(No Model.)

G. W. GREEN.

CAR COUPLING.

No. 454,864. Patented June 30, 1891.

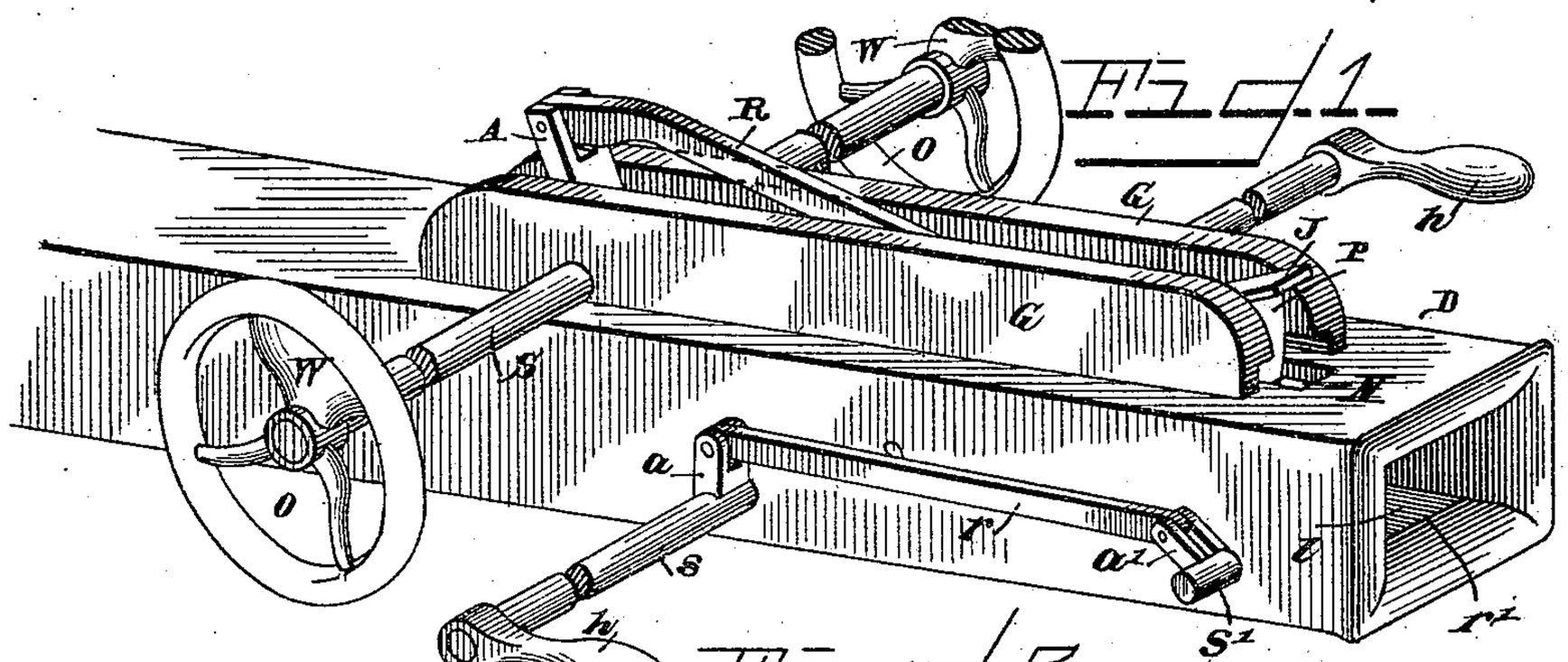

Fig. 1.

