

No. 815,757.

PATENTED MAR. 20, 1906.

H. M. STARK.

DEVICE FOR STRAIGHTENING AND LEVELING RAILS.

APPLICATION FILED APR. 19, 1905.

Fig. 1.

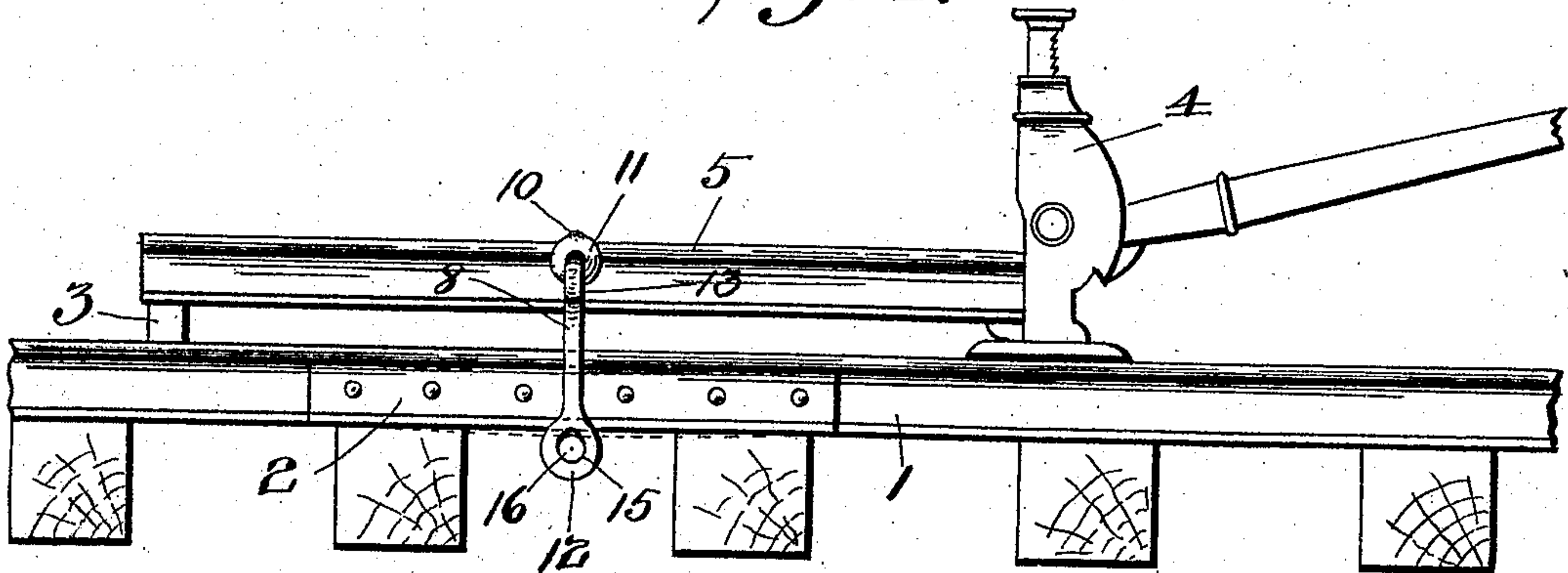


Fig. 2.

