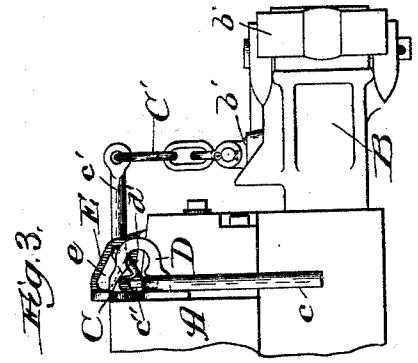
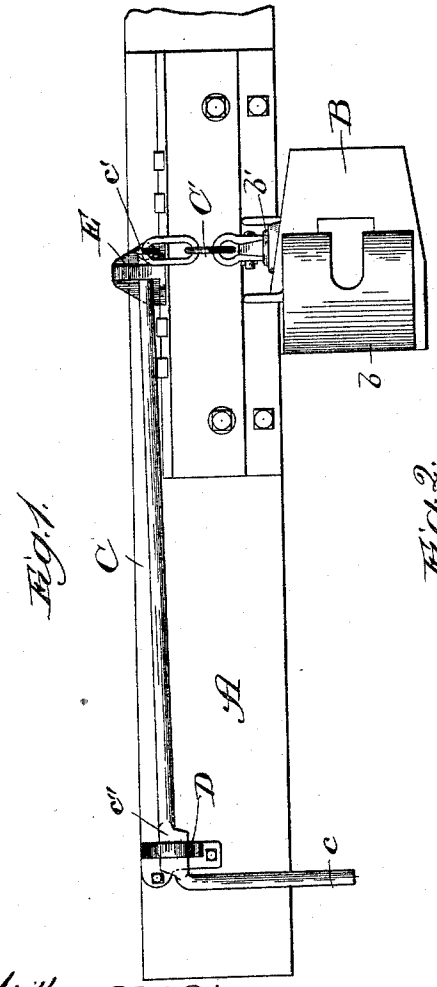
(No Model.)

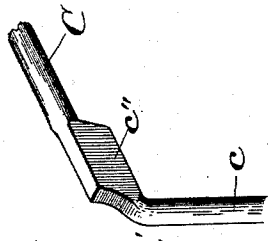
W. SCHROEDER.

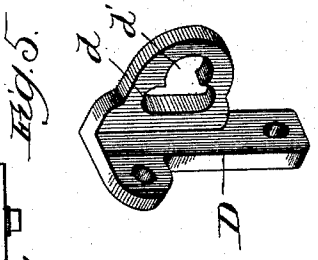
CAR COUPLING.

No. 456,526. Patented July 21, 1891.









Witnesses:
Chas. E. Gayford.
Clifford G. White.

Inventor:
William Schroeder.
By Banning & Banning & Payson,
Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM SCHROEDER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE CHICAGO RAILWAY APPLIANCE COMPANY, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 456,526, dated July 21, 1891.

Application filed March 17, 1891. Serial No. 385,341. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SCHROEDER, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented a new and useful Improvement in Couplers, of which the following is a specification.

As is well known, it is exceedingly dangerous to enter between railroad-cars for the purpose of coupling them, and many means have been devised for doing away with the necessity of so doing—as, for instance, rods or chains have been connected to the coupling-pin and carried or extended to a point where they could be operated with safety and without entering between the cars.

The object of my invention is to provide a device for operating the coupler from the side of the car which shall be capable of adjustment in different positions, and which shall be attached to the car so as to yield when struck in any manner, thereby preventing its breaking.

In the drawings I have shown my invention applied to a vertical hook-coupler; but it will be evident that it may be used equally as well in connection with a link and pin or any other form of coupler, as found necessary or desirable.

The invention consists in the features and details of construction hereinafter described and claimed.

In the drawings, Figure 1 is an elevation of a portion of the end of a car and coupler with my invention applied thereto; Fig. 2 a plan and Fig. 3 an end view of the parts shown in Fig. 1; Figs. 4 and 5, perspective views of the supporting-brackets, and Fig. 6 a similar view of a portion of the operating rod or lever.

The car-body A is made in any of the usual forms, and inasmuch as it forms no part of my invention requires no further description.

