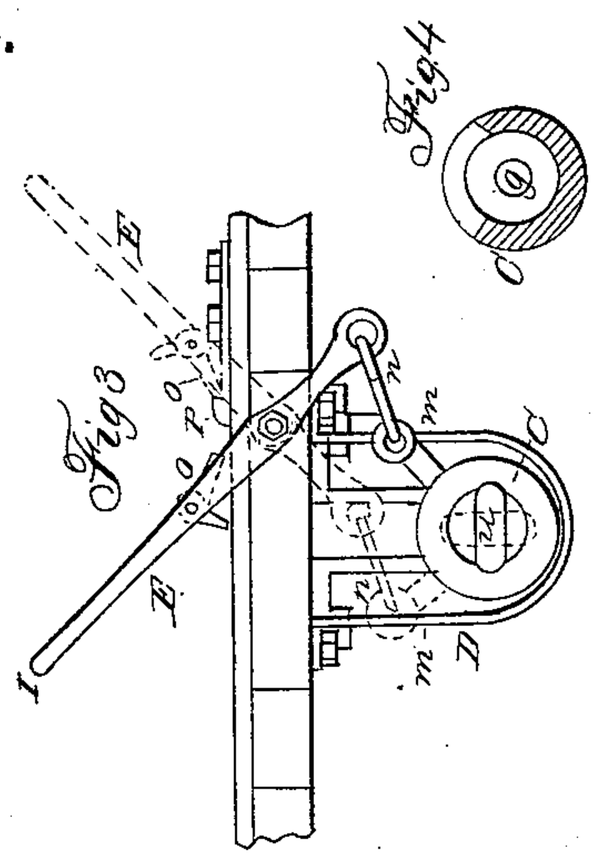
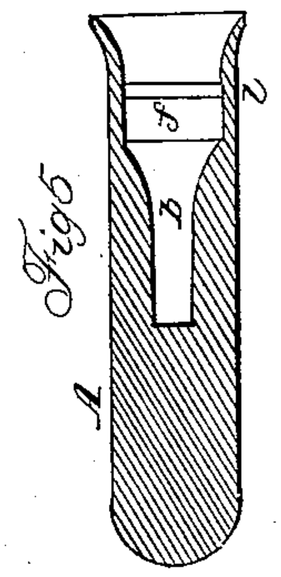
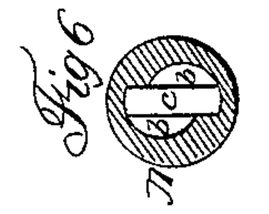
E. E. PACKER, Jr., & J. DALEY.

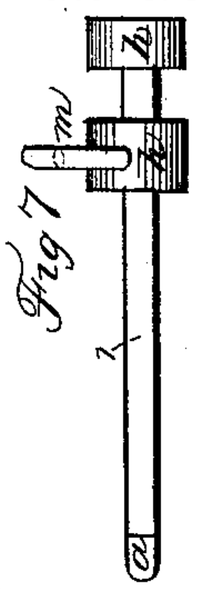
Car Coupling.

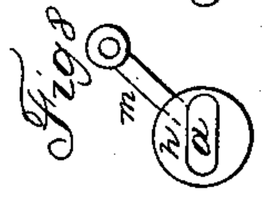
No. 60,544. Patented Dec. 18, 1866.

