

(No Model.)

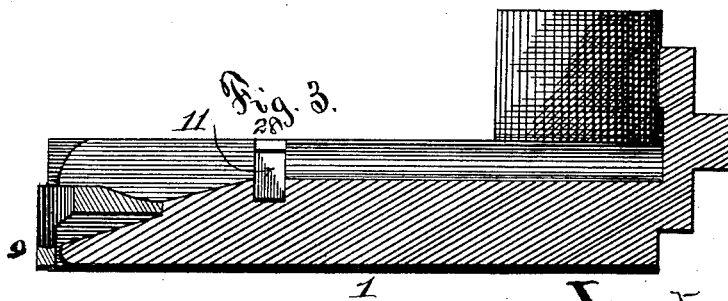
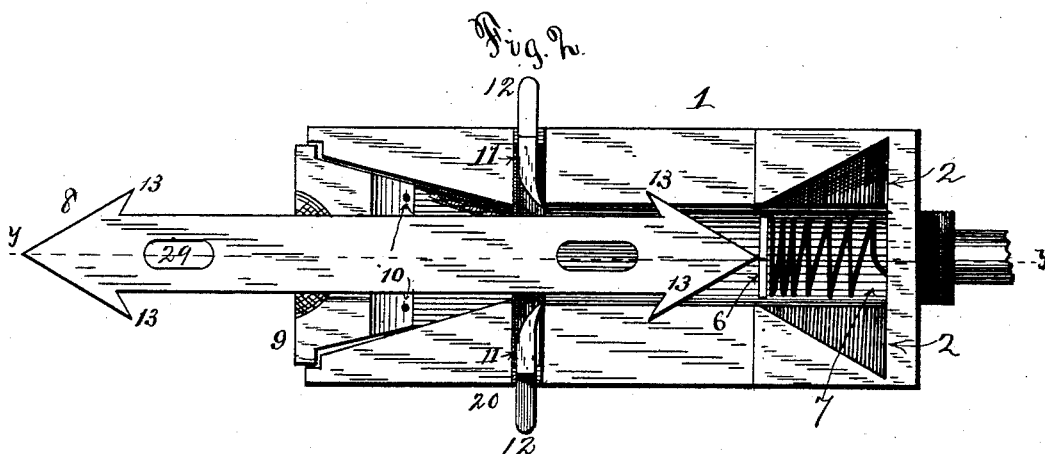
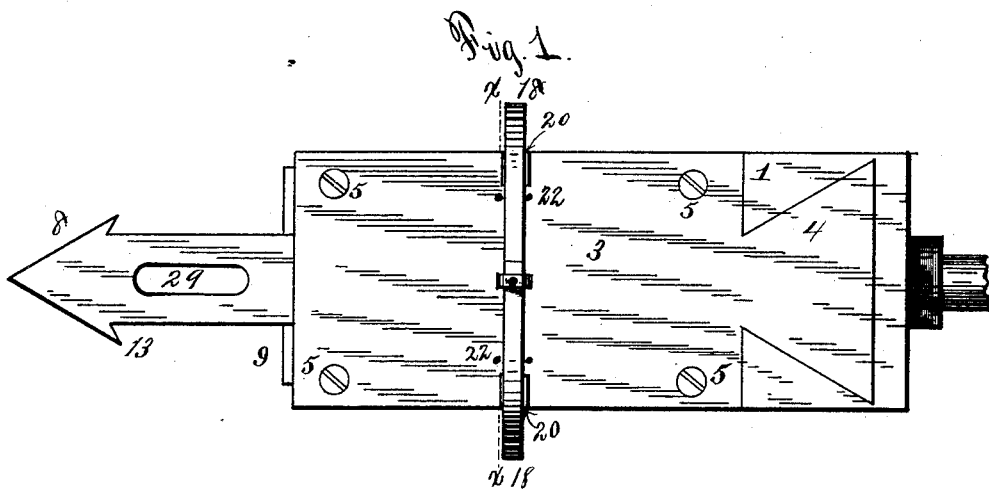
2 Sheets—Sheet 1.

P. O'N. HIPP.

CAR COUPLING.

No. 348,559.

Patented Sept. 7, 1886.



Witnesses.

Jno. C. Ingram.
M. H. Hutterman

Inventor.

