(No Model.)

F. GETZ.

NUT LOCK.

No. 275,188. Patented Apr. 3, 1883.

Fig. 1.

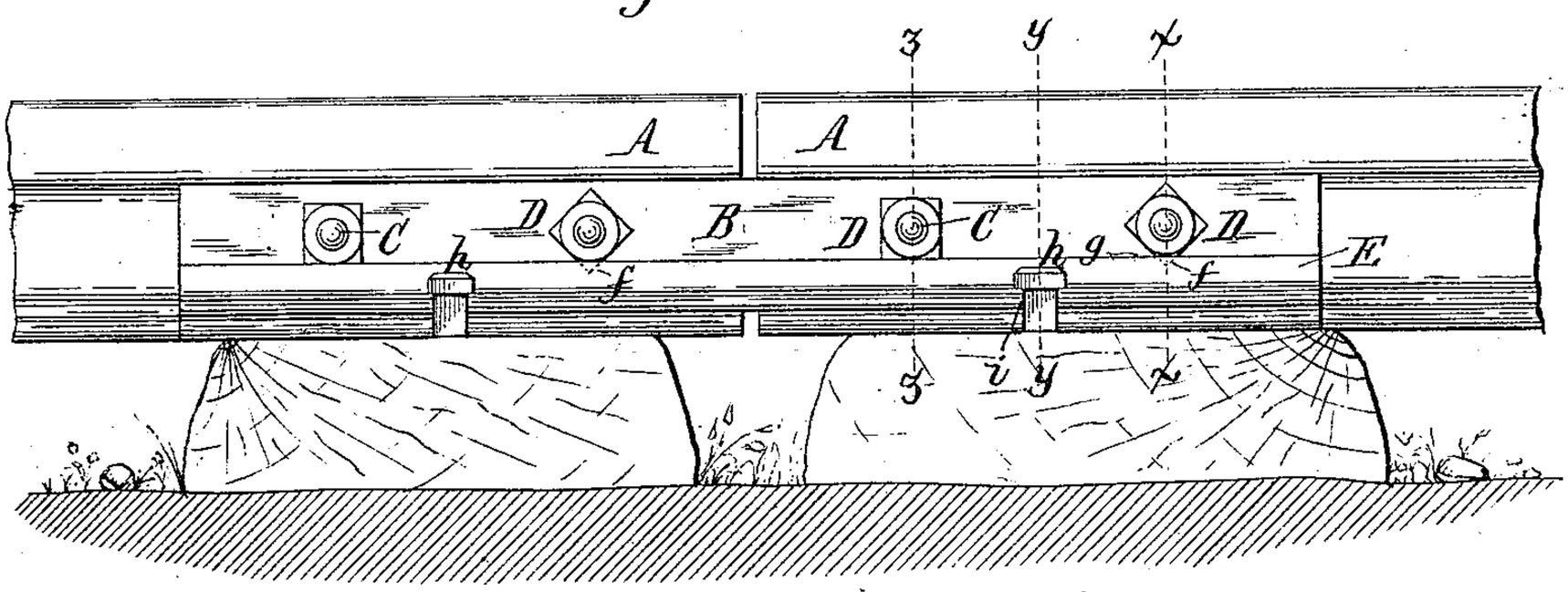


Fig. 2.

