

E. DEPRATOR.

RAIL.

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1,053,137.

Patented Feb. 11, 1913.

Fig. 2.

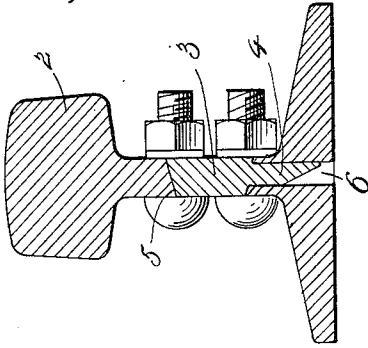


Fig. 4.

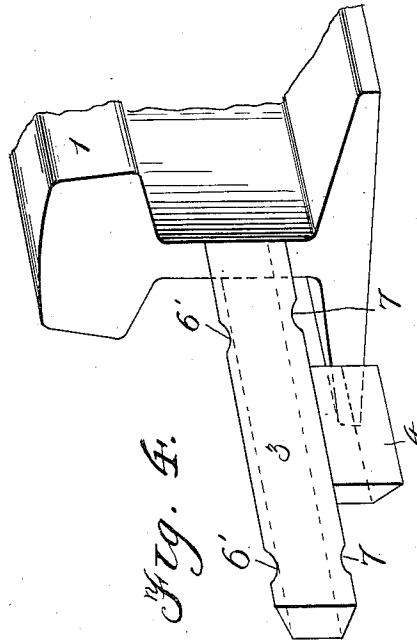


Fig. 1.

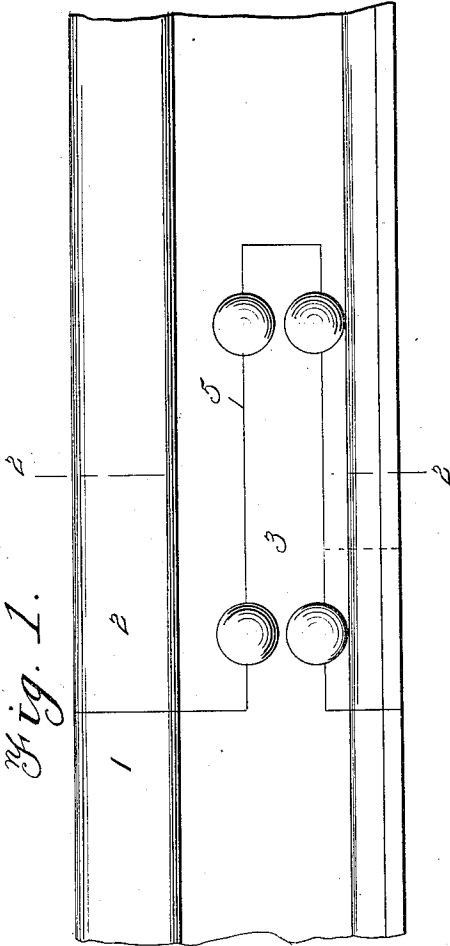
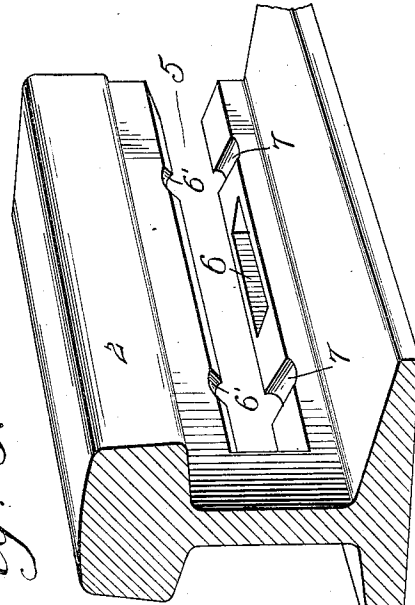


Fig. 3.



Witnesses

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RAIL.

1,053,137.

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To all whom it may concern:

Be it known that I, EDWARD DEPRATOR, a citizen of the United States, residing at Lewis Run, in the county of McKean and State of Pennsylvania, have invented new and useful Improvements in Rails, of which the following is a specification.

This invention relates to certain novel improvements in rail joints.

In carrying out my invention it is my purpose to provide the meeting ends of a pair of railway rails with means integrally formed with the said ends whereby the ends may be quickly and securely connected together.

