(No Model.) 3 Sheets—Sheet 1.

C. M. RHODES.

CAR COUPLING.

No. 262,315. Patented Aug. 8, 1882.

Fig. 1.

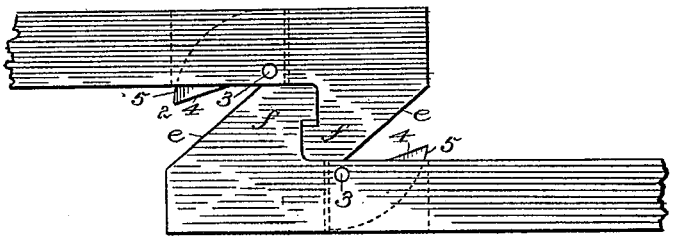


Fig. 2.

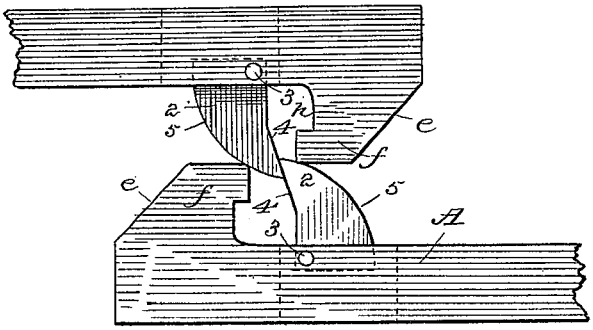
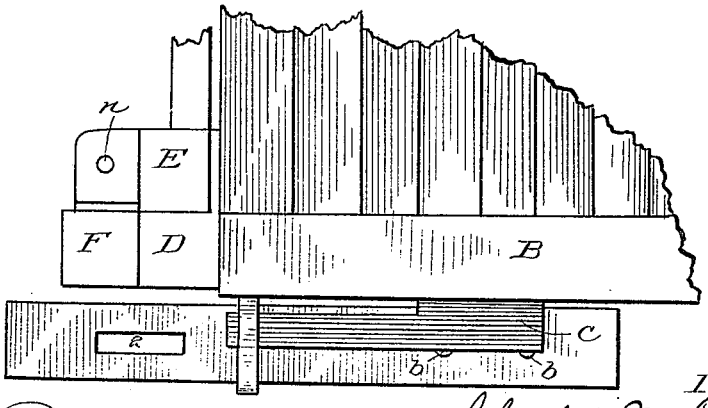


Fig. 3.



Attest:

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F. L. Middleton

Inventor:

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C. M. RHODES.

CAR COUPLING.

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Fig. 4.

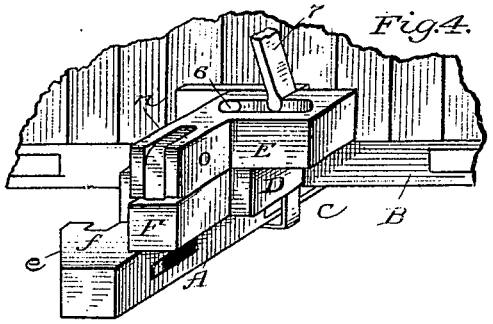
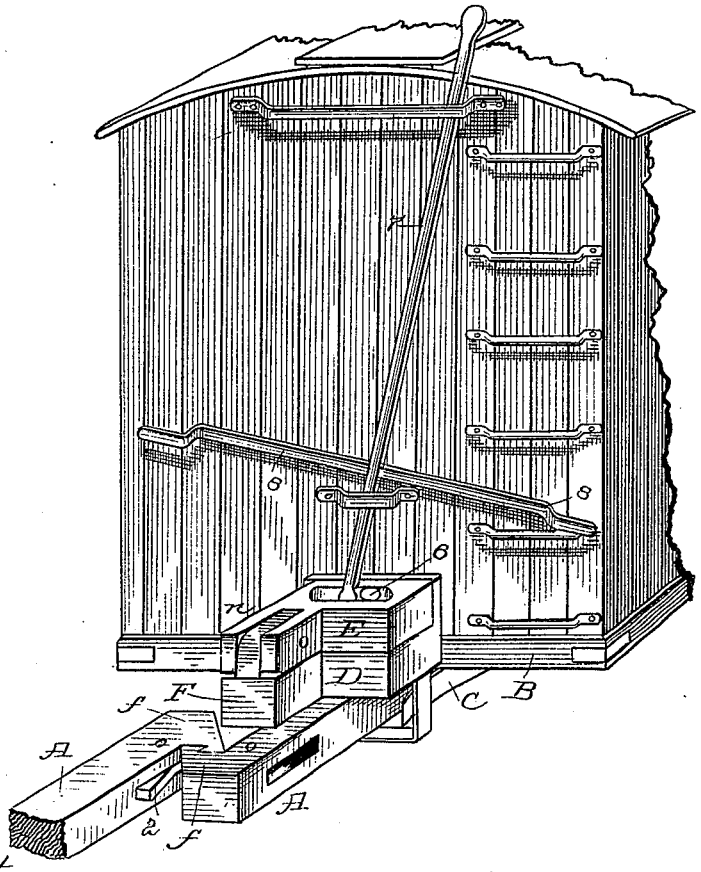