By his Atty. Preston O'Neal Hipp.
John L. Duffie

(No Model.)

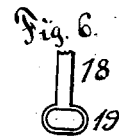
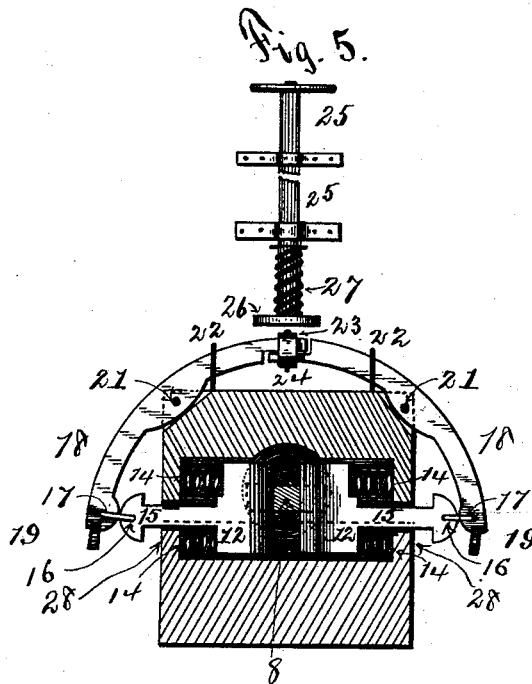
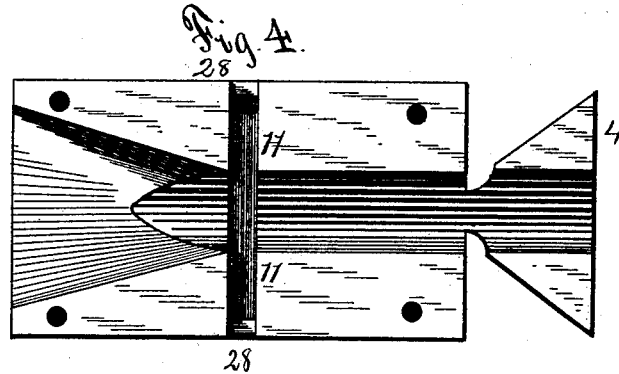
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CAR COUPLING.

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Jno. C. Ingram.
H. C. Kuntze

Inventor.
Preston O'Neal Hipp
By his Atty. John L. Duffie

UNITED STATES PATENT OFFICE.

PRESTON O'NEAL HIPP, OF MORO BAY, ASSIGNOR OF ONE-HALF TO WILLIAM
R. WATSON, OF BRADLEY COUNTY, ARKANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 348,559, dated September 7, 1886.

Application filed June 19, 1886. Serial No. 205,642. (No model.)

To all whom it may concern:

Be it known that I, PRESTON O'NEAL HIPP, a citizen of the United States, residing at Moro Bay, in the county of Bradley and State of Arkansas, have invented certain new and useful Improvements in Car-Couplings; and I do declare the following to be a full, clear, 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention is a new and improved car-coupler; and its novelty consists in the new formation and construction of its parts, as hereinafter fully described, and set forth in the following specification and claims, and in the accompanying drawings.

In the accompanying drawings, Figure 1 is a top view of my coupler. Fig. 2 is a top view of the lower part of the body of the coupler, showing the coupling-pin and some of the internal arrangements of the coupler. Fig. 3 is a side sectional view of Fig. 2, cut through on the line *yy*, the coupling-pin being first removed. Fig. 4 is a bottom view of the top part of the coupler. Fig. 5 is a view of the rod and spring, which is designed to operate the coupler, and is also a sectional view of the coupler cut through Fig. 1 on the line *xx*. Fig. 6 is a face view of one end of the lever 18, terminating in a hand-hold, 19.

