(No Model.)

J. GRAY.

RAILROAD SWITCH BRIDLE.

No. 270,544. Patented Jan. 9, 1883.

Fig. 1.

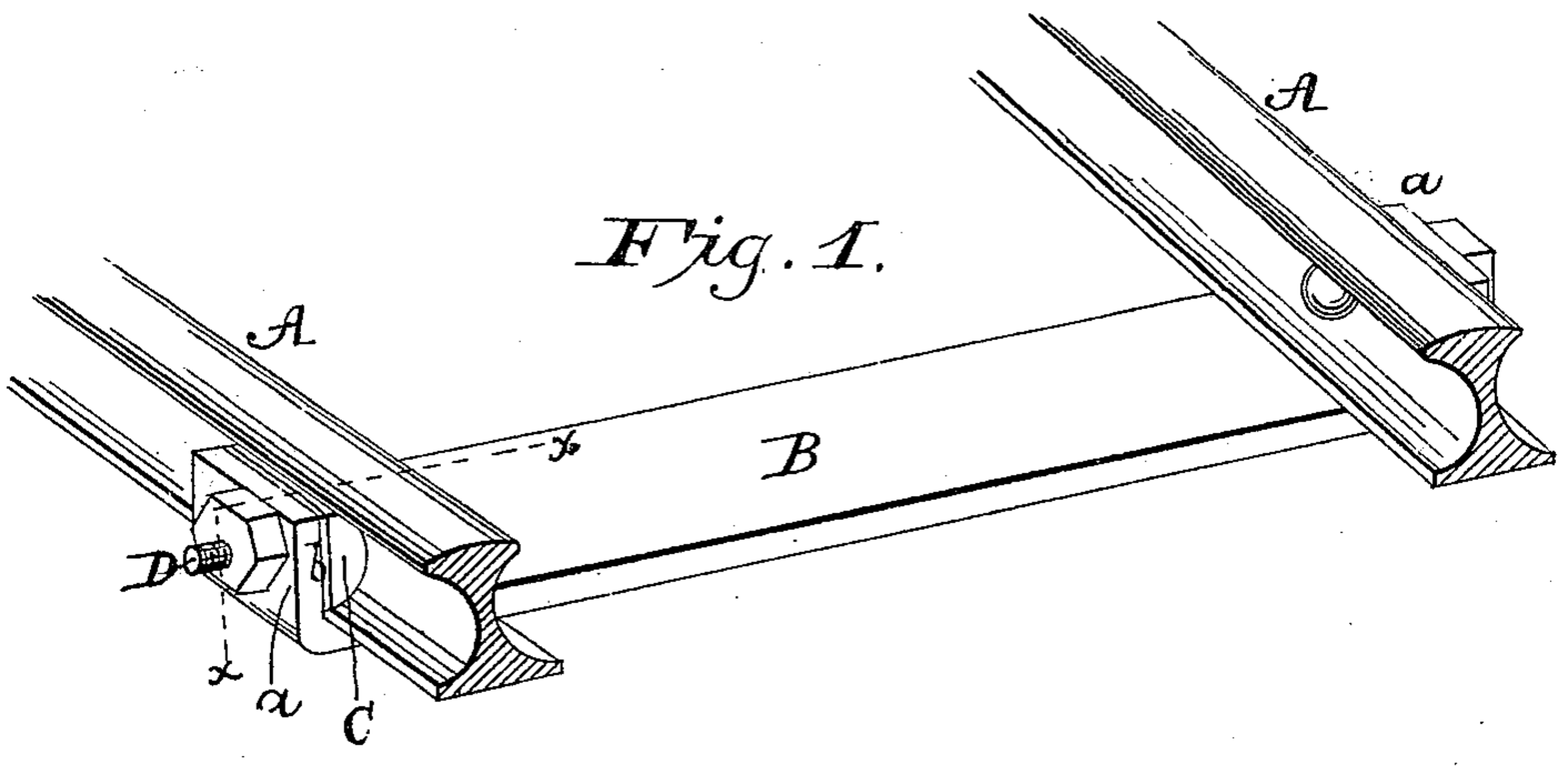
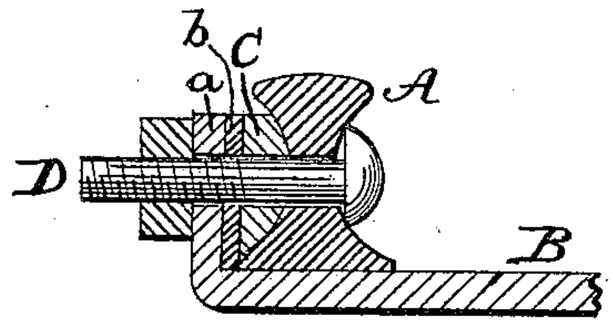


