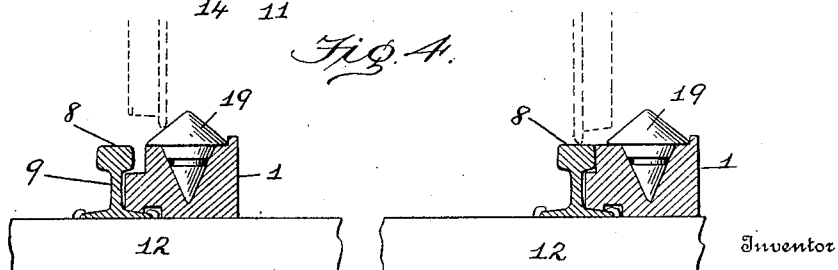
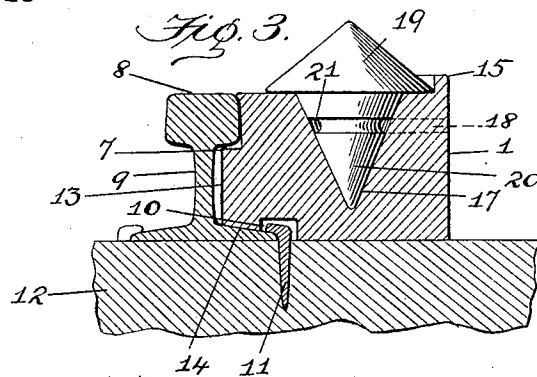
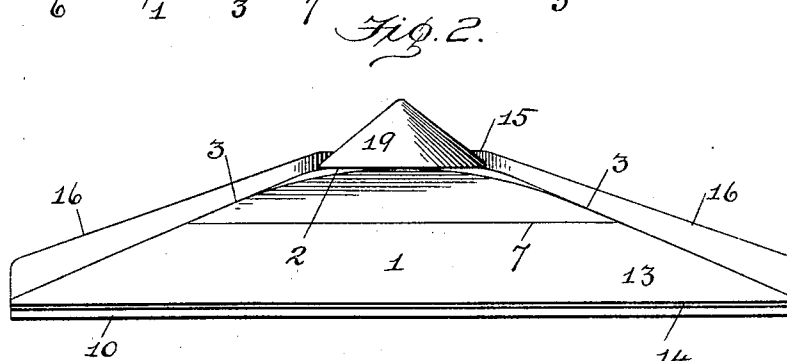
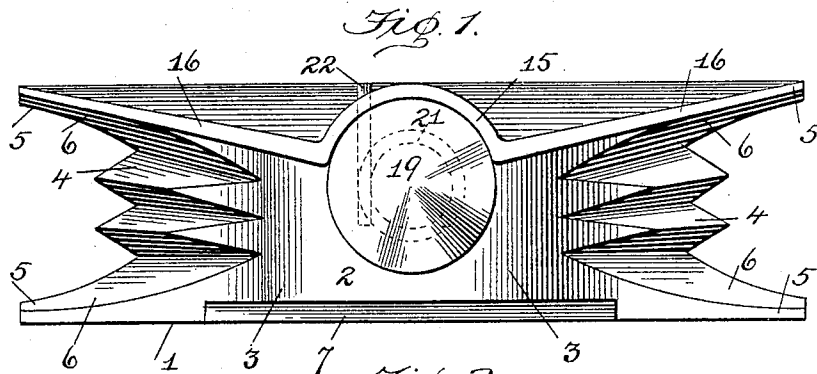


No. 813,855.

PATENTED FEB. 27, 1906.

W. P. BYRD.
CAR REPLACER.

APPLICATION FILED JULY 1, 1905.



Witnesses

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CAR-REPLACER.

No. 813,855.

Specification of Letters Patent.

Patented Feb. 27, 1906.

Application filed July 1, 1905. Serial No. 267,940.

To all whom it may concern:

Be it known that I, WILLIAM P. BYRD, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Car-Replacers, of which the following is a specification.