Fig. 5.



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(No Model.) 3 Sheets—Sheet 3.

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CAR COUPLING.

No. 262,315. Patented Aug. 8, 1882.

Fig. 6.

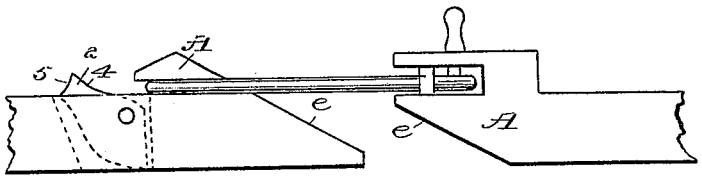


Fig. 7.

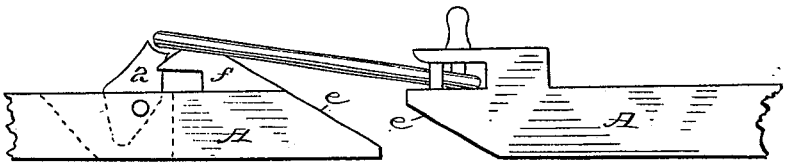
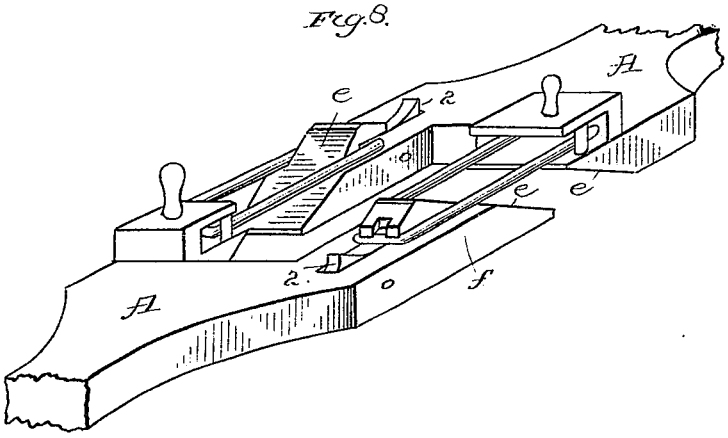


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES M. RHODES, OF LYNN, MASSACHUSETTS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 262,315, dated August 8, 1882.

Application filed April 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. RHODES, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Car-Couplings, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to an improvement in car-couplings, and has for its object to provide means whereby two or more cars may be shackled or unshackled without the necessity of going in between the same.

My invention consists in combining with the draw-head a suitable detent to be acted upon by the shackle on the opposite draw-head in a manner to automatically disconnect the two, and also in combining with the draw-head a buffer capable of being set in reference to a similar buffer on the opposite draw-head, so as to either permit or prevent (as occasion may require) the detent from being called into action.

It also relates to improvements in the operative mechanism, all of which are hereinafter described and specifically claimed.