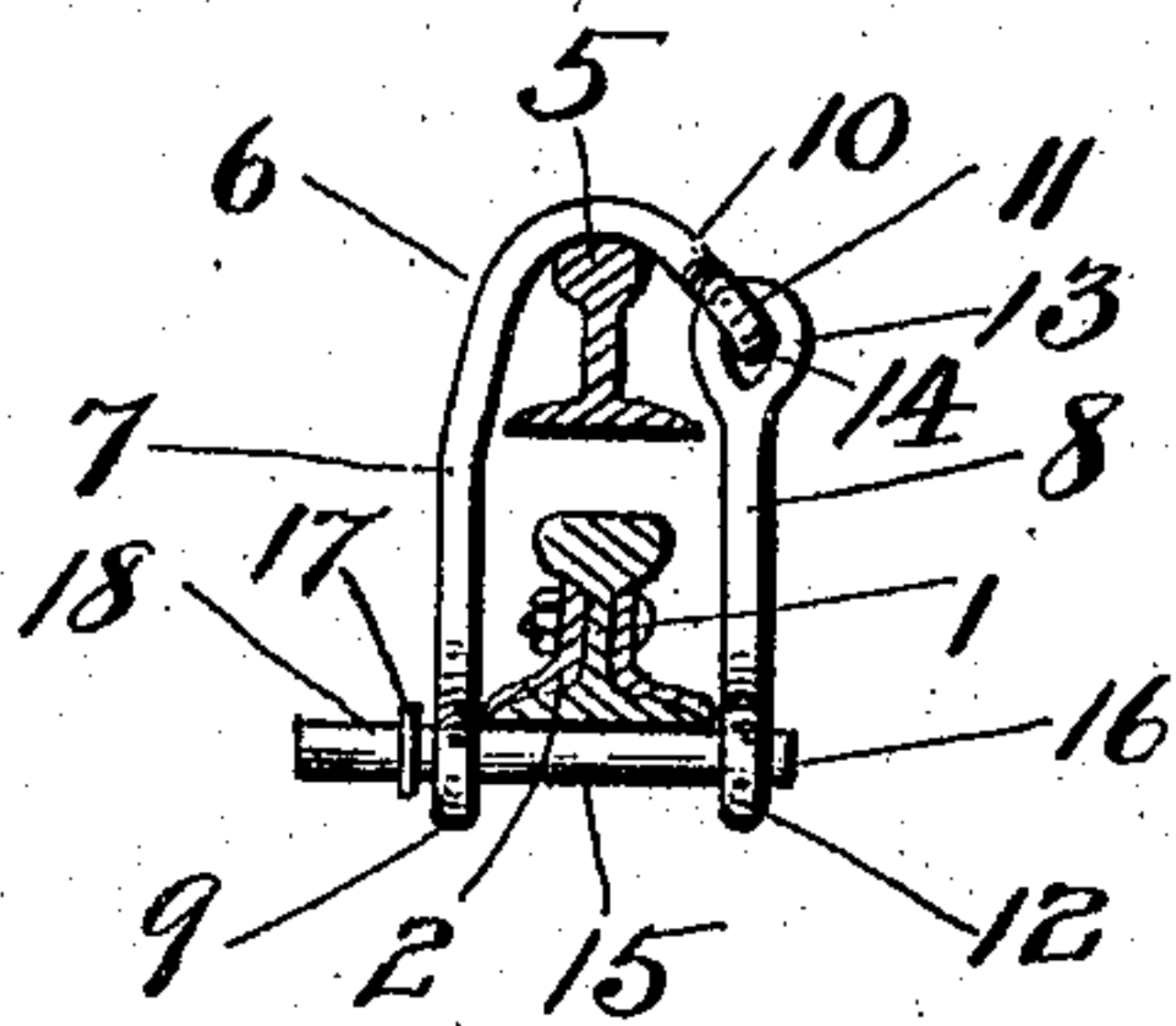


Fig. 3.

