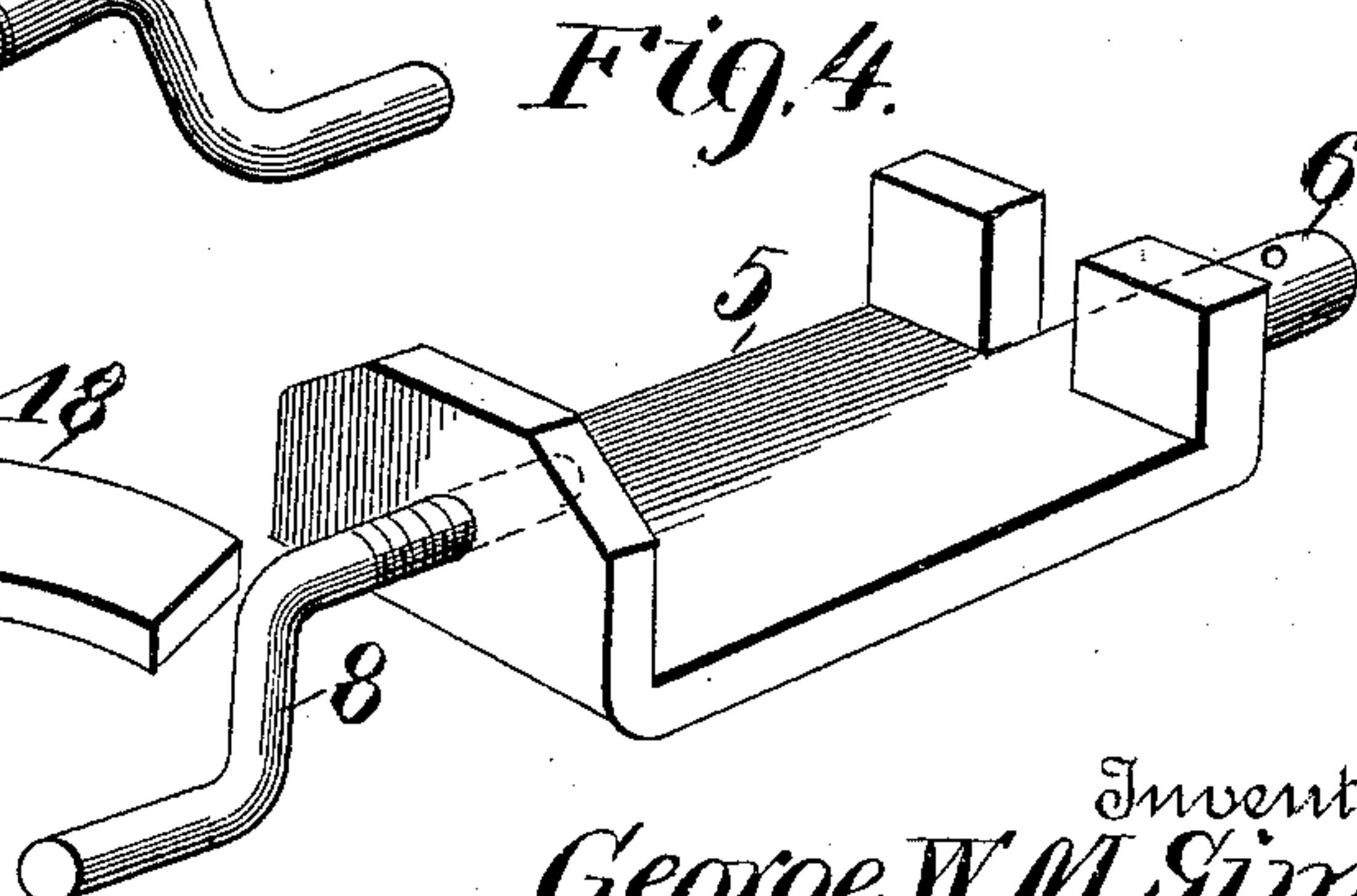
