C. H. WOOD.
Car-Coupling.

No. 204,470. Patented June 4, 1878.

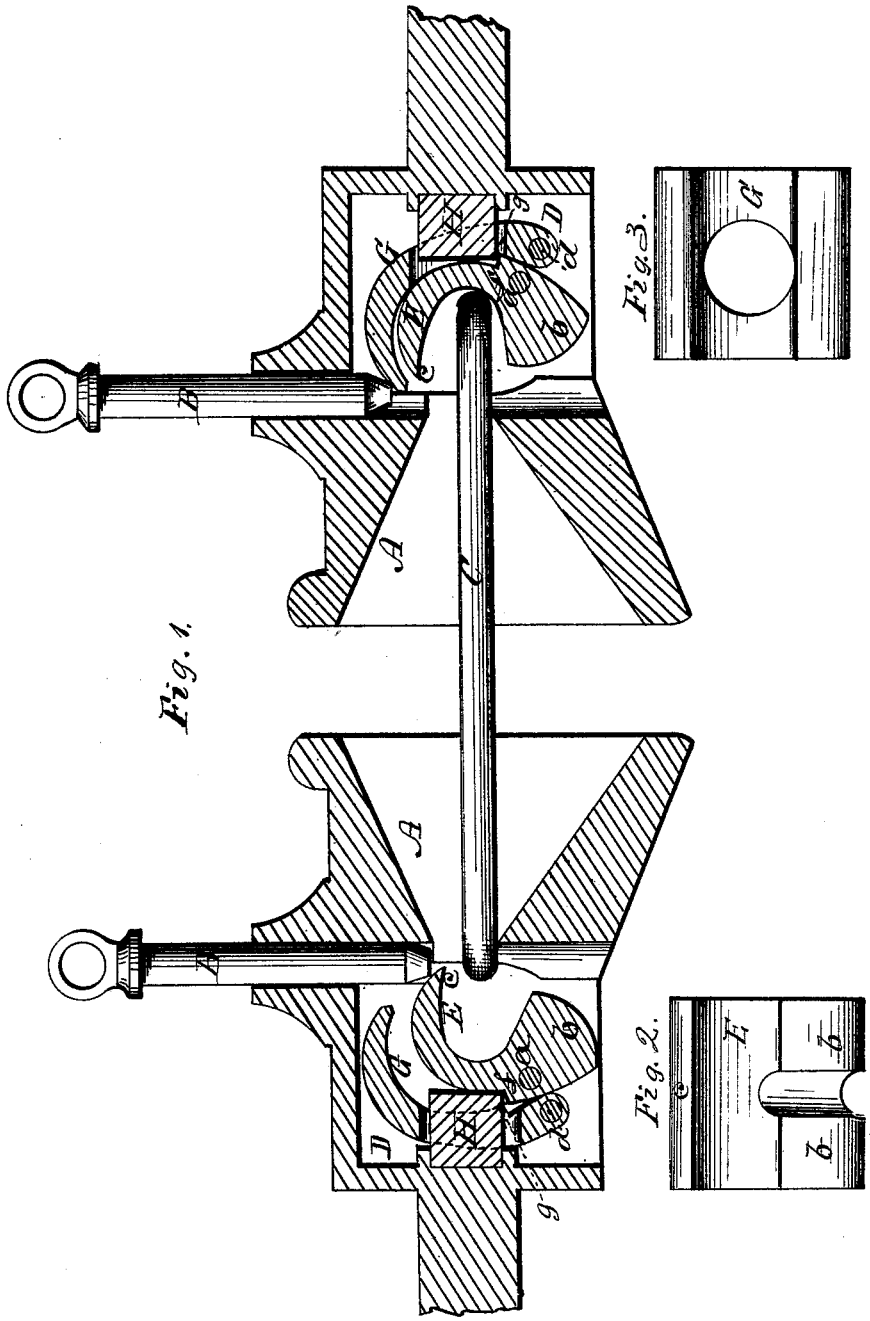

Fig. 1.

