

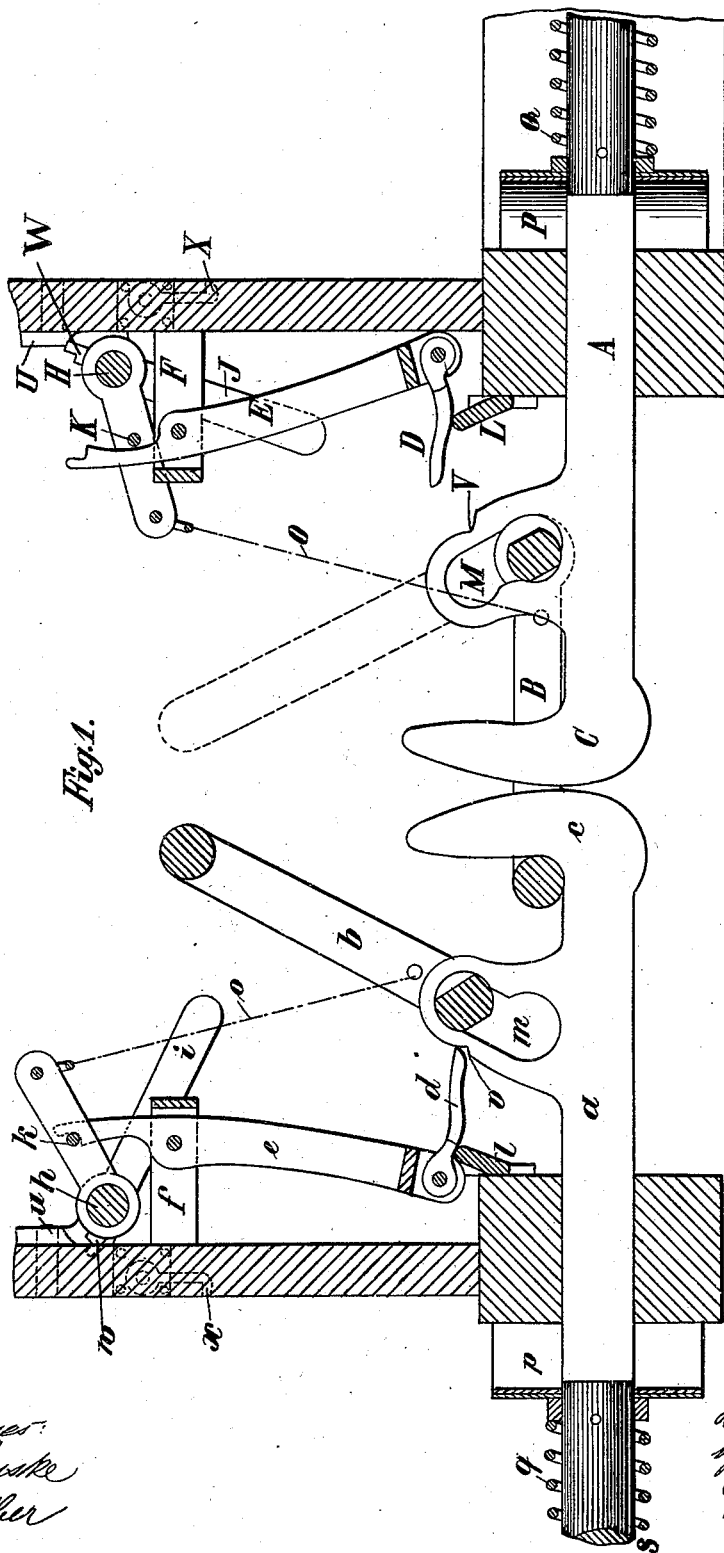
(No Model.)

2 Sheets—Sheet 1.

R. HAUB.
CAR COUPLING.

No. 553,239.

Patented Jan. 21, 1896.



Witnesses:
 Th. Hauke
 S. Volker

Inventor:
Rudolf Hark
by his attorney
Dr. J. Schanz M.D.

(No Model.)