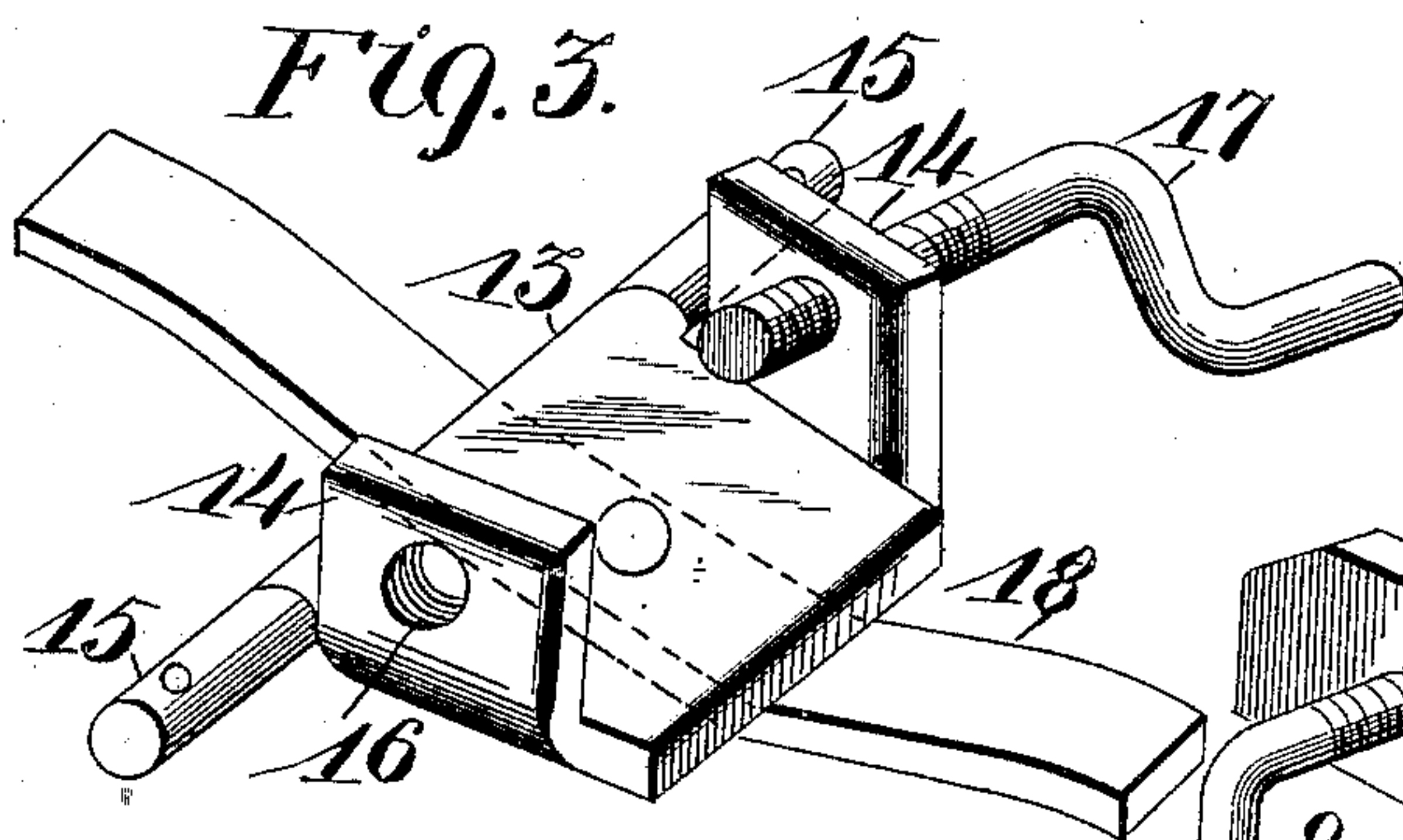