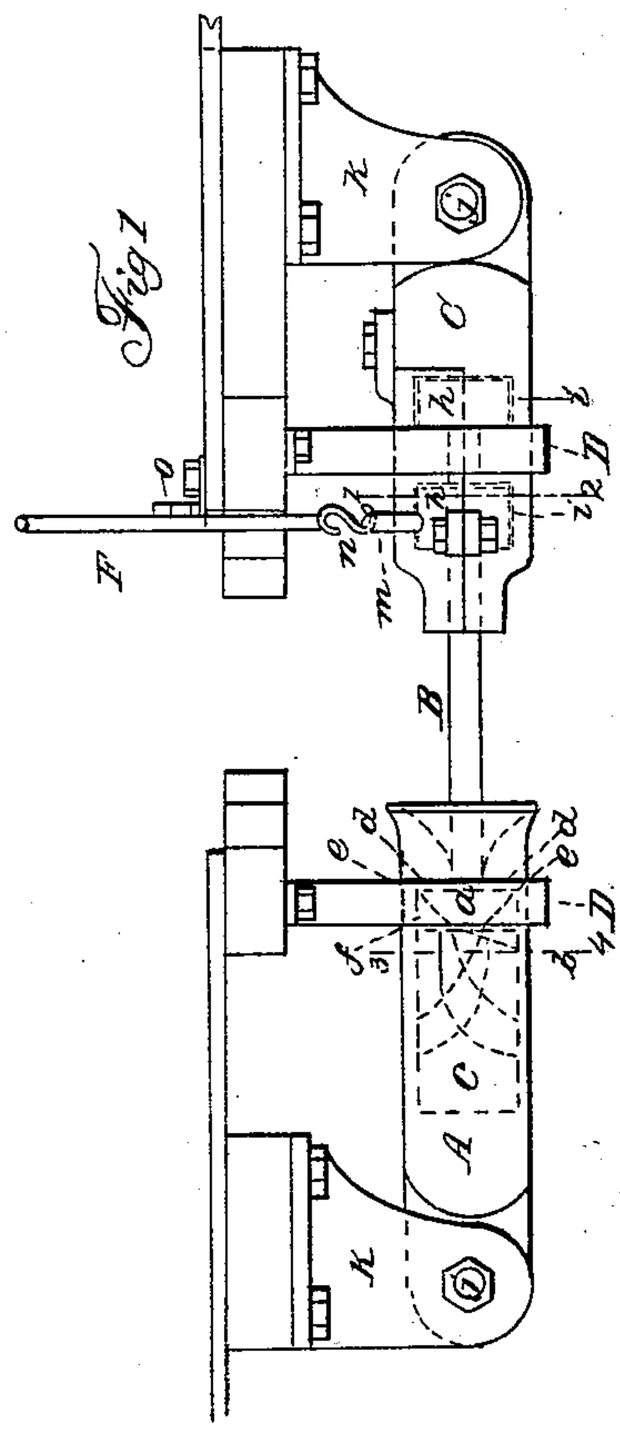


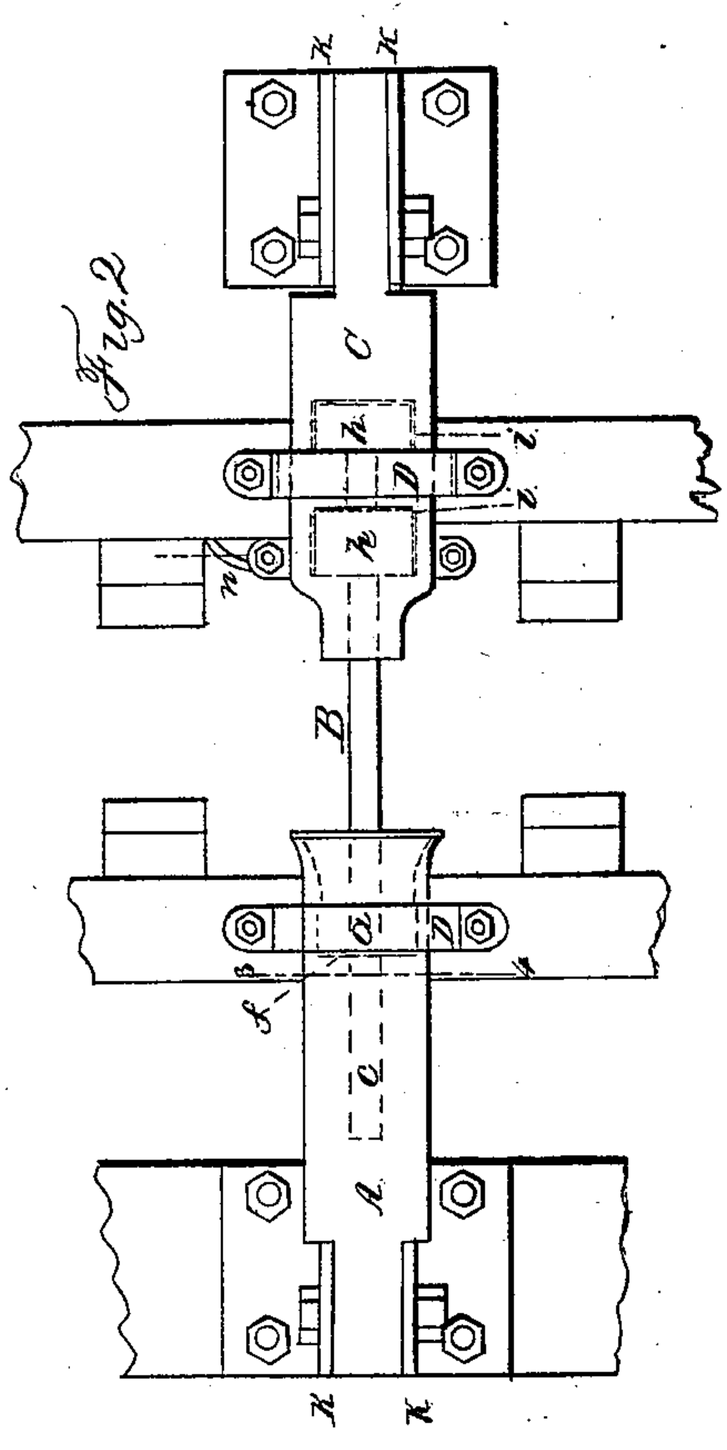












Witnesses
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IMPROVED CAR COUPLING.

