

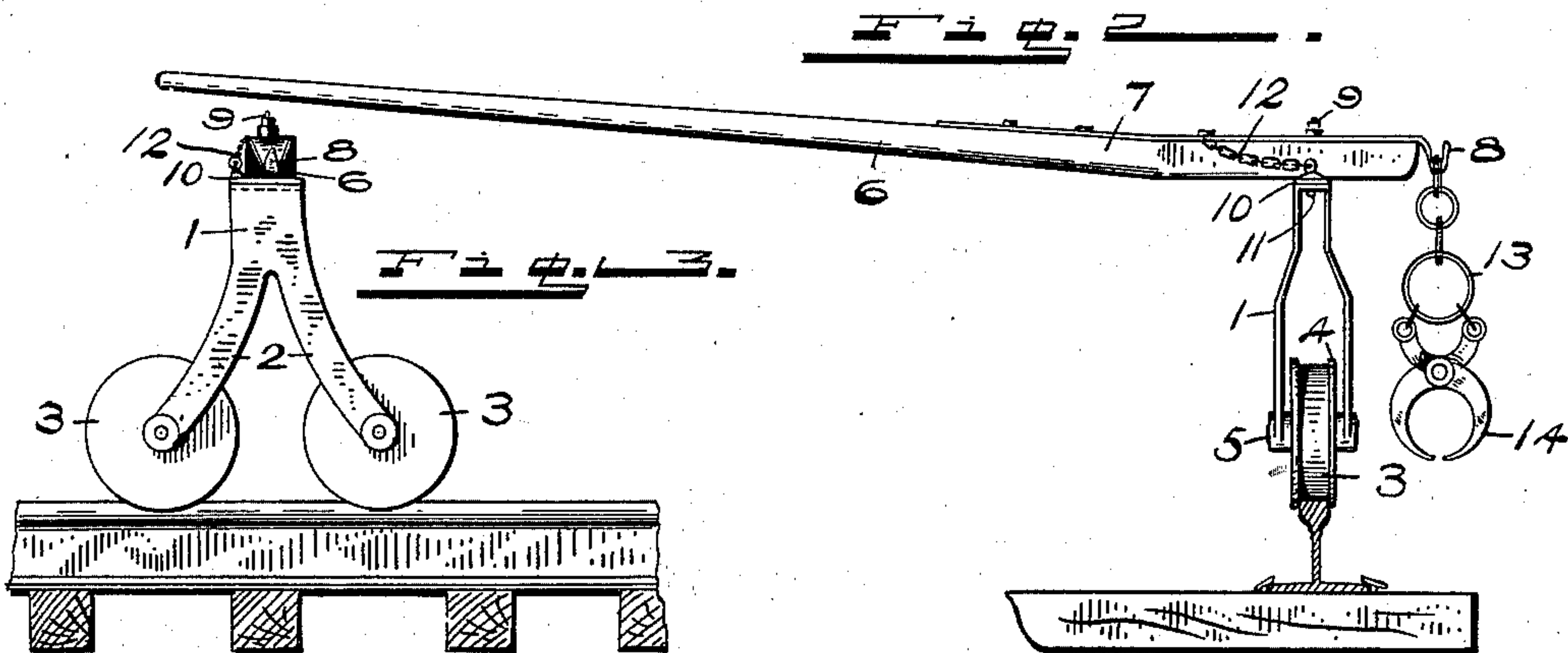
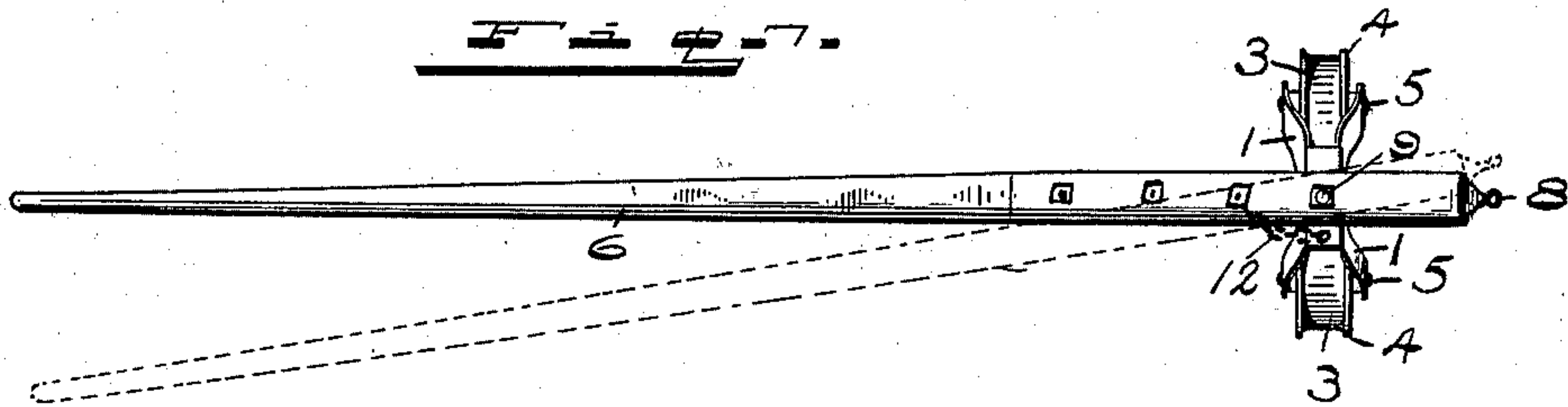