My invention is described as follows: The bottom 1 of the body of the coupler has cut in its rear end a dovetail opening, 2. The top 3 has a dovetail projection, 4, which fits in said dovetail opening 2, and this construction is to prevent the top 3 from coming out of place. It is also secured to the bottom by screws or bolts 5. On the inside and in the rear end of the body of the coupler is a bumper, 6, which is set against a heavy spiral spring, 7. The mouth of the body of the coupler is made large at its opening, so that the pin 8 may more certainly and easily enter the same. The under side of the mouth is provided with a lip, 9, which is secured to the lower part of the coupler by bolts 10. This lip is made so that it will

spring up and down, the object of which is apparent. In the upper and lower parts of the body of the coupler are cut grooves 11, immediately opposite each other, for the lock-jaws 12 to work in. The front ends of these jaws are turned to the front to more securely hold the beards 13 of the coupling-pin 8. These beards 13 point correspondingly back. These lock-jaws are pressed together by four spiral springs, 14, two in the upper and two in the lower part of the body of the coupler. One end of these springs rests against the abutment 28 at the end of the grooves 11, while the other end rests against the rear ends of the said lock-jaws 12. From the rear end of these lock-jaws 12 extends an arm, 15, having in its extreme end a perforation, 16, in which is secured a link, 17, and to the end of this link 17 is secured bent levers 18, by means of the said link 17. These levers have on their lower ends a hand-hold, 19. These levers 18 are fulcrumed in the corners 20 of the upper part, 1, of the body of the coupler by means of bolts 21, as will be seen by reference to Fig. 5. There is erected on the top of the upper half, 3, four guides, 22, two being on either side of said levers 18, to compel them to move in a direct line when they move up and down, thus preventing wobbling and producing certain and quick action of the lock-jaws 12. The upper ends of these levers are bound together by means of a lap and band, each end extending beyond the other. This lap is loosely secured by a band, 23, which fits around said lap—that is to say, around the upper ends of the levers 18 and the pin 24, which passes through the upper part of the band 23; thence through the lap of the levers 18; thence through the lower part of the said band. The holes or perforations in said laps are elongated to allow free action of the levers.

The operation of the coupler is as follows: When the carriages are run together, the ends of the pin 8 by such action are pressed against the rear face of the lock-jaws 12 and force them open, and thus pass on between them until they reach the bumper 6, and immediately the beards 13 pass the said lock-jaws 12, and said lock-jaws are forced back into position by means of the spiral spring 14. This, as will

be seen, prevents the said pin from being withdrawn until the said lock-jaws are drawn back. To release the said pin 8, press down on the rod 25, which forces the head 26 down against the band 23, and presses down the upper ends of the levers 18. This actuates the lower ends of the said levers 18, which, being connected with the said lock-jaws 12 by means of arms 15 and links 17 withdraws or pulls the said lock-jaws back and allows the said pin 8 to be withdrawn. When the pressure is taken off the rod 25, the spiral spring 27 around it throws it up and relieves the pressure from the upper end of the levers 18. Being thus free to act, the said lock-jaws 12 are thrown back in position by the spiral spring 14. The lower ends of the levers 18 terminate in the hand-hold 19, as shown in Fig. 6, and should it be desired to operate the car-coupler from the ground, the operator, who may be standing on either side of the track, may take hold of either hand-hold 19 and pull it outward. This action will press down the upper end of the said levers and produce the same result that is produced by pressing down on the rod 25. The said coupling-pin 8 is made flat, that a better shape may be given to the beards 13 and front ends of the lock-jaws 12 for grasping and holding purposes. The said coupling-pin has in either end a perforation, 29, the object of which is to enable it to be secured to the old-fashioned coupler provided with a link and pin.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupler as above described, the combination of the lower part, 1, having in its rear end the dovetail opening 2, and in its front end the spring-lip 10, with the upper part, 3, having the dovetail point 4, fitting in said opening 2, and bolts 5, securing said parts together. 40

2. In a car-coupler as above described, the combination, with the lower parts, 1, and the upper part, 3, the lock-jaws 12, working in the grooves 11, the spiral spring 14, operating said jaws, levers 18, fulcrumed in the openings 20 of the upper part, 3, by means of the bolts 21, their lower ends linked to the said lock-jaws 12, and their upper ends lapped, as described, and loosely bound together by the band 23, and pin 24, adapted to be operated by the rod 25, having the head 26, or by other equivalent means. 45 50

3. In a car-coupler as above described, the upper part, 3, having the dovetail end 4, and the guides 22, set in the upper face of the said part and on either side of the levers 18. 55

4. In a car-coupler as above described, the curved levers 18, their lower ends terminating in the hand-holds 19. 60

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

PRESTON O'NEAL HIPPI.

Witnesses:

M. W. MERRITT,
B. F. G. STEPHENS.