

(No Model.)

S. N. WASHBURN.
CAR COUPLING.

No. 530,565.

Patented Dec. 11, 1894.

Fig. 1.

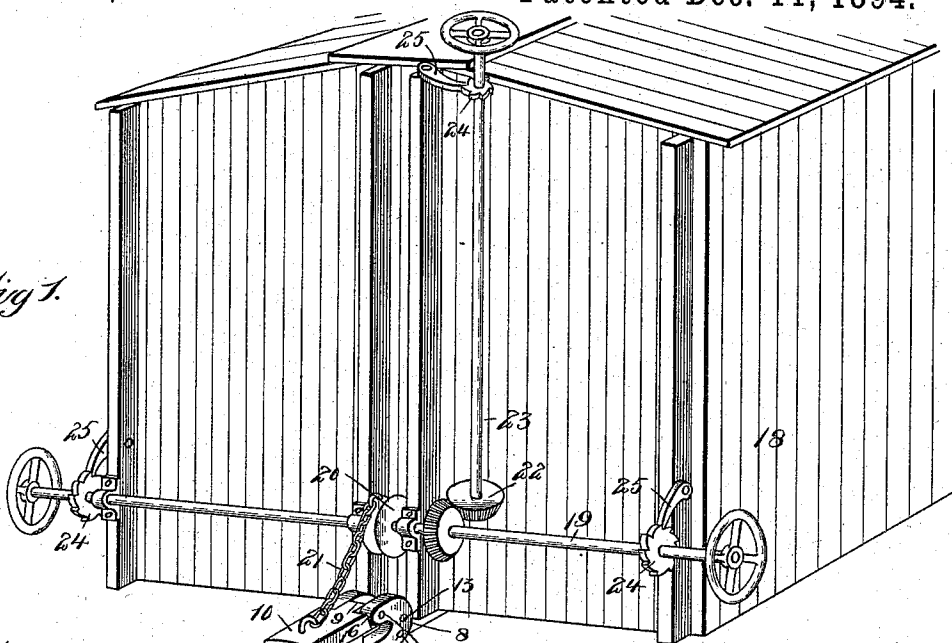


Fig. 5.

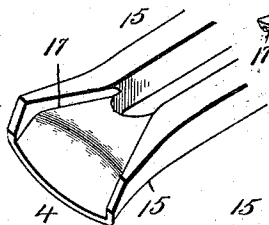


Fig. 3.

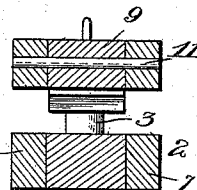


Fig. 2.

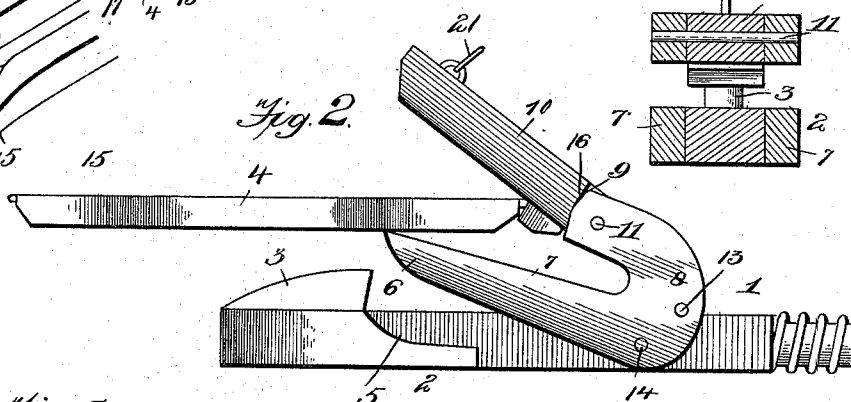
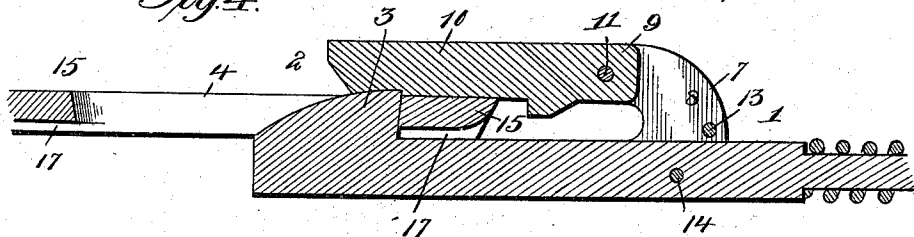


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL N. WASHBURN, OF OLYMPIA, WASHINGTON.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 530,565, dated December 11, 1894.

Application filed April 23, 1894. Serial No. 508,685. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL N. WASHBURN, a citizen of the United States, residing at Olympia, in the county of Thurston and State of Washington, 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 comparatively inexpensive one, capable of automatic coupling, and adapted to be readily uncoupled from the top and the sides of cars without going between them.

