

UNITED STATES PATENT OFFICE.

PIETRO RUGGERI, OF VARNA, ILLINOIS.

RAILWAY-RAIL FASTENER.

1,292,079.

Specification of Letters Patent.

Patented Jan. 21, 1919.

Application filed June 28, 1918. Serial No. 242,410.

To all whom it may concern:

Be it known that I, PIETRO RUGGERI, a citizen of Italy, residing at Varna, in the county of Marshall, State of Illinois, have invented certain new and useful Improvements in Railway-Rail Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in railway rail fasteners.

One object of the present invention is to provide a novel and improved device of this character whereby the rail can be effectively held in proper position on the tie without danger of spreading or creeping.

Another object is to provide a novel and improved device for fastening rails to the ties without the use of spikes or bolts.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawing.

In the drawing:

Figure 1 is a top plan view of a portion of a rail and tie showing my invention applied thereto.

Fig. 2 is a side elevation of the rail with the invention applied and the tie being shown in fragmentary section.

Fig. 3 is a vertical transverse sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 3.

Referring particularly to the accompanying drawing, 10 represents a portion of a tie and 11 a portion of the rail which is secured thereon by means of my improved rail fastener.

Disposed on the end portion of the upper face of the tie, and extending longitudinally beneath the base of the rail, is a metal plate 12, the same being formed with the rail base engaging lip 13 at one end, and a second similar lip 14 adjacent the other end. This second lip, however, is spaced a distance from the adjacent edge of the rail base and has formed at one end the inwardly projecting lug 15. The inner face of the lip 14 inclines toward the end which carries the said lug, and between the lip and the adjacent edge of the rail base there is slipped a wedge key bar 16. One of the edges of the wedge key is beveled, as at 17

to fit the general inclination of the face of the lip 14. The opposite face of the key is formed with a longitudinal groove 17 which receives the adjacent edge of the rail base, as clearly seen in Fig. 3, of the drawing. In the beveled face of the key there is formed a longitudinally extending recess 18, and disposed in this recess is a leaf spring 19 which bears against the inner face of a block 20, seated within said recess. The outer face of this block is formed with a series of ratchet teeth 21 which are adapted to engage with the before-mentioned lug 15, when the key bar is slipped between the lip 14 and the edge of the rail base. One end of the block 20 is pivotally secured in the recess by means of the pin 22, as seen in the drawing, this end being remote from the end which engages with the lug 15.

When the wedge key bar becomes loose by wear, the same may be driven farther into the space between the lip and the rail base, whereupon one or another of the next succeeding teeth of the block will engage with the lug 15.

There is thus produced a device whereby the rail can be effectively and firmly secured to the tie without the use of fishplates, or spikes.

When it is desired to remove the rail from the fastening, it is only necessary to press the free end of the block inwardly, against the tension of the spring, and tap on the smaller end of the wedge key to drive the same out. The rail can then be easily lifted up from the plate 12.

What is claimed is:

1. A rail fastening including a plate secured to the face of the tie and supporting the rail thereon, said plate having a lip engaging one edge of the rail base and a second lip spaced from the other edge of the rail base, said second lip being inclined longitudinally with respect to the edge of the rail base, a wedge key disposed between the last-named lip and the rail base and having a longitudinal groove receiving said rail base edge, and a spring pressed block having teeth for engagement with said lip and carried by the wedge key.

2. In a rail fastening, the combination with a plate having an inclined lip and supporting a rail base adjacent thereto, a lug formed at one end of the inner face of said lip, a wedge key disposed against the edge of the rail base and having a groove in

one side receiving the adjacent edge of the rail base, the other side of the key being beveled and engaging with the inner face of the lip, the beveled face of the key having
5 a longitudinal recess, a leaf spring disposed in the recess, and a ratchet-toothed block disposed in the recess and urged outwardly by said spring and arranged to engage with

said lug, said block being pivotally connected to the wedge at one end.

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

PIETRO RUGGERI.

Witnesses:

GEORGE J. MEIREIS,
RALPH D. McCULLOCH.