

No. 607,514.

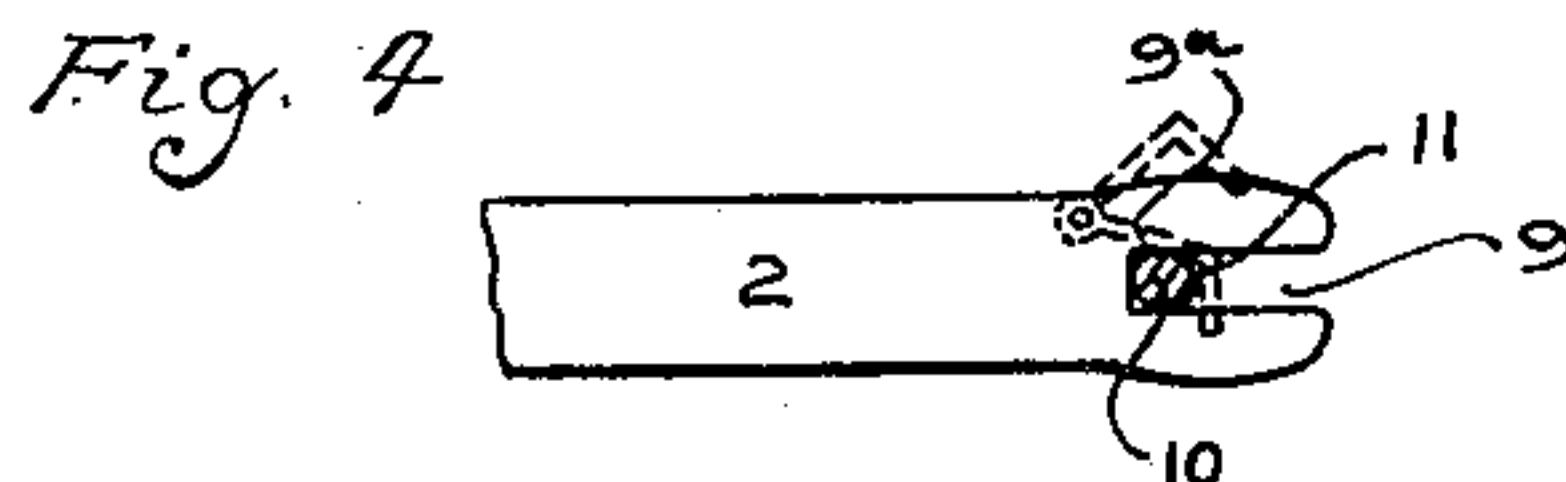
