

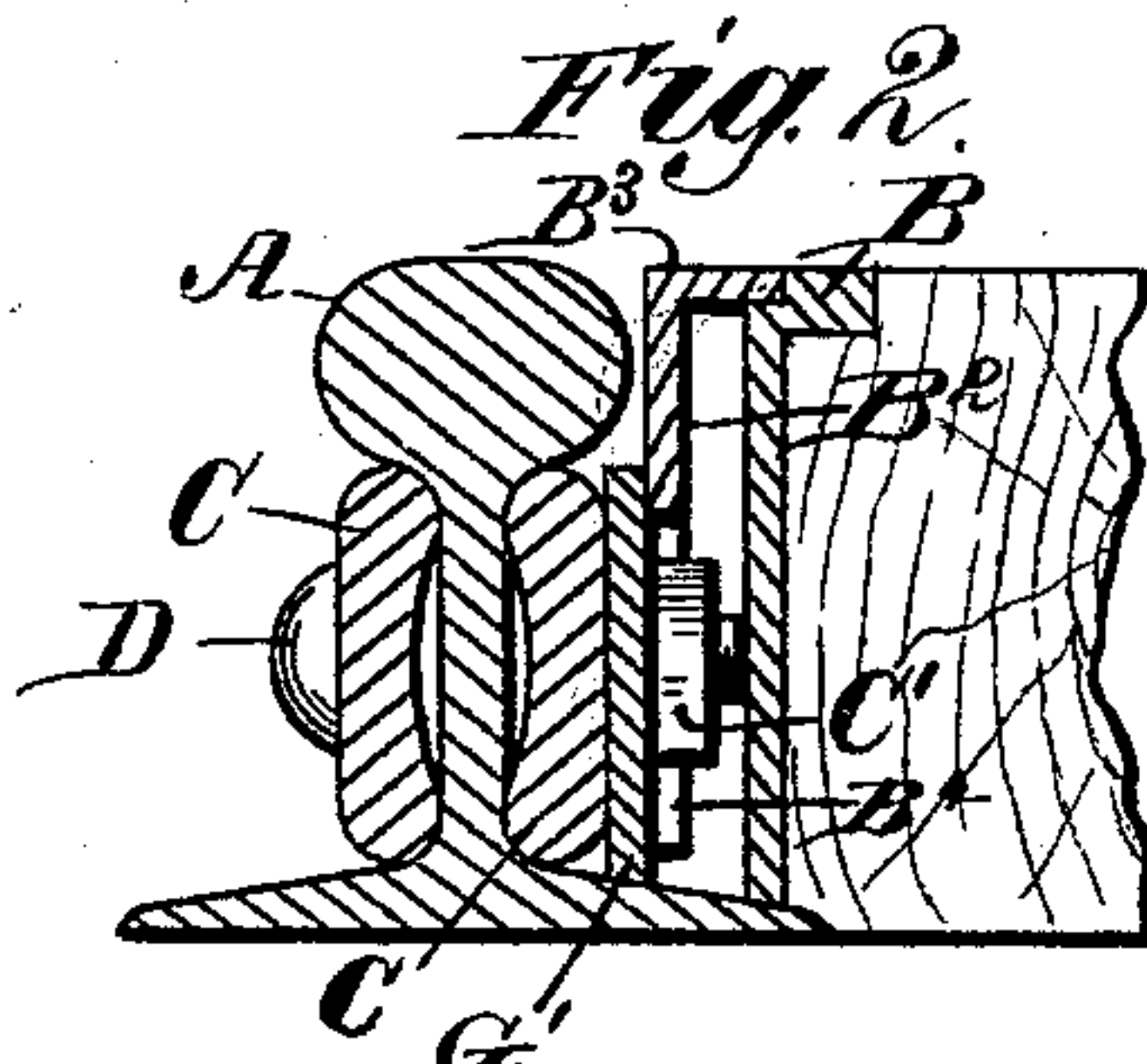
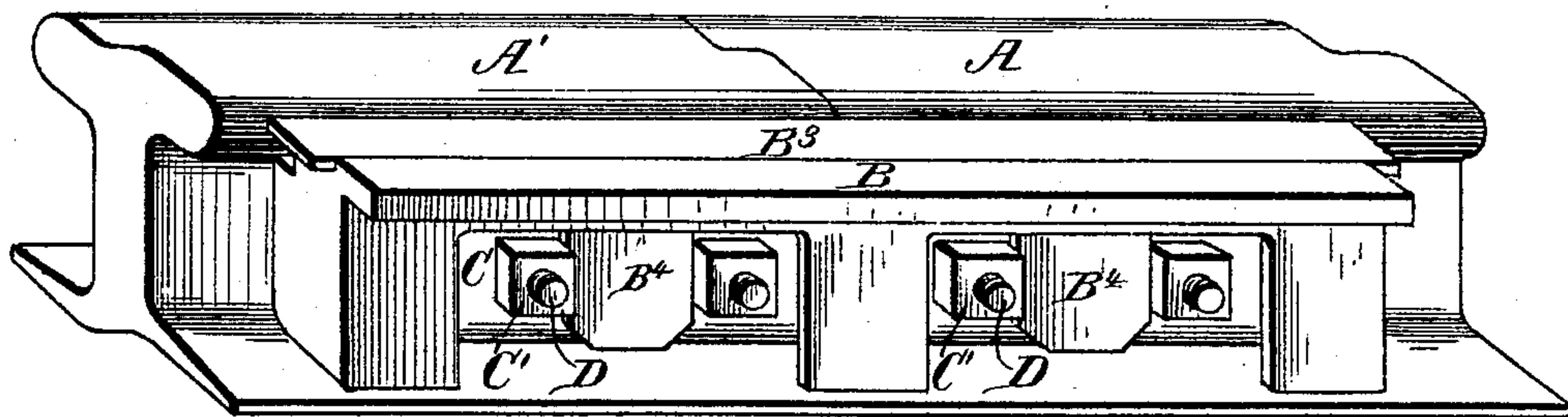
(No Model.)

