(No Model.)

S. G. WILBER.

CAR COUPLING.

No. 524,452. Patented Aug. 14, 1894.

Fig. 1.

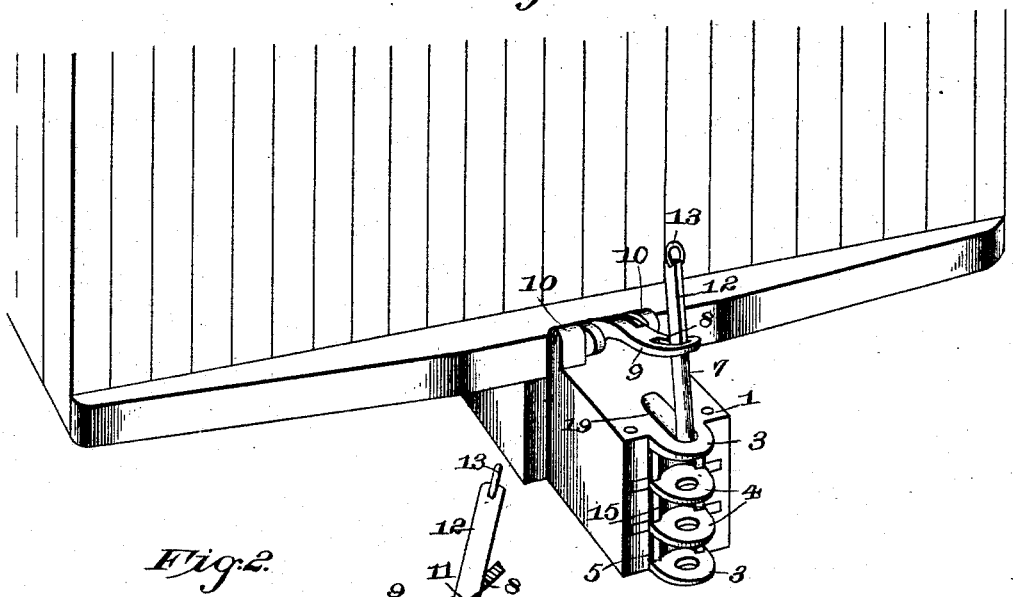


Fig. 2.

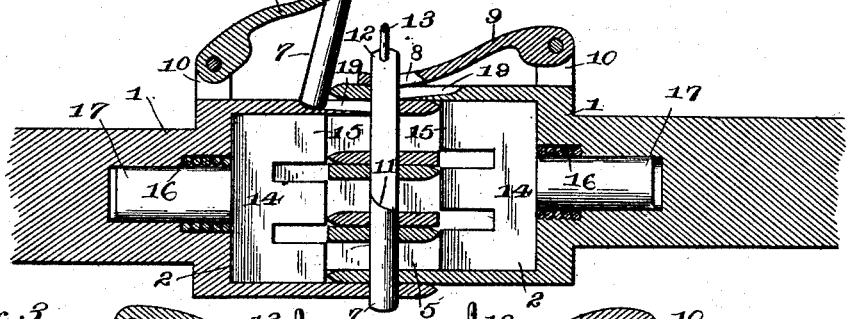


Fig. 3.

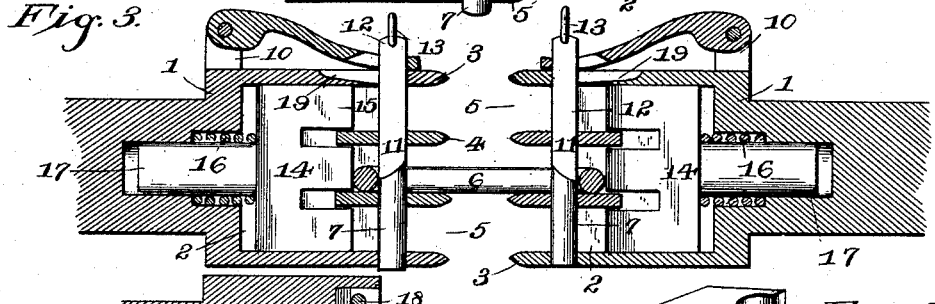


Fig. 4.

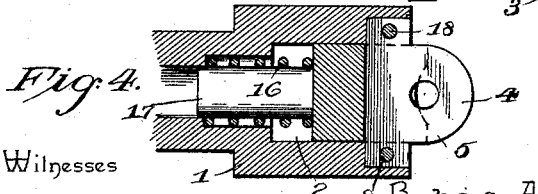
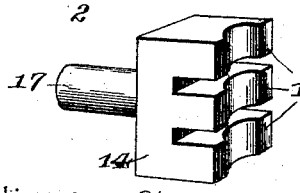


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL G. WILBER, OF LAKE HILL, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 524,452, dated August 14, 1894.

Application filed December 23, 1893. Serial No. 494,553. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. WILBER, a citizen of the United States, residing at Lake Hill, in the county of Ulster and State of New York, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car couplings.

