

No. 628,711.

Patented July 11, 1899.

J. HEENAN.

AUTOMATIC GRIP FOR CABLE ROADS.

(Application filed Mar. 25, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

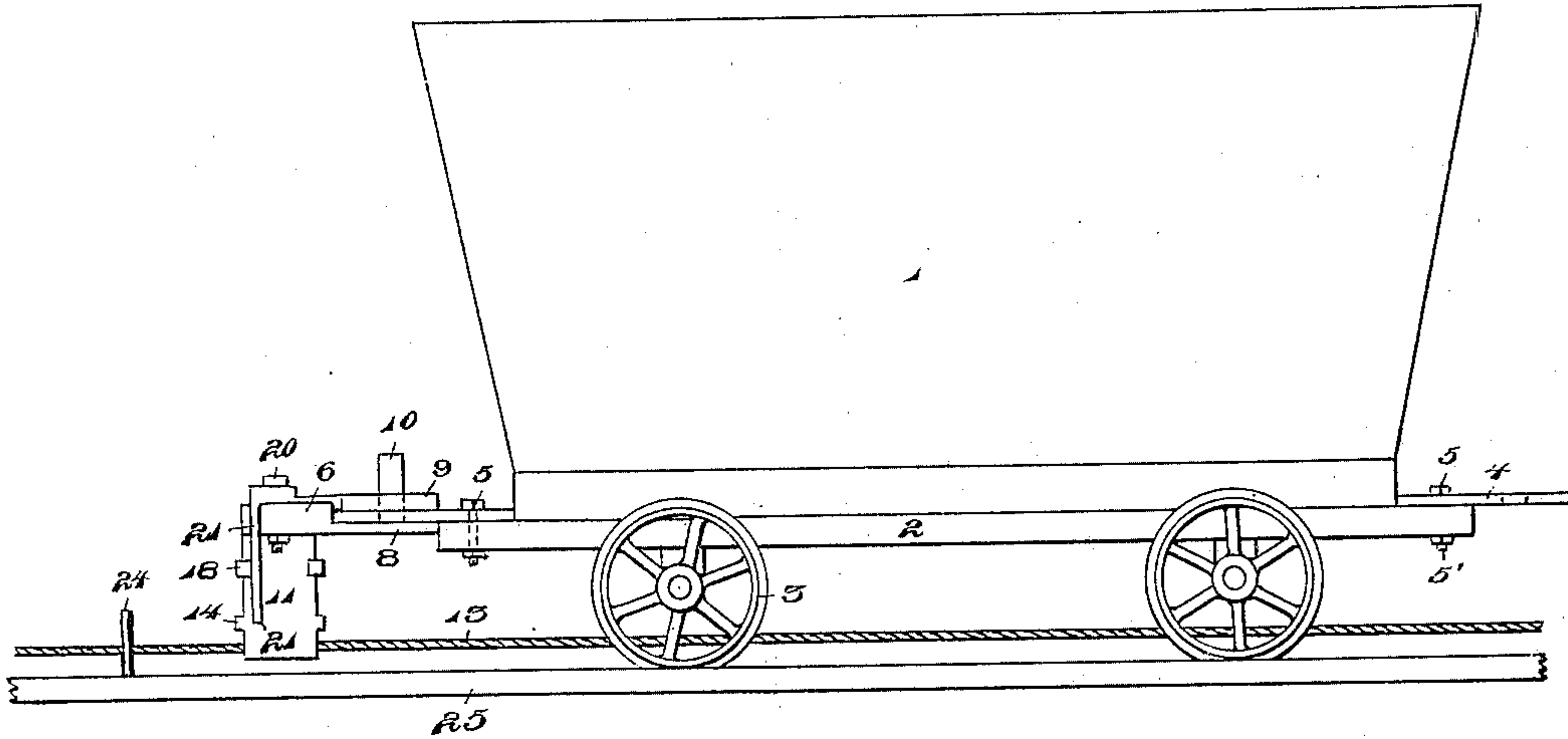
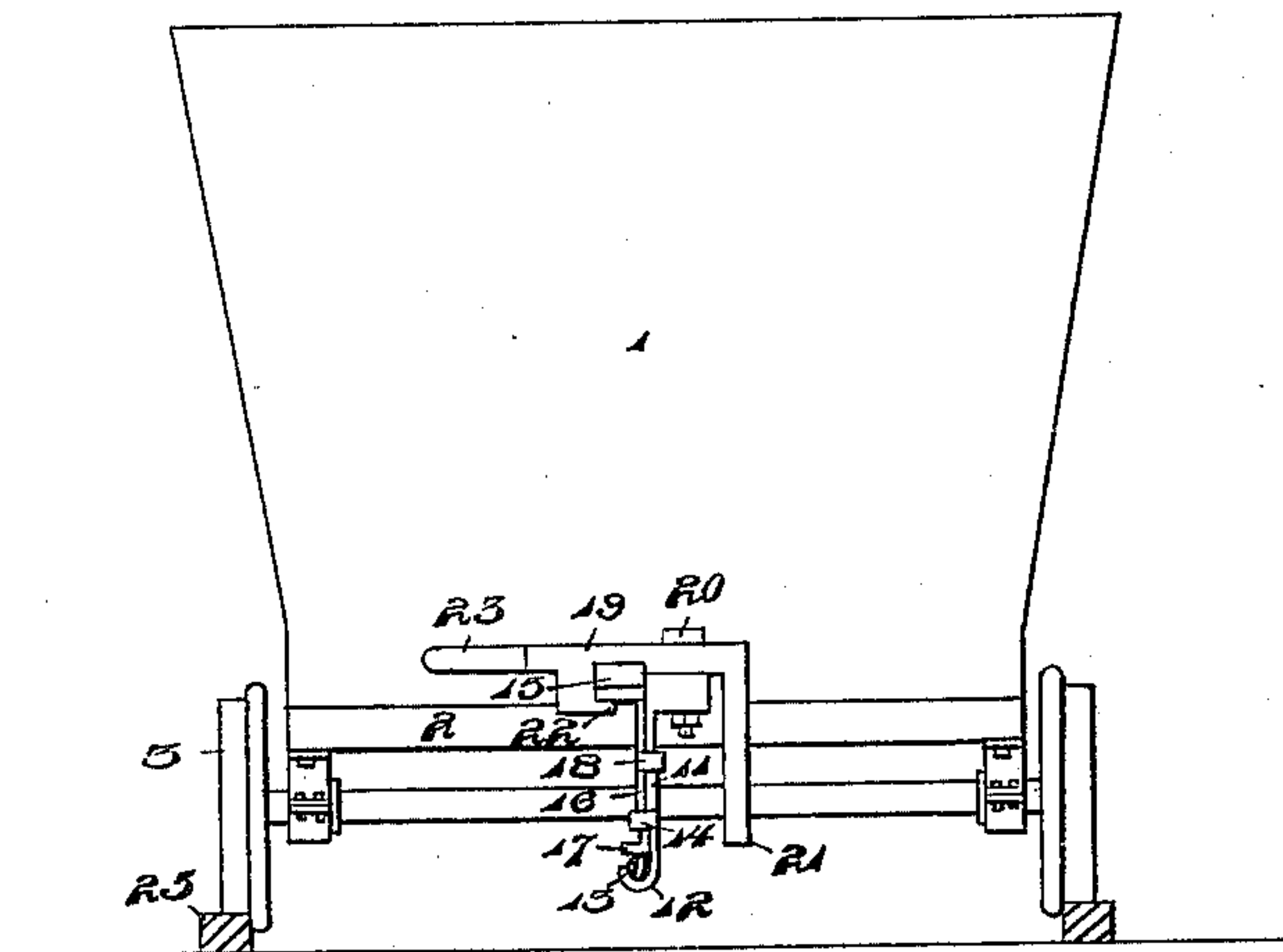