A. R. PULLEN.  
FISH PLATE FASTENING.

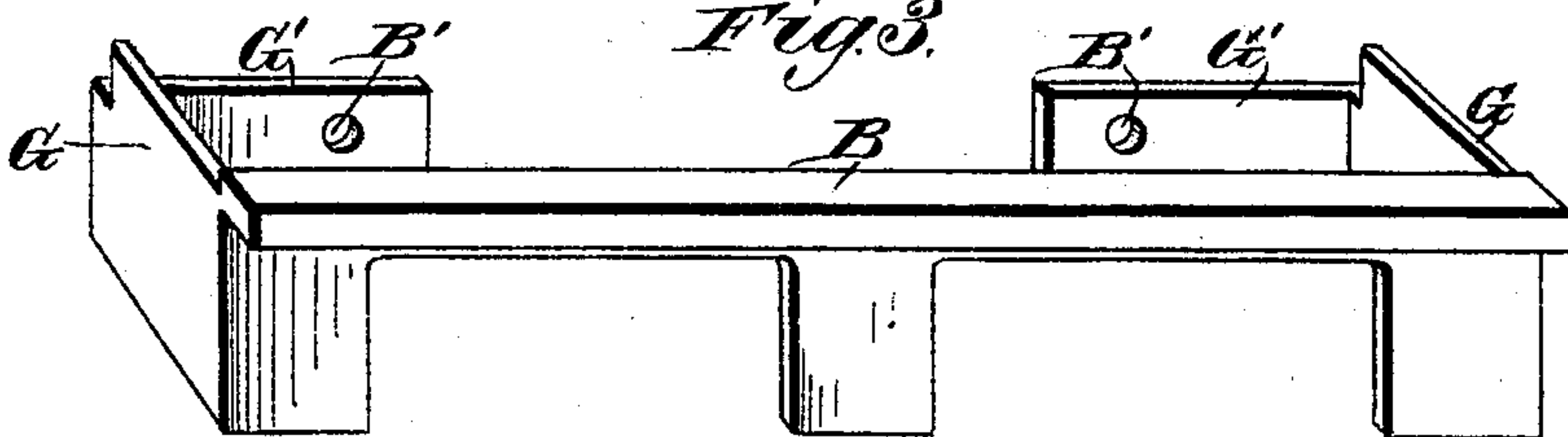
No. 594,362.

Patented Nov. 23, 1897.