Fig. 3.

Fig. 2.

WITNESSES
E. McGallaher.
D. P. Lowe

INVENTOR,
Charles H. Wood,
By J. S. Brown,
his ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES H. WOOD, OF SEATTLE, WASHINGTON TERRITORY, ASSIGNOR OF ONE-HALF HIS RIGHT TO W. H. SHOUDY, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **204,470**, dated June 4, 1878; application filed July 21, 1877.

To all whom it may concern:

Be it known that I, CHARLES H. WOOD, of Seattle, in the county of King and Territory of Washington, have invented an Improved Car-Coupling; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a central longitudinal vertical section of two car draw-heads provided with my improved coupling; Figs. 2 and 3, views of parts detached.

Like letters designate corresponding parts in all of the figures.

In the drawings, A A represent two draw-heads of adjacent cars; B B, coupling-pins therein, and C an ordinary coupling-link.

The purpose of my invention is to produce an improved device by which the cars are made self-coupling, and thus the dangers and inconvenience of the common couplings are obviated.

My improved construction is substantially as follows:

In the back part of each draw-head is a chamber, D, in which are pivoted two tumblers, E G, peculiarly arranged for holding up the coupling-pin successively, first, to enable the coupling-link to enter the draw-head and be automatically coupled therein; and, secondly, when coupled therein, so that the coupling-pin may be raised without hinderance, and held up for uncoupling.

The forward tumbler E is pivoted at *a*, and so weighted, as at *b*, below the pivot that, when left free, its upper end *c* will swing forward under the raised coupling-pin B, as shown at the left hand in Fig. 1.

The mouth of the draw-head is inclined at the top and bottom, as shown, so that the coupling-link, in entering, is automatically directed against the said forward tumbler above its pivot *a* and below its upper end *c*, as shown. This tumbler operates, therefore, to support the coupling-pin when the coupling-link is not in place in the draw-head, as before the cars are brought together for coupling; but as soon as the coupling-link enters the draw-head and strikes the tumbler it pushes the same back from under the coupling-pin, whereby the coupling takes place automatically. But this tumbler alone does not make a complete coupling, since it does not provide for holding up the coupling-pin when uncoupling, because the coupling-link does not then allow the tumbler E to fall forward.

For the latter purpose I employ the auxiliary tumbler G, which is located behind and partially over the tumbler E, and quite close to it, and is pivoted at *d* a little lower than the pivot *a* of the forward tumbler. Its upper end is curved or bent forward, and it is so arranged in the draw-head, substantially as shown at the right hand in Fig. 1, that, when free, it will fall forward under the coupling-pin B when raised, and hold the same up, as represented.

The arrangement of the two tumblers is such that the tumbler G cannot fall forward when the forward tumbler E is dropped forward, and vice versa. This arrangement is effected, as represented, by means of a tooth-catch, *f*, on the back side of the tumbler E, acting upward, and a corresponding tooth-catch, *g*, on the front side of the tumbler G, catching or holding downward.

The combined arrangement of these two catches is such that, as the tumbler E falls forward, its catch *f* acts against the catch *g* of the tumbler G, and moves the said tumbler backward; but as the forward tumbler E is forced backward by the coupling-link C entering the draw-head, as shown at the right hand in Fig. 1, the catch *f* descends away from the catch *g*, and allows the tumbler G to fall forward and hold up the coupling-pin when uncoupling. This rear tumbler has a hole through it, in which a spring or bumper, H, secured at the rear end of the cavity of the draw-head, extends forward to receive the contact of the forward tumbler when the coupling-link is forced against the said tumbler, without interfering with the motion of the rear tumbler.

What I claim as my invention, and desire to secure by Letters Patent, is—

The weighted tumbler E, with its catch *f*, and tumbler G, with its catch *g*, arranged and operating substantially as described, in combination with the draw-head A, coupling-pin B, and coupling-link C, substantially as and for the purpose herein specified.

CHARLES H. WOOD.

Witnesses:
D. W. HUTCHINSON,
E. BRYAN.