No. 676,825. Patented June 18, 1901.

G. B. SULLIVAN.

CAR MOVER.

(Application filed Mar. 29, 1901.)

(No Model.)

Fig. 1.

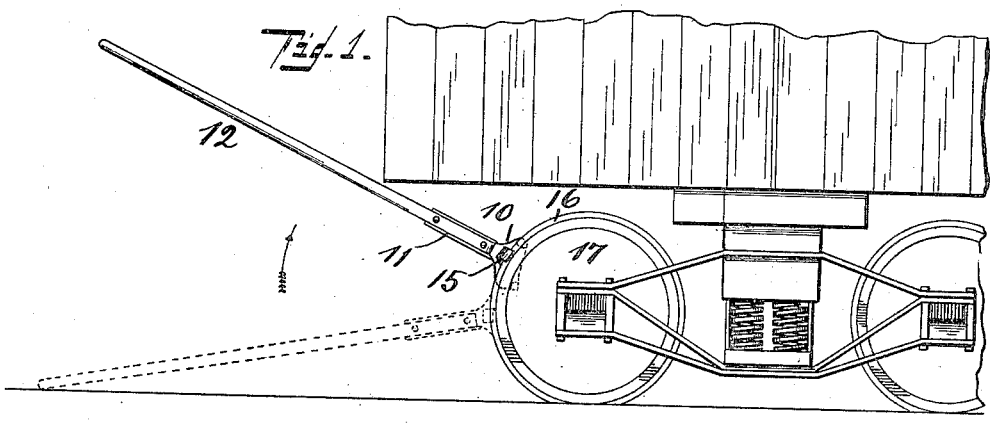


Fig. 2.

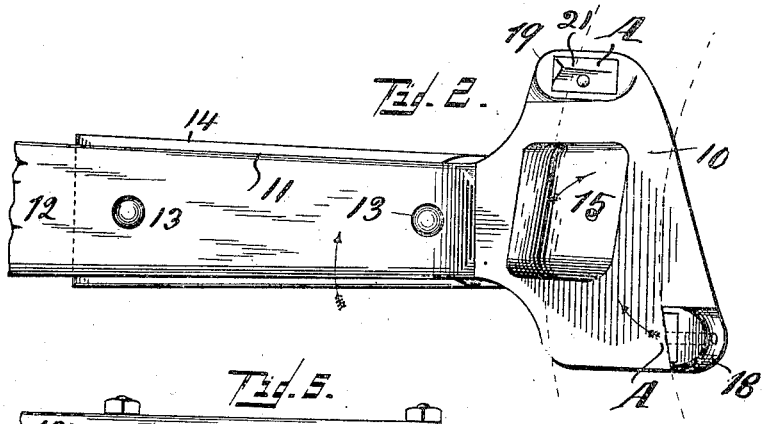


Fig. 3.

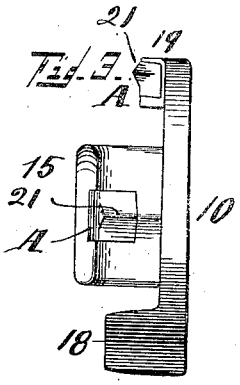


Fig. 5.

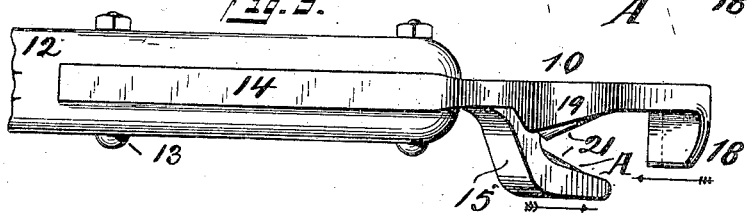


Fig. 4.

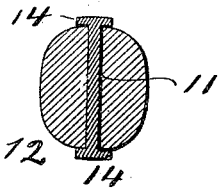
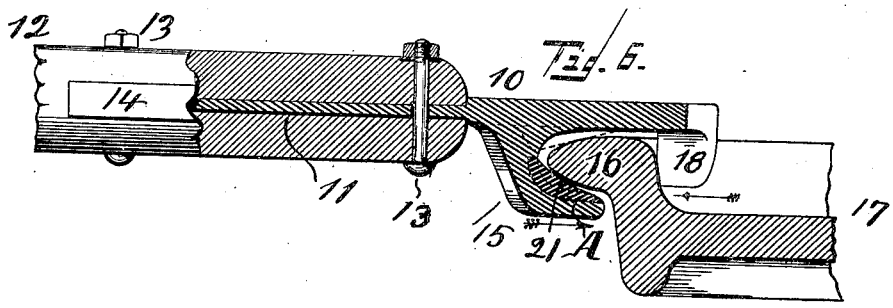


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

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CAR-MOVER.

SPECIFICATION forming part of Letters Patent No. 676,825, dated June 18, 1901.

Application filed March 29, 1901. Serial No. 53,385. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. SULLIVAN, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Car-Movers; and I do hereby declare the following to be a clear, full, 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, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form also a part of this specification.