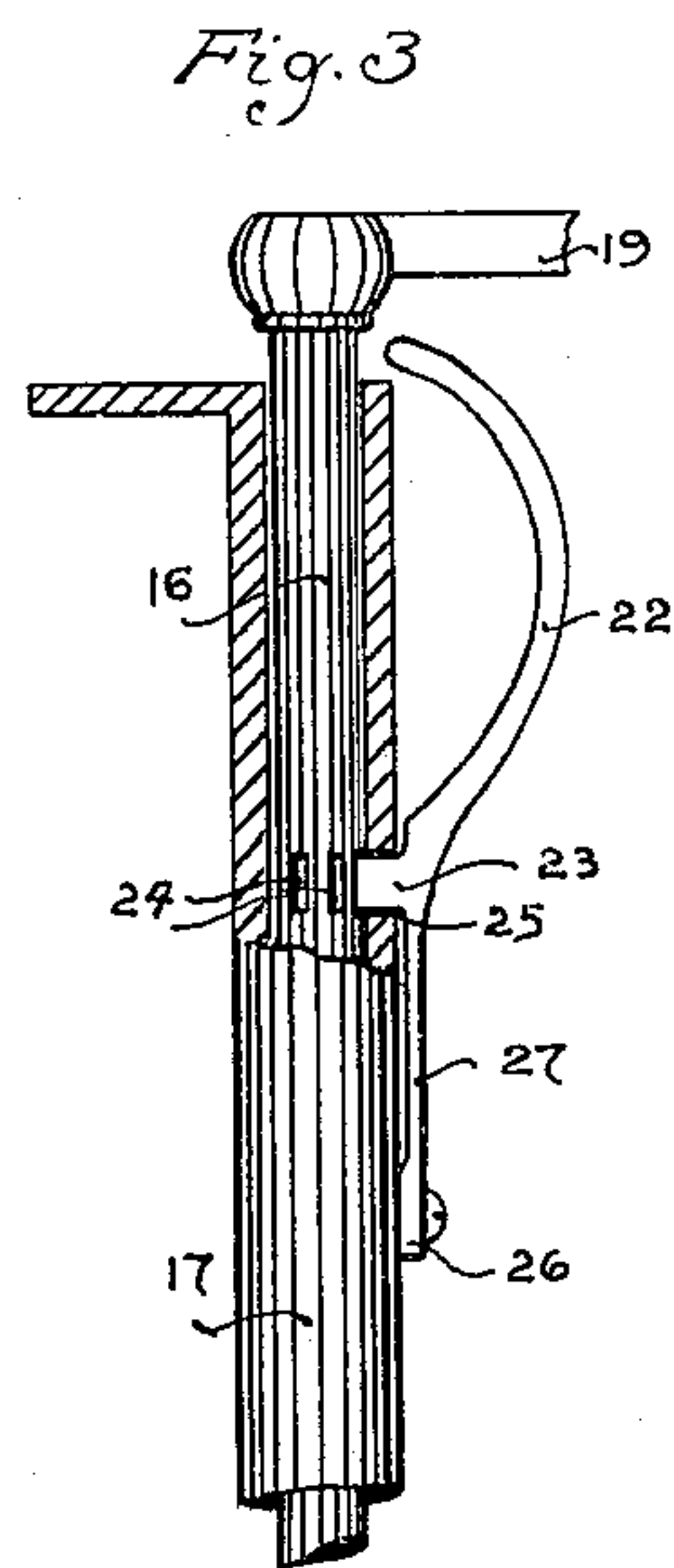
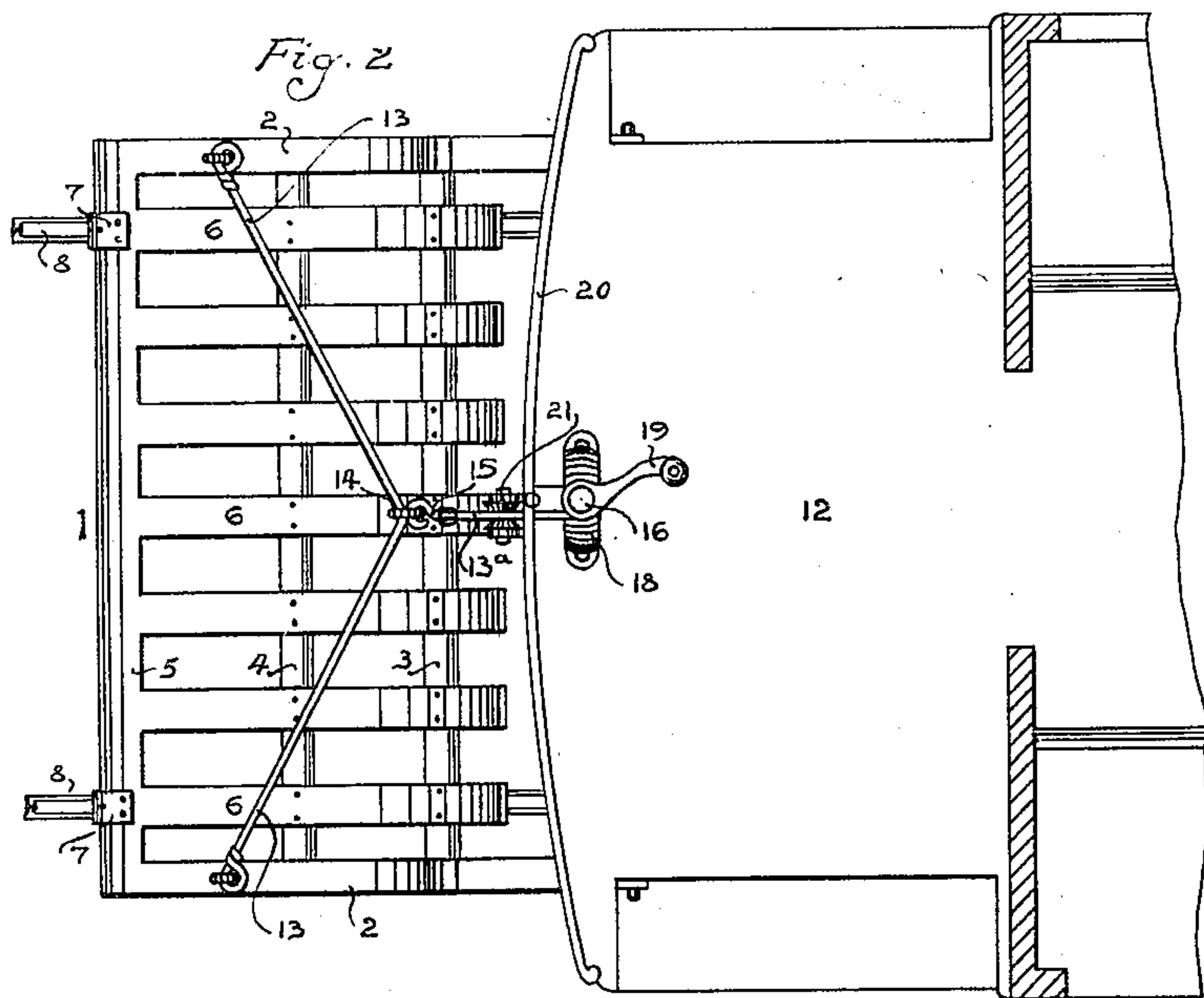