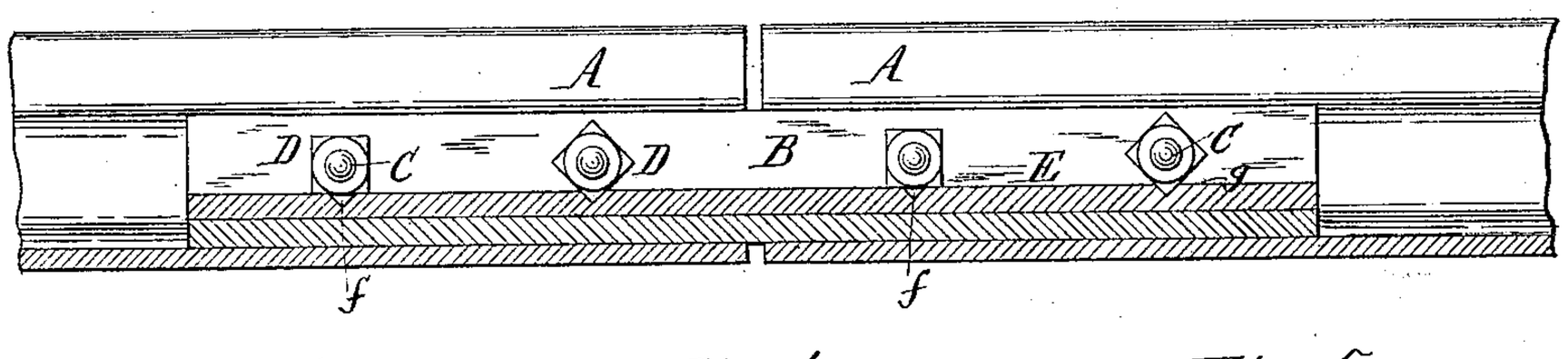


Fig. 3.

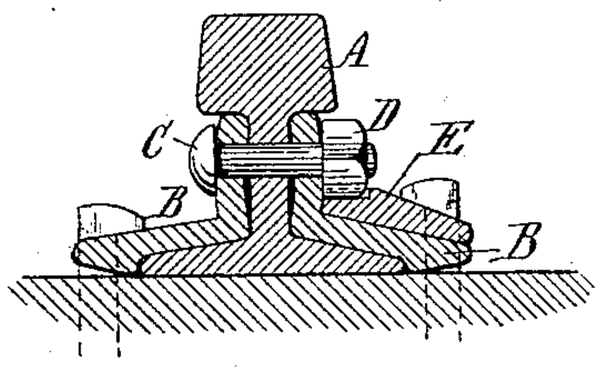


Fig. 4.

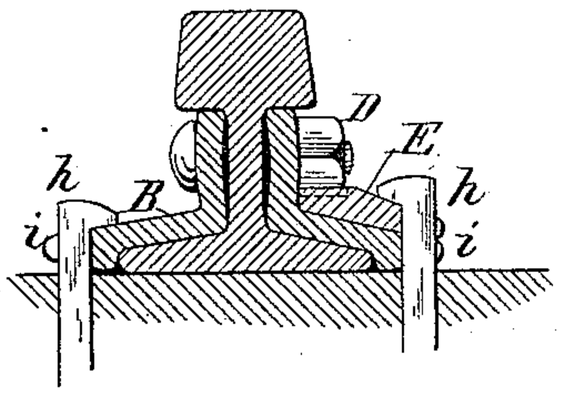


Fig. 5.

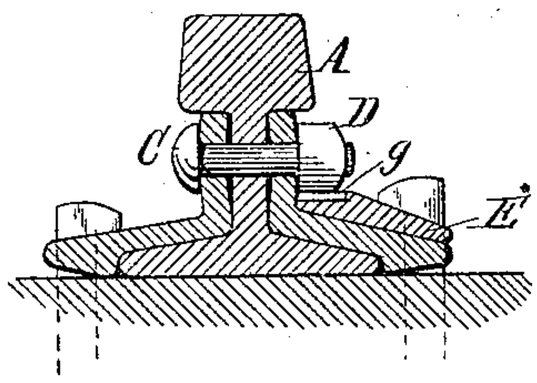


Fig. 6.

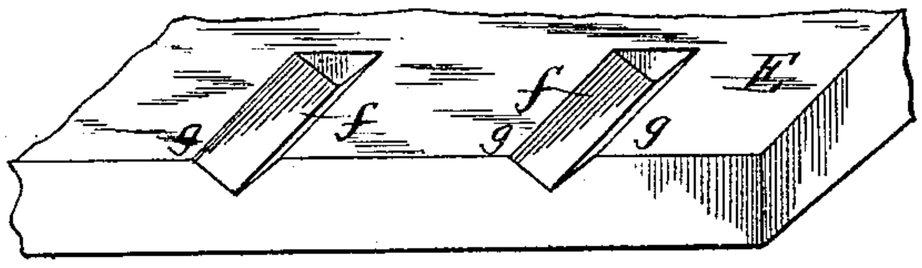
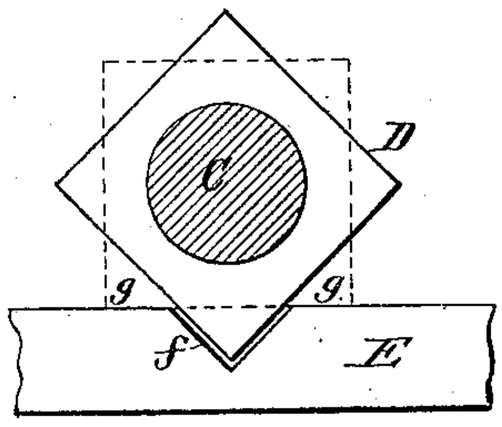


