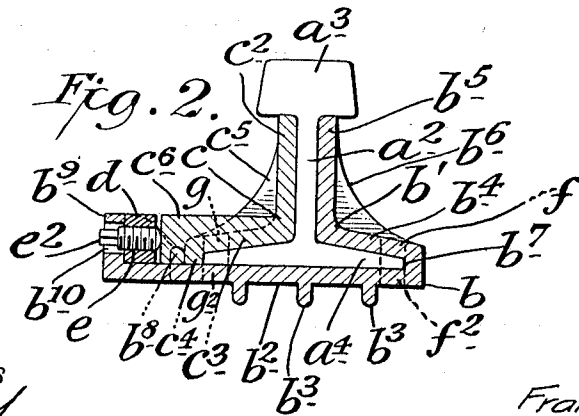
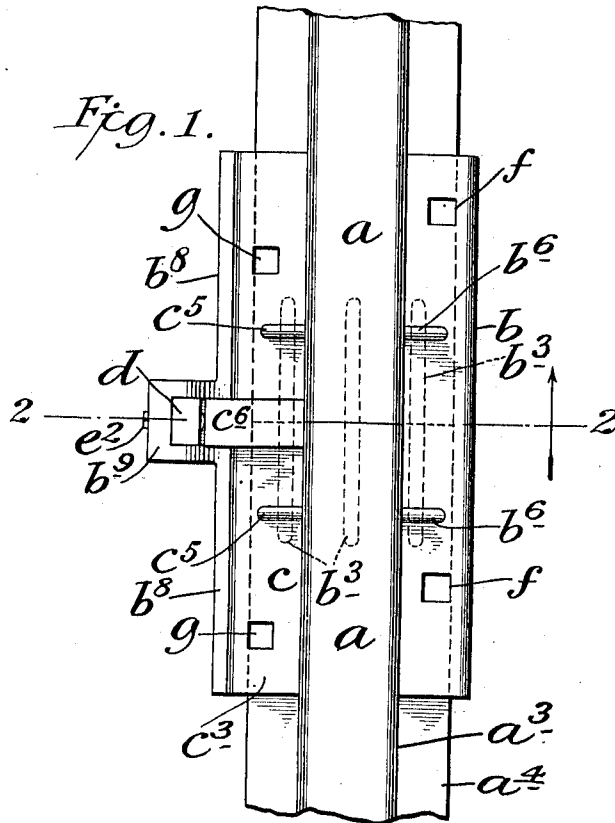


F. McCUE & F. E. MCCREA.
RAILWAY RAIL COUPLING.
APPLICATION FILED JAN. 20, 1912.

1,039,429.

Patented Sept. 24, 1912.



WITNESSES

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FRANK McCUE, OF NEW YORK, AND FREDERICK E. McCREA, OF TROY, NEW YORK.

RAILWAY-RAIL COUPLING.

1,039,429.

Specification of Letters Patent.

Patented Sept. 24, 1912.

Application filed January 20, 1912. Serial No. 672,410.

To all whom it may concern:

Be it known that we, FRANK McCUE and FREDERICK E. McCREA, citizens of the United States, and residing, respectively, at New York, in the county of New York, State of New York, and Troy, in the county of Rensselaer, State of New York, have invented certain new and useful Improvements in Railway-Rail Couplings, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to railway rail couplings and the object thereof is to provide a coupling of this class which will securely hold the ends of the rails in proper position relative to each other and which will prevent either the lateral or vertical movement thereof.

Our invention is an improvement on that described and claimed in United States Letters Patent No. 537,596 dated April 16, 1895, and said invention is fully disclosed in the following specification of which the accompanying drawing forms a part, in which the separate parts of our improvement are designated by suitable reference characters in each of the views, and in which:—

Figure 1. is a plan view of our improved railway rail coupling, and Fig. 2. a transverse section on the line 2—2 of Fig. 1.

In the accompanying drawing we have shown at *a* the abutting ends of two railway rails each of which comprises the usual vertical web portion *a*², the top portion *a*³ and the bottom flange portion consisting of the usual side flanges *a*⁴.