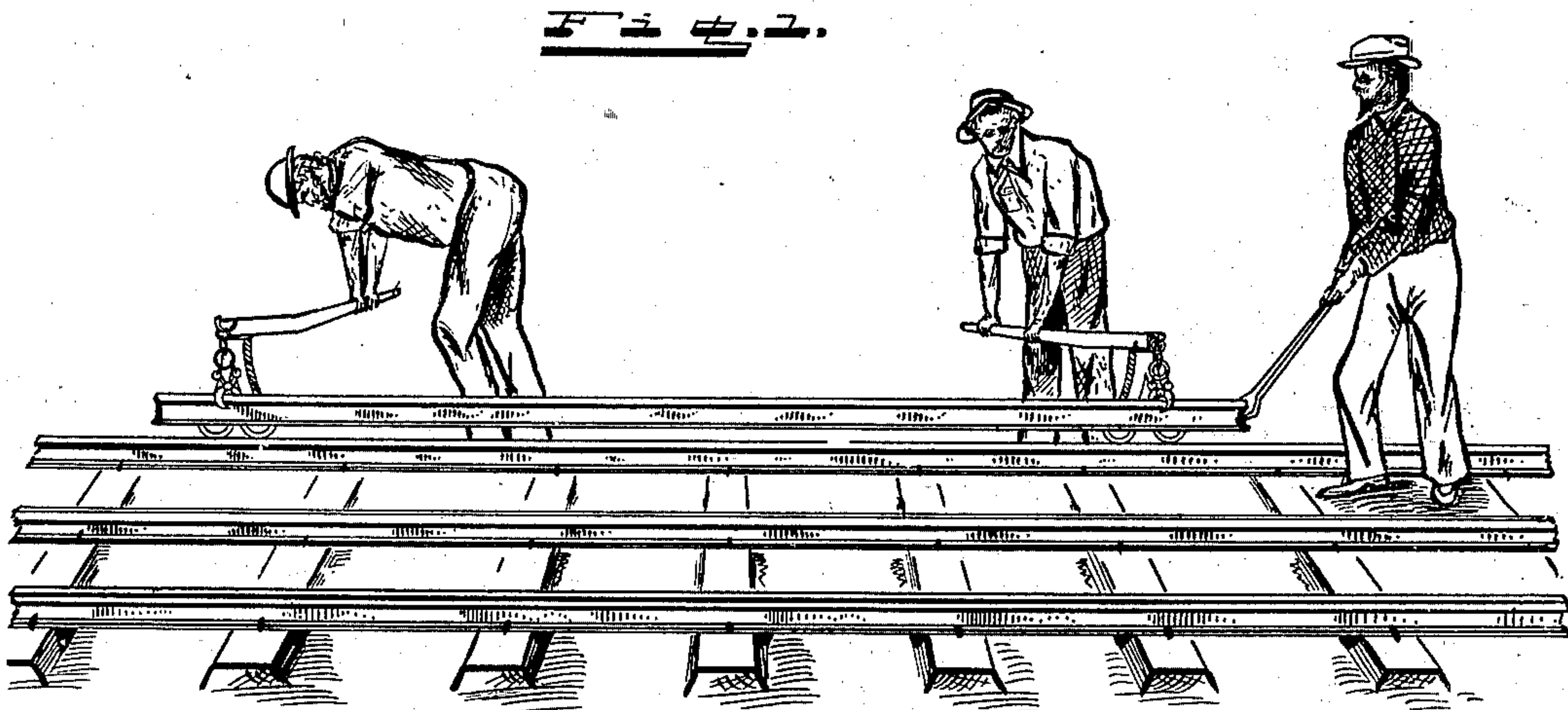
(No Model.)