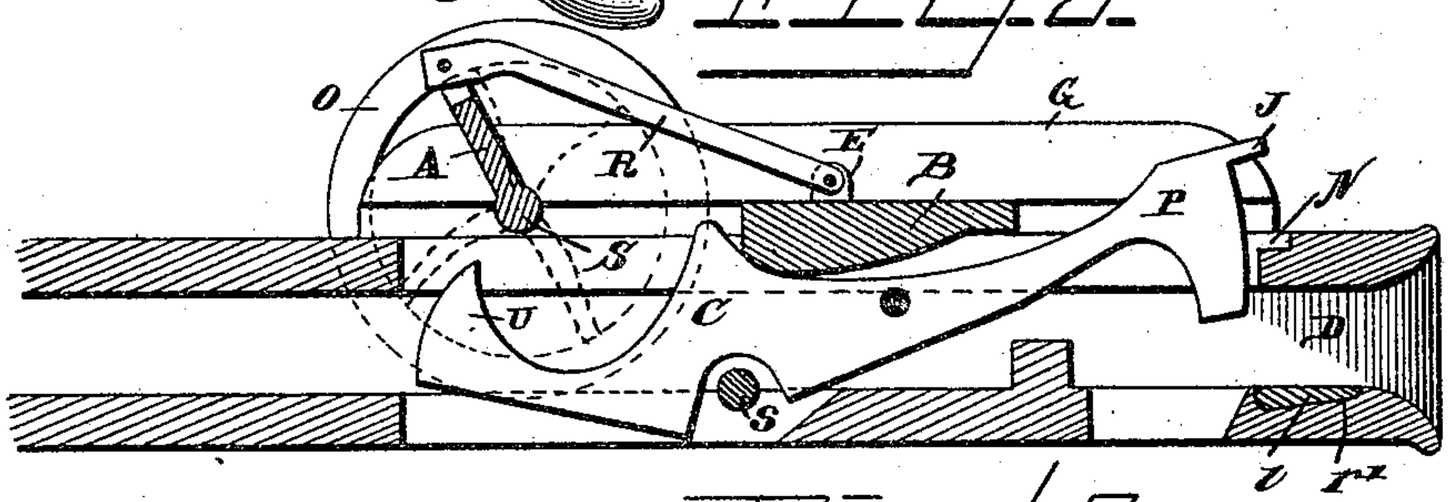

Fig. 2.

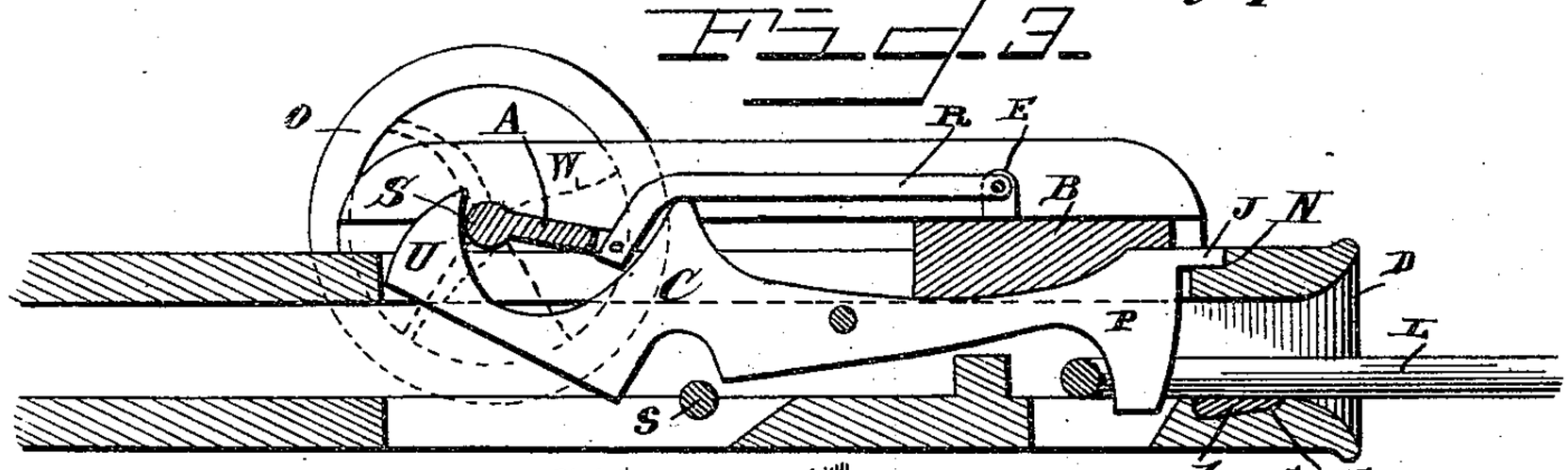

Fig. 3.

