(No Model.)

F. H. RUDD.

CAR COUPLING.

No. 265,446. Patented Oct. 3, 1882.

Fig: 1.

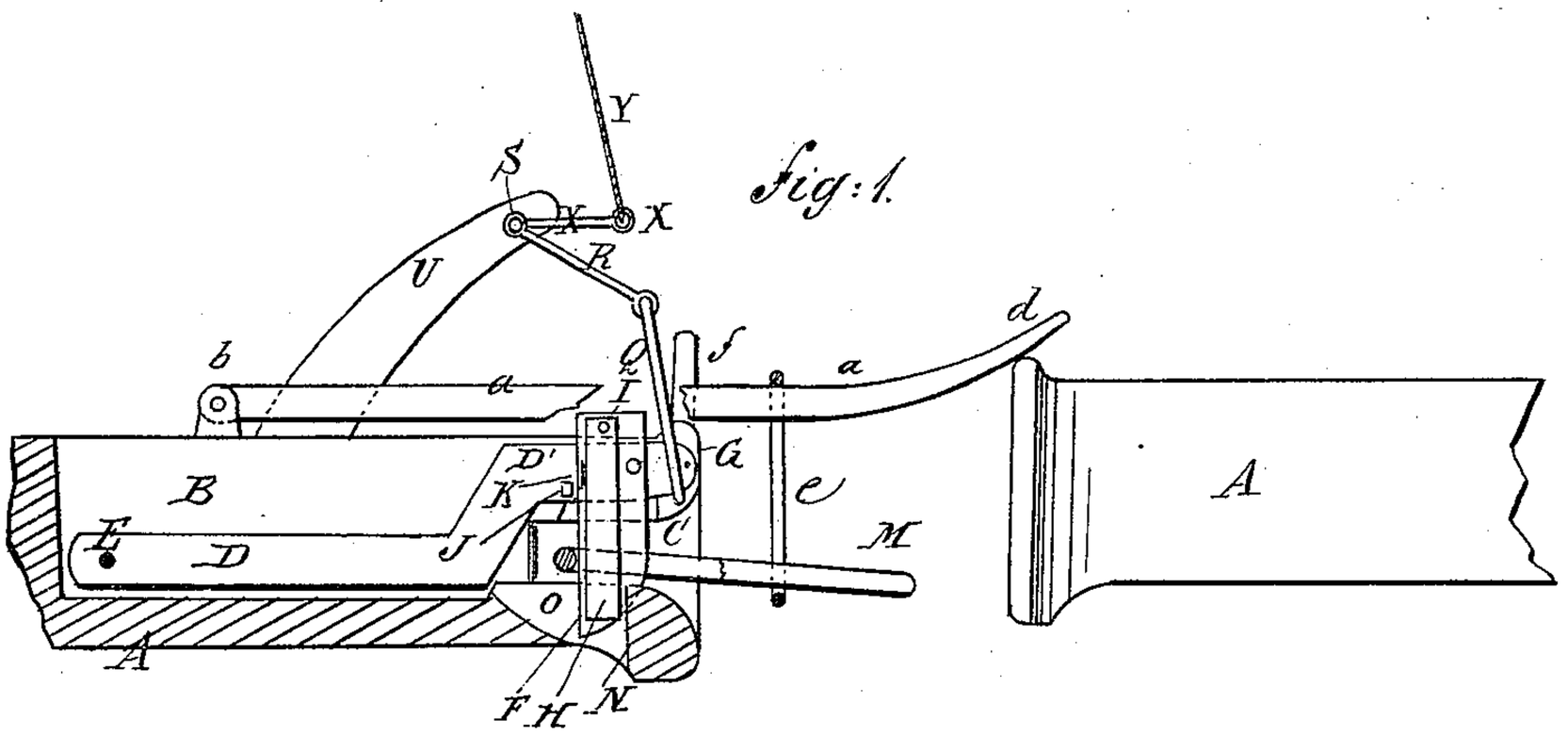


Fig: 2.

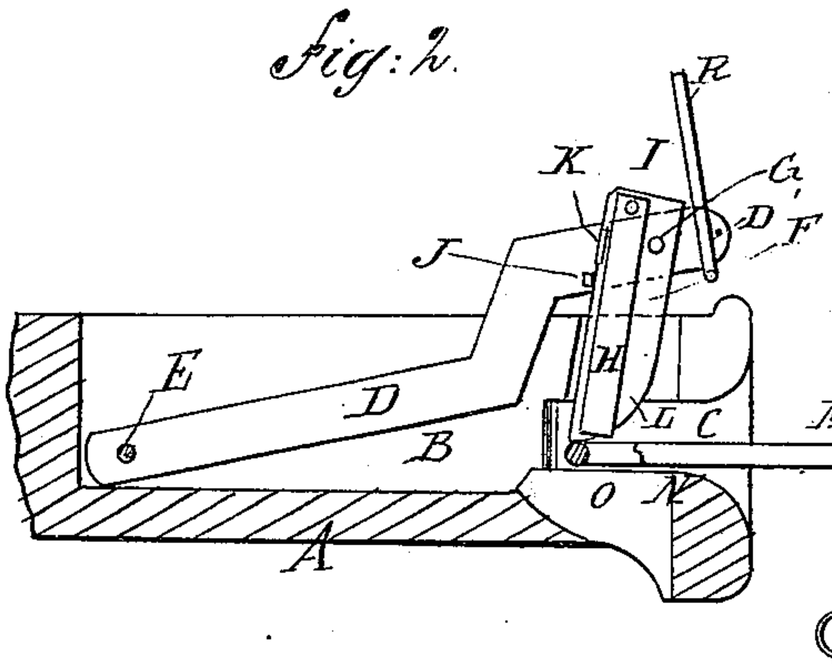


Fig: 3.