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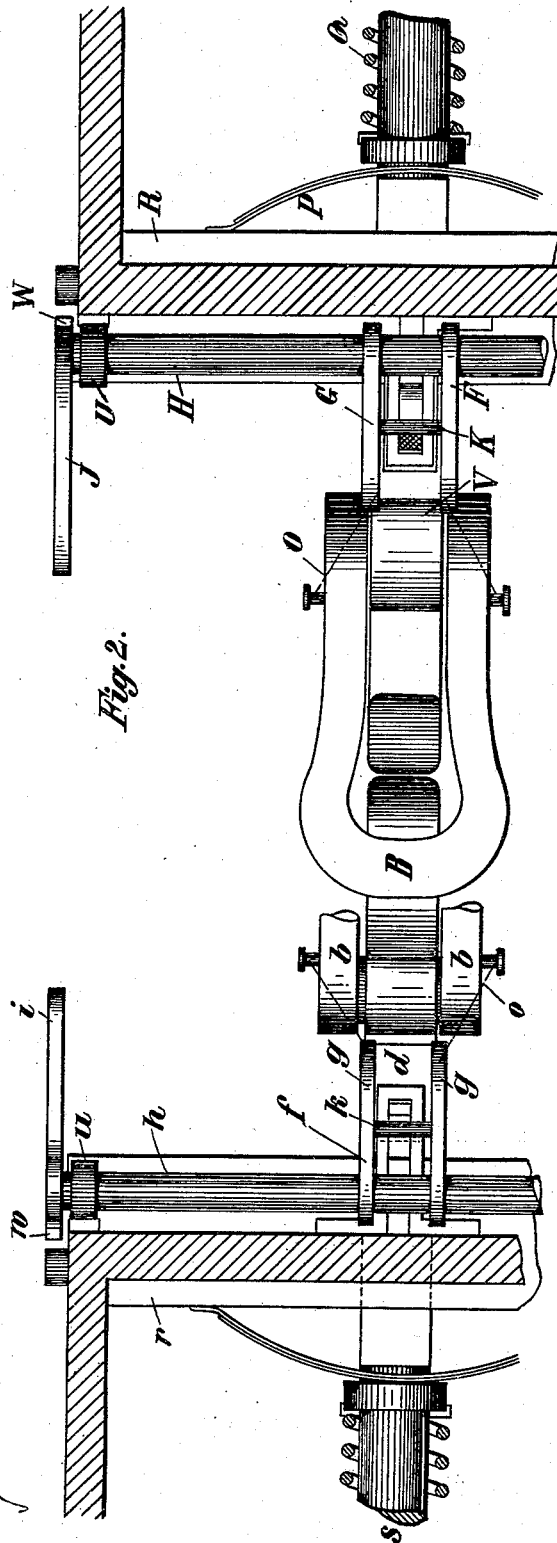


Fig. 2.

Witness:
H. Haub
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Inventor:
Rudolf Haub
by his attorney,
Dr. J. Schmitt & Co.

UNITED STATES PATENT OFFICE.

RUDOLF HAUB, OF BERLIN, GERMANY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 553,239, dated January 21, 1896.

Application filed January 23, 1895. Serial No. 535,964. (No model.) Patented in Germany October 17, 1894, No. 81,126; in France October 31, 1894, No. 242,541; in Belgium November 24, 1894, No. 112,861; in Luxemburg November 27, 1894, No. 2,182; in England November 30, 1894, No. 23,239, and in Switzerland December 3, 1894, No. 9,384.

To all whom it may concern:

Be it known that I, RUDOLF HAUB, engineer, of 10 Melchiorstrasse, Berlin, in the Kingdom of Prussia, German Empire, have
5 invented new and useful Improvements in Automatic Couplings for Railway-Cars, &c., (patented in Germany, No. 81,126, dated October 17, 1894; in Belgium, No. 112,861, dated November 24, 1894; in France, No. 242,541,
10 dated October 31, 1894; in England, No. 23,239, dated November 30, 1894; in Switzerland, No. 9,384, dated December 3, 1894, and in Luxemburg, No. 2,182, dated November 27, 1894,) of which the following is a specification.
15

This invention relates to couplings for railway-vehicles by means of which two vehicles are automatically coupled by being brought together, and its objects are to effect the
20 coupling in a simple and efficient manner and so that the connection once made may not accidentally be released.

