rod inserted between the said bolt and one end of the said opening, substantially as described.

2. A clamping device, comprising a longitudinally-movable member having a longitudinal opening, a bolt passing therethrough and having means on one end held by the outer face of said movable member against longitudinal movement of the bolt through said elongated opening, and a locking-rod arranged longitudinally within said opening and located outside of the object clamped, said locking-rod adapted to interlock with the wall of the said longitudinal opening in the movable member, substantially as described.

3. A clamping device comprising a longitudinally-movable member having a longitudinal opening and longitudinally-arranged tapered portions, a bolt passing through the said opening and having a head for engagement with the tapering portions, one end of the opening having a contracted inlet passage-way, and an oscillating locking-rod having a cut-out portion to pass through the said contracted portion, the rod situated between the bolt and the contracted end of the said longitudinal opening, substantially as described.

4. A locking device comprising a longitudinally-movable member having a longitudinal opening and longitudinally-arranged tapered surfaces, a bolt passing through the said opening and having a head for engagement with the tapering surfaces, and a locking-rod situated in the said opening between the bolt and one end of the opening, the locking-rod having a projecting combined handle and securing member, substantially as described.

5. A locking device comprising a longitudinally-movable member having a longitudinal opening, a bolt passing through the said opening and having means on one end held by the outer face of said member against longitudinal movement of the bolt through the said elongated opening, and a locking-rod situated in the said opening between the bolt and one end of the opening, the locking-rod having a projecting combined handle and securing member, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

NEWTON W. McCOURT.

Witnesses:

HERMAN H. NORTH,
EDWARD JIFKINS.