Another object of the invention is to provide a simple and novel connection for railway rails, in which the employment of fish plates or analogous securing devices may be dispensed with.

With the above objects in view, and others of a similar nature, the invention resides in the construction, combination and arrangement of parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side elevation of a pair of railway rails constructed in accordance with the present invention, and showing the said rails secured one upon the other. Fig. 2 is a transverse sectional view taken upon the line 2—2 of Fig. 1. Fig. 3 is a perspective view of one of the rail ends. Fig. 4 is a similar view of the opposite rail end.

Referring now to the drawings in detail, the numerals 1 and 2 designate the meeting ends of a pair of railway rails. These rails are each formed in the usual manner, and the rail 1 has its web provided with a centrally arranged extending portion or tongue 3, the same having its under face formed with a depending finger 4. By reference to the several figures of the drawings, it will be noted that the upper longitudinal face of the tongue 3 is beveled or inclined in one direction or in other words the said upper face is inclined from one of its edges toward its opposite edge and its lower longitudinal extending wall is beveled or inclined in the opposite direction. It will be further noted that the depending finger 4 has one of its faces arranged at an angle from its bottom to a point below its juncture with the tongue 3.

The rail end 2 has its web provided with a centrally arranged slot 5, the same extend-

ing from the end of the rail a distance equaling that of the extension of the tongue 3 from its juncture with the rail 1. The upper and lower walls provided by this slot 5 are beveled or inclined in opposite directions to that of the beveled upper and lower walls of the tongue 3, so that when the beveled tongue is received within the slot 5, the walls of the tongue will snugly engage with the walls provided by the slot 5. The lower wall provided by the said slot 5 is formed with a depression or pocket 6, the said pocket having its walls arranged at an angle so as to snugly engage the finger 4 when the said finger is inserted within the pocket and the tongue within the groove 5. The upper wall of the tongue and that provided by the slot 5 are each formed with registering semi-cylindrical openings 6' and the said openings are adapted to receive securing elements, such as nuts and bolts, and whereby the tongue is securely retained within the groove 5, so that the employment of fish plates or analogous devices may be entirely dispensed with. It will be noted that the finger 4 is arranged approximately central of the tongue 3, and the bottom walls provided by the tongue as well as that by the slot 5 may be formed with semicircular openings 7 which are arranged upon the opposite sides of the tongue and pocket, which may also receive securing elements such as bolts and nuts therefor, similar to the securing element above referred to.

By arranging the walls or upper and lower faces of the tongue 3 at an angle, as well as by providing the finger 4 with a lower inclined or beveled portion, it will be noted that the rail 1 may be tilted at a slight angle to permit of the said tongue entering the pocket of the rail 2 and the said longitudinal faces of the tongue readily forced into position to engage with the beveled faces provided by the longitudinal portions formed by the groove 5. By providing one of the rail ends with the tongue 3 which engages with both the upper and lower walls formed by the slot 5, it will be noted that a vertical movement of the joint, in either direction, is prevented, and further that by providing the tongue with the finger 4 which is received within the slot or pocket 6, a lateral movement of the rail ends is also prevented, and so it will be noted that with my construction no additional means, except

those provided by the rails themselves, need be employed for effecting a perfectly rigid joint between the rail ends.

Having thus fully described the said invention, what I claim is:—

In a rail joint, the combination of meeting ends, of a pair of rails, one of said rails having its web provided with a tongue projecting horizontally therefrom, which is provided with longitudinal inclined edges, the said tongue being formed at a point between its ends with a down-turned finger, the lower longitudinal edge of which being inclined, the second rail end having its web centrally provided with a longitudinally extending slot, the horizontal walls of which being inclined in an opposite direction to the horizontal edges of the tongue, the lower wall of the slot being formed between its ends with a pocket which extends entirely through the

base flange of the rails, the tongue of the first named rail adapted to be received within the slot of the second rail and to have its finger arranged within the pocket of the said second rail, whereby either a vertical or transverse movement of the rail ends is prevented, and securing elements comprising nuts and bolts passing through the edges of the tongue and the walls provided by the slots and contacting with the tongue and with the opposite faces of the rail formed with the slot.

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

EDWARD ^{his} X DEPRATOR.
mark

Witnesses:

THERESIA DEPRATOR,
MARY HAVEN.

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