The object of the present invention is to improve the construction of car couplings, and to provide a simple and inexpensive one, capable of automatic coupling, either with a similar coupler or an ordinary pin and link coupling, and adapted to enable cars having draw-heads at different elevations to couple automatically.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a car coupling constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view showing two similar draw-heads coupled directly to each other. Fig. 3 is a similar view showing the draw-heads coupled, by means of a link. Fig. 4 is a horizontal sectional view of one of the draw-heads. Fig. 5 is a detail perspective view of the spring actuated follower.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a draw-head, having a longitudinal opening 2, and provided at the mouth thereof with a vertical series of horizontally disposed perforated lugs 3 and 4, forming a series of spaces 5, any one of which is adapted to receive a link 6, or to receive a lug of a corresponding draw-head. This arrangement of lugs permits those of two draw-heads to be interlocked, or to have their openings or perforations, which receive a coupling pin 7, to register for coupling, even though the draw-heads are arranged at different elevations.

The coupling pin 7, is arranged in an opening 8 at the outer end of a spring actuated arm 9, hinged to the top of the draw-head between perforated ears 10, and adapted to force the coupling pin downward for coupling, and to hold the same against accidental uncoupling. Intermediate of its ends, the coupling pin is provided with a shoulder, 11, which is engaged by the lower face of the spring actuated arm 9. The upper portion 12 of the coupling pin is of a size to pass freely through the opening 8 of the arm 9, and it is provided at its top with a link or eye 13, by means of which the coupling pin may be connected with any suitable means for enabling the operation of coupling to be performed from the top and sides, or the platform of a car or coach.

The pin 7 is held elevated as illustrated in Fig. 1 of the accompanying drawings, by a spring actuated follower 14, provided with a series of horizontally disposed tongues 15, arranged opposite, and in rear of, the spaces 5 between the lugs, and adapted to project slightly from the draw-head in the spaces 5 to enable the follower 14 to be engaged by a link or lug entering any one of the spaces 5, whereby the draw-heads at different elevations are adapted to couple automatically. The follower is held forward by a spring 16 arranged in rear of the same, and preferably disposed on a shank 17, but any other desired form of spring may be employed.

The intermediate lugs 4 are preferably formed by separate plates arranged in opposite recesses of the side walls of the draw-head, and secured therein by vertical bolts 18.

When the coupling pin is elevated preparatory to coupling, as illustrated in Fig. 1 of the accompanying drawings, its lower end is arranged in the perforation of the top lug 3, which is provided in rear of the perforation with an inclined groove 19, arranged in rear of the coupling pin, and adapted to permit the coupling pin to be moved rearward, should the top lug of an approaching draw-head be at a greater height, than the top lug of the draw-head on which it is mounted, to enable the coupling pin of the approaching draw-head to effect the operation of coupling.

It will be apparent that the car coupling is simple and comparatively inexpensive in construction, that it is capable of permitting cars having corresponding draw-heads to couple automatically, and is also adapted to couple with the ordinary pin and link coupling, and that the draw-heads may be arranged at different elevations without interfering with the

automatic coupling. It will also be apparent that the operation of uncoupling may be readily performed, and that it is unnecessary to go between cars either for coupling or uncoupling.

Changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a car coupling, the combination of a draw-head provided at its front with a vertical series of horizontally disposed lugs provided with registering coupling pin perforations, and forming a series of intervening spaces adapted to receive either a link or the lugs of a corresponding draw-head, a coupling pin, and a spring actuated follower arranged within the draw-head and provided at its front end with a series of tongues arranged opposite and adapted to project outward in the spaces between the lugs, substantially as and for the purpose described.

2. In a car coupling, the combination of a draw-head provided at its front with a vertical series of lugs having registering coupling pin perforations, and forming intervening spaces adapted to receive either the lugs of a corresponding draw-head or a link, a spring actuated arm mounted on the draw-head, a coupling pin having its upper portion loosely connected with the arm, and the spring actuated follower arranged within the draw-head and provided with a vertical series of tongues arranged in the spaces between the lugs, substantially as described.

3. In a car coupling, the combination of a draw-head provided with a vertical series of perforated lugs, and having in rear of the perforation of the top lug an inclined groove, a spring actuated coupling pin mounted on the draw-head and adapted, when supported preparatory to coupling, to be moved rearward in said groove as set forth, and a spring actuated follower arranged within the draw-head and provided with a series of tongues located between the lugs, substantially as described.

4. In a car coupling, the combination of a draw-head provided at its top and bottom with outwardly projecting lugs, and having oppositely disposed recesses in its side walls, horizontal plates arranged in the recesses and provided with forwardly projecting lugs, vertically disposed fastening devices securing the plates in the recesses, a spring actuated pin, and a follower provided with tongues arranged between the lugs, substantially as described.

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

SAMUEL G. WILBER.

Witnesses:
JOHN H. SIGGERS,
GEO. C. SHOEMAKER.