

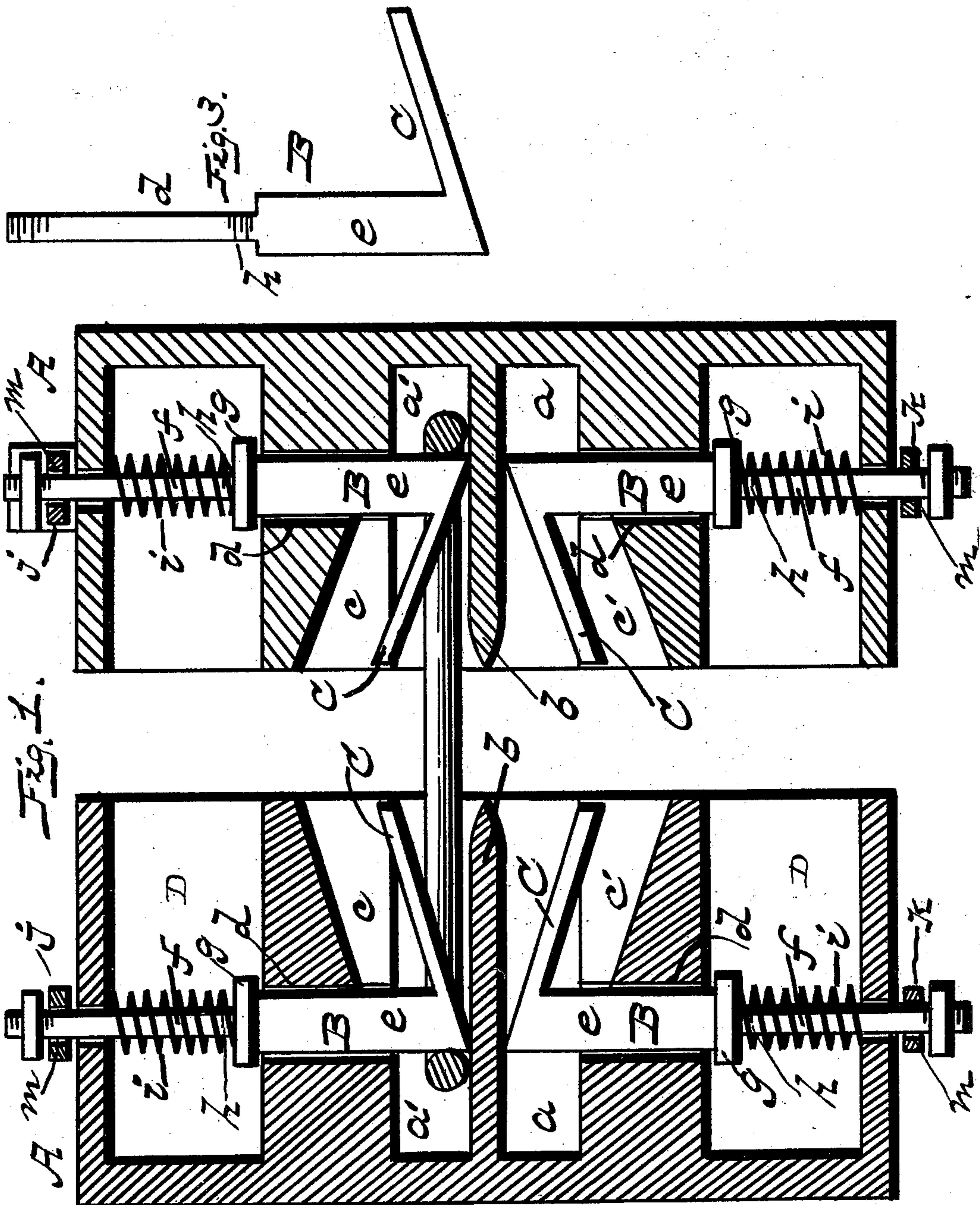
(No Model.)

2 Sheets—Sheet 1.

F. C. SHOEMAKER.
CAR COUPLING.

No. 497,418.