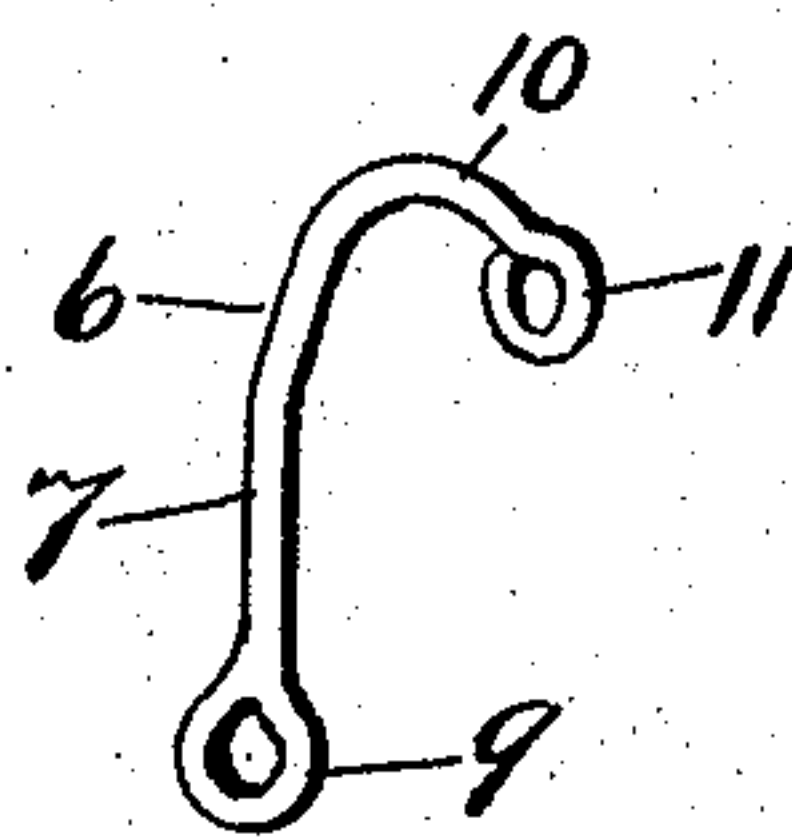


Fig. 4.

