

No. 674,898.

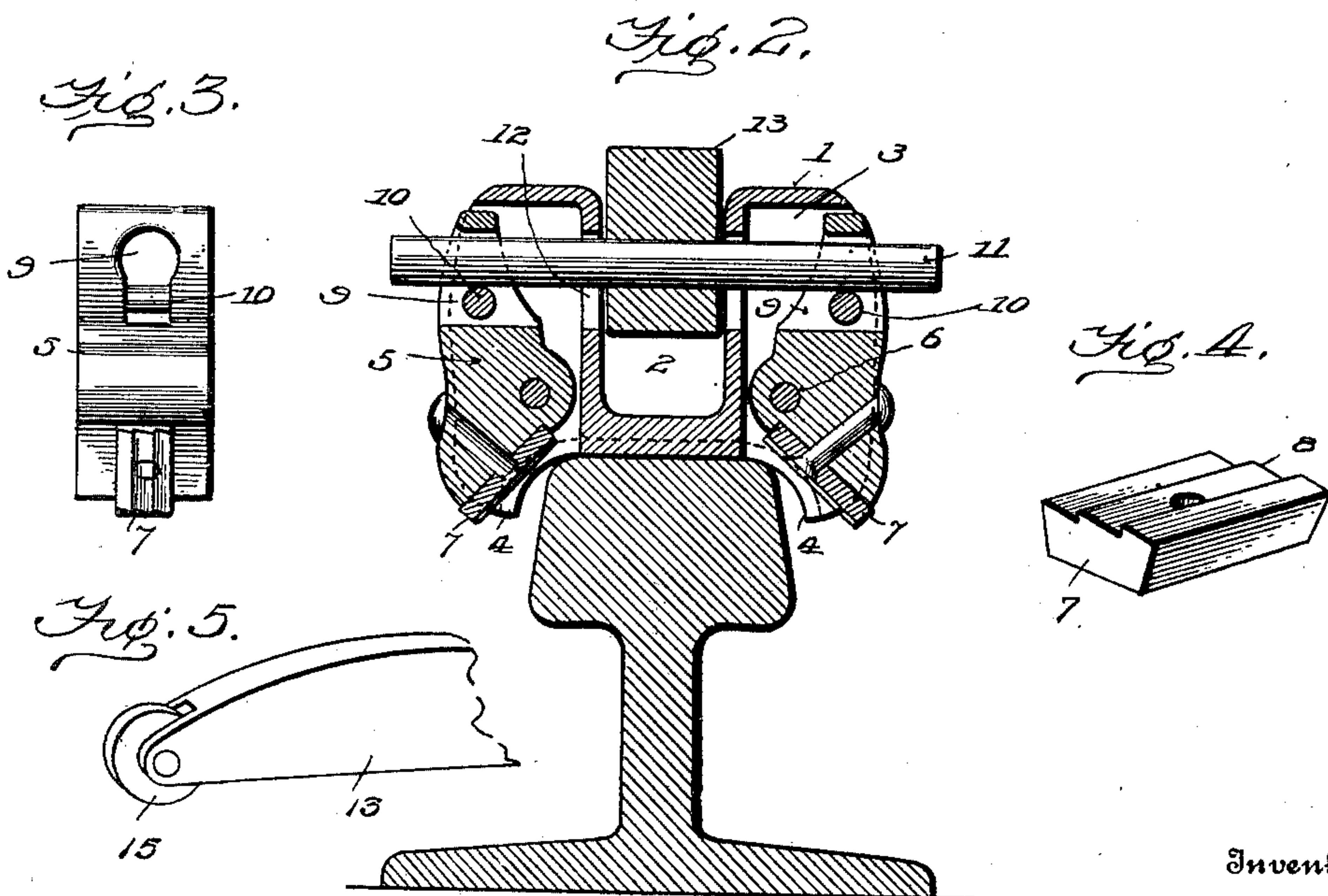
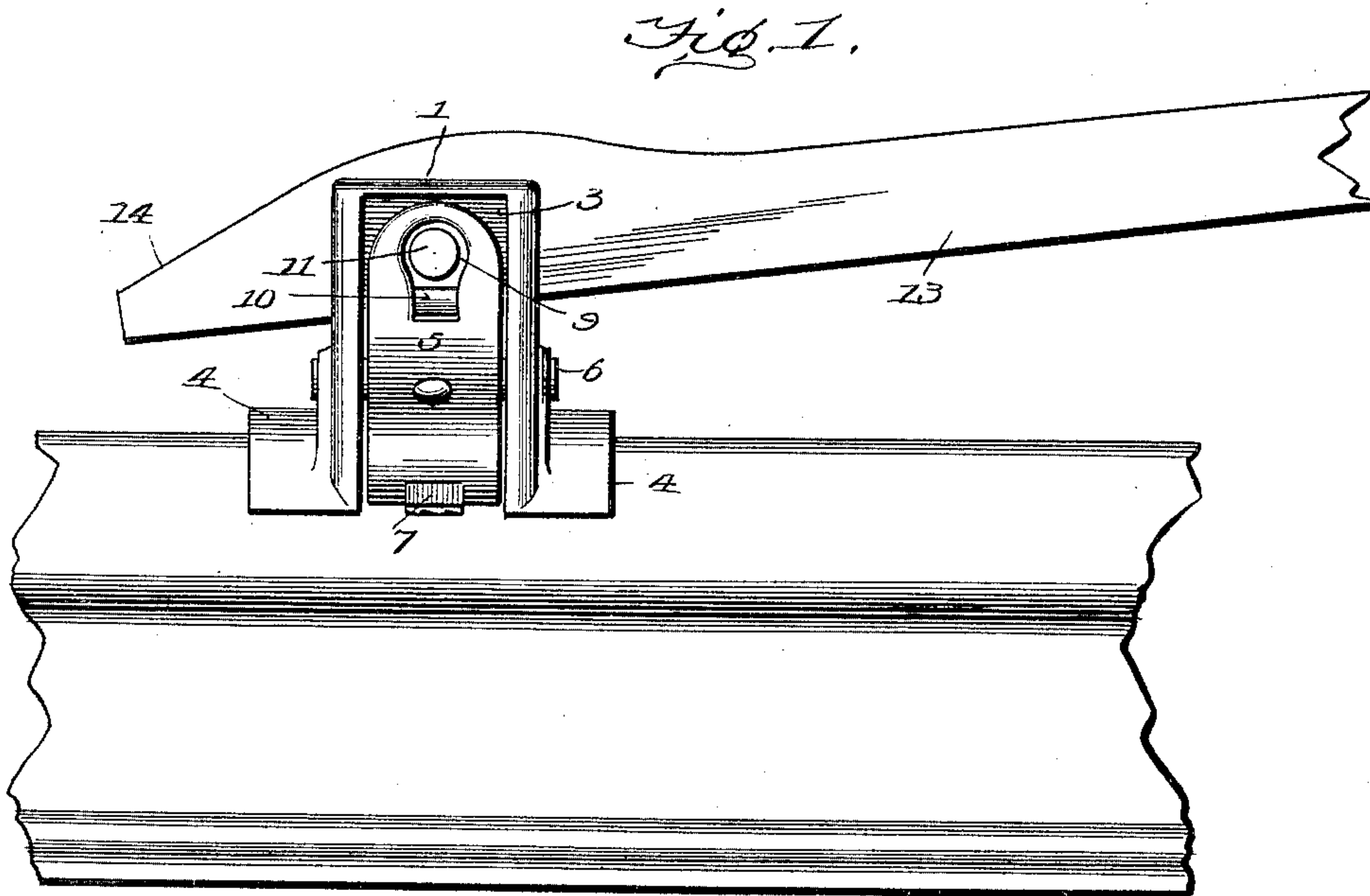
Patented May 28, 1901.

