(No Model.)

H. G. WESEMANN.

CAR COUPLING.

No. 558,579. Patented Apr. 21, 1896.

FIG. 1.

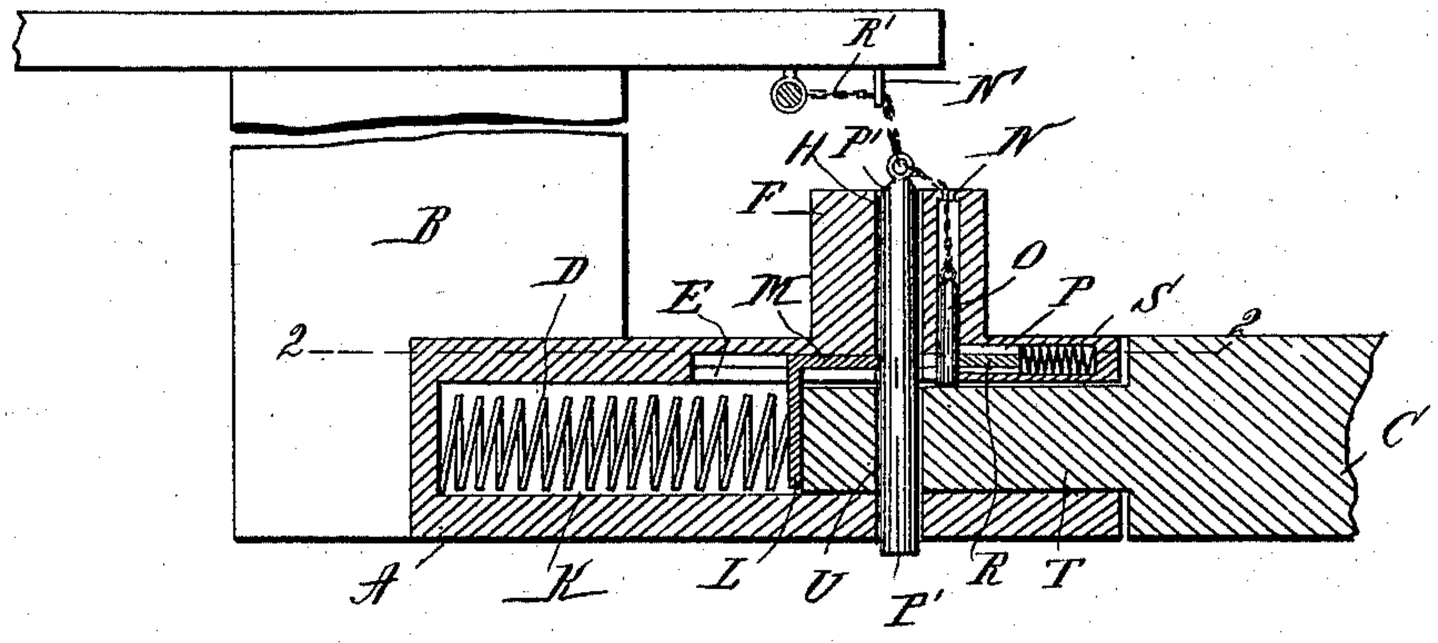


FIG. 2.

