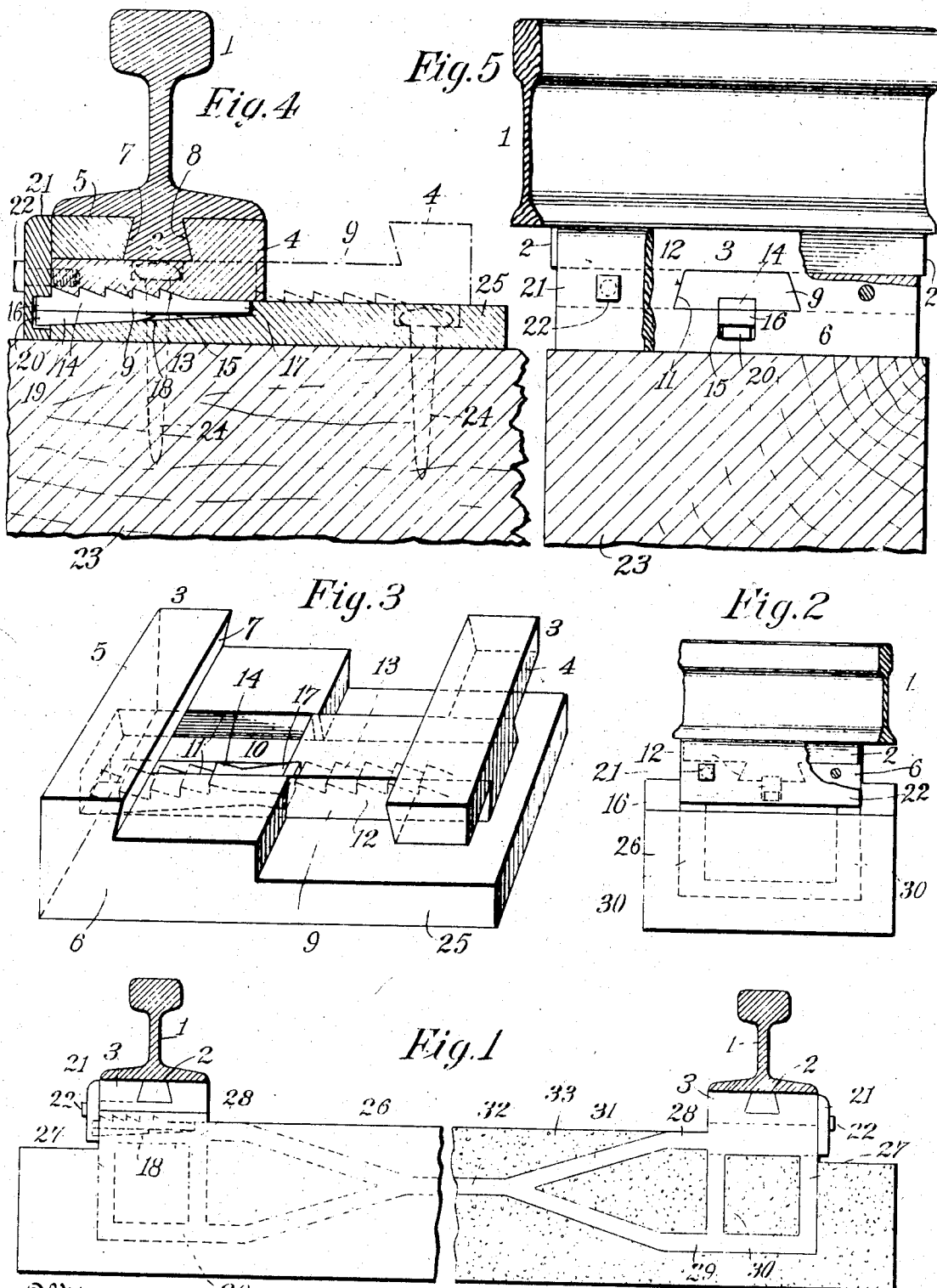


1,022,786.

Patented Apr. 9, 1912.



Witnesses:
L. B. King
C. J. Merrill

Inventor
William Iring
By his attorney
Samuel C. Eaton

UNITED STATES PATENT OFFICE.

WILLIAM IRING, OF NEW YORK, N. Y.

RAIL-FASTENING.

1,022,786.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed June 7, 1911. Serial No. 631,839.

To all whom it may concern:

Be it known that I, WILLIAM IRING, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Rail-Fastenings, of which the following is a specification.

My invention relates to rail fastening devices, and comprises mechanism whereby a rail may be securely held in place without the need of spikes or similar means, as are usually employed.

The object of my invention is also to provide a fastener especially neat in appearance by so constructing the fastening means that it will be concealed from view, but of sufficient strength to adequately hold the rail in place.