Patented May 16, 1893.



WITNESSES
E. H. Bates
Norsey Bates

INVENTOR
F. C. Shoemaker
J. M. Bates Attorney

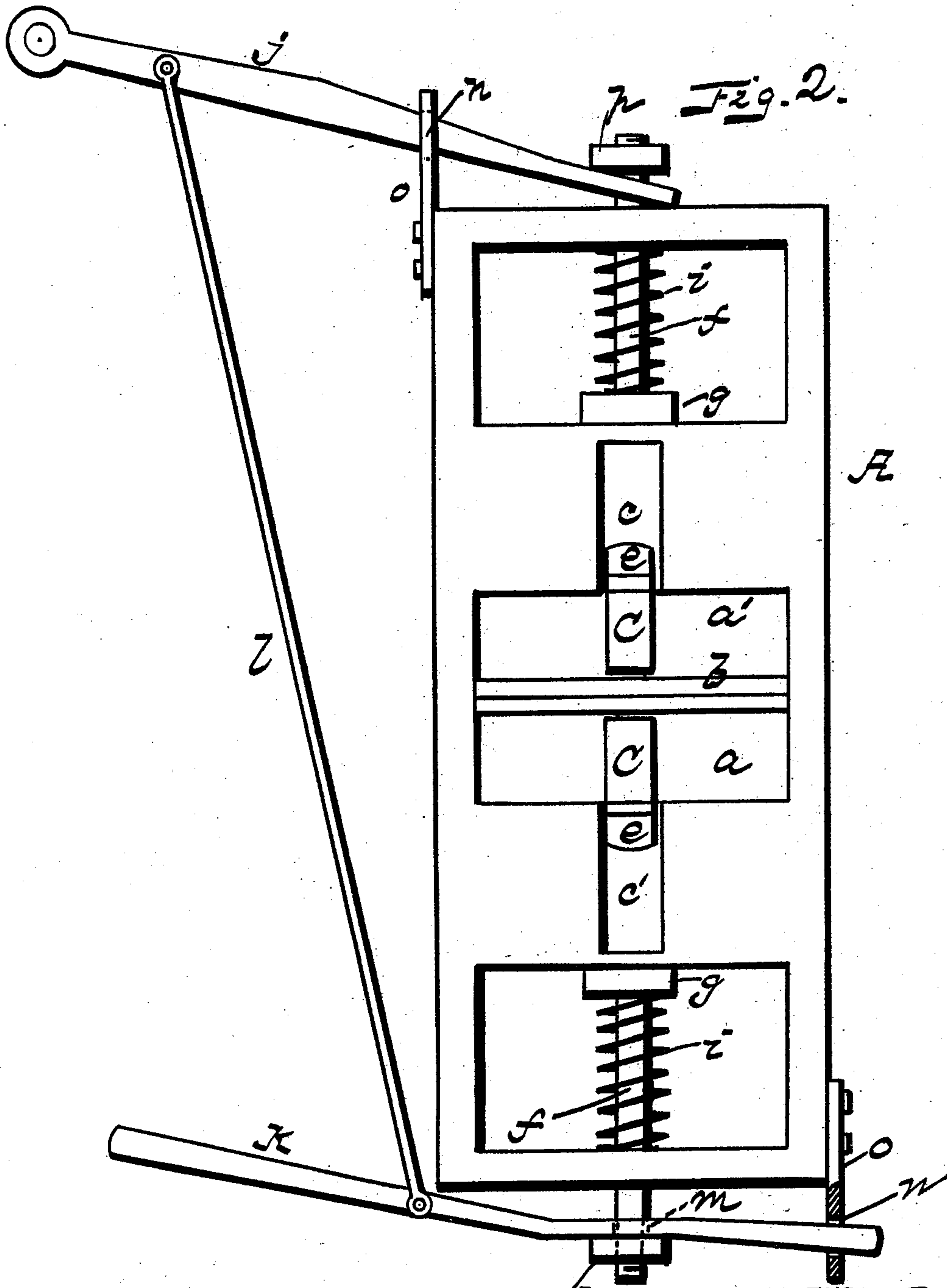
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F. C. Shoemaker
by G. M. J. Bates Attorney.