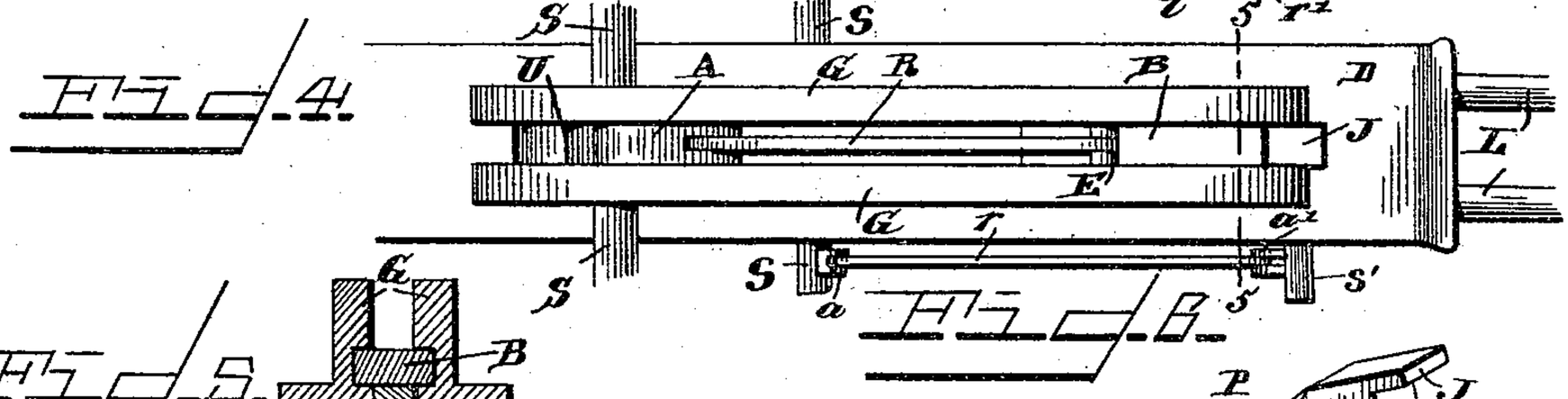

Fig. 4.

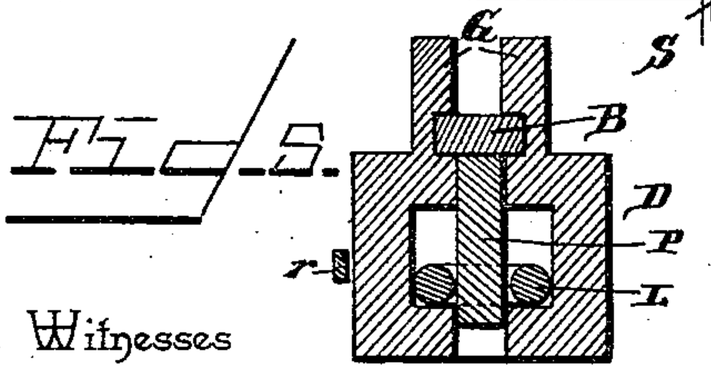

Fig. 5.

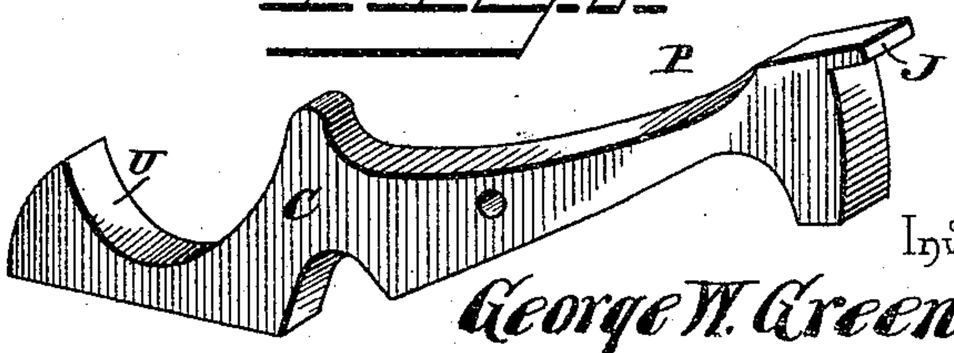

Fig. 6.

Witnesses

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Inventor

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

GEORGE W. GREEN, OF SALEM, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 454,864, dated June 30, 1891.

Application filed February 26, 1891. Serial No. 382,922. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. GREEN, a citizen of the United States, residing at Salem, in the county of Columbiana and State of Ohio, have invented a new and useful Car-Coupling, of which the following is a specification.

This invention relates to car-couplings; and the object of the same is to effect certain improvements therein.

To this end the invention consists of the details of construction hereinafter more fully described and claimed, and as illustrated on the sheet of drawings, wherein—

Figure 1 is a general perspective view of this invention. Fig. 2 is a central longitudinal section of the draw-head with the parts in uncoupled position, and Fig. 3 in coupled position. Fig. 4 is a plan view of Fig. 3. Fig. 5 is a cross-section on the line 5 5 of Fig. 4. Fig. 6 is a perspective detail of the locking-pin.