J. L. BOVEE.

PINCH BAR.

(Application filed Nov. 5, 1900.)

(No Model.)



Inventor

Jacob L. Bovee

Witnesses

Harry S. Rohrer
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UNITED STATES PATENT OFFICE.

JACOB L. BOVEE, OF RICHFORD, NEW YORK.

PINCH-BAR.

SPECIFICATION forming part of Letters Patent No. 674,898, dated May 28, 1901.

Application filed November 5, 1900. Serial No. 35,565. (No model.)

To all whom it may concern:

Be it known that I, JACOB L. BOVEE, a citizen of the United States, residing at Richford, in the county of Tioga and State of New York, have invented certain new and useful Improvements in Pinch-Bars; 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 pinch-bars, especially adapted for moving cars from place to place; and its primary object is to provide a device of simple construction which is adapted to be placed upon a rail and which is provided with jaws adapted to firmly clamp the rail when pressure is placed upon the device.

A further object is to so construct the device that the jaws will swing out of engagement with the rail automatically when the bar is raised.

With these and other objects in view the invention consists in providing a casting within opposite sides of which are pivoted jaws which extend to points below the bottom of the casting and are adapted to lie upon opposite sides of the rail. A pin is loosely mounted within the upper ends of the jaws and is adapted to bear thereon at points outside of vertical alinement with the fulcrums of the jaws, and the operating-lever is pivoted upon this pin at the center thereof. Blocks are secured to each of the jaws and are adapted to bear upon the rails and securely grip the same.