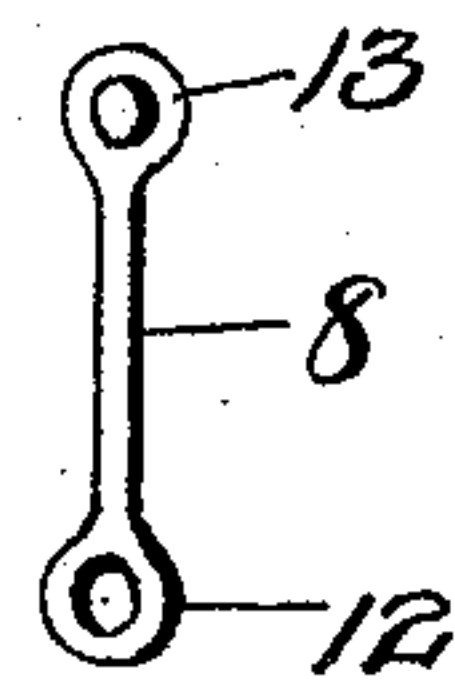
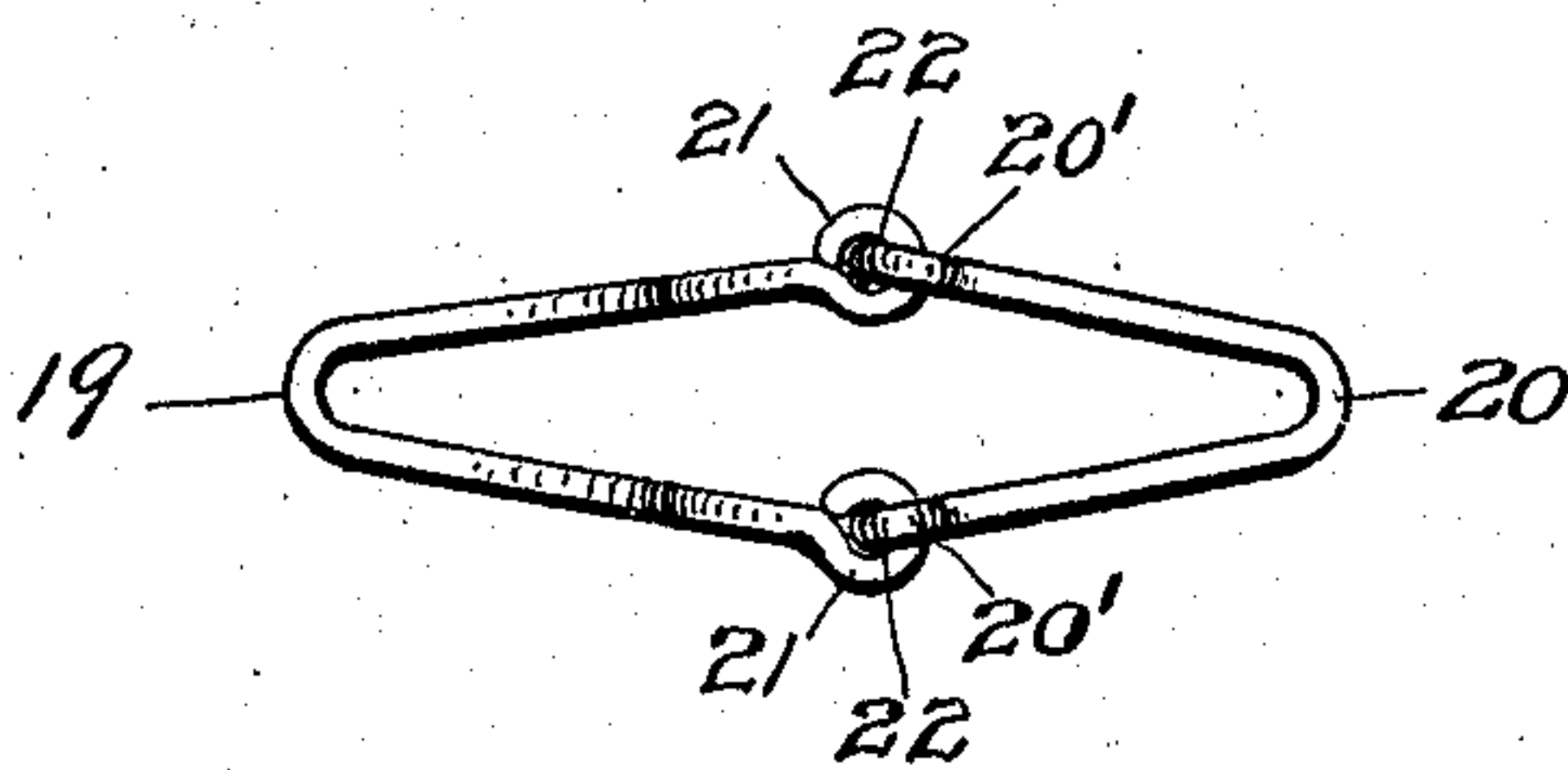


Fig. 5.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

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DEVICE FOR STRAIGHTENING AND LEVELING RAILS.

No. 815,757.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed April 19, 1905. Serial No. 256,470.

To all whom it may concern:

Be it known that I, HAROLD M. STARK, a citizen of the United States, residing at Fort Wayne, in the county of Allen, State of Indiana, have invented certain new and useful Improvements in Devices for Straightening and Leveling Rails; and I do 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 pertains to make and use the same.

My invention relates to improvements in devices for straightening and leveling rails, bars, &c.

The bending downward of the ends of the rails at the joints and other points along the rails and the bending of the fish-plates caused by the pounding on the rails by the wheels of trains is one of the greatest difficulties met with in maintaining a railroad, especially where trains are run at a very high rate of speed, and a smooth level track is an absolute necessity.

The object of my invention is to overcome these difficulties by providing a portable device which can be applied to the rails at any point for straightening and leveling the same, more especially applicable for use in straightening and leveling the ends of rails at the joints and for straightening the fish-plates; but it may be used equally as well at any point on the rails that need straightening or leveling.

My invention further has for its object to provide a device which is portable, and therefore can be transported to any point where it may be needed at very short notice and be quickly applied and after straightening and leveling the rail can be quickly removed.

