(No Model.)

W. A. JORDAN.

BOLT LOCK.

No. 384,206. Patented June 5, 1888.

Fig. 4.

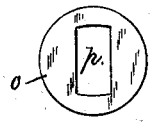


Fig. 1.

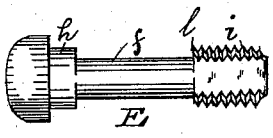


Fig. 5.

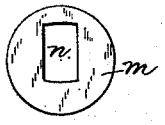


Fig. 2.

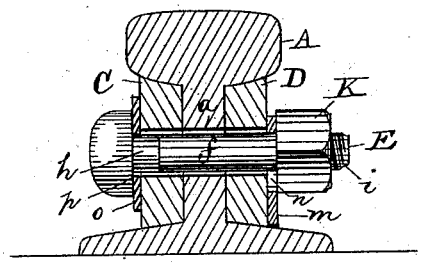
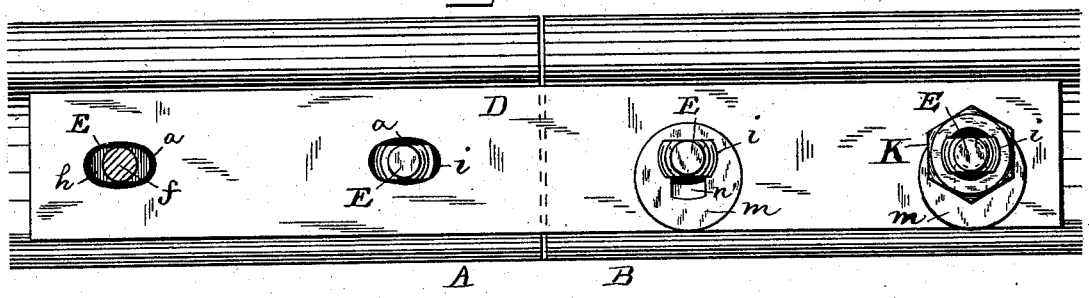


Fig. 3.



Witnesses.
Warren C. Stone.
Wm. N. Rowe,

Inventor.
William A. Jordan,
By his Attorney H. N. Jenkins.

UNITED STATES PATENT OFFICE.

WILLIAM ALEXANDER JORDAN, OF NEW ORLEANS, LOUISIANA.

BOLT-LOCK.

SPECIFICATION forming part of Letters Patent No. 384,206, dated June 5, 1888.

Application filed December 27, 1887. Serial No. 259,178. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ALEXANDER JORDAN, a citizen of the United States, and a resident of New Orleans, parish of Orleans, State of Louisiana, have invented new and useful Improvements in Bolt-Locks, of which the following is a full and exact description, reference being had to the accompanying drawings, making part of this specification.

This invention relates to certain new and improved means for locking bolts, and is intended more especially for that class of bolts which are employed for securing together the ends of railroad-rails, as well as the fish-plates commonly used in connection therewith.

My invention consists, first, in the novel construction of the bolt, and, second, in the combination, with said bolt, of a locking device independent of its screw-nut.

The invention also consists in certain arrangement and combination of parts, all of which are hereinafter fully described and specifically claimed.

On the drawings, Figure 1 is a longitudinal view of what may be termed the "upper" or "lower" surface of my improved bolt. Fig. 2 is a sectional view of a railroad-rail and fish-plates as when secured together with my improved bolt and locking device. Fig. 3 is a side elevation of the abutting ends of two rails with a fish-plate connection and bolts. Fig. 4 is a plan of a washer which is adapted to fit under the head of the bolt, and Fig. 5 a plan or top view of my locking device.

The letters A B designate the adjoining ends of two railroad-rails, and C D a pair of fish-plates or connecting-bars, all of which are provided with the ordinary longitudinal slots, *a*, for the reception of the bolts whereby they are secured together.

The letter E designates my improved bolt, which is provided with a round shank or stem, *f*, having enlarged flattened inner and outer portions, as shown at *h i*, respectively, in Figs. 1, 2, and 3.

The inner portion of the shank, or that part thereof which is next the head of the bolt, is made a little smaller in diameter than the slots in the fish-plates and in cross-section of about the same general form, in order that it may remain in a fixed position when inserted within one of the aforesaid slots.

The enlarged portion of the outer end of the bolt is provided with a screw-thread for the reception of a nut, K, and at the inner end of the screw-thread with a shoulder, *l*. The distance between this shoulder and the inner surface of the bolt-head is such as to correspond with the thickness of the web of a railroad-rail, the two fish-plates adapted to connect therewith, and the locking-plate and washer, hereinafter described.

The locking-plate is designated in the drawings by the letter *m*, and it consists of a circular washer having a slot, *n*, formed therein eccentric to the circumference of the washer. The configuration of the slot *n* is somewhat similar to the cross-section of the threaded end of the bolt, but of slightly-increased diameter, in order that it may be easily slipped over same to the rounded portion of the shank, where, on being released, its heaviest side will swing downward, and thus bring the slot-edges of the slot immediately in rear of the shoulders at the inner terminus of the threaded end of the bolt, by which means the said bolt is securely locked independent of its nut.

The washer (shown at *o*) is made of any yielding or springy material, and is provided with a central slot, *p*, of such size as to permit of its being readily slipped over the enlarged portions of the bolts; and its object is to cause a slight outward pressure against the inner surface of the bolt-head, and thus provide for inequalities in the thickness in the rails and plates and length of bolts, as well as to prevent the rattling consequent thereto.

From the above description it will be seen that the locking device operates entirely independent of the screw-nut, and is in itself a sufficient fastening to the bolt to securely hold the parts engaged thereby.

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

1. A bolt having a shank provided with enlarged flattened inner and outer portions, the enlargement at the outer end having a screw-thread thereon to receive a nut, substantially as and for the purpose set forth.

2. A bolt having a shank provided with an enlarged flattened outer end, and shoulders at the inner terminus of the said enlargement, in combination with a washer having a slot

therein eccentric to its diameter, whereby the aforesaid shoulders of the bolt are automatically engaged, substantially as described, and for the purpose set forth.

3. The combination of a bolt having a shank provided with enlarged flattened inner and outer portions, the latter having a screw-thread thereon, a washer provided with a slot adapted to slip over the end of the bolt and engage the shoulders at the inner end of its outer enlarged portion, and a screw-nut to fit the threaded end of the bolt, substantially as and for the purpose set forth.

4. In combination with the perforated ends of railroad-rails and the fish-plates adapted to connect same, the bolts E, each having a shank provided with an enlarged flattened inner and outer portion, the washers *m* and *o*, slotted as described, and the screw-nut K, adapted to fit a screw-thread on the outer end of the bolt, substantially as described, and for the purpose specified.

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

WILLIAM ALEXANDER JORDAN.

Witnesses:

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