This invention relates to improvements in car-replacers, and has for its object to provide a device of this character which shall be simple in construction, as well as strong and durable, and which shall possess certain advantages in operation, as hereinafter pointed out.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a top plan view of the device; Fig. 2, a side elevation of the same. Fig. 3 illustrates a central vertical cross-section through the device in position against a rail, and Fig. 4 shows the device in the operative position on a road-bed.

Referring to the drawings by numerals, 1 designates a block having a flat top surface 2 and inclined surfaces 3 at opposite sides of said flat top surface. These inclined surfaces are each provided with a plurality of central V-shaped grooves 4, and each side of said surface is provided with a longitudinally-projecting prong or arm 5, which extends beyond said grooves 4. These prongs or arms 5 are each provided with beveled inner surfaces 6, which converge or extend in a direction toward each other as they approach the flat top surface 2. At one side the block is provided with a laterally-projecting shoulder 7, which when the blocks are in position projects beneath the tread 8 of the rail and confronts the web 9 of said rail. Below the said shoulder and at the bottom the block has a longitudinal bottom groove 10, into which the spikes 11, which are employed to secure the rails to the ties 12, project. Between the groove 10 and the vertical side 13 the bottom of the block is provided with a slightly-beveled surface 14, which conforms to the base of the rail, so that when the block is in position it will have bearing on the base of the rail and also on the tie 12, while the heads of the spikes will project into the bottom groove and will form no bearing-surface for the block to rest on.

At one side the top surface of the block is

provided with a semicircular vertically-projecting flange 15, from the ends of which a straight flange 16 extends downwardly in an inclined direction to the end of the prong or arm 5 at the same side. A conical recess 17 extends downwardly into the block from the top surface, and said recess has position concentric with the semicircular flange 15, which partly surrounds it. A keyway 18 extends horizontally through the block from the side below the semicircular flange, and the inner end of said keyway opens at the side of the conical recess 17 below the top surface. A conical head 19 is seated on top of the block and projects into the semicircular recess formed by the flange 15, in which recess it may rotate. This head is carried on a conical stem 20, which projects down into the recess 17 of the block, which forms a bearing therefor. A circumferential groove 21 is provided on the stem 20, which registers with the keyway 18 in the block, and a key 22 extends through the keyway and enters the groove 21 in the stem and prevents displacement of the latter.

In the practical operation of the replacer the arms or prongs 5, projecting longitudinally beyond the inclined grooved surfaces 4, will project on opposite sides of a displaced wheel and will rest on the tie just beyond said wheel, so that a ready foundation may be obtained without trouble. The grooves 4 and the vertically-projecting flange 16 serve to guide the wheels in a direction toward the side of the rotary head. It will thus be seen that the rotary head is provided with a strong stem that will withstand the strains placed upon it and that while the head may rotate or revolve freely it cannot become displaced, as it is held in position by the key.

I am aware that it has heretofore been proposed to employ revolving rollers in car-replacers which will aid in replacing the wheels on the rails, and I therefore make no claim, broadly, to such feature.

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

1. A car-replacer comprising a block provided with oppositely-inclined sides provided with grooves and a rotary head between the upper ends of said inclined sides and the bottom of said block having an inclined surface

along one edge with a groove extending longitudinally adjacent said inclined bottom surface.

2. A car-replacer comprising a block provided with a rotary head and inclined surfaces at opposite sides of said head and each of said inclined surfaces having arms or prongs which diverge as they recede from said head.

3. A car-replacer comprising a block provided with a flat top surface with a rotary head on said surface and also having inclined grooved surfaces at opposite sides of said flat top and one side of said block having a vertically-projecting flange which extends from

the edges of the grooved surfaces toward the center of said rotating head.

4. A car-replacer comprising a block having a flat top surface which is provided with a conical recess and also having a head with a conical stem which latter is rotatable in said recess, said block also having inclined surfaces at opposite sides of said head and a shoulder extending longitudinally at one side.

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

WILLIAM P. BYRD.

Witnesses:

CHARLES B. MANN, Jr.,
G. FERDINAND VOGT.