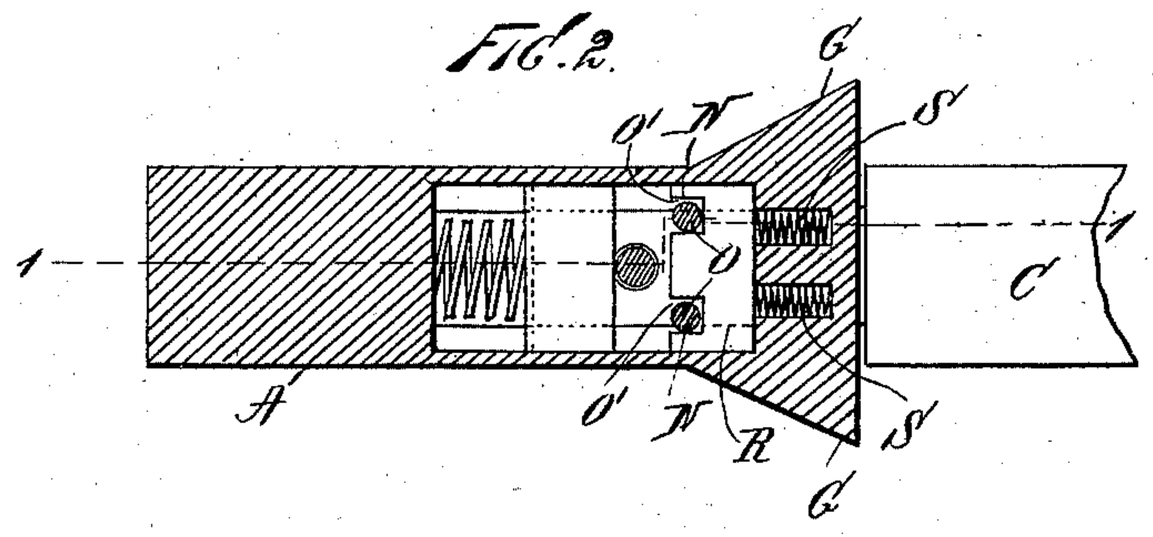
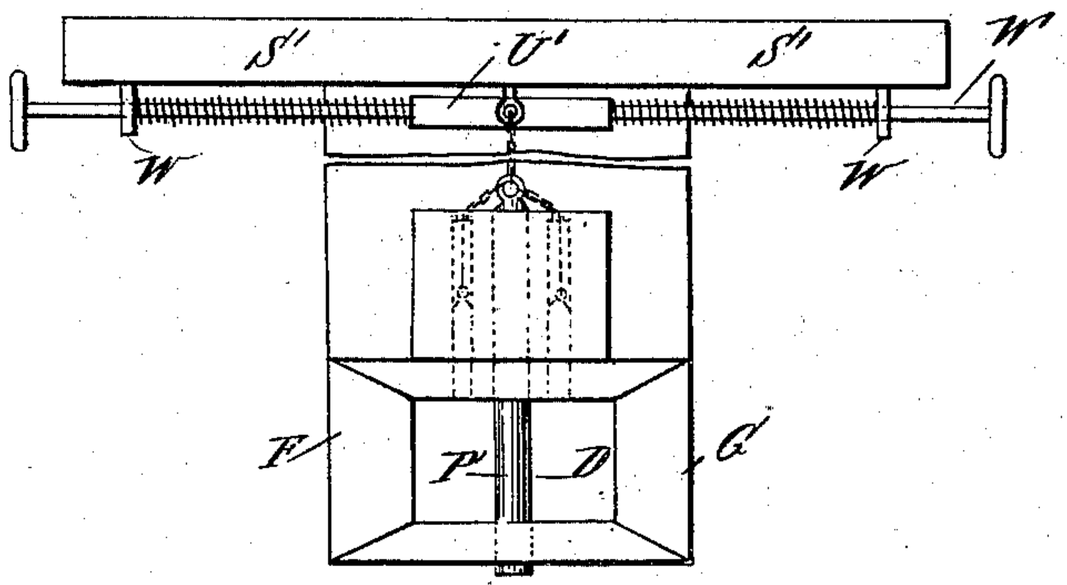


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY G. WESEMANN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-FOURTH TO OTTO GILCHER, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 558,579, dated April 21, 1896.

Application filed June 25, 1895. Serial No. 553,995. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. WESEMANN, a citizen of the United States, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to couplers for railway-cars or other vehicles, and the object thereof is to provide an automatic device of this class, which is simple in construction and operation, and which is perfectly adapted to produce the result for which it is intended; and with this and other objects in view the invention consists in the construction, combination, and arrangement of parts hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, and in which—

Figure 1 is a sectional view on the line 1 1 of Fig. 2, showing the method of operation of the parts of my invention; Fig. 2, a section on the line 2 2 of Fig. 1; and Fig. 3, an end view of one of the sections of my improved coupler, taken in the direction of the arrow in Fig. 1.

