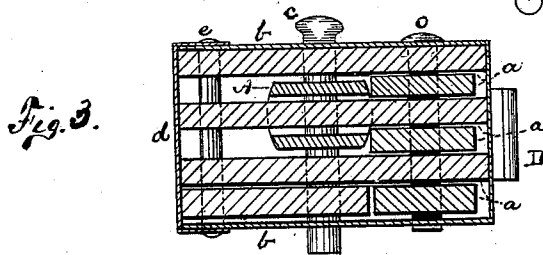
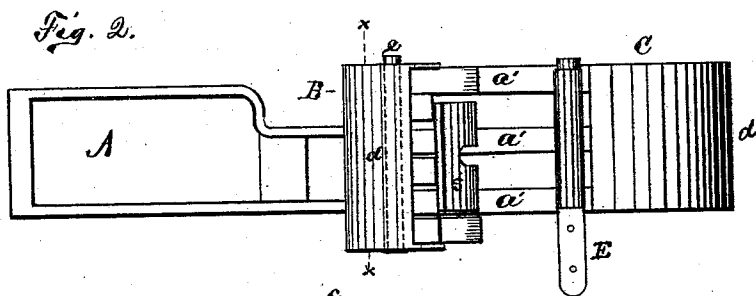
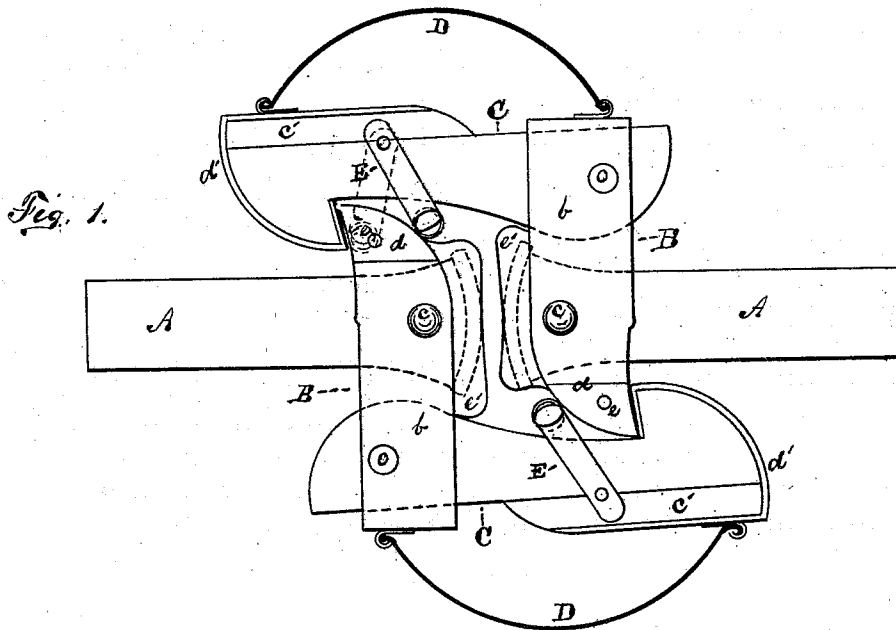


F. JACOB.
CAR-COUPLING.

No. 176,638.

Patented April 25, 1876.



Witnesses.
W. J. Bourne
J. C. Tunbridge.

Inventor.
Frederick Jacob.
By O. Drake, Atty.

UNITED STATES PATENT OFFICE.

FREDERICK JACOB, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **176,638**, dated April 25, 1876; application filed March 13, 1876.

To all whom it may concern:

Be it known that I, FREDERICK JACOB, of the city of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in automatic couplers for cars; and has for its object certain important advantages over those heretofore in use, all of which will be hereinafter more fully set forth.

The accompanying drawing fully illustrates the nature and character of my invention, in which—

Figure 1 is a top or plan view of a coupler, constructed in accordance with the principles involved therein.; Fig. 2 is a detail face view of one-half of the coupler; and Fig. 3 is a section through lines *x* of Fig. 2, similar letters of reference indicating corresponding parts in the several figures.

My invention consists in the combination, with the ordinary bumpers A of a railway car, of hooks B and C with their attachments, constructed and arranged to operate in conjunction therewith substantially as shown and indicated in the drawing.

The hooks B are each composed of three plates, *a*, constructed and arranged substantially as represented in Figs. 1 and 3, being inclosed in an outer shell or casing, *b*, and pivoted to the bumpers A, as indicated in the same figures, a pin, *c*, such as is usually employed with the ordinary link-coupler, forming said pivot, the several plates *a* being further secured, bound together, and protected by means of a removable cap, *d*, secured thereto by a pin, *e*. The hooks C are also each composed of three plates, *a'*, corresponding in thickness with the spaces intervening between the plates *a* in hooks B, through which they pass, and are also pivoted at *o*, as clearly shown and indicated in the said Figs. 1 and 3. The plates composing said hooks C are further strengthened, bound together, and supported by means of a plate, *c'*, and a cap, *d'*, the whole being firmly and

rigidly bound and riveted together, all as clearly shown and indicated in the figures above referred to.

Suitable springs D connect the hooks B and C substantially as indicated in Fig. 1, the object and tendency of which is to secure the interlocking or coupling of the several hooks, when the cars come together, and to prevent the accidental displacement or uncoupling of the same.

The operation of uncoupling is effected by means of swivels E, which are operated simultaneously by a suitable key or wrench in the hands of an individual, stationed either on one of the platforms of a car, or upon the ground, as the case may be, as will be readily understood by referring to Fig. 1. The projections *e'* on the outer plates of the hooks B are to insure the complete coupling of the several hooks, when the cars are on a curve, as otherwise there might be but a partial coupling of the several parts. The swivels E are so adjusted with relation to the hooks B and C that when thrown back in uncoupling, as indicated by dotted lines in Fig. 1, they will remain in such position until the cars are parted, thereby preventing the involuntary recoupling of the parts, as will be obvious.

Each hook B is applied laterally to the draw-heads, after removing the pins *e* and caps *d*, by passing the central plate *a* through and the other plates *a* above and below the draw-head, as shown in Fig. 3, the whole being then secured by inserting the pin *c*, which does not have to bear all the strain, however, as the transverse plates *a* may bear upon the front plate of the draw-head *s*, Fig. 2.

I claim—

1. The combination of a draw-head, the plates *a a a* passing through, above, and below the draw-head, pivoted thereto and forming a hook, B, the hook C, pivoted at *o* to one end of the hook B, and the spring D bearing upon both hooks, as set forth.

2. The combination, with the hook B and its plates *a*, of the cap *d* and pin *e*, as specified.

In testimony that I claim the foregoing as my own I hereto affix my signature in presence of two witnesses.

FREDERICK JACOB.

Witnesses:

OLIVER DRAKE,
JOHN C. TUMBRIDGE.