

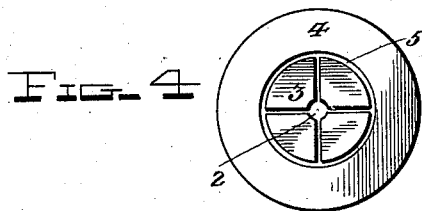
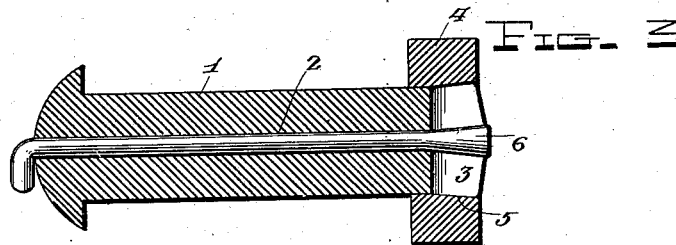
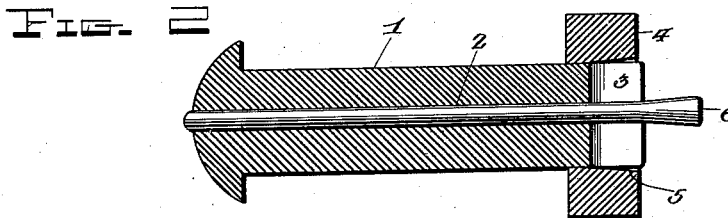
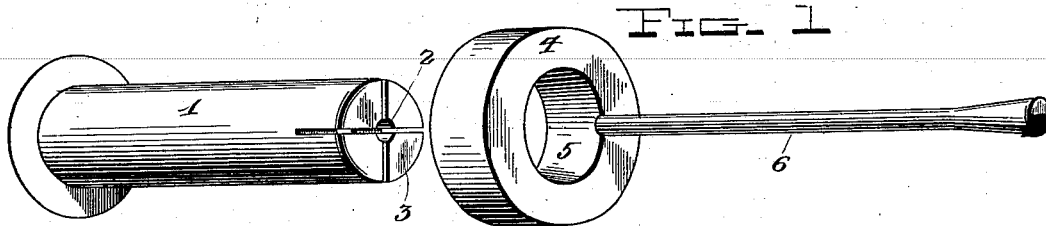
No. 650,208.

Patented May 22, 1900.

J. UNSER.
BOLT, WASHER, AND FASTENER.

(Application filed Sept. 21, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN UNSER, OF CARTHAGE, NEW YORK, ASSIGNOR TO JOSEPHINE M. UNSER, OF SAME PLACE, AND ARTHUR J. TOWN, OF NEW YORK, N.Y.

BOLT, WASHER, AND FASTENER.

SPECIFICATION forming part of Letters Patent No. 650,208, dated May 22, 1900.

Application filed September 21, 1899. Serial No. 731,194. (No model.)

To all whom it may concern:

Be it known that I, JOHN UNSER, a citizen of the United States, residing at Carthage, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Bolts, Washers, and Fasteners; 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.

The invention has relation to a bolt, washer, and fastener.

The object of the invention is to do away with the ordinary nuts and bolts and to provide in lieu thereof a strong and powerful fastening for rail-joints, one which will securely hold the fish-plate to the rails and will not work loose by the vibration of the rails incident to the passing trains.

With this object in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described, and particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of the bolt, washer, and its fastening-key, the parts being shown separated. Fig. 2 is a longitudinal sectional view, the parts being shown assembled and the key ready to be driven home. Fig. 3 is a similar view showing the key driven home and its inner end bent at right angles to its body portion to prevent its withdrawal from the bore of the bolt, and Fig. 4 is a face view of the washer and an end view of the bolt.

In the drawings, 1 denotes the bolt, which is preferably smooth throughout its entire length and is provided with a central bore 2. The end of this bolt is slitted at right angles to form the segments 3.

4 denotes the washer, provided with a central tapering orifice 5, and 6 denotes the key, the outer end of which is tapered or wedge-shaped.

In practice the bolt is inserted through the parts to be clamped together, the washer is placed upon the free ends of the bolt, and the key inserted into the bore of the bolt. The key is now driven home, its tapering end spreading apart the segments and forcing them into firm engagement with the tapering walls of the washer. The outer end of the key is now clenched or bent at right angles to its length, in which position it will be seen that it will be impossible for the washer to work loose, as the segments of the bolt are held spread apart by the tapering end of the key.

Should it be desired to remove the bolt, the inner end of the key is straightened or cut off and the key driven from the bore of the bolt, thus permitting the bolt to be driven from the washer.

It will of course be understood that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

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

The combination with the bolt having a central bore and having one end slitted, a washer having a tapering aperture, and a key having a tapering head, said key adapted to be driven into the bore and with its head expand the segments formed by the slitting of the bolt, so that they will engage the tapering wall of the washer-aperture, substantially as specified.

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

JOHN UNSER.

Witnesses:

P. W. LYMAN,
W. C. ROOT.