Figure 1 shows a plan view of two draw-bars locked together and my improved detents applied thereto. Fig. 2 is the same as Fig. 1 with the draw-bars in the act of disconnecting. Fig. 3 is a side elevation of a portion of a car with my improved coupling applied thereto. Fig. 4 is a perspective view of a portion of the end of a car with my improved coupling applied thereto. Fig. 5 is a perspective view of the whole end of a car with my improved coupling applied thereto, and a section of an interlocking draw-bar. Fig. 6 is a side elevation of a modified form of coupling with my improved detents applied thereto. Fig. 7 is the same as Fig. 6 with the shackle in the act of disconnecting. Fig. 8 is a perspective view of Fig. 6.

The draw-bars A have inclined end faces, *e*, and hooks *f*, provided with recesses *h*. The draw-bars are secured to the bottom of the car B by means of pin *a*, and permit a sufficient amount of lateral play to allow the inclined faces *e* to slip past each other, when forced into collision, to engage the hooks *f*. A spring, C, at the rear of each draw-bar A, bears one end against the draw-bar, so as to keep the hooks in engagement when once connected. The draw-bars A are each provided with suitable slots or grooves for the reception of the detents 2, which are arranged to turn thereon on their respective journal-pins 3, and are each provided with inclined faces 4 and 5.

When now it is desired to unshackle the cars they are first driven together to allow the inclines *e* and 4 to slide past each other till the hooks *f* drop over the ends of the detents 2, whereupon a forward movement of the cars rolls outward the detents, which should be of sufficient length to allow the hooks *f* to escape each other, as shown in Fig. 2.

Attached to the end of the car, above the draw-bar A, is a block, D, that supports a second block, E, which block E is provided with a projecting arm, *n*, to which a block, F, is hinged or pivoted with its rear end butting against the block D. The block E is connected with its supporting-block D in a manner to permit of lateral movement thereon, which movement may be effected by the operator from the top of the car by means of the lever 7, or while standing on the ground at either side of the car by means of the lever 8 8.

In operating this my improved coupling it may be desired in many cases to allow the cars to come together without shackling. In such case the operator positions the block E so that the block F will register with the corresponding block F on the opposing car, in which case the inclines *e e* will not slide by each other far enough to allow the hooks *f* to interlock. When it is desired to shackle the cars the operator positions the block E so that when the cars are driven together the blocks F will slide past each other, thereby allowing the inclines *e e* to slide past each other sufficiently to permit the hooks *f* to interlock, whereupon the blocks F strike upon the opposing blocks D and prevent the hooks *f* from passing back over the end of the detent 2. In this position the cars are shackled and the blocks F act as fenders to the cars, and being hinged are prevented from getting cramped as the cars surge together in checking the speed of the train. When it is desired to unshackle the cars the operator should move the block E to one side sufficiently to al-

low the block F to clear the block D entirely and pass in against the end of the car proper, in which case, if the cars are driven together, the hooks *f* will pass over the end of the detents 2, whereupon a forward movement of the cars will roll out the detents, as before described, to disengage the hooks F and allow the cars to separate.

Figs. 6, 7, and 8 of the drawings show a modified form of my improved couplings in which draw-bars shaped as above described are rigidly secured to the bottom of the car and a shackling-link of the ordinary construction is employed for coupling the cars together. This form of the coupling may be considered preferable in many cases, as it conforms more closely to the usual devices for coupling cars. The operation of this is sufficiently obvious from the description of the other already given.

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

1. The detent 2, combined with the coupling-hook *f* and draw-bar A, and adapted to engage with the coupling hook or link of an adjoining car and disengage it from the hook *f*, substantially as described.

2. The movable fender-block F, combined with the draw-bar A, having the coupling-hook *f*, and the detent 2, adapted to engage with the coupling hook or link of an adjoining car and disengage it from the hook *f*, substantially as described.

3. The movable fender-block F, combined with the actuating-levers 7 and 8 8, either or all of them, substantially as described.

In testimony whereof I have signed this specification in the presence of two witnesses.

CHAS. M. RHODES.

Witnesses:
FRANK PEASE,
C. B. TUTTLE.