In the practice of my invention I employ a coupling-bar A, which is secured to the hanger B, connected with one end of the car in any desired manner, and a corresponding coupling-bar C, adapted to be secured to another car, which is not shown in the drawings. The coupling-bar A is provided with a central longitudinal chamber D open at the outer end, and in the upper inner walls of which is also formed a supplemental chamber E, said bar A being also provided on its upper side near its outer end with a projection or shoulder F. The outer end of the bar A is also enlarged, as shown at G, Figs. 2 and 3, and the central chamber D therein is correspondingly enlarged, as shown in said Fig. 3.

The shoulder or projection F is provided centrally with a vertical bore H, which extends downward through the bottom of the bar A, and within the chamber is placed a strong spiral spring K, the outer end of which bears upon a movable plate L, provided at its upper side with an outwardly-directed extension M, adapted to close the bore H in the shoulder F, and said shoulder F is also provided forward of the bore H with two smaller vertical bores N, each of which is adapted to receive a pin or bolt O.

Formed in the upper part of the bar K near its outer end is a chamber P, which communicates with the chamber E, in which is placed a plate R, behind which are placed two spiral springs S, as clearly shown in Figs. 1 and 2.

The bar C is provided with a reduced end P, adapted to enter the outer open end of the chamber D, and near the end of the extension T is formed a bore or passage U, adapted to register with the bore H.

Connected with the under side of the car, to which the bar K is secured by means of hangers W, is a rod W′ provided with an enlarged central portion or shoulder U′, and mounted on each end of said rod between said central shoulder and the hanger W are spiral springs S′, and connected with said enlarged portion or shoulder is a chain R′, one end of which is connected with a coupling-bolt P′, to which is also secured by means of short chains the pins or bolts O, hereinbefore described.

The operation will be readily understood from the foregoing description, when taken in connection with the accompanying drawings, and is substantially as follows: In the normal position of the parts, before the bars A and C are coupled together, the upper portion M of the plate L is forced outward by the spring K, so that it closes the bores H and N in the shoulder or extension F and forces back the plate R against the operation of the springs S, and in this position of the parts the pins or bolts O rest in recesses O′, formed in the side of the plate R, and the coupling-pin P′, if inserted into the bore H, will rest upon the plate M, as will be readily understood. If now it is desired to couple the cars together, the projection T of the bar C is forced into the open end of the chamber D in the bar A, and the plate L with its connected plate M is driven backward into the position shown in

Fig. 1, when the pin P′ will drop through the bore U, as clearly shown in said figure, and secure the parts together, and in this operation the plate R is held stationary by the pins O, and when it is desired to uncouple the cars it is only necessary to take hold of one end of the rod W and pull it in either direction, when the pin P′ will be raised by the chain R′, which passes through the loop or over a suspension pulley M′, connected with the under side of the car, and the chains which support the pins O′ are of such length that the lower end of the pin P′ will be raised above the plate M before the pins or bolts O are raised high enough to release the plate R, the object of this arrangement being to admit of the free movement of the coupling-pin P′. The upper ends of the bores N are each provided with annular inwardly-directed flanges, which prevent the withdrawal of the pins O and also the coupling-pin P′ from the vertical extension F, by which means said coupling-pin P′ is always retained in position for use. The bar E may then be withdrawn in the usual manner, when the parts connected with the bar A will assume the position hereinbefore described, in which the plate M will close the lower ends of the bores H and N. In the position of the parts shown in Fig. 1 the pins O prevent the spring-operated plate R from pressing against the coupling-pin P′ and thus interfering with the withdrawal thereof when it is desired to uncouple the cars. If, however, it be desired to raise the coupling-pin so that the cars may be uncoupled at any time in the future without the necessity of raising the coupling-pin at that time, the pins O and the coupling-pin are all raised and the plate R is driven forward beneath the same and prevents the coupling-pin from dropping into position, and, as will be readily understood, the cars may be uncoupled at any desired time without the necessity of raising the coupling-pin or withdrawing the same. Another object of the pins O is to prevent the total withdrawal of the coupling-pin from the extension F in order that it may be in position and ready for use at all times, the connection between the pins O and the coupling-pin P′ being such that the said coupling-pin may be raised above the plate M before the pins O are lifted, so as to allow the plate R to be pressed forward, and the removal of the pins O from the extension F being prevented, as hereinbefore stated, by the annular flanges at the top of the bores or holes N in which said pins O are placed, said flanges being adapted to operate in connection with heads or other devices formed on said pins O. In this position the pin P′ will rest upon the plate M until it is again desired to make a coupling, when the operation above described will be repeated.