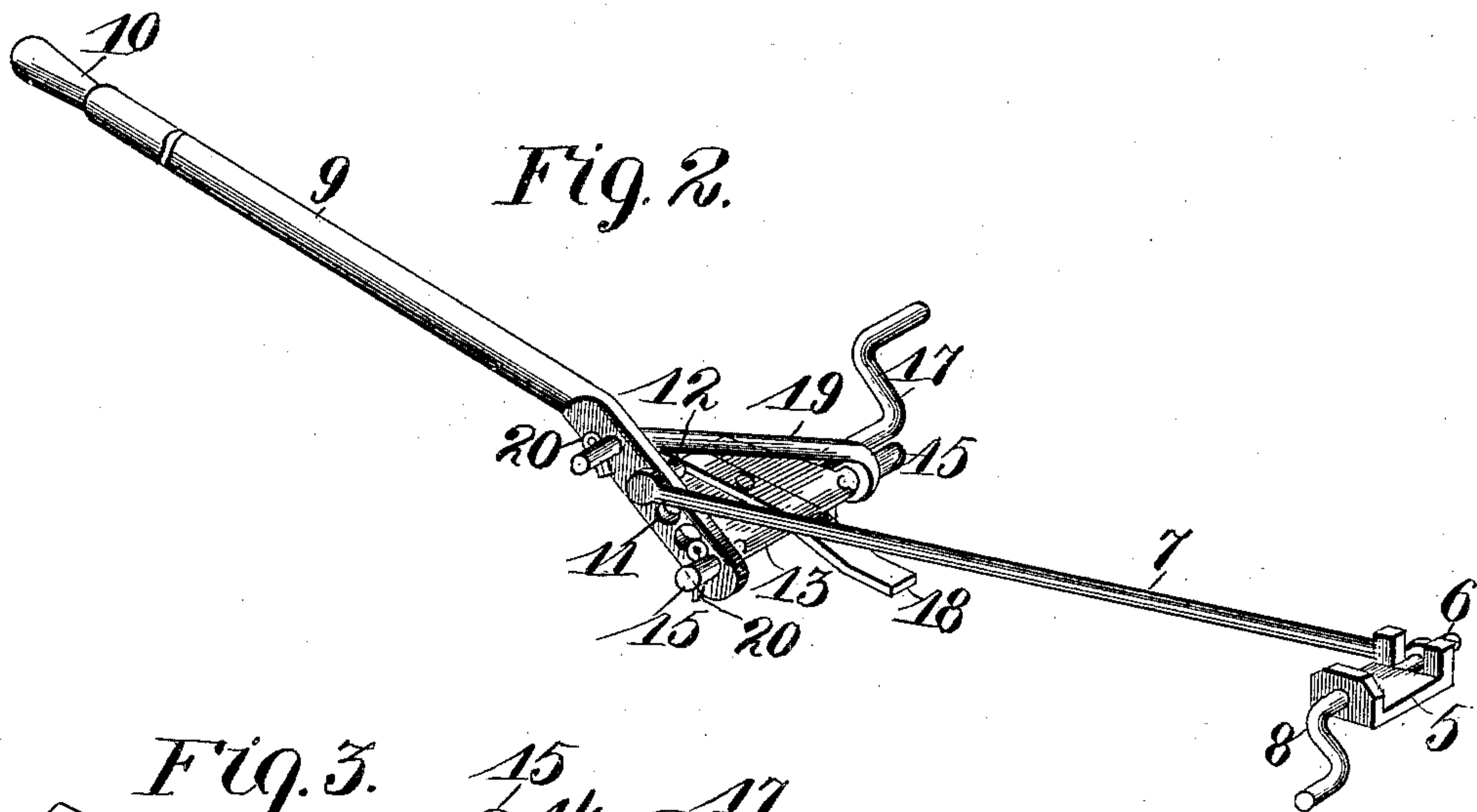
