D. M. HANEY.

RETAINING DEVICE.

APPLICATION FILED SEPT. 30, 1915.

1,204,866. Patented Nov. 14, 1916.

Fig. 1.

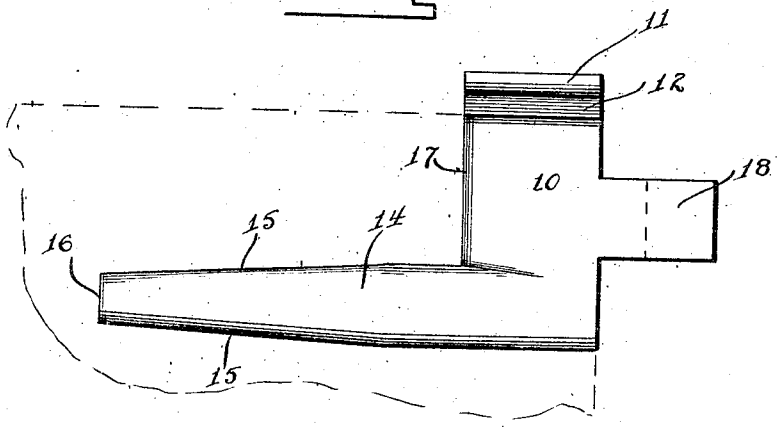


Fig. 2.

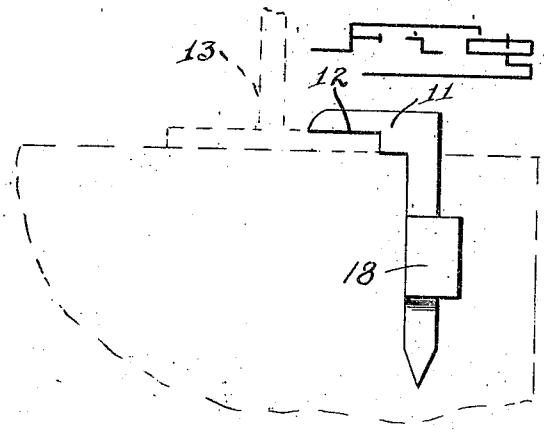
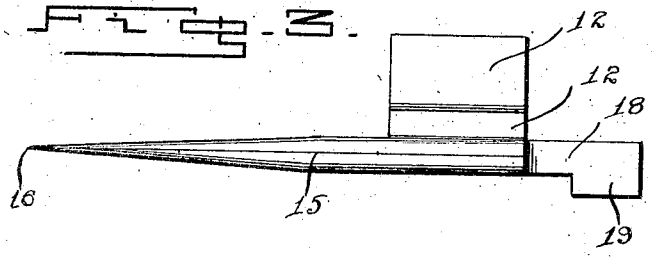


Fig. 3.



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RETAINING DEVICE.

1,204,866. Specification of Letters Patent. Patented Nov. 14, 1916.

Application filed September 30, 1915. Serial No. 53,315.

To all whom it may concern:

Be it known that I, DAVID M. HANEY, a citizen of the United States, residing at Sykesville, in the county of Jefferson and State of Pennsylvania, have invented certain new and useful Improvements in Retaining Devices, of which the following is a specification.

My present invention relates to a new and improved retaining device that is especially designed to supersede the ordinary form of rail retaining devices, which are as a general rule termed, rail spikes; and the most important object of the invention is to provide an improved retaining device of the above character that may be so positioned in the rail tie whereby all danger of displacement, in a vertical plane, is obviated. Consequently it will be understood that the rail will be retained in an approximately rigid position at all times and the springy upward and downward movement thereof during the passage of rolling stock absolutely eliminated.

Another important object of the invention is to provide a rail spike which is capable of being inserted into the tie, transversely with respect to the longitudinal extent thereof and in a plane, substantially in parallelism to the plane of the longitudinal extent of the rail; consequently retaining the rail in a more secure position than would devices of an ordinary nature.