Fig. 2.



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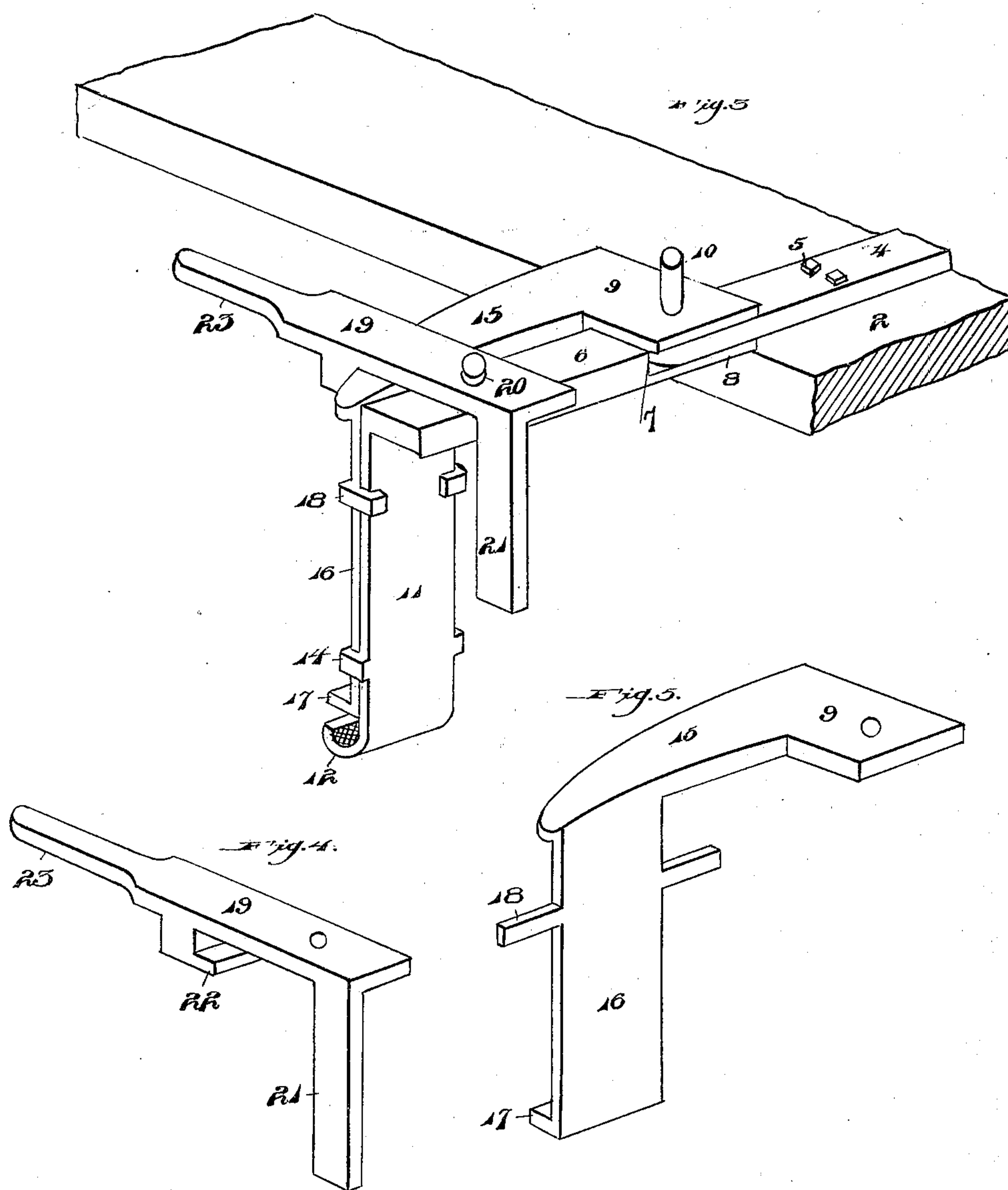
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UNITED STATES PATENT OFFICE.

JAMES HEENAN, OF GUFFEY, PENNSYLVANIA.

AUTOMATIC GRIP FOR CABLE-ROADS.

SPECIFICATION forming part of Letters Patent No. 628,711, dated July 11, 1899.

Application filed March 25, 1899. Serial No. 710,407. (No model.)

To all whom it may concern:

Be it known that I, JAMES HEENAN, a citizen of the United States of America, residing at Guffey, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Automatic Grips for Cable-Roads, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in automatic grips.

The object of my invention is to construct a grip of this character which is adapted for use upon pit-cars in coal-mines and which is provided with means for automatically releasing the same as occasion requires.

My invention finally consists in the novel combination and arrangement of parts hereafter more fully described, and particularly pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views thereof, and in which—

Figure 1 is a side view of a pit-car, showing my improved grip attached thereto. Fig. 2 is a front view thereof. Fig. 3 is a perspective view of my improved grip as attached to the platform of a pit-car, the same being partly broken away. Fig. 4 is a perspective view of the operating-lever. Fig. 5 is a perspective view of the gripping-jaw.

Referring to the drawings by reference-numerals, 1 indicates the body of a car; 2, the bottom; 3, the wheels, and 4 the coupling-bar, which extends entirely through the car and is suitably secured to the bottom thereof by means of the bolts 5 and nuts 5'.

6 indicates an oblong extension which is cut away at its one end, forming a shoulder 7 and tenon 8, and upon this tenon is mounted an outwardly-extending end of the coupling-bar and upon which is also mounted the supporting inner end 9 for the gripping-jaw. These parts are secured in position by means of the bolt 10, operating therethrough.