E. E. PACKER, JR., AND JOHN DALEY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THEMSELVES AND EDGAR L. THOMPSON, OF SAME PLACE.

Letters Patent No. 60,544, *dated December* 18, 1866.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, EDWARD E. PACKER, Jr., and JOHN DALEY, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful improvement in Car Couplings; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of our invention and improvement consists in an automatic car coupling, which will be understood by the following description. In the accompanying drawings—

Figure 1 is a side elevation of the improved coupling.

Figure 2 is a view of the same from beneath.

Figure 3 is an end view of the cylinder C, and parts in connection therewith.

Figure 4 is a cross-section of the cylinder C, at the red line 1 2, of fig. 1.

Figure 5 is a horizontal section of the cylinder A.

Figure 6 is a cross-section of the same, at the red line 3 4, of figs. 1 and 2.

Figures 7 and 8 are a side and end views of the coupling-rod, B, with the stud, *m*, in connection.

Like letters in all the figures indicate the same parts.

A is a cylinder for the reception and locking of the head, *a*, of the coupling-rod, B, it having a wide-mouthed screw socket, *b*, which turns said head from its horizontal to a vertical position, as the two cars to be coupled approach each other, the head coming in the central vertical opening, *c*, and remaining vertical as the cars recede from each other when the train is started, until the shoulders, *d d*, come against the front vertical side, *e e*, of the enlargement, *f*, of the socket *b;* thus the coupling-rod is locked, to couple the cars. The other end of the coupling-rod B is connected with the cylinder C by means of the central opening, *g*, it having an easy fit to allow it to turn freely in the coupling and uncoupling of the cars. There are collars, *h h*, on the rod B, and corresponding chambers, *i i*, in the cylinder C, for holding the rod in its longitudinal position. One of these chambers is represented in fig. 4. The cylinders A and C are hung on the horizontal rods, *j j*, which are supported by the hanger *k k k k*, the said hangers being bolted to the lower side of the platforms of the cars or trucks. The inner ends of said cylinders, when in their lowest position, are supported by the yokes D D. This arrangement of the cylinders allows their inner ends to raise in adaptation to different heights of the two cars that are coupled together; because, whether the head *a*, of the coupling-rod B, strikes either the upper or lower flange of the mouth of the socket *b*, it will find its way into the horizontal part, *l*, of the socket, and thence to the rear part of the latter, and the cylinders will be brought into line with each other and with the coupling-rod. E is a lever for securing the coupling-rod B when locked, and changing its position for the uncoupling of the cars. It is connected to said rod by means of the stud *m* and link *n*, and is provided with the pawl, *o*, for holding it in position when the cars are coupled.

We make the cylinder C in two pieces, and bolt them together, as represented in figs. 1 and 2. But the cylinder A may be made in a single piece.

The operation is as follows: When two cars are to be coupled together the brakeman has the lever E in the position represented in fig. 3, and when the cars approach each other the head *a* of the coupling B passes into the screw-socket *b* of the cylinder A, and by means of the screw form of the socket is brought into vertical position in the vertical central part *c*, of the socket, and the pawl *o* falls behind the stationary stop *p*, to secure the lever in position, as represented by red lines. And when the cars recede from each other in the starting of the train, the head *a* is guided by the said central part *c* of the socket, until the shoulders *d d* come against the vertical sides *e e* of the enlargement *f*, as before described. When the brakeman wishes to uncouple the cars, he disengages the pawl *o* from the stop *p*, and turns the lever into the position ranging with the point 1 in fig. 3. This brings the head *a* of the coupling-rod B into a horizontal position, to provide for its disengagement from the socket, as it is then in line with the part *l*.

Having thus described our improvement in automatic car couplings, what we claim therein as new, and desire to secure by Letters Patent, is—

1. The combination of the coupling-rod B with the cylinder C and screw-socket *b*, of the cylinder A, substantially upon the principle and in the manner hereinbefore described and for the purpose specified.

2. The combination and arrangement of the lever E, stud *m*, link *n*, and pawl *o*, substantially in the manner described and for the purpose specified.

In testimony that the above is our invention, we have hereunto set our hands and affixed our seals this sixth day of November, 1866.

EDWARD E. PACKER, JR., [L. S.]
JOHN DALEY. [L. S.]

Witnesses:

STEPHEN USTICK,
JOHN WHITE.