Fig. 2.



Witnesses:
F. M. Burnham.
W. R. Keyworth.

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UNITED STATES PATENT OFFICE.

JOSIAH GRAY, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF, AND WESTLEY HOLLENBECK, CONRAD B. SHEFLER, AND JACOB R. REED, ALL OF SAME PLACE.

RAILROAD-SWITCH BRIDLE.

SPECIFICATION forming part of Letters Patent No. 270,544, dated January 9, 1883.

Application filed August 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH GRAY, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railroad-Switch Bridles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a top view, showing two rail-sections connected by a metal bridle or cross-tie. Fig. 2 is a vertical cross-section through Fig. 1, taken in the plane indicated by dotted line *x x* thereon.

This invention relates to an improvement in connecting together railroad-rails so that at switches or at other points of the road the rails are held positively at a given gage and prevented from spreading.

The nature of my invention consists in the combination, with railroad-rails, of a metal tie bar or bridle having angular ends, in combination with fillets and through-bolts with interposed washers, as will be fully understood from the following description, when taken in connection with the annexed drawings.

A A designate two sections of railroad-rails, which may be of the well-known T shape in cross section, or which may be of any other suitable shape. These two sections A A are parallel to each other, and they may be switch or movable rails, or they may be stationary.

B designates a metal tie or bridle, preferably formed of a flat bar, as shown, and having its ends turned up at right angles, so as to form lips *a a*. The distance between the inner faces of the lips *a a* is equal to the gage of the track between the outer edges of the rail-bases of the rail-sections. Between the said upturned lips *a a* and the rail-necks I apply fillets C C, which are shaped to fit snugly against the outer sides of the rails below the heads thereof, and which have vertical outer sides, against which the lips *a a* impinge.

Should the gage of the tie or buckle not be the exact gage required for the rails A A, I use washers *b b*, as shown in Fig. 2.

The bolts D D are used for the purpose of rigidly securing together the tie or bridle, the rail, and the fillets C C.

The nuts which are applied on the bolts D D may or may not be provided with locking devices.

It is well known by railroad-engineers that owing to varying temperatures it is very difficult and expensive to maintain a uniform true gage to a track, and when tie-bridles are used with upturned ends the filling-blocks, which are between these and the outer sides of the rails, require to be frequently changed. By the use of thin metal plates between the filling-blocks and the upturned ends of the tie-bridles, as I above describe, the variations between the rails can be readily and cheaply compensated for without the use of expensive setting-up devices.

I am aware that fillets of wood have been used between the upturned ends of tie-bars and the rails secured by through-bolts, and this feature I do not broadly claim. By my invention I add to said parts thin metal plates, for the purpose described.

Having described my invention, I claim—

The combination, with the rail-sections A A, of the tie or bridle, the angular lips thereon, the fillets, the bolts, and the washers, all adapted to operate substantially in the manner and for the purposes described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSIAH GRAY.

Witnesses:
W. HOLLENBACK,
F. J. LOESCH.