UNITED STATES PATENT OFFICE.

FRANKLIN C. SHOEMAKER, OF THREE RIVERS, MICHIGAN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 497,418, dated May 16, 1893.

Application filed March 6, 1893. Serial No. 464,649. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN C. SHOEMAKER, a citizen of the United States, residing at Three Rivers, in the county of St. Joseph and State of Michigan, have invented certain new and useful Improvements in Automatic Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to improvements in automatic car couplers and it consists in the novel construction and arrangement of the same, whereby the two cars coming together will be coupled to one another without the aid of a person; and the same may be uncoupled readily from either side of the car or from the top or roof thereof, thus not requiring a person to go between the cars to couple or uncouple them, all as will be hereinafter fully explained and particularly pointed out in the appended claims.

The annexed drawings, to which reference is made, fully illustrates my invention, in which—

Figure 1, represents a vertical sectional view of my device. Fig. 2, is a front view of the same and Fig. 3, is a detail view of the coupling pin.

Referring by letter to the accompanying drawings A, A, designate the two draw heads each of which is constructed like the other, the same having the link opening or recesses *a a'* which are divided by the horizontal partition *b*. The upper wall of the upper space *a'* is provided with a central recess *c* or slot, while the lower floor of the recess *a* has a similar recess *c'* and at the rear of each space *c, c'*, is a vertical opening *d, d'*, in which the coupling pins B, B, are arranged. These pins are constructed exactly alike and are each provided with an extended inclined arm C, C, that is formed integral therewith. These twin coupling pins consist of the larger portion *e*, and a reduced portion or stem *f*, on which is placed a nut *g*, on the screw-threaded portion *h* of the reduced part or stem of the coupling pins. Between this nut and the top of the coupler is a coiled spring *i*, which surrounds the pins and bears continually against

the nut, thus keeping the pins in their normal position for coupling; the lower spring has its lower end bearing upon the floor of the coupler as shown.

It will thus be seen by reference to the accompanying drawings that when the cars are brought together, the link will enter the mouth of the coupler and strike the inclined arm of the pin, which causes the same, with its pin to rise and permit the link to pass in rear of the same, when the pin will immediately drop, by pressure of the spring and hold the link firmly in the drawhead, thus presenting a self coupler.

In uncoupling the cars I provide means whereby a person can accomplish the same without going between the cars for that purpose. It consists in providing an upper lever *j* and a lower lever *k*, that are connected to one another by a rod *l*. Each of these levers is loosely connected to the outer end of each stem of the pins, by the stem passing through a perforation *m* in said lever, the latter engaging a slot *n* in the end of the plate *o* secured to the draw head. Each end of said stem is provided with a nut *p*, against which the lever presses in operating the coupling pins when the same are uncoupled. Thus it will be observed that by the lower lever the operator stands at the side of the car and by pressing downward upon the end thereof the twin pins are caused to move in opposite directions and release the link and allowing it to leave the draw-head, and the same movement can be accomplished by pressure upon the upper lever.

This coupling it will be noticed can be used with two or more links if necessary and all the links act automatically in coupling and all can be uncoupled simultaneously by operating either of the levers, and a coupling as herein described is durable, not liable to get out of order and at the same time cheap to manufacture.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the draw head having the spaces *c, c'*, of the coupling pins having reduced stems passing through the upper and lower chambers D D. of the draw heads

and inclined arms, formed integral therewith and a spring surrounding said stems and means substantially as described for operating said pins.

- 5 2. The car coupling herein described consisting of the drawheads constructed as described the angular inclined arms, and pins formed integral and having reduced portions, the springs and levers the latter connected

by the bar whereby the levers are moved simultaneously all substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANKLIN C. SHOEMAKER.

Witnesses:

R. W. CORNWELL,
E. H. BATES.