The invention also consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a side elevation. Fig. 2 is a transverse section. Fig. 3 is an inner elevation of a jaw. Fig. 4 is a detail view of the jaw-block. Fig. 5 is a detail view of one end of a modified form of lever.

Referring to the figures by numerals of reference, 1 is a casting provided with a longitudinally-extending recess 2 in the center thereof and with recesses 3 arranged at each side. Flanges 4 are provided at the lower

edge of the casting, at each side thereof, and are so shaped as to fit snugly upon the top of the rail when the casting is placed in position thereon. Fulcrumed within each of the side recesses 3 is a jaw 5, having arranged adjacent to its inner edge a pivot 6. Blocks 7 are secured to the lower inclined faces of the jaws 5, and each of these blocks is provided upon its working face with longitudinally-extending shoulders 8, whereby a firm grip upon the surface of a rail may be secured. The upper end of each jaw 5 is provided with a transversely-extending passage 9, within which is arranged a pin 10, which lies out of vertical alinement with the pivot 6 of its jaw.

A bolt or cross-pin 11 projects through the passages 9 in the jaws 5 and is adapted to bear upon the pins 10, arranged within said passages. In order that vertical movement of the cross-pin 11 may be permitted, slots 12 are arranged within the walls of the central recess 2. A lever 13, having an inclined end 14, is pivoted upon the bolt 11 and within the recess 2 and may be made of any suitable material.

When it is desired to move a car, the casting 1 is placed upon the rail in rear of one of the wheels, and it will be seen by referring to Fig. 2 that when the casting is in this position the jaws 5 will lie upon opposite sides of the rail. The inclined end 14 of the lever is then placed against the wheel, and when power is applied to said lever the cross-pin 11 will be forced downward, thereby bearing upon the pins 10 and causing the lower ends of the jaws, containing the blocks 7, to swing inward into contact with the rail. It will thus be seen that the greater the power applied to the lever the tighter the jaws will clamp upon the rail.

When it is desired to remove the pinch-bar from the rail, it is merely necessary to swing the lever upward. This will cause the bolt 11 to slide to the upper ends of the slots 12, and said bolt will at the same time contact with the upper walls of the passages 9 and throw the upper ends of the jaws inward and the blocks 7 out of contact with the rail.

In the foregoing description I have embodied the preferred form of my invention; but I do not wish to be understood as limiting myself thereto, as I am aware that modifica-

tions may be made therein without departing from the spirit or sacrificing any of the advantages of this invention, and I therefore reserve to myself the right to make such
5 changes as fairly fall within the scope of my invention.

Among the modifications which may be made in the construction of this device may be mentioned that illustrated in Fig. 5 of the
10 drawings. By referring to said figure it will be seen that the lever is provided at its working end with a roller 15, which is adapted when the device is in use to contact with the wheel of the car, and thereby facilitate the
15 movement thereof.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. The combination with a casting; of jaws
20 pivoted upon opposite sides thereof, a bolt bearing upon the jaws at points out of vertical alinement with the fulcrums thereof, and a lever pivoted upon the bolt.

2. The combination with a casting; of jaws
25 pivoted within opposite sides thereof, a bolt extending through the upper ends of the jaws and bearing thereon at points out of vertical alinement with the fulcrums of the jaws, and a lever pivoted upon the bolt.

30 3. The combination with a casting; of jaws pivoted therein at opposite sides thereof, blocks secured to the lower faces of the jaws, said jaws having passages within the upper ends thereof, pins in each passage, a bolt pro-
35 jecting through the passages and bearing

upon the pins, said pins being arranged out of vertical alinement with the pivots of the jaws, and a lever between the jaws and mounted upon the bolt.

4. The combination with a casting having 40 a central and two side recesses; of a jaw pivoted within each of the side recesses, an inclined lower face to each jaw, a block secured to each inclined face, longitudinally-extending shoulders upon the blocks, a pin 45 within a passage formed in the upper end of each jaw, a bolt passing through said passages and bearing upon the pins, said pins being arranged out of vertical alinement with the pivots of the jaws, and a lever within the 50 central recess and pivoted upon the bolt, said bolt having vertical movement.

5. The combination with a casting; of jaws pivoted in opposite sides thereof, a bolt engaging the upper ends of the jaws, and a lever 55 mounted upon the bolt, said jaws being adapted to swing toward each other when power is applied to the lever.

6. The combination with a casting, of jaws pivoted upon opposite sides thereof, a bolt 60 bearing upon the jaws at points out of vertical alinement with the fulcrums thereof, a lever pivoted upon the bolt and a roller journaled within the end of the lever.

In testimony whereof I affix my signature 65 in presence of two witnesses.

JACOB L. BOVEE.

Witnesses:

BURNETT C. RAWLEY,
FRANC BELDEN.