This invention relates to certain new and useful improvements in implements for moving cars when such is to be done by hand and over a limited distance only.

It relates more particularly to such implements or car-movers which for purposes of their use and application engage the edge of a car-wheel and by successively rotating the same limited distances at a time obtain the desired results.

One particular feature of this invention consists of constructing such an implement as light as compatible with the necessary strength, so as to render its manipulation as little tiresome as possible.

Another feature is the ability to obtain a sure grip, which excludes all possibilities of slipping, thereby preventing accidents liable to occur in the use of such an implement.

In the following specification, and particularly pointed out in the claim at the end thereof, is found a full description of the invention, together with its manner of use, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 shows in side view the implement applied to one of the wheels of a car. Fig. 2 is an enlarged view of the operating end or working head of the implement, the same as it appears in Fig. 1, but disengaged. Fig. 3 is an end view of the preceding figure as the same appears when viewed from the right side. Fig. 4 is a sectional end view as it appears when seen from the left side. Fig. 5 is a top view of Fig. 4. Fig. 6 shows the implement partly in section and applied to the edge of a wheel.

The implement comprises an operating or lever handle and a working head at one end of the same, which latter consists, substantially, of a flat plate 10, which carries the engaging parts and is extended on one side to form a shank 11, to which the wooden lever-handle 12 is attached by means of bolts 13. The thickness of this shank is somewhat reduced as against plate 10, and the lower end of handle 12 is cut out correspondingly to receive this shank. On its longitudinal edges this latter has laterally-projecting flanges 14, which project over the wooden handle on both sides and thus aid in retaining this latter in position. The implement is applied to the edge or rim of the wheel, and it is held in position by the clamping action of two projections, which act in opposite direction against the wheel-rim between them. Of these projections one, 15, is hook-shaped and takes over the edge of flange 16 of wheel 17. The other projection, 18, acts against the inside of the wheel, as best shown in Figs. 1 and 6. By applying force upwardly to the lever-handle, as shown by the arrows in Figs. 1 and 2, a tendency to turn or twist is imparted to the working head of the tool, causing projection 15 to bear hard against the edge of flange 16, while projection 18 bears outwardly, all as indicated by the arrows. Between this opposing action of these two projections a firm grip is obtained, and by continuing the movement of the lever-handle upwardly the wheel is caused to turn. The movement of the handle is continued through a range convenient for the operator and is limited by other contingencies due to position of parts, obstructions by the car-body, &c. If the range of movement is exhausted, the tool is slipped back to a new position, as shown in Fig. 1, and another hold is taken.

It is preferable to have two implements, which would have to be rights and lefts, applied and operating one on each side of a car. In addition to these two projections mentioned there is a third one, 19, in the shape of an inclined plane and bearing when in position against the inner side of the wheel next to

flange 16. This projection, while increasing the hold of the tool simply as an additional point of contact, prevents also the same from slipping off laterally, since the inclined plane while forced upon the edge of the flange tends to divert the tool sidewise, and thereby causes the other projections to bear with increased pressure against the parts of the wheel they engage. Fig. 6 shows this more clearly. The inclined plane (shown in dotted lines) while slipping up on the inside of the flange causes hook-shaped projection 15 to bear correspondingly harder against the outside of the flange of the engaging surfaces. The entire surface does not come in contact with the wheel as to projections 15 and 19, but only limited portions thereof, which portions are represented by ridges 21. These ridges by biting into the metal of the wheel serve to increase still more the grip with which the tool takes a hold, thus preventing slipping, which frequently leads to serious accidents when occurring while the operator is exerting his strongest efforts. Since the engaging surfaces of all three projections bear the brunt of the wear, it is evident that the entire tool becomes useless if they are worn down to an extent which prevents the former from obtaining a tight grip on the wheel. This is because these projections, being integral with the working head of the tool, cannot be renewed independently. To prevent such excessive loss by wear, the parts most subject to this latter are made independently renewable, and which parts are the engaging surfaces of all three projections. Therefore sufficient of these latter is removed to form recesses, which are filled out again with independent pieces, as indicated at A, in all places. These pieces or spurs are preferably of steel, thus prolonging their wear, and when worn out they may be readily renewed without interfering with the other parts of the implement. They may be held in place by rivets or screws.

The entire working head, renewable piece A excepted, is preferably made of malleable iron, with all parts—that is, shank 11, with its flanges 14 and projections 15, 18, and 19—integrally connected.

Having described my invention, I claim as new—

In a car-mover, the combination of a lever-handle, a working head consisting of a flat plate being edgewise extended to form a shank which engages a slit in the handle, laterally-projecting flanges at the outer edges of this shank which overlap the handle at both sides, bolts to hold it in the split of this latter, a flat projection 18 at the lower outer corner of the flat plate, a projection 19, having an outer inclined surface, at the upper corner, a hook-shaped projection 15 intermediate these two, all these projections extending laterally from the same side and are adapted to engage the rim of a wheel between them in the manner described.

In testimony whereof I hereunto set my hand in the presence of two witnesses.

GEORGE B. SULLIVAN.

Witnesses:
C. SPENGEL,
ARTHUR KLINE.