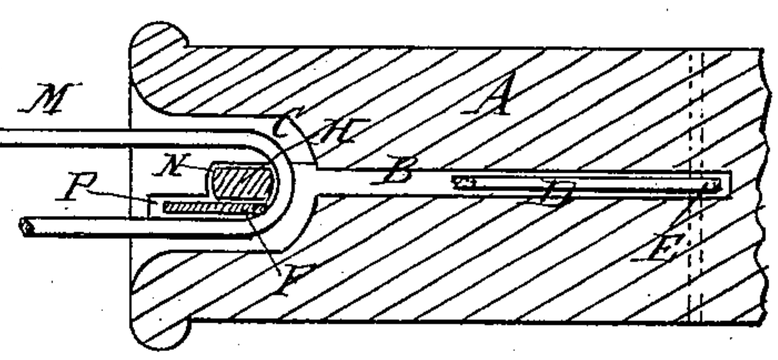
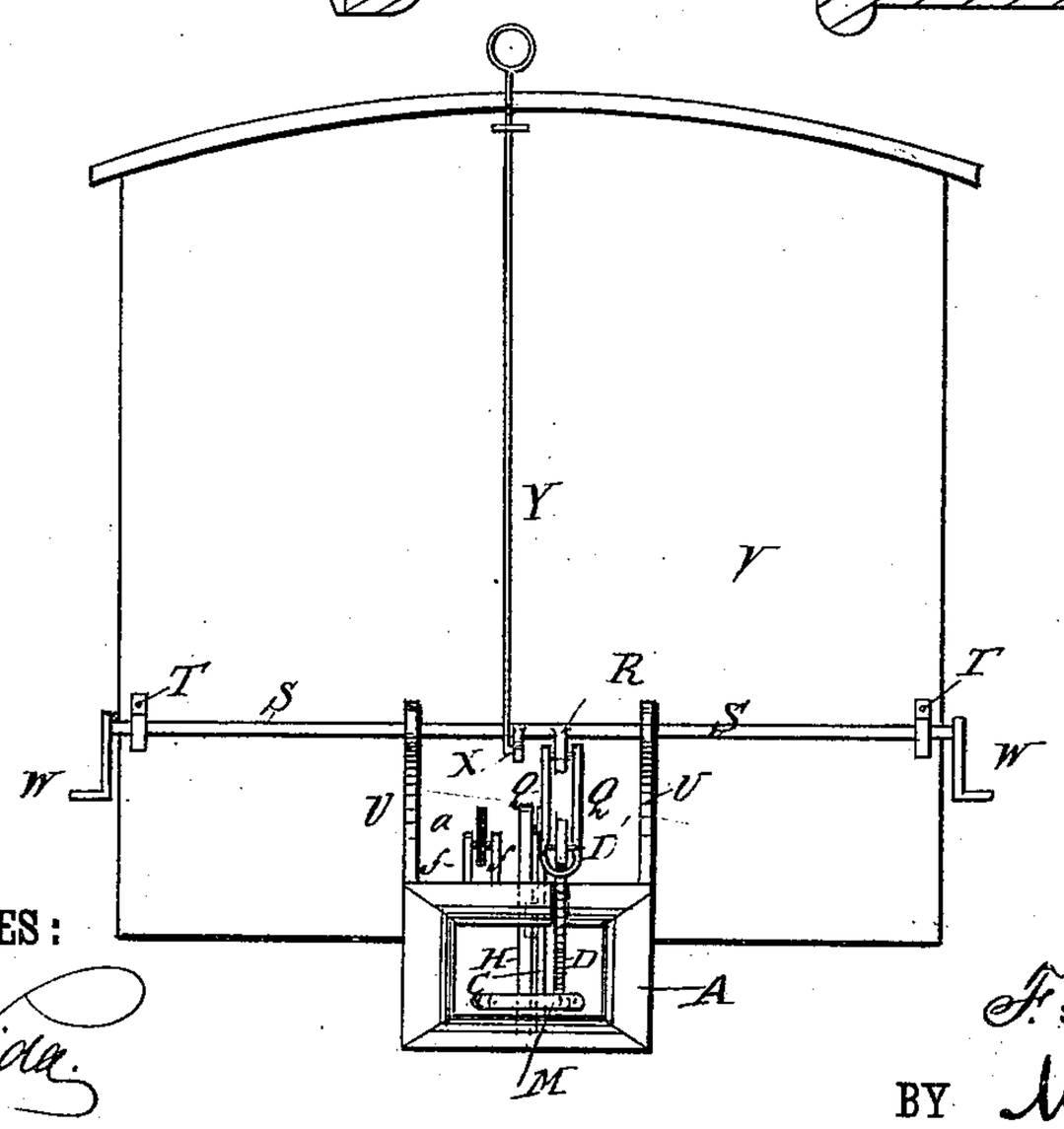


Fig: 4.