Referring to the drawing forming part of this specification, Figure 1 is an elevation of my fastener and tie with the rails shown in section; Fig. 2 is an end of Fig. 1; Fig. 3 is a perspective of the rail fastener opened out; Fig. 4 is a longitudinal elevation in section of the fastener but showing it applied to a wooden tie; and Fig. 5 is an end view of Fig. 4 with the facing plate removed.

My fastener is intended for use with an ordinary rail 1, except that it is provided at intervals corresponding to the positioning of the ties with dovetailed lock blocks 2 preferably formed integrally therewith.

My fastening means comprises a grip 3 for holding the rail fast by means of the lock block. For the purpose of installing the rail at least one jaw of the grip is made movable relative to the other. In the drawing the jaw 4 is made to be moved, while the jaw 5 is rigidly secured. It is in this case made integral with a plate 6 which forms the base of my device. The jaws have inner faces 7, 8, of suitable bevel to sit snugly against the corresponding faces of the lock block to lock it and the rail securely in place. The movable jaw has projecting from its bottom and extending from the inner side thereof a locking bar 9. The plate 6 is formed with an aperture 10 for receiving the bar 9 in sliding engagement therewith. The aperture preferably extends from front to rear of the plate, and the sides 11, 11 thereof are given a suitable bevel to engage a corresponding bevel on the sides 12 of the bar 9. This securely holds the bar against rising,

but permits it to freely slide therein to fa-

cilitate a proper moving of the jaw 4 when placing or removing a rail.

Means are provided for holding the jaw securely in place when brought against the rail, as shown in Fig. 4. The preferred construction for this feature are sets of interlocking teeth, one set being capable of moving to and from the other for engaging therewith. I prefer to form the rigid set of teeth 13 upon the bar 9. For the other teeth I provide a rack bar 14. This is sunk within a recess 15 forward in the bed of the plate. The rack bar extends beyond the plate at the rear, providing a handle 16 for moving the rack into and out of engagement with the teeth above. To prevent any end movement of the rack bar outwardly, its forward end 17 is preferably enlarged and seated within a corresponding enlargement in the recess 15. This end abuts against the end of the recess 15 as a holding means against the displacement of the rail. The relative sizes of the rack bar 14 and recess 15 are such that the rack may have the required up and down movement at the rear end. This is preferably accomplished by giving the base of the recess 15 a sufficiently slanting base 18 from the front to the rear, thus permitting the rack to have a swinging movement about its forward end. To hold the rack bar in its engaged position a wedge 19 is provided which is placed between the rack bar and base 18. The wedge preferably extends beyond the rear of the plate similar to the rack bar, to afford a handle for placing it in position. These protruding ends are concealed by a face plate 21, which is secured in place by bolts 22.

Figs. 4 and 5 show my device secured to a wooden tie 23 by means of spikes 24. When thus used, the plate is preferably made longer by forming thereon the extension 25, which is of a less thickness than the plate proper, to permit the outward movement of the jaw 4. This extension adds strength to the device and provides better means for the spikes 24.

Figs. 1 and 2 show my fastener used with a combination iron and cement tie 26. The metal part thereof comprises rectangular supporting boxes 27, having a top and bottom plate 28 and 29, the top plate being similar to the plate already described. Between these plates are the uprights 30. The upper and lower plates are continued to

ward the center and preferably converge, as shown at 31, until they meet at the center in a single plate 32. This metal construction is entirely embedded in a block of cement 5 33, and acts upon the cement as a reinforcement at the same time strongly tying the two rails together independent of the cement structure.

Having thus described my invention, I 10 claim:

1. The combination with a rail having a lock block, of a plate, a block gripping jaw secured to the plate, a second block gripping jaw secured in the plate to have movement, 15 and means for securing the second jaw in block gripping position.

2. The combination with a rail having a lock block, of a plate, a block gripping jaw formed on the plate, a second block gripping jaw secured in the plate to have movement, and a pair of racks adapted to engage one another to hold the second jaw in block gripping position. 20

3. The combination with a tie and a rail 25 having a lock block, of a plate, a block grip-

ping jaw formed on the plate, a second block gripping jaw secured in the plate to have movement, means for securing the second jaw in block gripping position, and means for securing the said plate to the tie. 30

4. A rail having a dovetail lock block, a plate, a jaw formed on said plate for engaging one side of said block, a jaw slidable on said plate for engaging the other side of said block, a dovetail bar formed on the 35 movable jaw and engaging a corresponding orifice in the plate, a set of teeth formed on said bar, a rack bar secured within said plate to have movement to and from said teeth, a handle for said rack bar, a wedge 40 for holding said rack bar in engagement with said teeth, a handle for said wedge, and a facing plate for concealing said handles.

In testimony whereof I have hereunto set 45 my hand in the presence of two witnesses:

WILLIAM IRING.

Witnesses:

OLIVE B. KING,

GERTRUDE W. MARTLING.