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 claims hereto appended.

In the drawings—Figure 1 is a perspective view of a car coupling constructed in accordance with this invention, and shown applied to a car. Fig. 2 is a side elevation, the top of the draw-head being raised for releasing the link. Fig. 3 is a transverse sectional view. Fig. 4 is a longitudinal sectional view. Fig. 5 is a detail perspective view of one end of the link, showing the under side thereof.

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

1 designates a draw-bar, having its front or outer end 2 enlarged and forming the bottom of the draw-head, and provided on its upper face with a beveled catch or projection 3, which is adapted to confine a link 4. The draw-bar 1 is provided at opposite sides of its enlarged end 2, at the back thereof, with curved recesses 5, forming seats or supports for the front ends 6 of pivoted sides 7. The lower faces of the front ends 6 are rounded, and the recesses or seats 5 are curved to conform to the configuration of the ends 6. The sides 7 are approximately J-shaped, their rear ends or terminals 8 being curved upward and forward, and located above the draw-bars; and pivoted between the rear terminals of the sides is a projection 9 of a top piece 10,

the rear end of the latter being shaped to form a knuckle, which receives a transverse pintle pin 11.

The front end of the draw-bar is beveled and so is the front end of the top 10, to enable the link 4 to engage readily with the catch 3 by moving up the beveled front of the latter, lifting the top and dropping into engagement with the shouldered end of the catch. The lower face of the top is provided with a recess 12, which receives the top of the catch and securely confines the link.

The top 10 of the draw-head is adapted to be swung upward to permit the link to couple with the catch, and to release the link. Its independent upward swing is limited by the shoulders 16 of the knuckle, which shoulders engage the upper terminals of the sides and lift the latter, as illustrated in Fig. 2 of the accompanying drawings, whereby the link is lifted clear of the catch for uncoupling. The upward swing of the sides is limited by a transverse stop pin 13, which is located above the pivot 14 of the sides, and a short distance above the draw-bar, and is adapted to engage the upper face thereof, whereby the top 10 and sides 7 are prevented from swinging backward too far, and are caused to drop by gravity to their normal position.

The link is provided with a longitudinal opening. Its ends 15 are laterally enlarged, and they have their lower faces beveled, and they are provided at their side edges with depending diverging flanges 17, which serve to guide the link into proper engagement with the catch.

The operation of uncoupling is performed from the side of a car 18, by a transverse shaft 19 provided with a central pulley 20, which is connected by a chain 21 with the top 10 of the draw-head. The ends of the horizontal shaft are provided with hand wheels. It is connected by a bevel gearing 22 with a vertical shaft 23, and the latter extends to the top of the car to enable the operation of uncoupling to be performed from that point. Each shaft is provided with a ratchet wheel 24, and has pivoted adjacent to it a pawl 25 for holding the draw-head in an uncoupled

position to prevent coupling for the purpose of shifting the link. The inward movement of the link in the draw-head is limited by a shouldered stop, depending from the lower
5 face of the top 10 and arranged at the rear end thereof.

It will be seen that the car coupling is simple and comparatively inexpensive in construction, that it is capable of readily coupling
10 automatically, and that the operation of uncoupling may be conveniently performed from the top and sides of cars without necessitating a train hand going between them.

Changes in the form, proportion, and the
15 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—

20 1. In a car coupling, the combination of a draw-head bottom provided with a catch, the sides pivoted to the bottom and arranged to engage and lift a link, and the top hingedly connected with the sides and resting upon
25 the catch, and having a limited swinging movement independent of the sides to permit a link to lift it and engage the catch without raising the sides, substantially as described.

2. The combination of the draw-head bottom provided with a catch and having opposite
30 recesses or seats, sides pivoted to the bottom and having their front portions supported by said seats and being flush with the upper face of the bottom, a stop carried by
35 the sides for limiting their upward swing, and a top hingedly connected with the sides

and extending above the catch to confine a link, substantially as described.

3. In a car coupling, the combination of the draw-head bottom provided with opposite
40 recesses or seats, the sides pivoted to the body and having their front portions supported by said recesses or seats and adapted to swing upward to release the link, and a top hingedly connected with the sides, substantially as described.
45

4. In a car coupling, the combination of the draw-bar having an enlarged front end and provided with opposite curved recesses or
50 seats, a catch carried by the draw-bar, the sides pivoted to the draw-bar, and having forwardly projecting upward extending rear terminals located above the draw-bar, said sides having their front ends rounded and supported by said recesses or seats, a top having
55 its rear end hingedly connected with the upper terminals of the sides, and a stop for limiting the upward swinging of the sides, substantially as described.

5. In a car coupling, the combination with
60 a draw-head having a catch, of a link having laterally enlarged beveled ends provided with opposite side flanges, substantially as and for the purpose described.

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

SAMUEL N. WASHBURN.

Witnesses:

MATHEW SHIELDS,
ALEX. DRYSDALE.