

No. 756,579.

PATENTED APR. 5, 1904.

G. E. CARNES.
EMERGENCY BRAKE.

APPLICATION FILED MAR. 23, 1903.

NO MODEL.

Fig. 1.

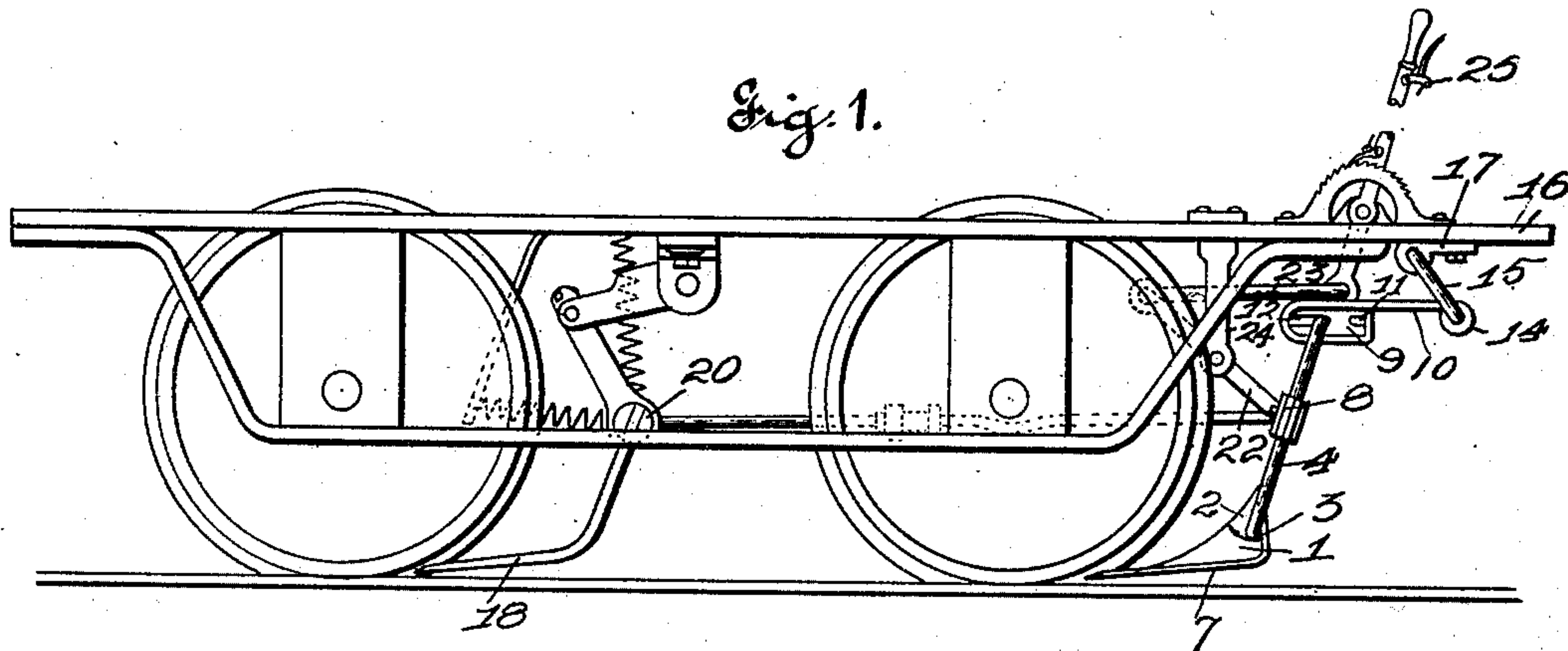


Fig. 2.