It is sometimes necessary or desirable to remove the coupling-pin P′ before it is desired to move the cars or uncouple them, and in this case, if the pin P′ is raised together with the pin O, the plate M will be forced forward and close the coupling-pin, in which position the cars may be separated at any time, and when so separated the plate N will be forced outward, so as to close the lower end of said bores, and the plate R will be forced back into the position shown in Fig. 1, when the parts will again be ready for operation.

It is evident that changes in the form, construction, and combination of the various parts of my improved coupler may be made without departing from the spirit of my invention, and I therefore reserve the right to make all such alterations and modifications as fairly come within the scope thereof.

Having fully described my invention, I claim and desire to secure by Letters Patent—

1. In a coupling for cars or other vehicles, the combination of a coupling-bar provided with a longitudinal central chamber open at one end, and a vertical extension on its upper side, said vertical extension being provided with a central vertical bore, and said bar being provided with a spring-operated plate located in the chamber therein, adapted to close the lower end of said bore, and a supplemental bar adapted to be inserted into the open end of said chamber, and provided with a vertical bore adapted to register with the bore in the vertical extension of the first-named bar, whereby when the end of the supplemental bar is forced into said chamber, the spring-operated plate will be forced backward thereby, and a coupling-pin may be inserted through said bore, said vertical extension being also provided with vertical bores adapted to receive pins which operate in connection with a spring-operated plate adapted to close the lower end of said bore, and also to be projected against the coupling-pin, substantially as shown and described.

2. In a coupler for cars or other vehicles, the combination of a coupling-bar provided with a central longitudinal chamber, open at its outer end and with a vertical extension provided with a central bore, a spring-operated plate located in said chamber and adapted to close the lower end of said bore, a supplemental bar the end of which is adapted to be inserted into said longitudinal chamber, and to force back said spring-operated plate, said supplemental bar being also provided with a vertical bore, and a coupling-pin adapted to be inserted into the bore of the vertical extension, and to be supported on said spring-operated plate, said coupling-pin being connected by means of a chain with a transversely-movable rod secured beneath the platform of the car by which the pin may be raised, substantially as shown and described.

3. In a coupler for cars or other vehicles, the combination of a coupling-bar provided with a central longitudinal chamber, open at its outer end and with a vertical extension provided with a central bore, a spring-oper-

ated plate located in said chamber, and adapted to close the lower end of said bore, a supplemental bar the end of which is adapted to be inserted into said longitudinal chamber, and to force back said spring-operated plate, said supplemental bar being also provided with a vertical bore, and a coupling-pin adapted to be inserted into the bore of the vertical extension, and to be supported on said spring-operated plate, said coupling-pin being connected by means of a chain with a transversely-movable rod secured beneath the platform of the car by which the pin may be raised, and a spring-operated plate also adapted to close the lower end of the bore through the vertical extension and serve as a rest for the coupling, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 21st day of June, 1895.

HENRY G. WESEMANN.

Witnesses:

L. M. MULLER,

E. VAN DEURSEN.