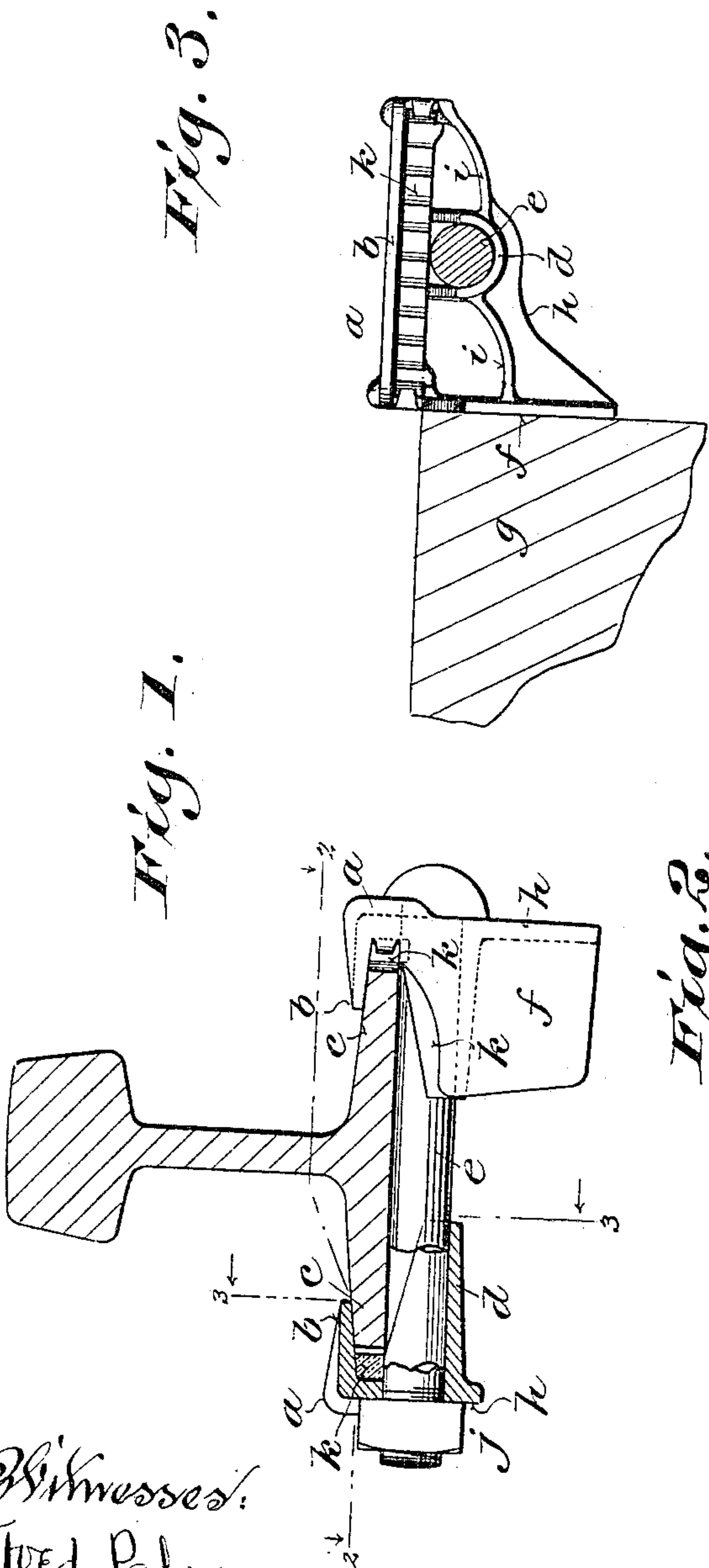


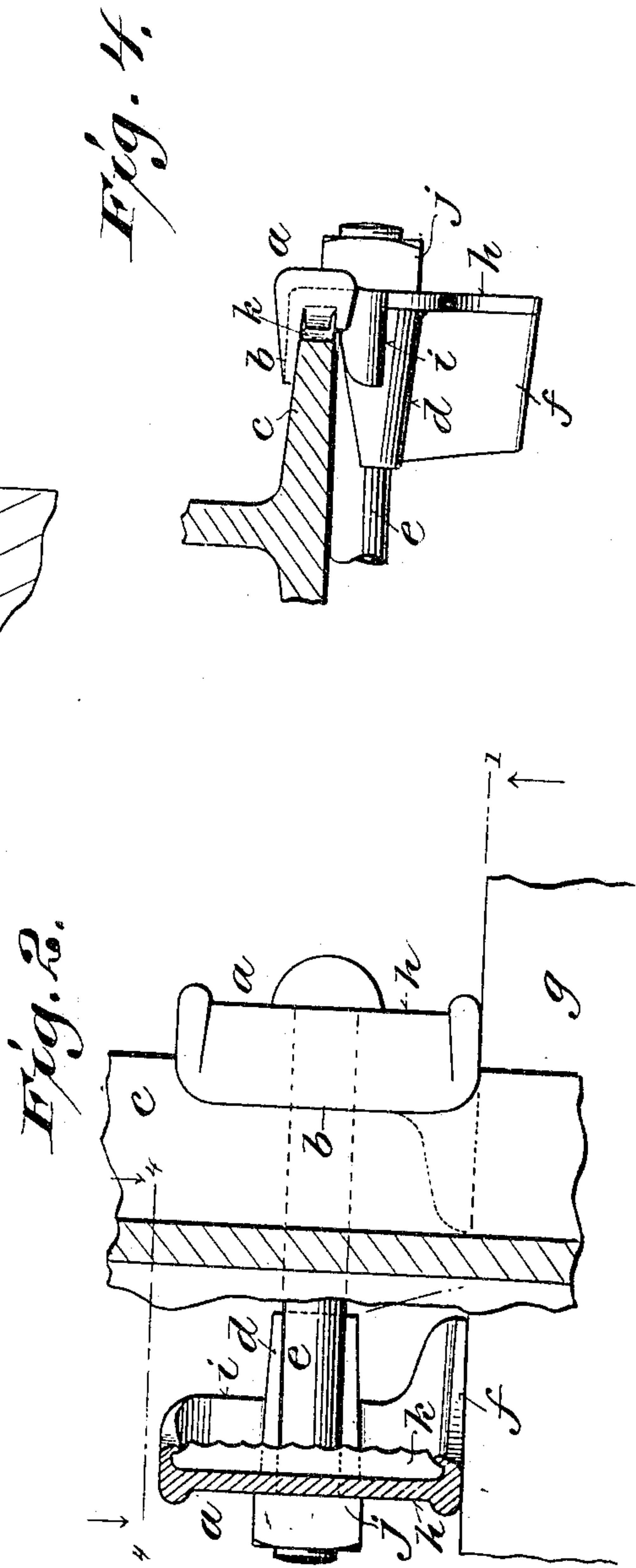
No. 819,175.

PATENTED MAY 1, 1906.

J. M. SCOTT.
RAIL ANCHOR.
APPLICATION FILED FEB. 27, 1906.



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UNITED STATES PATENT OFFICE.

JOHN M. SCOTT, OF RACINE, WISCONSIN.

RAIL-ANCHOR.

No. 819,175.

Specification of Letters Patent.

Patented May 1, 1906.

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To all whom it may concern:

Be it known that I, JOHN M. SCOTT, a citizen of the United States, residing at Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Rail-Anchors, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

10 The main objects of this invention are to prevent the longitudinal movement or creeping of railway-rails, to reduce the weight of the anchor without diminishing its strength and holding power, to facilitate casting, to
15 prevent bending the bolts which connect the jaws, and generally to improve the construction and operation of devices of this class.

20 The invention consists in certain novel features of construction and in the peculiar arrangement and combinations of parts, as hereinafter particularly described, and pointed out in the claims.

25 In the accompanying drawings like characters designate the same parts in the several figures.

30 Figure 1 is a view, partly in end elevation and partly in vertical cross-section, on the line 1 1, Fig. 2, of a rail-anchor embodying the present invention as applied to a railway-rail. Fig. 2 is a plan view and horizontal section on the line 2 2, Fig. 1, of the anchor in connection with a portion of a rail and of a cross-tie against which the anchor abuts. Fig. 3 is a vertical section on the line 3 3, Fig. 1, showing the inner side of one of the jaws of the anchor in elevation and a cross-section of a portion of a tie against which it bears; and Fig. 4 is a cross-section on the line 4 4, Fig. 2, of a portion of a rail, an end elevation of one
40 of the jaws, and a portion of the bolt for connecting it with the other jaw.