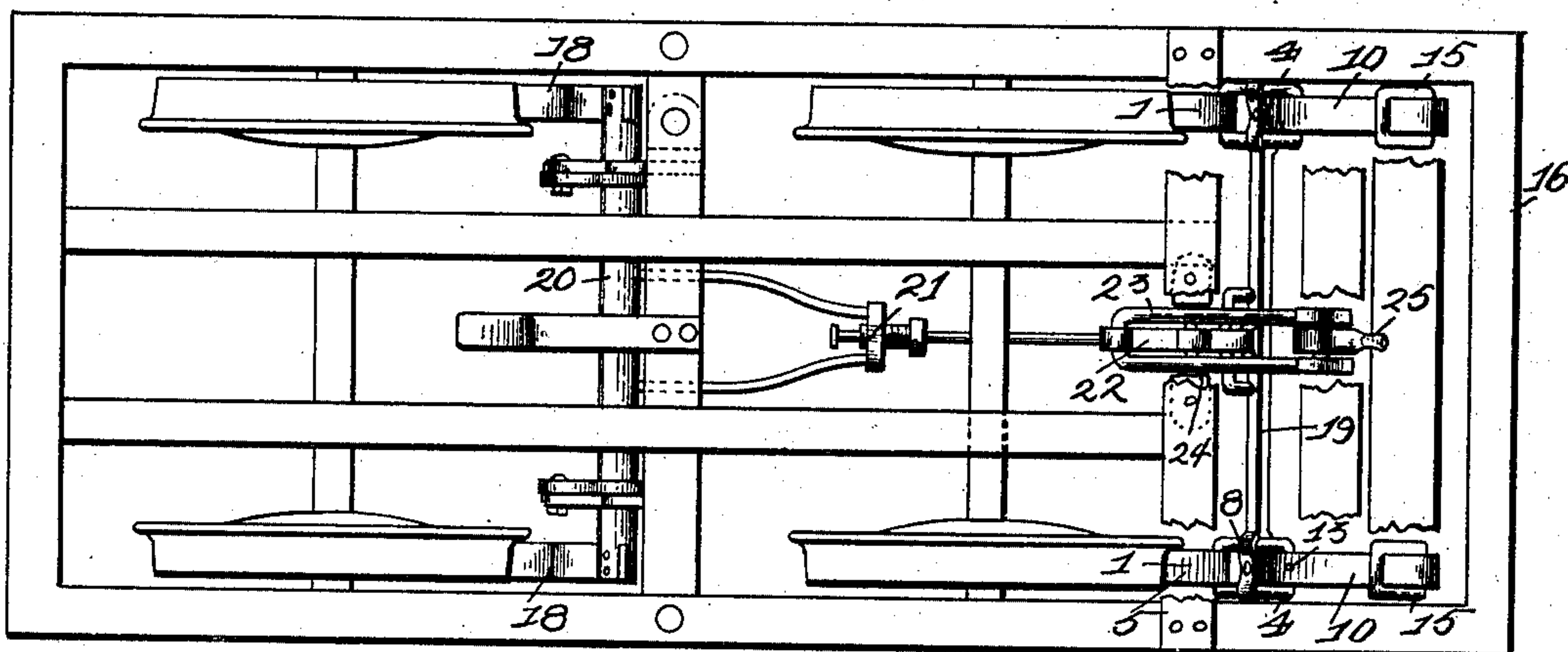


Fig. 3.