It still further has for its object to provide a device which is very simple, inexpensive, and durable in construction and easy to apply and operate; also, to provide a clevis by means of which a railroad company may use implements already in its possession in connection with the device to operate it.

The invention consists of the features and combination of features more fully hereinafter described and specifically claimed.

In the drawings, Figure 1 is a side view in elevation of my invention, showing it as it appears when applied to a rail-joint; Fig. 2, an end elevation with the rail in section; Figs. 3 and 4, detail perspective views of the clamping-links; Fig. 5, a detail view of a modified form of clevis.

Referring to the drawings, in which like numerals of reference denote similar parts throughout the several views, 1 represents one of the rails of a railroad-track, and 2 a fish-plate connecting a rail-joint. A block 3 is placed on the top of the rail at one side of the rail-joint and a lifting-jack 4, provided with a toothed bar, operating-lever, &c., of any well-known construction on the opposite side of the rail-joint.

5 is a bar or short piece of rail, one end mounted on the block 3 and the other end on the lifting-jack 4.

6 is a clevis comprising the links 7 and 8. The link 7 is provided with an eye 9 at its lower end and its upper end bent over the top of the short piece of rail 5, formed into a hook 10 and terminates in an eye 11. The link 8 is provided with an eye 12 at its lower end and an eye 13 at its upper end, which engages the eye 11 of the link 7, said eyes 13 and 11 forming a hinge-joint, as at 14. A pin 15 is passed from the outer side of the rail through the eye 9 of the link 7 and after passing under and engaging the rail 1 is inserted in the eye 12 of the link 8 with the inner end 16 projecting slightly beyond the inner surface of the eye 12 of the link 8. An annular collar 17 is provided on the outer end 18 of the pin 15, which abuts against the outer surface of the eye 9 of the link 7 and prevents the pin from being driven in too far.

In the modified form of clevis shown in Fig. 5 of the drawings two U-shaped links 19 and 20 are employed and provided with eyes 20' 21, respectively, said eyes engaging each other and forming hinge-joints 22.

One of the most important advantages of my invention is that it can be easily applied to the rail, and in case of an emergency—for instance, should a train come along unexpectedly—it can be removed instantly by driving out the pin.

In use the block 3 and lifting-jack are placed in position on the top of the rail and the short piece of rail placed in position so that its middle portion shall be approximately over the rail desired to be straightened. The clevis is placed over the short piece of rail 5, by which it is supported, the pin 15 passed through the eyes 9 and 12 of the links 7 and 8, respectively, and the lifting-jack operated, which lifts the piece of rail 5, which in turn causes the clevis to raise and straighten the sunken rail-joint to its proper level. When it is desired to remove the clevis from

the rail, it is only necessary to knock the pin outward, which will release the clevis from the rail.

I preferably make all the parts of steel; but they may be made of any material found suitable for the purpose.

What I claim is—

1. In a device for straightening rails, a clevis comprising a pair of links hinged directly together at their upper ends, a pin designed to be inserted through the lower ends of both of said links, and means for supporting said clevis on a rail, substantially as described.

2. In a device for straightening rails, a clevis comprising a link bent over at its upper end, a link hinged directly to said end and a pin designed to be inserted through the lower ends of both of said links, substantially as described.

3. In a device for straightening rails, a clevis comprising a link terminating in an

eye at each end and its upper end bent over and extended downward, a link terminating in an eye at each end and the eye at its upper end hinged directly to the eye at the upper end of the first-mentioned link and at an angle thereto, and a pin designed to be inserted through the eyes at the lower ends of both of said links, substantially as described.

4. In a device for straightening rails, a clevis comprising links hinged directly together and having eyes at their upper ends at an angle to each other, eyes at their lower ends parallel to each other and a pin designed to be passed through and engage the eyes on the lower ends of said links, substantially as described.

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

HAROLD M. STARK.

Witnesses:

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SIDNEY S. BERGSETH.