In the practice of our invention we provide a coupling *b*, comprising a base plate *b*², having longitudinally reinforcing ribs *b*³ on the bottom thereof, and provided at one side edge with a raised angle and retaining plate *b*¹ comprising an inwardly directed portion *b*⁴ and a vertically arranged portion *b*⁵, and having vertical rib portions *b*⁶ whereby said plate is strengthened or reinforced, and the inwardly directed portion *b*⁴ of the plate *b* forms a longitudinal chamber *b*⁷ adapted to receive one of the base flanges of the rails. The opposite side edge of the bottom plate *b*² of the coupling *b* is provided with a raised longitudinal flange *b*⁸, and mounted between the same, and the webs *a*² of the rails is an independently formed angle and retaining plate *c* which is of the same form in cross section as the

plate *b*¹ which is formed integral with the base plate *b*² of the coupling.

The plate *c* comprises a vertical portion *c*² and a bottom portion *c*³ having a downwardly directed flange *c*⁴, and this plate covers the corresponding base flange *a*⁴ of the rails and said plate is also provided with reinforcing ribs *c*⁵ and the plates *b*² and *c* take the place of the ordinary fish plates and devices of this class. The plate *c* is provided centrally of the bottom portion thereof with a transversely arranged, raised and extended, shoulder *c*⁶, and the flange *b*⁸ of the base plate *b*² is provided centrally with a corresponding outwardly directed keeper *b*⁹ adapted to receive the end of the shoulder *c*⁶, and placed loosely in the keeper *b*⁹ is a nut *d* adapted to bear against the outer wall of said keeper, and said outer wall of said keeper is provided with an aperture *b*¹⁰ through which is loosely passed a screw *e* which passes through said nut, and when the screw *e* is screwed fully home the inner end thereof bears on the shoulder and forces plate *c* into close contact with the web of the rails and the corresponding base flanges *a*⁴ thereof, as shown in Fig. 2. The outer end of the screw *e* is provided with a key-shaped or angular head *e*² which is of less dimensions than the aperture *b*¹⁰, and which is inclosed and protected by the keeper *b*⁹, and in practice a wrench is provided which is adapted to be inserted into the aperture *b*¹⁰ and engage the head *e*² and whereby said screw may be turned in either direction, and when said screw is in position for use, as shown in Fig. 2 the head *e*² thereof is protected by said keeper.

The bottom part *b*⁴ of the plate *b*¹ is provided with spike holes *f*, and the base plate *b*² of the coupling with corresponding spike holes at *f*², and the bottom part of the plate *c* is provided with spike holes *g* and the base plate with corresponding spike holes at *g*² and when the parts of the coupling are in position, spikes are driven through these holes in the usual manner and this secures the coupling and the ends of the rails and securely binds the ends of the rails together so as to prevent lateral or vertical movement thereof.

Any suitable nut may be used at *d* and all that is necessary is to provide the screw *e* and this avoids the boring and threading of the shoulder *c*⁶ as shown in the patent referred to, and renders our construction

much more simple and much less expensive and also more effective than that described and claimed in said patent, as the movement or strain on the coupling or parts in connection with which the nut *d* operates cannot break said screw and cannot misplace said nut.

Having fully described our invention what we claim as new and desire to secure by Letters Patent is:—

A railway rail coupling comprising a base plate provided at one side with an integral angle plate that overlaps the base flanges at one side of the rails and abuts against the webs thereof, a separate angle plate which overlaps the base flanges of the rails at the opposite side and abuts against the webs thereof, said separate plate being provided centrally thereof with a transverse shoulder, and said base plate being provided with

a raised keeper adapted to receive a nut placed loosely therein, the outer wall of said keeper being provided with an aperture, and a screw passed loosely through said aperture and through said nut and adapted to bear on said shoulder, the outer end of said screw being provided with an angular head of less dimensions than said aperture, and which is inclosed by the outer wall of the keeper when the screw is in operation.

In testimony that we claim the foregoing as our invention we have signed our names in presence of the subscribing witnesses this 19th day of January, 1912.

FRANK McCUE.
FREDERICK E. McCREA.

Witnesses:

C. E. MULREANY,
S. ANDREWS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."