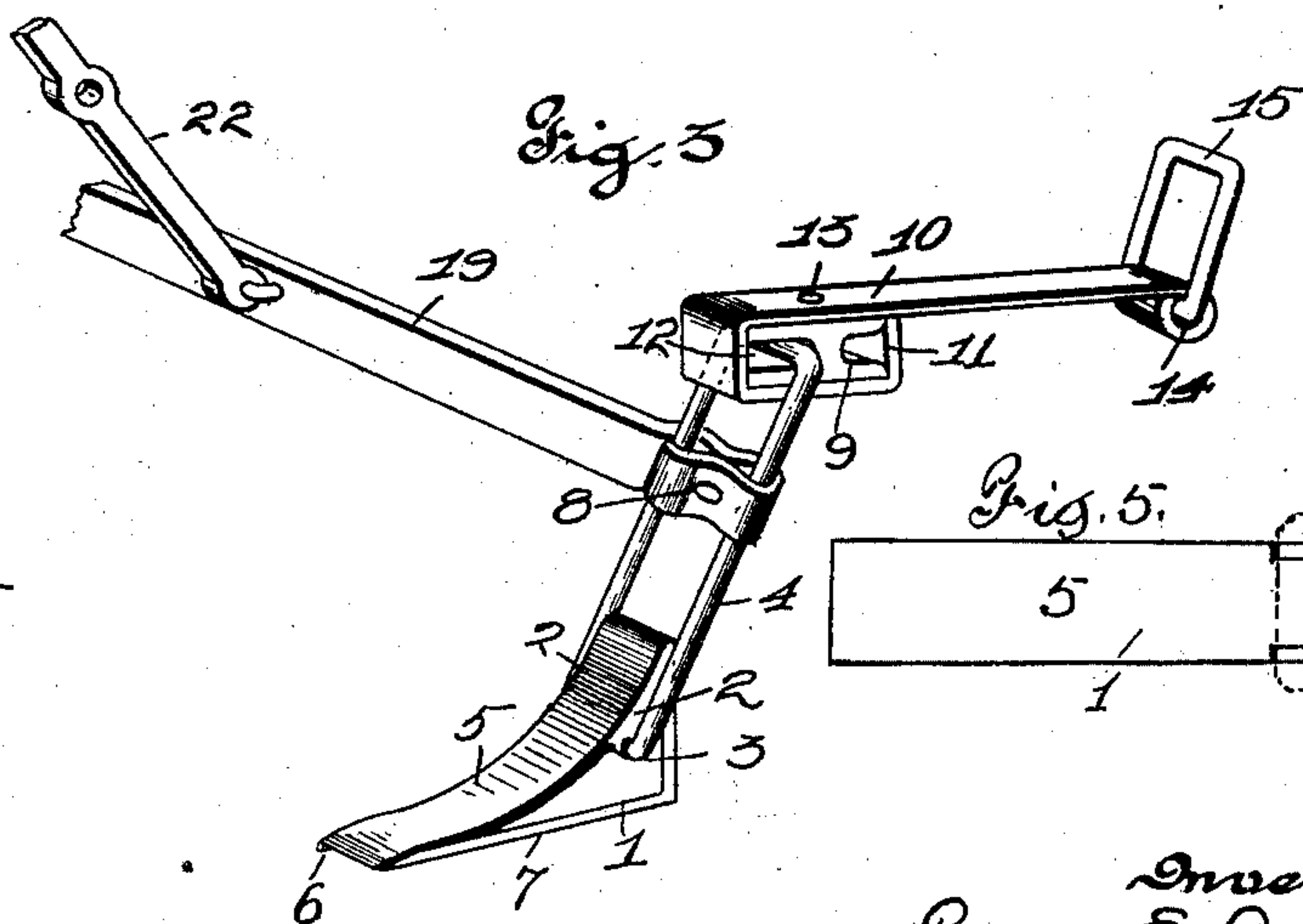


Fig. 4.