2 Sheets—Sheet 1.

R. L. ADAMS.
ROLLER RAIL TONGS.

No. 558,752.

Patented Apr. 21, 1896.



WITNESSES:

F. H. Hoerner.
Gula Green.

INVENTOR

Richard L. Adams
BY
V. H. Lockwood
ATTORNEY.

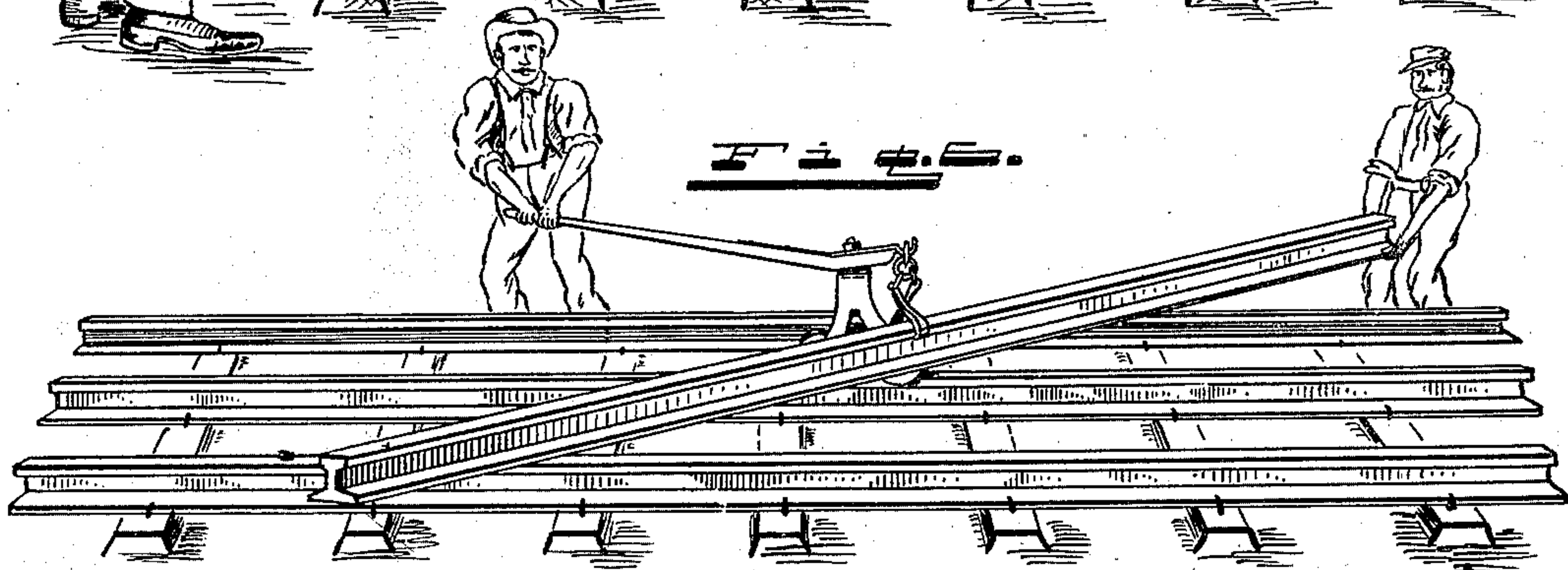
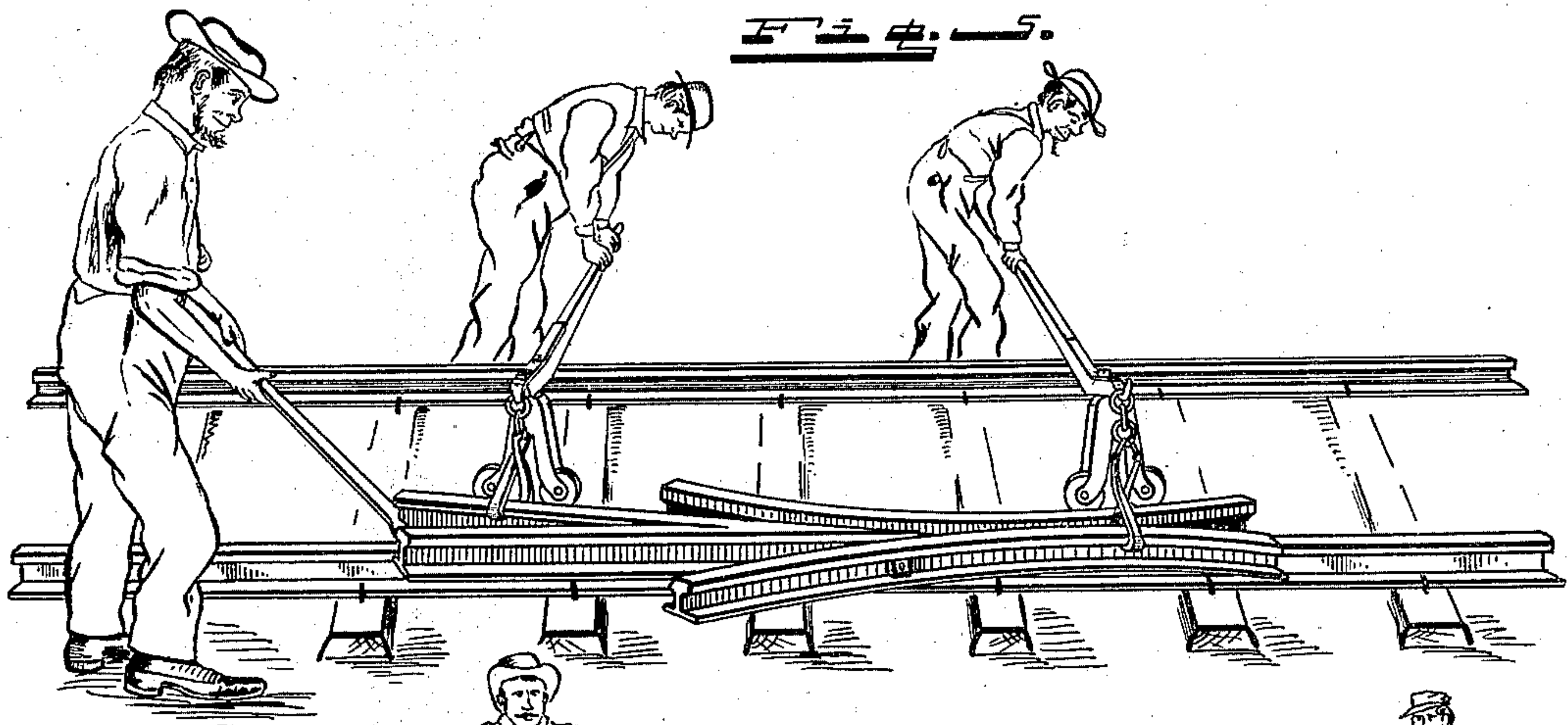
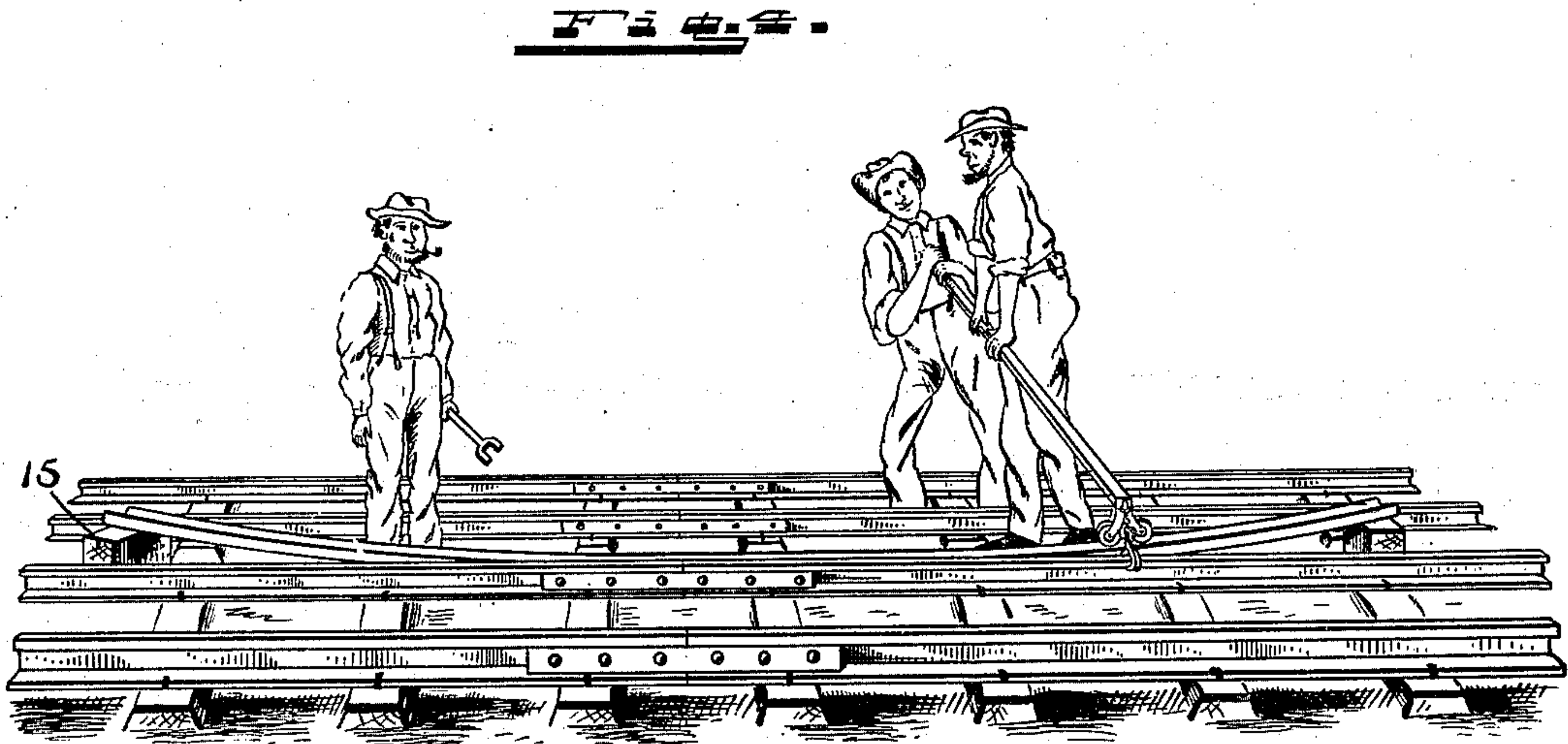
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ROLLER RAIL TONGS.