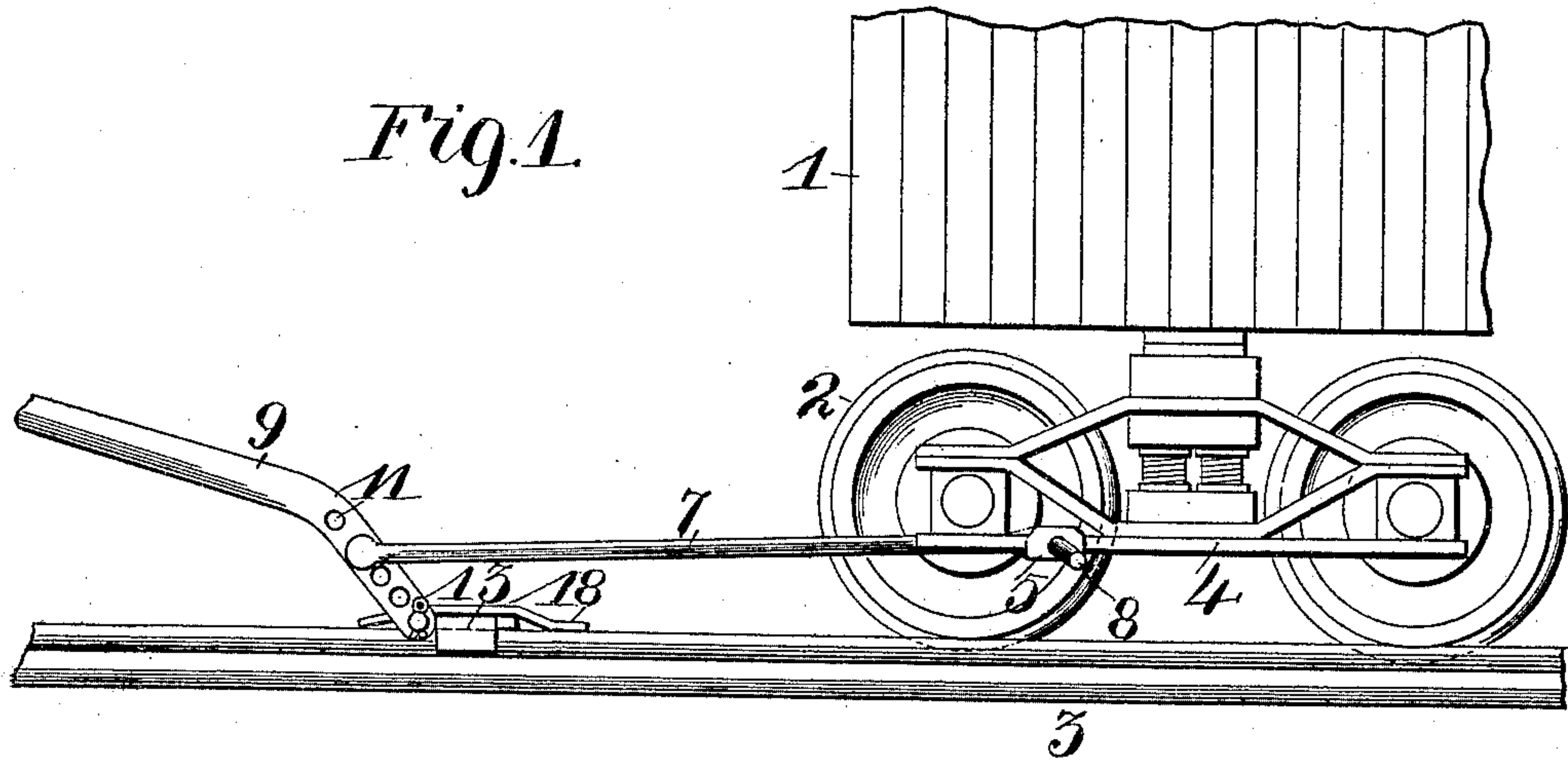