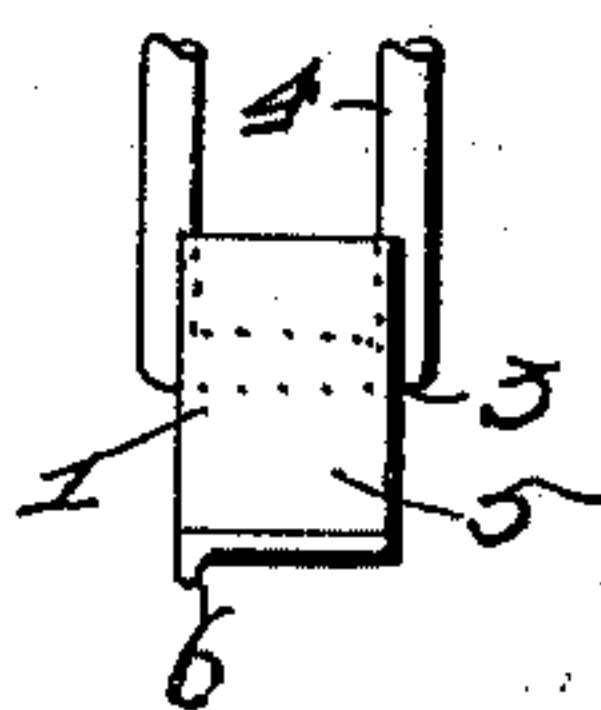
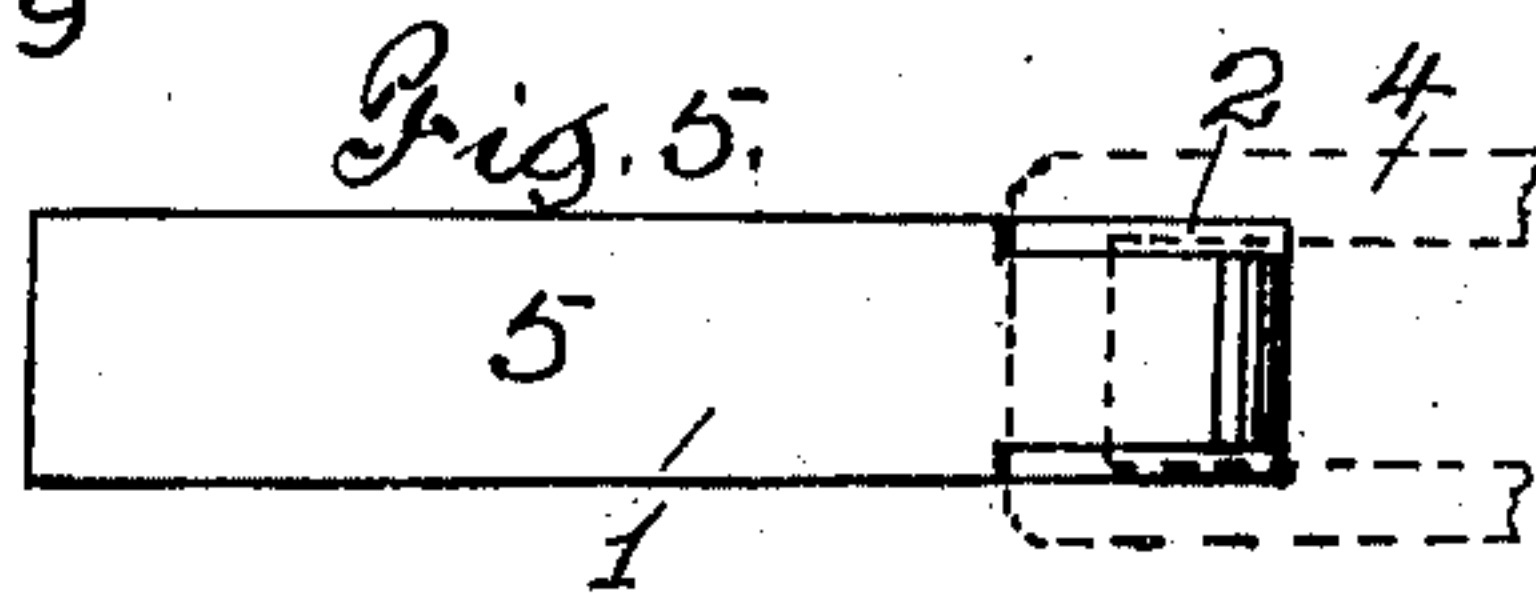


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE E. CARNES, OF ST. LOUIS, MISSOURI.

EMERGENCY-BRAKE.

SPECIFICATION forming part of Letters Patent No. 756,579, dated April 5, 1904.

Application filed March 23, 1903. Serial No. 149,228. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. CARNES, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Emergency-Brakes, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in emergency-brakes; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

In the drawings, Figure 1 is a side elevation of one form of brake, showing my invention applied to the same. Fig. 2 is a top plan view of the same. Fig. 3 is a detail perspective view of the shoe and its supporting mechanism. Fig. 4 is a detail view of the end of the shoe. Fig. 5 is a top plan view of the shoe.