45 The anchor constituting the present invention comprises two jaws *a a*, which may be of the same form and construction, except that they are reversed, or made right and left to fit on the opposite flanges of a rail-base, as shown in Fig. 1. Each jaw is formed on the upper side with an inturned longitudinal flange or lip *b*, which is adapted to fit over
50 and engage with the upper inclined face of the base-flange *c* of a railway-rail. Below the lip or flange *b* the jaw is also formed with a transverse bolt-hole and on the under side of said hole with an inwardly-extended horizontal bearing *d* for the bolt *e*, which adjust-
55 ably connects the two jaws of the anchor and

clamps them upon a rail-base. At one end either or each jaw is formed with a depending bearing *f*, which is adapted to abut against the side of a cross-tie *g*, as shown in Figs. 2 60 and 3, and thus when the anchor is fastened on a rail to prevent longitudinal movement of the rail without carrying the cross-tie with it. This bearing is cut away on the upper side, as shown in Fig. 1, and does not come
65 in contact with the rail-base. On the outer side the jaw is formed with a vertical web *h*, through which the bolt-hole is made and which connects the lip or flange *b*, the bolt-bearing *d*, and the tie-bearing *f*. The jaw is
70 strengthened, and the bearings *d* and *f* are reinforced and braced by a flange *i*, projecting inwardly from the inner face of the web *h* some distance below the top of the bolt-hole. A large open recess is thus left between the
75 lip or flange *b* and the reinforcing-flange *i*, which greatly facilitates casting the jaw.

80 In applying the anchor to a rail a pair of right and left jaws are placed with their inturned flanges or lips *b* over the base-flanges of the rail. A bolt is then passed through the holes in the jaws below and close to or in contact with the rail-base, and a nut *j* is then
85 turned upon the threaded end of the bolt against the outer face of the adjoining jaw. In tightening the nut upon the bolt the jaws are drawn together and their flanges or lips *b* forced upwardly on the inclined upper faces of the base-flanges *c* of the rail. This draws
90 the upper side of the bolt *e* against the bottom of the rail-base and the inwardly-extended bearings *d* of the jaws against the under side of the bolt and firmly secures the anchor on the rail.

95 By locating the bolt-holes in the jaws the proper distance below the inturned flanges or lips *b* and providing the jaws with the inwardly-extended bearings *d* to engage with the under side of the bolt the tendency of the jaws to tip inwardly on the under side
100 when clamped upon a rail is materially reduced, lateral strain upon and bending of the bolt are avoided, and bearings on the jaws for the bottom of the rail-base are rendered unnecessary and dispensed with. In this way
105 the castings of which the anchor is composed may be reduced in weight without correspondingly reducing their strength and the holding power of the anchor and the molding of the castings is simplified and facilitated. 110

To insure a firm hold of the anchor on a rail and prevent the rail from slipping there-

in, one or each of the jaws may be provided, as shown, with a toothed bit *k*, inserted and held in the recess below the flange or lip *b* in position to engage with the base-flange of the rail.

Various changes and modifications in details of construction may be made within the scope of the invention without affecting the principle of the anchor.

I claim—

1. A rail-anchor comprising separate jaws, each formed on the upper side with an inturned longitudinal flange to fit over a rail-base and cut away below said flange to clear the rail, a bolt adjustably connecting said jaws and adapted to bear against the bottom of the rail, each jaw having a bearing against the under side of the bolt and one of the jaws having a depending bearing adapted to abut against the side of a tie, substantially as described.

2. A rail-anchor comprising separate jaws each formed on the upper side with an inturned longitudinal flange to fit over a rail-base, and with an inwardly-extended bearing on the under side of a transverse bolt-hole below said flange, a bolt adjustably connecting said jaws and adapted to bear against the bottom of the rail and to clamp the jaws out of contact with each other on the rail-base, one of said jaws having a depending bearing adapted to abut against the side of a tie, substantially as described.

3. A rail-anchor comprising separate jaws

each formed on the upper side with an inturned longitudinal flange to fit over a rail-base and cut away below said flange to clear the bottom of the rail, a bolt adjustably connecting said jaws and adapted to bear against the bottom of the rail, each jaw having an inwardly-extended bearing arranged to engage and support the bolt on its under side and at a distance from its ends and one of the jaws having a depending bearing adapted to abut against the side of a tie and cut away at the top to clear the rail, substantially as described.

4. A rail-anchor comprising separate jaws each formed at the top with an inturned longitudinal flange to fit over and engage with the upper inclined face of a rail-base, a vertical web having a bolt-hole through it below said flange, a bolt-supporting bearing extending inwardly from said web on the under side of the bolt-hole and a reinforcing-flange joining said web and bearing; a bolt adjustably connecting said jaws and adapted to bear against the bottom of the rail, each jaw being cut away or recessed below its top flange to clear the rail-base and one jaw having a depending bearing adapted to abut against the side of a tie, substantially as described.

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

JOHN M. SCOTT.

Witnesses:

ISABELLE CARNEY,
D. J. MOREY.