(No Model.)

G. W. M. SIMMS.
CAR MOVER.

No. 475,902.

Patented May 31, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE W. M. SIMMS, OF DE SOTO, MISSOURI.

CAR-MOVER.

SPECIFICATION forming part of Letters Patent No. 475,902, dated May 31, 1892.

Application filed January 22, 1892. Serial No. 418,946. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. M. SIMMS, of the city of De Soto, Jefferson county, and State of Missouri, have invented certain new and useful Improvements in Car-Movers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in car-movers; and it consists in the novel arrangement and combination of parts, as will be more fully hereinafter described and designated in the claims.

In the drawings, Figure 1 is a side elevation of my complete invention as applied to one side of the truck and one of the rails. Fig. 2 is a perspective view of my complete invention detached from the car. Fig. 3 is a perspective view of the sliding grip which is used in connection with the rail, and Fig. 4 is a perspective view of the clamp which I employ in attaching the device to the truck of the car.

The object of my invention is to provide a novel and simplified construction in this class of invention, and is especially employed at way-stations, sidings, &c., where cars are desired to be moved a short distance without the use of a locomotive, which are generally used for that purpose.

Referring to the drawings, 1 represents one end of an ordinary car, 2 the truck of the same, and 3 one of the rails upon which the wheels of the truck rest.

4 represents the lower brace, which partially constitutes the truck-frame of the car and to which the immovable clamp 5 is easily attached without any inconvenience.

The clamp 5 which I employ is constructed very cheaply and is made of a single piece of metal forged in the shape as shown in Fig. 4 of the drawings in order to adapt itself to the lower brace 4 of the truck-frame.

6 represents a rounded extension formed on the said clamp 5 and to one side of the same, which is received by a suitable opening formed in one end of the connecting-rod 7, as better illustrated in Fig. 2. The opposite side of the clamp 5 is provided with a screw-threaded opening for receiving a suitable turn-screw 8, the end of which screw comes in contact with the side of the brace 4

of the truck-frame when the said screw is turned in the proper direction, causing said clamp to be rigidly secured to said brace 4.

9 represents a suitable operating-lever, which is provided with a suitable handle 10, and the opposite end of said lever is suitably bent, in order to answer the purpose and to accommodate itself to the remaining parts. The said lower end of the lever 9 is provided with a suitable number of openings 11, by means of which the remaining parts constituting my invention can be easily attached to the said lever. That end of the rod 7 opposite to the perforated end is provided with a rounded projection 12, projecting at right angles therefrom, and is adapted to be passed through any one of the openings 11, as best shown in Fig. 2, making a movable connection between said rod and lever 9.

The grip which I employ is especially constructed for the purpose and is very simple in construction, and yet answers the purpose for which it is designed—namely, that the said grip will slide in one direction when the lever 9 is moved and will grip the rail when a reverse movement is imparted to the said lever in the opposite direction, the construction of which grip is best shown in Fig. 3.

13 represents a movable grip, the body portion of which is constructed of a single piece of metal, and when properly shaped and formed two projecting lips 14 will be formed, which by the formation of said grip will assume the position as shown. By the construction of the said grip it will be seen that the distance between the two lips 14 vary, the shorter distance between said lips being the impinging portion of said grip, and the wider distance between the two said lips allowing sufficient space for the grip to slide upon the rail.

15 represents two rounded extensions formed on the widest portion of the said grip and projecting beyond the sides of the same, which are adapted to be passed in the lower opening 11, formed in the lower end of the lever 9, forming a movable connection between said grip and lever.

In both of the lips 14 are formed screw-threaded openings 16, within which is screwed a second hand-screw 17, one end of which is adapted to come in contact with one side of

the rail. The object of the two screw-threaded openings 16 is to receive the turn-screw 17 on either side of the grip, the object of which will be hereinafter more specifically set forth. Secured to the top of the grip 13 is a curved plate 18, the ends of which are adapted to rest upon the upper surface of the rail to which the said grip is attached and tends to hold the grip in its proper position and location to said rail.

When the grip is placed in position and attached to the various parts, as shown in Fig. 2, one of the rounded projections 15 of said grip is received by a suitable opening formed in one end of a brace 19 and the opposite end of said brace passed through one of the openings 11, formed in the lever 9, by means of which the parts are held in their proper relation to one another, and yet movable to allow the true workings of the device.

Before proceeding further it would be well to state that the various parts constituting my invention are attached to one another and held in that position by means of suitable split pins 20, which render the parts detachable.