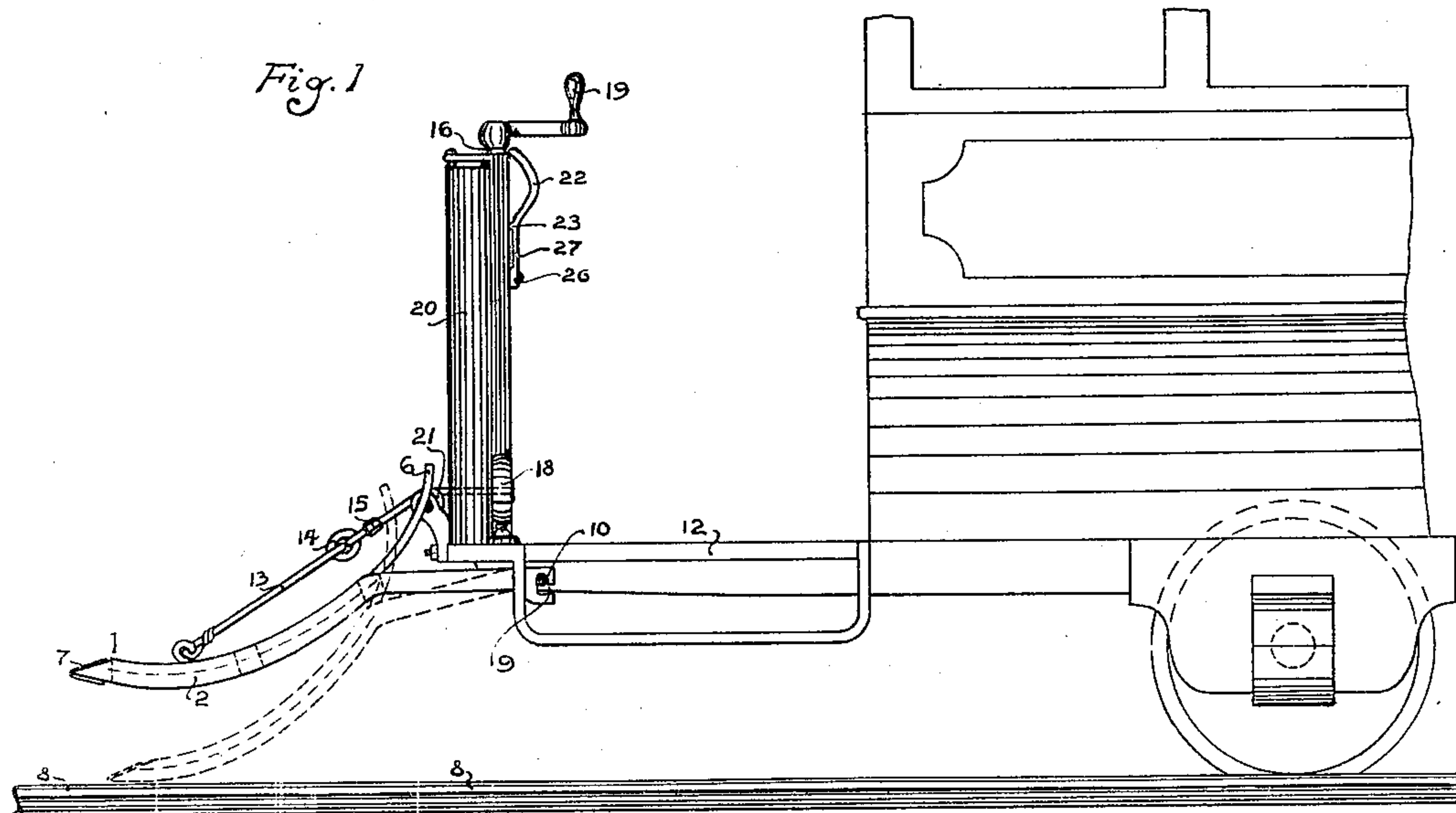
Patented July 19, 1898.