A further object is to provide a retaining device of the above character which, when in place is only removable from the tie in a plane at right angles to the plane of the longitudinal extent of the tie and being so locked against vertical movement will positively and effectually retain the rail in position; and which embodies means for facilitating its removal from the tie, when desired.

A still further object is to provide a device of the type in question that is extremely simple in construction, and which it is believed may be manufactured at a minimum cost.

Various other objects and advantages will become apparent during the continuance of the following description.

The above and other objects which will become apparent, are accomplished by such means as are shown in their preferred form in the accompanying drawings, described in the following specification and then more specifically pointed out in the appended claims.

In the accompanying drawings wherein like characters designate like parts throughout the several views, Figure 1 is a view in side elevation showing my improved retaining device in its preferred embodiment in connection with a portion of an ordinary rail tie. Fig. 2 is a view in end elevation showing my invention as in actual practice. Fig. 3 is a view in bottom plan.

In the drawings the numeral 10 designates the body portion of the device which is preferably formed of cast iron, steel, or the like material. At its upper end the body portion 10 is formed into an off-set portion 11 that extends at a substantially right angle to its general extent and which is preferably formed integral with the body portion as shown in Fig. 2. The under face of the off-set portions 11 is cut away slightly as at 12 in order to receive a portion of the base flange of the rail such as shown at 13. At its lower end the body 10 carries an elongated extension 14 that is tapered toward its free end and has its upper and lower edges and its outer end formed to provide cutting surfaces 15 and 16. It will also be noted that the body 10 is tapered transversely toward one of its longitudinal edges to form a cutting surface 17. Intermediate its upper and lower end the body 10 carries an outstanding ear 18 which is enlarged adjacent its free end as at 19 so as to serve a dual function, viz., to provide means whereby the device may be more readily driven into the tie, and to serve as means to facilitate the removal of the device when desired.

In the operation of the device the sharpened end portion 16 of the extension 14 is first engaged with the side of the tie after which it may be driven thereinto by applying the pressure to the free end of the ear 18. As the extension 14 enters the tie the sharpened surface 17 of the body 10 will also be brought into engagement therewith, and further, embedded into the tie a desired distance. As the body 10 moves into the tie the under face of the enlargement 11 engages the upper surface thereof while the base of the flange 13 is received by the cut-out 12. Since the device is positively locked against any vertical movement whatsoever it will be understood that the rail will be securely gripped and in this manner retained in an approximately rigid position.

To remove the device a tool of any nature may be engaged with the enlarged portion 19 of the ear 18 and by applying suitable pressure upon the upper end thereof the device may be withdrawn.

From the foregoing it is believed that the advantages and novel features of my invention will be readily understood and therefore further detailed description is deemed unnecessary.

In reducing my invention to practice I find that the form referred to herein as the most practical and preferred embodiment is the most efficient, but realizing that certain conditions will necessarily vary in concurrence with the adoption of my device, I desire to emphasize the fact that various minor changes in the details of construction and in the proportion of parts may be resorted to when required without sacrificing any of the advantages of my invention as defined in the appended claims.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a rail retaining device, a body portion, an off-set portion on said body portion forming a rail retaining means, said body portion being tapered transversely to form a longitudinal cutting edge, an elongated extension carried by said body portion and extending at a substantially right angle with respect thereto, said extension provided with upper and lower cutting edges, and said extension being tapered toward its free end to provide a cutting edge at that point.

2. In a rail retaining device, a body portion having an off-set portion formed at its upper end to overlie the base flange of a rail, said body portion being tapered transversely to provide a longitudinal cutting edge, an extension formed at the lower end of said body portion and projecting at a substantially right angle to the longitudinal extent thereof, the upper and lower edges of said extension being tapered to form cutting edges, said extension being tapered toward its free end to provide a cutting surface at that point, an ear formed on said body portion, and said ear being enlarged adjacent its free end.

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

DAVID M. HANEY.

Witnesses:
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