The grip and remaining parts of the device, as shown in Fig. 2, are in a position to push the car when attached to the right-hand side of the rail and car looking to said car. In this instance the grip will slide upon the rail when the lever 9 is lowered and will bite the said rail when the lever 9 is elevated. In applying the grip in this position upon the rail the said grip is loosely placed upon the rail in its proper position, as shown in Fig. 1, and the hand-screw 17 turned until one end of the said screw comes in contact with one side of the said rail, care being observed that the said grip is parallel, or nearly so, with the rail. This being true, the lever 9 when elevated will cause the grip to slightly turn by the power applied to one side of the same, causing the said grip, as it were, to turn on its axis, the end of the screw 17 coming in contact with one side of the rail and the edge of the lip 14 opposite the said screw coming in contact with the opposite side of the rail, preventing the grip from sliding in one direction; but when the lever 9 is lowered the said grip will slide upon the rail and is in proper position to grip the rail again when the said lever is elevated. Thus it may be stated that the device is entirely automatic. The momentum of the car after being pushed, as above stated, will carry the grip a sufficient distance, when power is applied again to the lever 9, and so on until the car is moved the required distance.

Should it be desired to pull the car, the entire device is located on the opposite rail and attached to the truck-frame on the opposite side of the car, and in order to cause the device to work effectually the grip is attached to the lower end of the lever in a reverse position to that shown in Fig. 2—namely, the rounded projection that has been previously

attached to the brace 9 will be located in the opening in said lever and the rounded projection that has been previously inserted in said opening attached to the brace. In this instance the lever 9 on being elevated will cause the grip 13 to slide; but when the said lever is depressed the said grip will bite the rail and the power applied to said lever will be imparted to the connecting-rod 7, and consequently to the truck-frame of the car. Of course it will be understood that by applying the grip 13 to the track, as last described, the hand-screw 17 will be screwed into the screw-threaded opening formed in one of the lips 14 opposite to that shown in Fig. 2, causing, in other words, the grip 13 to work in an opposite direction to that first described. It may be deemed preferable, however, in some instances to employ two devices, one located upon each rail and attached to the car in the manner as previously stated and arrange the grips in such a manner (or in a reverse position to one another) in order that when the levers 9 are operated by each hand the momentum of the car will be continuously kept up, and in this case under no circumstances will the car be allowed to move in a reverse direction while moving the said car the proper distance upon the rails.

Having fully described my invention, what I claim is—

1. A car-mover comprising a grip, lips, such as 14, formed on the same and provided with screw-threaded openings, a hand-screw, such as 17, adapted to be screwed into one of said openings for adjusting the said grip upon the rail, and rounded projections, such as 15, projecting on each side of the said grip, whereby power may be applied to one side of the said grip, substantially as described.

2. A car-mover consisting of a grip, such as 13, rounded projections, such as 15, formed on the same, screw-threaded openings formed in the said grip, a hand-screw, such as 17, adapted to be screwed into one of said openings, a lever, such as 9, provided with a suitable number of openings, one of which openings is adapted to receive one of the rounded projections 15, formed on the said grip, a clamp, such as 5, adapted to be attached to the truck-frame of the car, and a connecting-rod, such as 7, one end of which is attached to the said clamp and the opposite end removably attached to the said lever above the point where the said grip is attached to the said lever, substantially as described.

3. A car-mover consisting of a clamp, such as 5, provided with a hand-screw 8 for adjusting the said clamp to the truck-frame of the car, a rounded projection, such as 6, formed on the said car, connecting-rods, such as 7, one end of which is attached to the said projection, a lever, such as 9, provided with a suitable number of openings, such as 11, by means of which the opposite end of said rod 7 is attached to the said lever, a grip, such as 13, provided with rounded projections, such as

15, one of which is adapted to be received by one of said openings 11, lips, such as 14, formed in said grip and provided with screw-threaded openings 16, a hand-screw, such as 17, adapted to be screwed into one of said openings, and a brace, such as 19, one end of which is attached to one of said rounded projections 15, formed on said grip and the opposite end of said brace movably attached to the said lever, substantially as set forth.

4. A car-mover comprising a grip, lips formed on the same, each of which are of like dimensions, rounded projections projecting

on each side of said grip, whereby power may be applied to either side of the grip, and means for adjusting the said grip upon the rail, preventing the same from slipping in one direction and allowing it to slide in an opposite direction when power is applied to one side of the same, substantially as described.

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

GEORGE W. M. SIMMS.

Witnesses:

C. K. JONES,

C. F. KELLER.