A. L. LAWTON & D. L. MACAFFREE.

CAR FENDER.

(Application filed Mar. 14, 1898.)

(No Model.)



WITNESS:

William C. Johnston
Fred B. Hart.

INVENTORS:

Andrew L. Lawton.
David L. Macaffree.
BY *Frank McClintock*

ATTORNEY

UNITED STATES PATENT OFFICE.

ANDREW L. LAWTON AND DAVID L. MACAFFREE, OF COLORADO SPRINGS,
COLORADO; SAID MACAFFREE ASSIGNOR TO SAID LAWTON.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 607,514, dated July 19, 1898.

Application filed March 14, 1898. Serial No. 673,734. (No model.)

To all whom it may concern:

Be it known that we, ANDREW L. LAWTON and DAVID L. MACAFFREE, citizens of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented a new and useful Improvement in Car-Fenders, of which the following is a specification.

Our invention relates to improvements in that class of car-fenders which are hinged or pivoted to the car and normally have the front end held up from the track a sufficient distance to clear ordinary obstructions and snow on the track, which, however, may be instantly released, so as to drop down with the front end in close contact with the track, so as to catch any person or object and prevent them being caught and crushed beneath the car-wheels.

The object of our invention is to provide a simple and inexpensive fender, with means for quickly attaching or removing the same from either end of the car, so that only one fender will be required for each car, and also to provide improved means for raising and lowering the fender. We attain these objects by means of the mechanisms shown in the accompanying drawings, in which—

Figure 1 is a side elevation of a car with the fender attached in its normal position, the dotted lines showing its position when its front end is dropped into contact with the track. Fig. 2 is a plan view from above. Fig. 3 is a detail sectional view of the upper end of the elevating-shaft, showing the manner of locking it; and Fig. 4 shows another manner of pivoting the rear of the fender to the car.

Similar reference-figures refer to similar parts in each of the views.

The fender 1 may be of any desired construction; but it is preferably made as shown—that is, with parallel bars 2, one on each side, which serve to support it from the car-platform, as will be described later. Connecting these are cross-bars 3, 4, and 5, the latter being at the free end of the fender and being beveled, as shown, to lie flat on the track when the fender is lowered. The metal plates 7 rest on the rails 8 and protect the cross-bar 5 from wear.