Referring to the drawings, 1 indicates the shoe which I employ in carrying out my invention. Said shoe is provided with V-shaped recesses 2, which are formed on opposite sides of the shoe, and is also provided with a transverse hole 3, in which the stirrups 4 are located. The top of said shoe is provided with a curved face 5, adapted to conform to the curvature of the wheel, and the bottom of said shoe is provided with a longitudinal flange 6, which prevents the shoes from spreading when in use. It will be noticed that my shoe is provided with a longitudinal face 7, which is of substantial length, so as to create a great amount of frictional contact on the rail. The longitudinal frictional surface 7 in a practical working brake is from eight to twelve inches. In a light car the shoe should be longer than in a heavy car.

As heretofore stated, the stirrups 4 are located in the transverse hole 3 and when so located are prevented from spreading and coming out of the hole 3 by means of the clamp 8. It will be understood that the stirrups 4 are split at one end. The solid ends of the stirrups are located in an adjustable block 9, which adjustable block 9 is detachably secured in the hanger 10, as illustrated in Fig. 3. It

will be noticed that the adjustable block 9 is provided with two U-shaped recesses 11 and 12 of unequal dimensions. The adjustable block 9 is secured in the hanger 10 by means of a rivet or bolt 13. By means of the adjustable block 9 the length of the stirrups 4 may be adjusted. The hanger 10 is also provided with an eye 14, in which is located a link 15, said link 15 being secured to the framework of the truck 16 by means of a strap 17. The strap 17, link 15, hanger 10, and stirrups 4 constitute the means for supporting the brake-shoe. I use in connection with the brake-shoes 1 another set of brake-shoes 18, which brake-shoes are of substantially the same construction as the ones heretofore described—that is, the brake-shoes 18 have a long friction-surface and also a flange 6, the same as the brake-shoes 1. The brake-shoes 1 are laterally secured together by means of a brake-beam 19, and the shoes 18 are secured together by means of a brake-beam 20. The brake-beams 19 and 20 are adjustably connected together by means of a connection 21, although I may use any other means of adjustably connecting the brake-beams together, as it is necessary that these brake-beams be adjustably connected together, so that they may be operated by one lever.

22 indicates a lever, one end of which is connected to the brake-beam 19, and the other end is connected to a link 23. Said lever 22 is fulcrumed in a support 24, and by means of operating the hand-lever 25 the brake-shoes are operated—that is, set and released. Although I have shown this form of operating the brake-shoes, there are various constructions by which I may operate the same, the essential parts of my invention being the construction of the brake-shoes and the means of suspending the same from the framework of the truck.

In operation when the brake-shoes are set the said brake-shoes support the wheels—that is, the wheels ride on said brake-shoes—and the frictional contact which answers to stop the car arises from the contact of the lower face of the brake-shoes with the track and the wheels are not stopped rotating in the beginning, but are eventually stopped.

It will be noticed that by this construction, wherein I have an elongated brake-shoe and the riding of the wheels on the brake-shoes when the brake-shoes are set, I have provided
5 a very efficient brake for emergency purposes, as by such a construction I get a greater amount of frictional contact between the brake-shoes and the track than the brakes of ordinary construction.

10 Having fully described my invention, what I claim as new, and desire to have secured to me by the grant of Letters Patent, is—

1. In an emergency-brake, a brake-shoe provided with a curved face 5, V-shaped recesses 2, an elongated face 7, and a rib 6, sub-
15 stantially as specified.

2. In an emergency-brake, a brake-shoe

provided with a curved face 5, a rib 6, an elongated face 7, V-shaped recesses 2, a stirrup 4, an adjustable slack block 9 and a hanger 10, 20 substantially as specified.

3. An emergency-brake, consisting of a brake-shoe having a curved face 5, V-shaped recesses 2, rib 6, split stirrup 4, clamp 8 for said split stirrup, an adjustable block 9, 25 hanger 10 and link 15, substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

GEORGE E. CARNES.

Witnesses:

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