

(No Model.)

F. W. WILSON,
RAIL FASTENING DEVICE.

No. 567,873.

Patented Sept. 15, 1896.

Fig 1

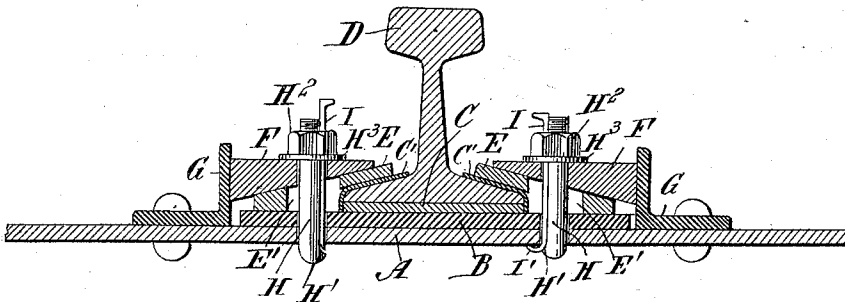
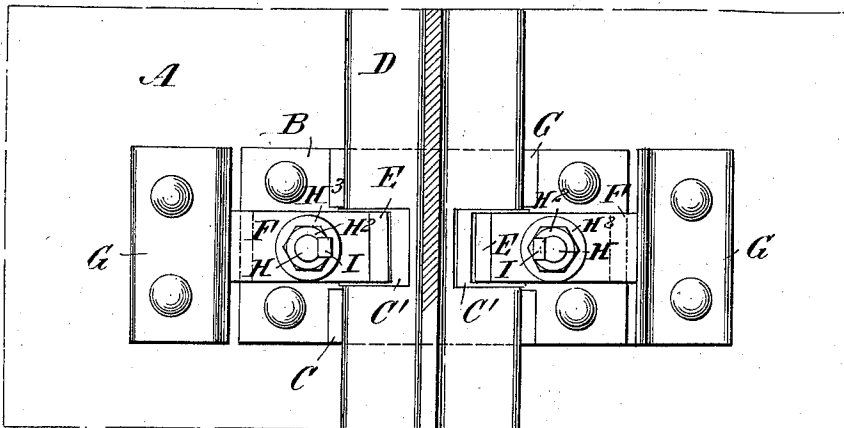


Fig 2



WITNESSES:
Paul J. Baker
Rev. G. H. Foster

INVENTOR
F. W. Wilson
BY *man*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FRANCIS W. WILSON, OF NEW YORK, N. Y., ASSIGNOR TO WILLARD H. GOULD AND ISAAC F. ROE, OF NEWARK, NEW JERSEY.

RAIL-FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 567,873, dated September 15, 1896.

Application filed June 25, 1896. Serial No. 596,898. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS W. WILSON, of New York city, in the county and State of New York, have invented a new and Improved Rail-Fastening Device, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved rail-fastening device which is simple and durable in construction, arranged to permit of readily placing the bolts in position from above, and to permit of properly adjusting the rail laterally and longitudinally until the desired position is reached.

The invention consists principally of a bolt provided at one end with a projection and at the opposite end with a threaded key adapted to be driven along the said bolt to strike the said projection and curved therefrom in an outward direction, so as to form a retaining-lip, the bolt being reduced to receive the key and allow free operation of the nut.

The invention further consists of a rail-clip adapted to engage the flange of the rail, and formed with an inclined top surface, a wedge-shaped clip abutting with its base against a fixed object, and engaging with its inclined face the said top surface of the rail-clip, and a fastening device for holding the clips together and the rail-clip in contact with the flange of the rail.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a cross-section of the improvement, and Fig. 2 is a plan view of the same.