The body portion of the fender is formed of slats 6, of wood or other suitable material, which are curved substantially as shown in Fig. 1. The upper ends of said slats extend above the car-bumper, as shown, in order to prevent any person caught by the fender being thrown violently against said bumper and seriously injured thereby.

The shape of the fender is such that when lowered, so that its forward end rests on the track, it will readily scoop up and retain any object or body from the track.

The side arms 2 of the fender have slots 9 near their extremities, of substantially the shape shown, through which pins 10 pass, thus pivoting the fender to the under side of the car-platform 12 in such a manner that its front end may be freely raised or lowered. The construction of the slot 9 is such that by drawing the fender forward and then raising the rear end of the arms 2 the entire fender may be quickly removed from the car, so that by providing supporting-pins 10 at each end of the car the fender may be readily changed from one end of the car to the other when the direction of the movement of the car is changed, thus having a fender always on the forward end of the car. In Fig. 4 is shown a side view of another means for securing the side arms 2 to the pins 10. The slot 9 in this construction is a straight one, and the arm 2 is prevented from being accidentally drawn off by a pivoted hook 9^a, which may be raised up to the position shown by the dotted lines when it is desired to remove the fender.

A cable or chain 13 is secured to the side bars 2, as shown in Fig. 2, and has a ring 14 at its center, into which may be fastened the hook or catch 15, which is connected to the means for raising up and holding the fender normally in the position shown in Fig. 1, and which also has means for instantly releasing it in an emergency.

The device for lifting up the front end of the fender and holding it securely at the height desired consists, essentially, of a shaft 16, which revolves freely in a casing 17, which is secured to the platform and dash of the car, as shown. Near its lower end the casing 17 is cut open and the two sides spread

apart at 18, so that a cable or chain may be attached to the shaft 16 and wound thereon by revolving it by means of the crank-handle 19 on its upper end. The cable or chain 5 13^a passes through an opening in the dash 20 and over a pulley 21, and the hook or catch 15 at its end is caught into the ring 14. It will be evident that by turning the shaft 16 so as to wind up the cable or chain 13^a the 10 forward end of the fender will be raised. Near the upper end of the casing 17 is a spring-latch 22, the bit 23 of which enters a notch 24 in the casing. One or more of these notches 24 are made in the shaft 16, which 15 register with a hole 25 in the casing 17 and are adapted to receive the bit 23, which prevents the shaft 16 from turning, and thus the fender may be held securely at any desired height. The latch is pivoted to the side of 20 the casing at 26, and a spring 27 is used to press the bit into place and hold it securely. The upper part of the latch forms a handle 22, by which the bit 23 of the latch may be instantly pulled out of engagement with the 25 shaft 16, and whenever this is done the weight of the fender causes its front end to drop to the surface of the track, unwinding the cable or chain 13^a as it falls. A duplicate of this device for lifting and holding up the fender 30 and dropping it in an emergency is placed at each end of the car, so that it is only necessary to disconnect and remove the fender proper from one end of the car to the other, which may be quickly done without the use

of any tools, in order to have a complete fender and mechanism for operating the same at the hand of the motorman whichever end of the car may be forward. 35

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is— 40

1. The combination with a fender having side arms with slots in or near their extremities adapted to be hooked to suitable pins which are permanently secured in duplicate 45 at each end of the car, of a revoluble shaft and a cable or chain for lifting the fender, a barrel for inclosing said shaft, notches in said shaft, and a spring-latch secured to the barrel and adapted to engage the notches in the 50 shaft substantially as specified.

2. The combination with a fender having side arms with slots in or near their extremities adapted to be hooked to suitable pins which are permanently secured in duplicate 55 at each end of the car and with curved parallel slats extending above the car-bumper, of a revoluble shaft and a cable or chain for lifting the fender, a barrel for inclosing said shaft, notches in said shaft and a spring- 60 latch secured to the barrel and adapted to engage the notches in the shaft substantially as specified.

ANDREW L. LAWTON.
DAVID L. MACAFFREE.

Witnesses:

ALFRED K. MANGAM,
J. H. THEDINGA.