No. 558,752.

Patented Apr. 21, 1896.



WITNESSES:

F. W. Werner.
Julia Green

INVENTOR:

Richard L. Adams
By V. H. Lockwood
His ATTORNEY.

UNITED STATES PATENT OFFICE.

RICHARD L. ADAMS, OF RICHMOND, INDIANA, ASSIGNOR OF ONE-HALF TO
GEORGE L. PECK, OF SAME PLACE.

ROLLER RAIL-TONGS.

SPECIFICATION forming part of Letters Patent No. 558,752, dated April 21, 1896.

Application filed August 30, 1895. Serial No. 561,052. (No model.)

To all whom it may concern:

Be it known that I, RICHARD L. ADAMS, of Richmond, county of Wayne, and State of Indiana, have invented a certain new and useful Roller Rail-Tongs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

My invention relates to roller rail-tongs adapted for especial use in transporting heavy railway-rails to place while repairing or relaying railway-tracks.

Recently the railway companies have adopted a rail sixty feet long that weighs a ton instead of the thirty-foot rail that has been used heretofore. These rails are so heavy that their management while relaying or repairing the track is extremely difficult and expensive without the device which I have invented. To lift and carry one of them would require a large force of men; but with my device two or three men can perform the work. The rails are usually, when delivered, dropped on the railway-bed alongside the track. My device enables two or three men to pick them up from that position and transport them to the place where they are needed. If it is necessary to turn them, two men can do it with my device, as shown in Figure 6; but without my device it would require a large force of men, as the rail is so long as to extend entirely across the average right of way. Frogs, however heavy, may also be transported in the same way, as shown in Fig. 5. Another practical use of my device is for bending these rails for curves, as shown in Fig. 4, which, it is seen, is a very easy, simple, and economical method. It may be used for other purposes where heavy weights are to be transported along a track of one or more rails.

The full nature of my invention will appear from the following description and the accompanying drawings.