The coupler B is made in any usual form, and has a rotating hook *b* and a locking-pin *b'*. This pin, when in the position shown in the drawings, engages with the tail of the rotating hook and locks the same, but may be raised to disengage it from the hook and allow the latter to swing open when the cars are uncoupled. All this is, however, well known, and in itself, like the car, forms no part of the invention, since the parts hereinafter to be described may, as already stated, be used in connection with any desired form of coupler, as a link and pin. I then make a rod or lever C of suitable dimensions. This rod is preferably bent substantially at right angles at one end to form a handle *c*, and is also bent to form an arm *c'* at the other end, preferably at right angles both to the main portion of the rod and the handle *c*, as shown. The arm *c'* is connected by a chain C' or other suitable means with the pin *b*. The lever is also flattened for a portion of its length, as shown at *c''*, for the purpose to be hereinafter described.

To form a support for the lever and attach it to the car, I provide brackets D and E. (Shown more particularly in Figs. 4 and 5, respectively.) The bracket D, which is attached to the car as shown in Figs. 1 and 3, has a substantially vertical slot *d* and a substantially horizontal slot *d'*, which intersect or open into each other, as shown, forming practically one slot of irregular outline, the slot *d'* being preferably rounded, as shown, to afford room in which to turn the lever. The bracket E, which is preferably attached to the car in a substantially horizontal position, as shown in Figs. 1 and 2, is provided with a slot *e*, which slants downward at any desired angle, as forty-five degrees. These two brackets are attached to the end of the car at suitable points to support the lever. In the drawings the bracket D engages with the lever near the handle *c* and the bracket E near the arm *c'*; but this arrangement may be changed as desired. It is necessary, however, that the bracket D should engage with the flattened portion *c''* of the lever. When in the normal position shown in the drawings, the lever rests in the lower end of the slot *e* and in the vertical slot *d*, being locked in this position by the engagement of this latter slot with the flattened portion *c''*. When it is desired to raise the pin *b'* to release the rotating hook *b*, the lever is raised in the slot *d* and revolved a quarter-turn toward the left, Fig. 3. This brings the flattened portion *c''* into the slot *d'*, whereby it is held until it is desired to lower the pin, when the lever is turned back again, bringing the portion *c''* once more into the slot *d*. It will thus be seen that the lever is locked

or held by the slots of the bracket D in either position, with the pin b' raised or lowered, as may be desired, and this holding of the lever is an important feature of my invention.

In use the lever is constantly liable to be struck by the end of the adjacent car, and if it were rigidly attached to the car would be apt to break; but with the present construction the lever will yield and slide up in the slot e, thereby avoiding any breaking or injury. When the lever is released, it will by its own weight slide down in the slot and resume its normal position, and this great advantage is attained by my improvement without in any way interfering with its proper working or lessening its efficiency. Where the device is used with an ordinary link-and-pin coupling the arm c' is of course to be connected to the pin, and similarly this arm is to be connected to the operating part of any coupling with which it is used.

I claim—

1. An operating-lever connected to the coupler and supported in suitable brackets, one of such brackets having an inclined slot, whereby when the lever is struck in any manner it moves up in such slot and when released returns by gravity to its normal position, substantially as described.

2. The combination of a coupler and an operating-lever connected therewith and supported in brackets, one of such brackets being provided with suitable slots, whereby the lever may be turned and held in any desired position, substantially as described.

3. The combination of a coupler and an operating-lever connected thereto and supported in suitable brackets, one of such brackets having slots engaging with a flattened portion of the lever to hold the same in different positions, and the other bracket having an inclined slot in which the lever moves when struck, whereby any breaking of the lever is avoided, substantially as described.

4. The combination of a coupler, an operating-lever connected thereto and having a flattened portion c'', a bracket D, having slots $d\,d'$, engaging with the flattened portion c'', and a bracket E, having an inclined slot e, in which the lever moves, whereby the lever may be locked in different positions and yield when struck to avoid breaking, substantially as described.

WILLIAM SCHROEDER.

Witnesses:
B. B. HICKMAN,
E. B. THOMPSON.