Fig. 7.



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UNITED STATES PATENT OFFICE.

FRANKLIN GETZ, OF TONAWANDA, NEW YORK.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 275,188, dated April 3, 1883.

Application filed February 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN GETZ, of Tonawanda, in the county of Niagara and State of New York, have invented a new and useful Improvement in Nut-Locks, of which the following is a specification.

This invention relates more particularly to that class of nut-locks which are employed in connection with the joints of railway-rails.

The object of this invention is the construction of a nut-lock which shall be simple and durable, and which can be easily applied and removed; and my invention consists of the particular construction of the lock, which will be hereinafter fully set forth, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation of a railway-rail joint provided with my improved nut-lock. Fig. 2 is a similar view with the nut-lock in section. Figs. 3, 4, and 5 are cross-sections in lines *x x*, *y y*, and *z z*, Fig. 1, respectively. Fig. 6 is a perspective view of a portion of a nut-lock, and Fig. 7 is an inside elevation of a portion of a nut-lock with one of the nuts in position.

Like letters of reference refer to like parts in the several figures.

A A represent the ends of two abutting railway-rails; B, the angle-splices or fish-plates applied to both sides of the rails; C, the screw-bolts which pass through the webs of the rails and the angle-splices, and D the screw-nuts applied to the screw-bolts C for securing the parts together, all constructed and arranged in a well-known manner.

E represents a locking bar or plate, which is arranged on that side of the joint to which the screw-nuts D are applied. This plate rests upon the base of the angle-splice, if an angle-splice is used, or upon the base of the rail when an ordinary fish-plate is used. The plate E is provided on its upper side, contiguous to its inner edge, with V-shaped notches or depressions *f*, which correspond in number and position with the screw-nuts D of the joint. The notches *f* are constructed of such size and form that the lower corners of the screw-nuts D project into the notches when the nuts are arranged with their corners downwardly, as represented in full lines in Fig. 7, whereby the nut is prevented from turning on its bolt when the locking-plate E is in place. The locking-plate E is made of such thickness at its inner edge that its upper surface, *g*, adjacent to the V-shaped notches *f*, will project under the screw-nuts D and stand in close proximity to the lower side of the screw-nut when the screw-nut is arranged with its lower side in a horizontal position, as indicated by dotted lines in Fig. 7. It is evident from this that the V-shaped notches *f* in the plate E will serve to lock those screw-nuts which stand with one corner downwardly, and that the upper surface of the locking-bar E, adjacent to the notches *f*, will serve to lock those screw-nuts which stand with their lower sides in a horizontal position. As the difference between the two positions mentioned amounts only to one-eighth of a turn, the screw-nuts can all be tightened in one or the other position, and all locked simultaneously by the application of the locking-plate E, which latter is secured in place by spikes *h*, passing through notches *i* in the outer edge of the locking-plate, and through similar notches in the base-flanges of the angle-splices.

The locking-plate E is readily constructed of cast or rod iron, and forms a very effective, durable, and cheap lock. When the nuts D rest upon the locking-plate E, the latter serves to support the ends of the rails, and thereby increases the strength and durability of the rail-joint, and prevents breakage of the fish-plates.

I claim as my invention—

The combination, with the rails A A, fish-plates B B, screw-bolts C, and screw-nuts D, of the locking-plate E, provided on its upper side with V-shaped notches *f* and adjacent horizontal surfaces, *g*, below the nuts, when disposed horizontally, whereby the screw-nuts may be locked in several positions, substantially as set forth.

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