WITNESSES:

Chas. Nida.

C. Sedgwick

INVENTOR:

F. H. Rudd

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDERICK H. RUDD, OF HEBRON, NEBRASKA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 265,446, dated October 3, 1882.

Application filed March 30, 1882. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. RUDD, of Hebron, in the county of Thayer and State of Nebraska, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

This invention consists in a self-acting contrivance for lifting the pin to allow the link to enter, and dropping it into the link after it has entered; and, also, an improved arrangement for setting the pin so as not to couple, when desired, and also for uncoupling, all as hereinafter more fully described, reference being had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of one of the draw-bars and side elevation of the coupling apparatus and the other draw-bar, the parts being in position to couple. Fig. 2 is a longitudinal section of a draw-bar with pin raised ready to couple and in about the position to be set when not desired to couple when the cars come together. Fig. 3 is a horizontal section of one of the draw-bars; and Fig. 4 is an end elevation of a car with the improved coupling devices applied to it.

A represents the draw-bars, in which I make a long slot, B, from the rear end of the link-socket C, in which to locate the pin-arm D, the same being a long bar pivoted in the draw-bar at E and extending forward to the end of the draw-bar, where it carries upon the part D′ the latch F, pivoted to it at G, and to which the coupling-pin H is pivoted at I. Behind the latch there is a stop, J, on the pin-arm, to limit the back-thrust of the latch, and behind the pin H there is a stop, K, on the latch, to limit the back-thrust of the pin. The latch is much broader in the direction of the coupling-link than the pin, and the lower end is curved at L, so that when the link M strikes it it will be raised, and will raise the pin H, so as to let the link pass under, as indicated in Fig. 2, so that the pin will drop in the link and couple the cars. The pin will drop behind the shoulder N of the slot O, securing the link; but the latch F will swing forward a little in its slot P, leaving the pin to sustain the draft. The pin-arm D D′ has its front end connected by a loop, Q, with the arm R of a cranked rod, S, extending across the front end, V, of the car, and supported in bearings T thereon, or in bearers U upon the draw-bar, if preferred, and having a crank, W, at each end for turning it from either side of the car to raise the pin for uncoupling; and said rod is connected by an arm, X, with a rod, Y, extending to the top of the car, for lifting the pin from that position when desired. It is designed in practice to have the arm R of the cranked rod S range in such direction that when the pin-arm D D′ is lifted to the position represented in Fig. 2, or a little higher, it will assume a fixed position by throwing past the center, from which the pin-arm will not fall back, but will be set so that when it is desired to "bump" cars around without coupling it may be done. The bend in the pin-arm between parts D and D′ is to lower the rear part of it, so that the bottom of the car will not obstruct the lifting of the arm, which would be the case if the arm were continued in the line of part D′.

The lifting device for holding up the outer end of the link so that it will enter the other draw-bar consists of the arm *a*, pivoted at *b* or other convenient place, and having the upwardly-curved forward end, *d*, adapted to rise up on the draw-bar and lift the link by the yoke *e*, as shown. It is designed to so shape the said arm that it will raise the link to couple with higher draw-bars than the one containing the link. The link-lifter is located at one side of the center, where the pin H and latch F swing, so as not to interfere with them, and guards *f* are provided to retain it in its proper position.

It will be seen that by the arrangement of the pin to be raised on the pin-arm, instead of swinging back on a fixed pivot, there is much less slack to the link, whereby the self-coupling is rendered more certain. The loop Q, connecting the lever-arm R with the pin-arm D D′, allows the pin-arm to rise when a coupling is made without moving the crank-rod S, whereby the said rod is not liable to become locked, so as to prevent a coupling being made.

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

1. The combination of pin-arm D D′, latch F, and pin H with the draw-bar A and link M, substantially as specified.

2. The combination of pin-arm D D′, latch F, pin H, and stops J and K with the draw-bar and link M, substantially as specified.

3. The pin H, pivoted to latch F, and said latch pivoted to the pin-arm D, and the pin-arm pivoted in the slot B of the draw-bar A behind the link-socket C, substantially as specified.

4. The combination of cranked rod S and arm R with the pin-arm D D′, having latch F and pin H pivoted to it, substantially as specified.

5. In a draw-bar, A, having the pin H pivoted to a latch, F, and the latch pivoted to the pin-arm D D′, the slot O and shoulder N in the draw-bar below the link-socket C, substantially as specified.

FREDERICK H. RUDD.

Witnesses:
FRANK A. POWELL,
M. A. PAST.