Referring to the said drawings, the letter D designates a draw-head of the proper construction to accommodate the mechanism hereinafter described, and G G are guides located on top of the said draw-head alongside a longitudinal groove which is formed in the latter. Pivoted in the draw-head at about its center is a locking-pin P, having a cam C just in rear of its center, and an upturned rear end U. Journaled through the guides G is a horizontal shaft S, having on its ends operating-wheels O, provided with weights W, for a purpose to appear later on, and projecting from this shaft, between the guides G, is an arm A, to whose outer end is pivoted a curved pitman-rod R, as shown in Figs. 2 and 4.

The letter B designates a block sliding between the guides G, and having ears E between which the forward end of the pitman-rod is pivoted, and hence when the operating-wheels O are turned this block is moved forward and backward above the locking-pin P and between its front end and over its cam, the rear end of this pin which is upturned as at U standing against the rear face of the shaft S when the device is in coupled position, as shown in Fig. 3.

When the block B is forward, it stands over the front end of the pin P, and holds the latter depressed, the curvature of the rod R permitting it to pass over the tip of the cam C, which is then elevated; but as the block B is drawn to the rear within the guides it frees the front end of the pin and moves over the cam, whereby the pin is tilted around its pivot and its front or operating end caused to rise out of the link L. The weight W in the wheel O is so located that when the block B is forward this weight tends to hold it there.

Journaled through the draw-head is another shaft *s*, having upon its extremities operating-handles *h*, and this shaft has an arm *a* connected thereto at one side of the draw-head. Pivoted to this arm is one end of a pitman-rod *r*, whose other end is pivoted to another arm *a'*, rising from a shaft *s'*, which is seated in a recess *r'* in the lower side of the opening in the draw-head. Secured to this shaft *s'* is a lip *l*, normally standing below the link; but when the shaft *s* is operated by one of its handles *h* and the other shaft *s'* is caused to oscillate, the lip is raised beneath the link and the latter elevated or depressed to guide it in the mouth of the approaching draw-head. This improved link-lifter is preferably used in connection with the coupling devices, elsewhere herein described, because it occupies but little room and works very successfully therewith; but I reserve the right to use other link-lifters, if desired.

The front end of the pin P is of course of the proper shape on its upper side to be forced downwardly when the block B moves forward, and at its extremity is preferably provided with a projection J, fitting within a recess or notch N when the pin is down. The relative length of the arm A and rod R is such that the former passes beyond a direct line between the shaft S and the ears E, and hence when the block B is forward it cannot be accidentally moved to the rear, and the weights W in the wheels O tend to prevent the rising of this arm A, whereby such rearward motion of the block would be permitted. The entire device is of suitable size and material not affecting the invention, and considerable departure may be made from the specific construction herein described.

What is claimed as new is—

1. In a car-coupling, the combination, with a draw-head having a longitudinal slot in its upper side, guides rising therefrom at the

sides of said slot, a block moving longitudinally between said guides, a pitman-rod pivoted to said block, a transverse shaft journaled through said guides and having operating-wheels on its extremities, and an arm on said shaft between the guides to which the other end of said rod is pivoted, of a coupling-pin standing within said slot and pivoted in the draw-head, said coupling-pin having a depending front end adapted to pass through the link, and a cam just in rear of its pivot adapted to be struck by said block, as and for the purpose set forth.

2. In a car-coupling, the combination, with the draw-head having a longitudinal slot in its upper side, guides rising therefrom at the sides of said slot, a block moving between said guides, eyes on said block, an upwardly-curved pitman-rod pivoted between said eyes, a transverse shaft journaled through said guides and having operating-wheels on its extremities, an arm on said shaft between the guides to which the other end of said rod is pivoted, and weights in said wheels holding said arm normally forward, of a coupling-pin standing within said slot and pivoted in the draw-head, said coupling-pin having a depending front end adapted to pass through the link, a cam just in rear of its center adapted to be struck by said block, and an upturned rear end standing against the rear face of said shaft when said front end is depressed, as and for the purpose set forth.

3. In a car-coupling, the combination, with a draw-head having a longitudinal slot in its upper side, a coupling-pin pivoted between its ends in the draw-head and standing within said slot, and means for operating said pin, of a shaft journaled through the draw-head near the rear end thereof and having handles at its extremities, a short shaft journaled through the draw-head near its front end and standing in a recess in the bottom of the opening in said draw-head, a lip mounted on said short shaft and normally also standing in said recess, arms on said shafts adjacent one side of the shaft, and a pitman-rod connecting the outer ends of said arms, all as and for the purpose hereinbefore set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GEORGE W. GREEN.

Witnesses:
M. L. EDWARDS,
SEWARD W. RAMSEY.