The accompanying drawings, reference to which is hereinafter made, illustrate the construction and arrangement of the improved
25 coupling and the method of operation.

Figure 1 illustrates in elevation the coupling applied to the adjacent ends of two vehicles. Fig. 2 represents a plan of the same
30 coupling.

The draw-bars A *a* each carry a hinged or pivoted link or bow B *b* capable of falling over the hook C or *c* of the opposite draw-bar. The links B *b* are pivoted within the slots M
35 *m* formed in the extensions V *v* upon the draw-bar. Upon the left-hand side of Fig. 1 the parts are shown with the link in its raised position and on the right-hand side after coupling has been effected.

40 Similar letters of reference are employed to denote similar parts, small letters being used in connection with one vehicle and capitals with the other.

The couplings upon each end of the vehicle are alike, so that it will be necessary only to describe one of them.

The draw-bar A is guided within the frame R so as to be incapable of rotation, and is furnished with the springs Q and T P. The
50 slot M is so shaped that the link B is capable

of two movements therein, rotary and linear. The pin or spindle N of the link is formed with two flats upon its side, so that it can pass the narrow part of the slot. The link B is attached by means of cords or chains O to the
55 end of a forked lever G secured to a shaft H carried by the bearings U and furnished at one end with a handle J. The forked lever carries a pin K capable of engaging with the upper end of an oscillating lever E, the other
60 end of which has attached a link *d* suitably shaped and guided by the plates L. The lever E is pivoted upon a suitable bracket F. As shown on the left-hand side of Fig. 1, the link *b* is maintained in its raised position by
65 the engagement of the pin *k* with the upper end of the lever *e*.

When two vehicles are to be coupled together the hooks C *c* on the ends of their respective draw-bars are brought into contact.
70 Further pressure causes the draw-bars to be pressed into the frames of the vehicles, and as it is impossible to make the springs Q *q* of exactly the same strength one of the draw-bars is bound to be moved to a greater distance than the other. We will assume that the
75 draw-bar A has the greater movement, the positions of the parts at the commencement of the movement being shown at the other side of the figure. The projection comes into
80 contact with the end of the link D and moves the lower end of the lever E backward, thus moving the upper end forward away from the pin *k* and allowing the link B to fall by rotation on its pivot. This rotation is continued
85 until the link comes to the point of the opposite hook *c*, when the flats upon the spindle N come into such a position as to allow it to fall down the slot M, the link B assuming the position shown on the right-hand side of the
90 figures.

The link B cannot be raised by a simple rotation, as its center of rotation has been moved backward. An additional security against
95 accidental disengagement is provided by the second link falling upon the first. Owing to its shape the link D is raised by the plate L out of the path of the projection V after the pin K has been released, thus preventing any
100 shock or damage to the mechanism by ex-

cessive movement of the draw-bar A. The falling link B effects the partial rotation of the shaft H.

To disconnect the vehicles the handle J of the shaft H is turned and the chains or cords O raise the spindle N of the link B to its highest position in the slot M. The link is here capable of rotary movement, and the further movement of the handle J causes it to rotate until it is clear of the hook c and is in its highest position. The lower end of the lever E then swings forward and its upper end engages with the pin K and holds the coupling in its highest position.

In order to prevent coupling taking place when it is not desired—such, for instance, as in operation of shunting—a hook X or other similar device is mounted upon the vehicle and may be engaged with a projection W, the handle J or the shaft H, so as to prevent the rotation of the latter.

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

In an automatic coupling for railway vehicles the combination of a hooked movable draw bar having a slotted projection formed therein, a bow or link pivoted within the slotted projection, a lever by means of which the parts are released upon the backward movement of the draw bar, and a shaft for raising the link to effect uncoupling all constructed arranged and operating substantially as hereinbefore described and as illustrated by the accompanying drawings.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

RUDOLF HAUB.

Witnesses:

CHAS. H. DAY,
W. HAUPT.