In the drawings, Fig. 1 is a perspective of a section of railway with a force of men transporting a rail with my device. Fig. 2 is an end elevation of the device. Fig. 3 is a side elevation of the same. Fig. 4 is a perspective of a section of the track, showing a force bending a rail with my device. Fig. 5

shows them transporting a frog. Fig. 6 shows them turning a rail about. Fig. 7 is a plan view of the device.

Only one line of rails is necessary for the use of my device. It consists of the frame or stock 1, having two pairs of diverging legs 2. Each pair of these legs is mounted upon a wheel or roller 3, that is about as wide as the head of the railway-rail and is furnished with double flanges 4 to keep it on the track. The wheel or roller has a suitable hub and is mounted on the short axle 5, whose ends, as I have stated, are removably secured to the lower ends of the legs 2 of the frame 1. The two rollers 3, therefore, are in line with each other, so that in operation they follow each other. Mounted on this frame 1 is a beam or hand-lever 6. The frame serves as a fulcrum for such lever and therefore is secured to it near one end. That end of the lever is reinforced at the top by a metallic bar or strap 7, having on its outer end a hook 8. The bolt 9 passes vertically through the strap 7, lever 6, bearing-plate 10, and the top of the frame. The bearing-plate 10 is secured to the under side of the lever and its diameter is greater than the width of the lever, so that it extends beyond the lever on each side. It is provided with a hole that registers with a hole in the frame 1. The pin 11, held by the chain 12, is inserted in these holes when it is desired to lock the lever after lifting the object and while transporting it. With this construction, therefore, it is seen that the lever 6 can be swung about horizontally on the frame 2, as shown, for example, in Fig. 6. Other ways of mounting the lever on such frame, so as to make it oscillatory, will occur to any mechanic; but I have found that the foregoing is the best. A chain 13 is suspended from the hook 8, provided at its lower end with a pair of tongs 14.

The mode of using this device will appear from the drawings. With a thirty-foot rail one man with my device catches the rail in the middle, as shown in Fig. 6. Suppose the rail or weight to be lifted is alongside the track, the device is set on the track-rail, as shown, the tongs are caught over the loose rail or weight and lever operated, as shown, until the rail or weight is lifted off the ground.

Then a second man balances the rail and pushes it along the track. If the rail is long and heavy, a man at each end with my device grasps and lifts the rail, as above described. They then lock the devices with a pin 11, as above described. They then can push it along the track without further assistance. The same method is used in transporting a frog or other heavy object. The manner of turning a rail is shown in Fig. 6 and needs no further explanation.

It is apparent that this device simplifies the process of relaying and repairing a track and reduces the cost. It is convenient also, because the device is light and can be readily removed for the passage of trains. It is of service to all section-men and bridge-repairers. Because of its simplicity it likewise renders the workmen free from the dangers that arise in handling such heavy rails and objects by merely lifting it or by other means heretofore used. Where the rails are laid in piles by the track, two men can quickly and conveniently distribute them along the track.

The device is also useful in bending rails for curves, as above stated. The manner of using it is shown in Fig. 4. The rail to be bent is placed alongside a stationary rail, with its ends on the blocks 15. My device is then placed on the rail to be bent, the tongs are caught about the stationary rail, the locking-pin 11 is put in place, and then a couple of men bear down upon the lever. It is seen that they readily can shift the device by elevating the hand-lever, so as to loosen the tongs, rolling the device into the new position, and repeating the operation as above

described. The fact that the weight is transmitted to the rail to be curved from the two rollers prevents a short bend in the rail at the point of pressure and causes a proper distribution of the pressure along the rail.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. Roller rail-tongs comprising a frame, rollers to carry the frame arranged one behind the other to run on a single rail, a lever mounted upon the frame, and means suspended from the lever for holding the object to be lifted.

2. Roller rail-tongs comprising a pair of double-flanged rollers, a frame with pairs of legs in which such rollers are so mounted as to move one behind the other on a single rail, a lever so mounted on the frame that it will have a sweeping movement but no vertical movement independent of the frame, and means suspended from the lever for holding the object to be lifted.

3. Roller rail-tongs comprising a frame mounted on rollers, a lever with a bearing-plate beneath it so mounted on the frame as to rotate, a pin for locking the bearing-plate to the frame to lock the lever from movement independent of the frame, and means suspended from the end of the lever for holding the object to be lifted.

In witness whereof I have hereunto set my hand this 23d day of August, 1895.

RICHARD L. ADAMS.

Witnesses:

J. I. ELDER,

C. W. HASELTINE.