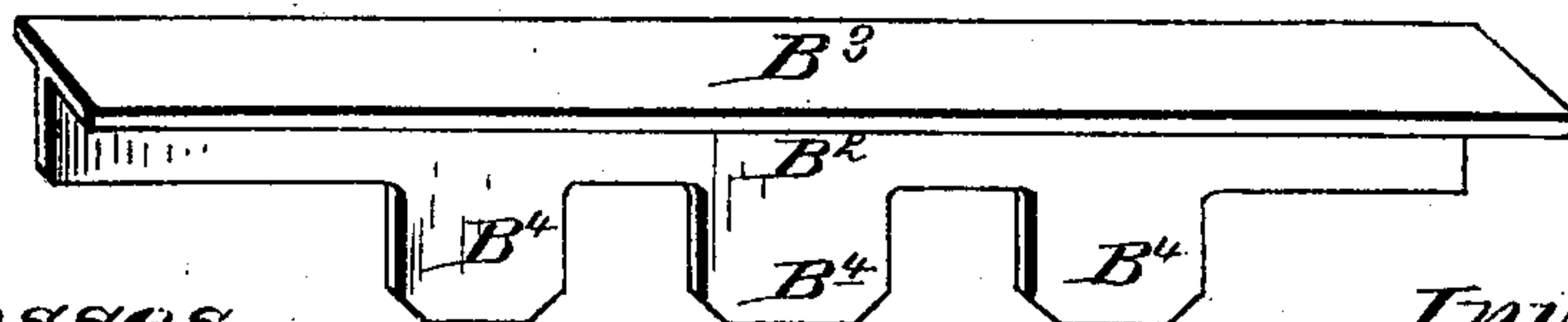
*Fig. 1.*



*Fig. 3.*



*Fig. 4.*



Witnesses,  
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# UNITED STATES PATENT OFFICE.

ALFRED ROBERTO PULLEN, OF PADDINGTON, NEW SOUTH WALES.

## FISH-PLATE FASTENING.

SPECIFICATION forming part of Letters Patent No. 594,362, dated November 23, 1897.

Application filed July 9, 1896. Serial No. 598,586. (No model.) Patented in New South Wales December 13, 1892, No. 4,176.

*To all whom it may concern:*

Be it known that I, ALFRED ROBERTO PULLEN, a subject of the Queen of Great Britain, residing at Liverpool Street, Paddington, near Sydney, in the British Colony of New South Wales, have invented new and useful Improvements in Fish-Plate Fastenings for Railways and Tramways, (for which I have obtained a patent in New South Wales, No. 4,176, dated December 13, 1892,) of which the following is a specification.

This invention relates to fish-plate fastenings for railways and tramways, and has for its object to provide a guard or protector box of improved construction that will operate to lock the nuts on the fish-bolts and protect the bolts and nuts against contact with the road or way and which will permit of the tightening of the nuts on the fish-bolts without disturbance of said road or way.

To this end my invention consists in the novel construction, combination, and arrangement of parts hereinafter described, and definitely pointed out in the claim following the description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a perspective view of my improved guard or protector box in position. Fig. 2 is a transverse section thereof. Fig. 3 is a detail perspective view of a part of the box, and Fig. 4 is a similar view of the cover and its attached nut-locking means.

Referring to the drawings, the reference letters A A' indicate the meeting ends of two meeting rails, which are fastened together in the usual manner by fish-plates C and bolts D.

The guard or protector box B is constructed at each end with a flange G, extending at right angles to the longitudinal part of the box. The flanges G are each provided at their inner ends with a web G', extending toward each other and parallel with the longitudinal front portion of the box and having a bolt-hole B'. The bolt-holes B' of the webs G' are designed to fit over two of the fish-bolts

D. The locking-plate B<sup>2</sup> is provided with a flange B<sup>3</sup>, forming a cover for the protector-box, and is also provided with a plurality of depending lugs B<sup>4</sup>, that are adapted to project between the nuts C', C<sup>2</sup>, C<sup>3</sup>, and C<sup>4</sup> and lock the latter against rotation.

In practice after the fish-plates have been set up in place and the bolts D have been passed through the rails and fish-plates the box B is slipped over the threaded ends of the bolts and the nuts screwed over the latter and tightened up, firmly binding together the rails and fish-plates and also securely attaching the box B in place. The nuts being in the position shown in Fig. 1 the locking-plate B<sup>2</sup> is dropped into place, the lugs B<sup>4</sup> projecting between the nuts and the lid B<sup>3</sup> covering the entire open top of the box. This operation completes the joint and effectually locks the nuts on the bolts. The box permits of the roadway being paved or laid close up to the rails and protects the nuts and bolts from dirt, grit, and the like. Should it become necessary to tighten up or remove the nuts, the same can be accomplished by removing the cover carrying the locking-plate without disturbing in any manner the roadway.

Having described my invention, what I claim is—

A protector-box for rail-joints having end flanges G provided with webs G' extending toward each other parallel with the longitudinal part of the box, said webs having perforations adapted to fit over the ends of the fish-bolts, of a locking-plate B<sup>2</sup> provided with a flanged cover B<sup>3</sup> and having depending lugs B<sup>4</sup> arranged to project between the nuts on the fish-bolt and lock them against rotation, substantially as described.

Dated this 20th day of May, 1896.

ALFRED ROBERTO PULLEN.

Witnesses:

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THOMAS JAMES WARD.