(No Model.)

H. WELLS.

CAR COUPLING.

No. 251,978. Patented Jan. 3, 1882.

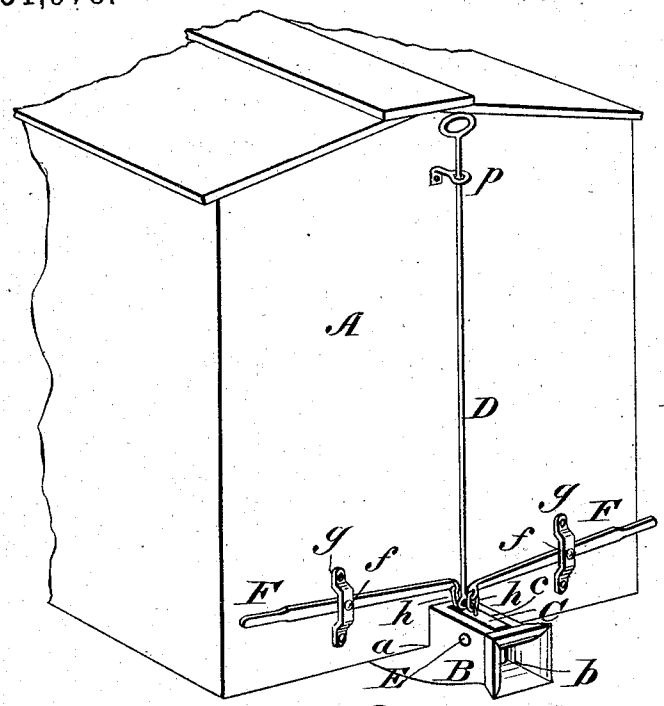

Fig. 1.

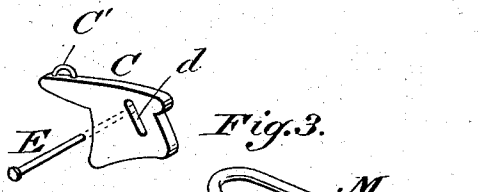

Fig. 3.

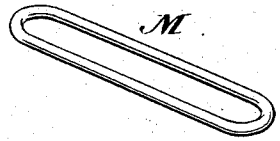

Fig. 2.

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UNITED STATES PATENT OFFICE.

HENRY WELLS, OF GLENWOOD, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 251,978, dated January 3, 1882.

Application filed September 29, 1880. (No model.)

To all whom it may concern:

Be it known that I, HENRY WELLS, of Glenwood, in the county of Mills and State of Iowa, have invented a new and Improved Car-Coupler, of which the following is a specification.

This invention relates to that class of couplers that are self-couplers; and it consists of a shouldered draw-bar designed to be fitted on the angle formed by the end and bottom of a car, having a flaring mouth and a longitudinal slot in its top for the movement of the coupling-hook; and it consists, further, of a peculiarly-shaped slotted coupling-hook and of novel devices for uncoupling.

Figure 1 is a perspective view of the coupler in position on a freight-car. Fig. 2 is an enlarged sectional front elevation of the coupler, showing a modification of the uncoupling mechanism. Fig. 3 represents in perspective the coupling block and link.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a car.

B is the draw-bar shouldered, as shown at *a*, that it may be fitted against the lower angle of the car A, as shown, and provided with a flaring mouth, *b*, and in its top with a longitudinal slot, *c*.

C is the coupling-hook, consisting of a flat plate of metal provided with a nearly vertical and central slot, *d*, and having its upper edge extended beyond its front and rear edges, so as to form re-entering angles therewith, having its front edge nearly vertical, its lower front corner rounded off, its lower edge slightly concave with a downward-inclined rear corner, its rear edge vertical to the angle formed by the rear extension of the upper edge, and with the said upper-edge extension sloping upward on its under side, and rearward to a point in which is secured a staple, C′, for the attachment of the rod D or other device whereby said hook C is elevated for uncoupling.

E is a pin passed transversely through the draw-bar B and through the slot *d* of the hook C, to hold the latter in place. The peculiar shape of the hook C and its freedom of movement on the pin E make it especially adapted for ready uncoupling and ready and secure coupling of a car.

The rod D, the lower end of which is engaged in the staple C′, extends upward to within easy reach of an operator on the top of the car A, whereby the hook C can be raised for uncoupling. The car can be uncoupled also from either side by means of the levers F F, that are fulcrumed on studs *f f*, which are held in the end of the car A by brackets *g g*, the inner ends of said levers F F being connected with the staple C′ by means of links *h h*, while their outer ends extend to or beyond the sides of the car.

A modification of the uncoupling device is shown in Fig. 2, wherein the uncoupling-rod D is provided with a loop, *k*, midway of its length, or thereabout, and with a projecting shoulder, *l*, near its top. In this modification a three-armed spider, G, is pivoted on a stud, *m*, that is designed to project from the end of the car A, and that is held by a brace, *n*, that is secured on the end of said car A. To the opposite extremities of the two vertical arms of said spider G are attached rods H H, that extend in opposite directions to the sides of the car, being supported in horizontal position by passing through loops *o*, that are secured on the end of the car. The horizontal curved arm of said spider G has its free extremity engaged in the loop *k* of the rod D, so that on pulling either of the rods H H the rod D, and thereby the coupling-hook C, is elevated for the uncoupling of the car A. The rod D is steadied in position by passing through an eye-bolt, *p*, set in the end of the car A, and when elevated may be so held by the engagement of its shoulder *l* on the catch *s*, that is fixed in the end of the car A.

The coupling-link M resembles those in common use.

With this device cars can be coupled automatically on coming together, and uncoupled with ease from either the top or sides of the car, whereby the danger to life and limb incident upon going between the cars for these purposes is avoided.

Having thus fully described my invention,

I claim as new and desire to secure by Letters Patent—

The combination, with the slotted draw-head B, of the coupling-hook C, having a forwardly-inclined front face, a concaved back face, a lengthened top, and a slot whose sides are parallel with the front face, said slot being provided with a pivotal pin, substantially as described, whereby the strain is borne by the upper shoulder of the draw-head and the coupling-hook is locked in place when the pin is broken, as set forth.

HENRY WELLS.

Witnesses:
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