Upon one side of the outer portion of the oblong extension 6 is formed integral therewith a downwardly-extending hanger or support 11, the lower or free end thereof being

bent substantially U-shaped, as shown at 12, over which the cable 13 operates. The edges of the hanger or support 11 are formed integral with outwardly-extending arms 14, which when the gripping-jaw is in position are bent around the same. The supporting inner end of the gripping-jaw has formed integral therewith an outwardly-extending tapering arm 15. This arm is of less thickness at its free end than at its inner end, or, in other words, graduates in thickness outwardly. The one side of this arm, on its outer portion, is formed integral with a downwardly-extending hanger 16, which is bent at right angles, as at 17, forming a gripping-jaw for the cable. The edges of this hanger 16, toward its upper end, are formed with outwardly-extending arms 18, which when the hanger or support 11 is in position against the hanger 16 are bent around the same in the same manner as the arms 14. (For illustration see Fig. 3 of the drawings.) These arms 14 and 18 act as guides for the hanger.

19 indicates an operating-lever which is pivotally secured to the oblong extension 6 by means of a pin 20, and this lever is so arranged that it extends outwardly a desired distance on the one side of the extension 6 to allow of a downwardly-extending releasing-arm 21, which is formed integral therewith, to operate. The lower face of the lever 19 has suitably connected thereto an L-shaped projection 22, which operates against the tapering arm 15 and prevents the lever from being elevated when engaging the arm.

The lever 19 is provided with a suitable handle 23. The inner face of the U-shaped bend 12 of the hanger or support 11 is milled, as well as the right-angle portion of the hanger 16. This right-angle portion 17 I term the "gripping-jaw."

The operation of my improved device is as follows: The cable 13 running through the U-shaped portion 12 of the hanger 11, the lever 19 is brought forward, thereby lowering the hanger 16 and gripping-jaw 17, which is formed integral therewith, against the cable 13, securely holding the same in position. When it is desired to release the grip automatically, the releasing-arm 21, owing to the movement of the car, is brought into contact with the pin 24, throwing the same backward

and removing the lever entirely from the arm 15, thereby allowing the offward movement of the hanger 16, to which the gripping-jaw is attached. By bringing the lever in engagement with the arm 15 the gripping-jaw will reengage the cable.

The projections 20 are mounted in the desired position upon the tracks 25, so that they can readily engage the releasing-arm 21.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. In a grip an oblong extension 6 suitably connected to a car, a downwardly-extending hanger or support having its lower end bent to support the cable formed integral with the said extension, guides suitably connected to the said hanger, an operating-arm connected to the said extension a downwardly-extending hanger formed integral therewith having its lower end bent forming a gripping-jaw, guides formed integral with the said hanger, and means connected to the said extension for operating the said gripping-jaw, substantially as set forth.

2. In a grip an oblong extension 6 suitably connected to a car, a downwardly-extending hanger or support having its lower end bent to support the cable formed integral with the said extension, guides suitably connected to the said hanger, an operating-arm connected to the said extension, a downwardly-extending hanger formed integral therewith having its lower end bent forming a gripping-jaw, guides formed integral with the said hanger, a lever pivotally connected to the said extension adapted to operate upon the said operating-arm for operating the said jaw, substantially as set forth.

3. In a grip an oblong extension 6 suitably connected to a car, a downwardly-extending hanger or support having its lower end bent to support the cable formed integral with the said extension, guides suitably connected to the said hanger, an operating-arm connected to the said extension, a downwardly-extending

hanger formed integral therewith having its lower end bent forming a gripping-jaw, guides formed integral with the said hanger, a lever pivotally connected to the said extension adapted to operate upon the said operating-arm for operating the said jaw, and means formed integral with the said lever when operated adapted to release the said jaw, substantially as set forth.

4. In a grip an extension, a downwardly-extending hanger having its lower end bent for supporting a cable suitably connected thereto, a tapering operating-arm suitably secured to the said extension, a gripping-jaw connected to the said operating-arm, guides formed integral with the said hanger or support for the said gripping-jaw, and means operating on the said arm for operating the said jaw, substantially as set forth.

5. In a grip an extension, a downwardly-extending hanger having its lower end bent for supporting a cable suitably connected thereto, a tapering operating-arm suitably secured to the said extension, a gripping-jaw connected to the said operating-arm, guides formed integral with said hanger or support for the said gripping-jaw, and a lever pivotally connected to the said extension for operating the said arm thereby operating the said jaw, substantially as set forth.

6. In a grip an extension, a downwardly-extending hanger having its lower end bent for supporting a cable suitably connected thereto, a tapering operating-arm suitably secured to the said extension, a gripping-jaw connected to the said operating-arm, guides formed integral with said hanger for the said gripping-jaw, a lever pivotally connected to the said extension for operating the said arm thereby operating the said jaw, and means formed integral with said lever when operated adapted to release the said jaw, substantially as set forth.

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

JAMES HEENAN.

Witnesses:

JOHN NOLAND,
H. H. PATTERSON.