The improved rail-fastening device is provided with a metallic or other support A, on which rests a rail-plate B, adapted to support thin pieces C of a sound-deadening material, such as fiber, on which rests the base of the rail D, as plainly indicated in Fig. 2. Each flange of the rail is engaged on its top surface by a rail-clip E, formed with an in-

clined top surface and resting on the rail-plate B, a thin piece C' of a sound-deadening material being preferably interposed between the top surface of the flange of the rail D and the clip E, as shown in Fig. 2. The inclined top surface of the said clip is engaged by the inclined face of a wedge-shaped clip F, resting with its base on an angle-iron G or other device fastened securely in place on the top of the support A. The rail-clip E is formed with an elongated aperture E' for the passage of a bolt H, also passing through openings in the clip F, the plate B, and the support A. One side of the bolt H is flattened, and from the lower end of the bolt extends a flange or projection H' directly over the flattened surface, as plainly shown in Fig. 1. Now this flattened surface of the bolt H forms a pathway for a key I, preferably made of soft iron or steel, so that when the key is driven down along the bolt H then the lower end on striking the flange or projection H' curves outwardly and upwardly to form a retaining-lip I', engaging the under side of the support A. By this arrangement I am enabled to insert the bolt H from above through the openings in the clips F E, the plate B, and the support A, it being understood that the projection or flange H' is sufficiently small to permit the passage of the flange through the openings mentioned. When the lip I' is formed as above described, then the bolt H is drawn up tight by screwing up the nut H², resting on a washer H³, engaging the top surface of the clip F. Thus by the arrangement described the clip E is securely drawn in place on the flange of the rail D to fasten the latter very firmly in position. It will further be seen that by loosening the nut H² the operator can shift the rail D longitudinally as well as laterally, as the elongated aperture E' in the clip E permits such movement, and the clip F at all times presents a horizontal top surface owing to its inclined face resting on the correspondingly-shaped top surface of the clip E. Thus by the arrangement described the clip F presents at all times a horizontal surface for the washer H³ to permit of screwing the nut H² in firm contact with the washer, so as to clamp the several parts securely together. The bolt H

can be removed by first drawing the key I by means of a crowbar, such as is used by trackmen. Insulating or sound-deadening materials may be introduced between the rails and its supports and fastenings, if desired, and as shown in the drawings, but the same may be omitted if deemed necessary.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A rail-fastening device, comprising a rail-clip adapted to engage the flange of the rail and formed with an inclined top surface, a wedge-shaped clip abutting with its base on a fixed object, and engaging with its inclined face the said top surface of the rail-clip, and a fastening for holding the clips together and the rail-clip in contact with the flange of the rail, substantially as shown and described.
2. A rail-fastening device, comprising a support, a rail-plate adapted to carry the rail, a rail-clip resting on the said rail-plate and engaging the flange of the rail, the top surface of the said rail-clip being inclined, a wedge-shaped clip engaging with its inclined face the top surface of the said rail-clip, and a fastening for holding the clips together and the rail-clip in contact with the flange of the rail, substantially as shown and described.
3. A rail-fastening device, comprising a support, a rail-plate adapted to support a rail, a rail-clip resting on the said rail-plate and

engaging the flange of the rail, the rail-clip being formed with an inclined top surface, and an elongated aperture, a wedge-shaped clip engaging with its inclined face the top surface of the said rail-clip, a fixed part fastened to the said support and engaging the base of the said wedge-shaped clip, a bolt passing through the said elongated aperture in the rail-clip and through openings in the said wedge-shaped clip, the rail-plate and support, and a key adapted to be driven along the flattened surface of the said bolt to engage and strike a projection on the bolt, so that the said key curves outwardly to form a retaining-lip abutting against the under side of the said support, substantially as shown and described.

4. A rail-fastening device provided with a bolt having a reduced portion running longitudinally therewith and having a projection at one end and a thread at the opposite end, a pliable key running in the reduced portion and capable of engaging the projection to be bent thereby, whereby to form means for locking the bolt in place, and a nut operating on the threaded end of the bolt and having the key passed through it, substantially as described.

FRANCIS W. WILSON.

Witnesses:

A. LANSING BAIRD,
DAVID C. GRANT.