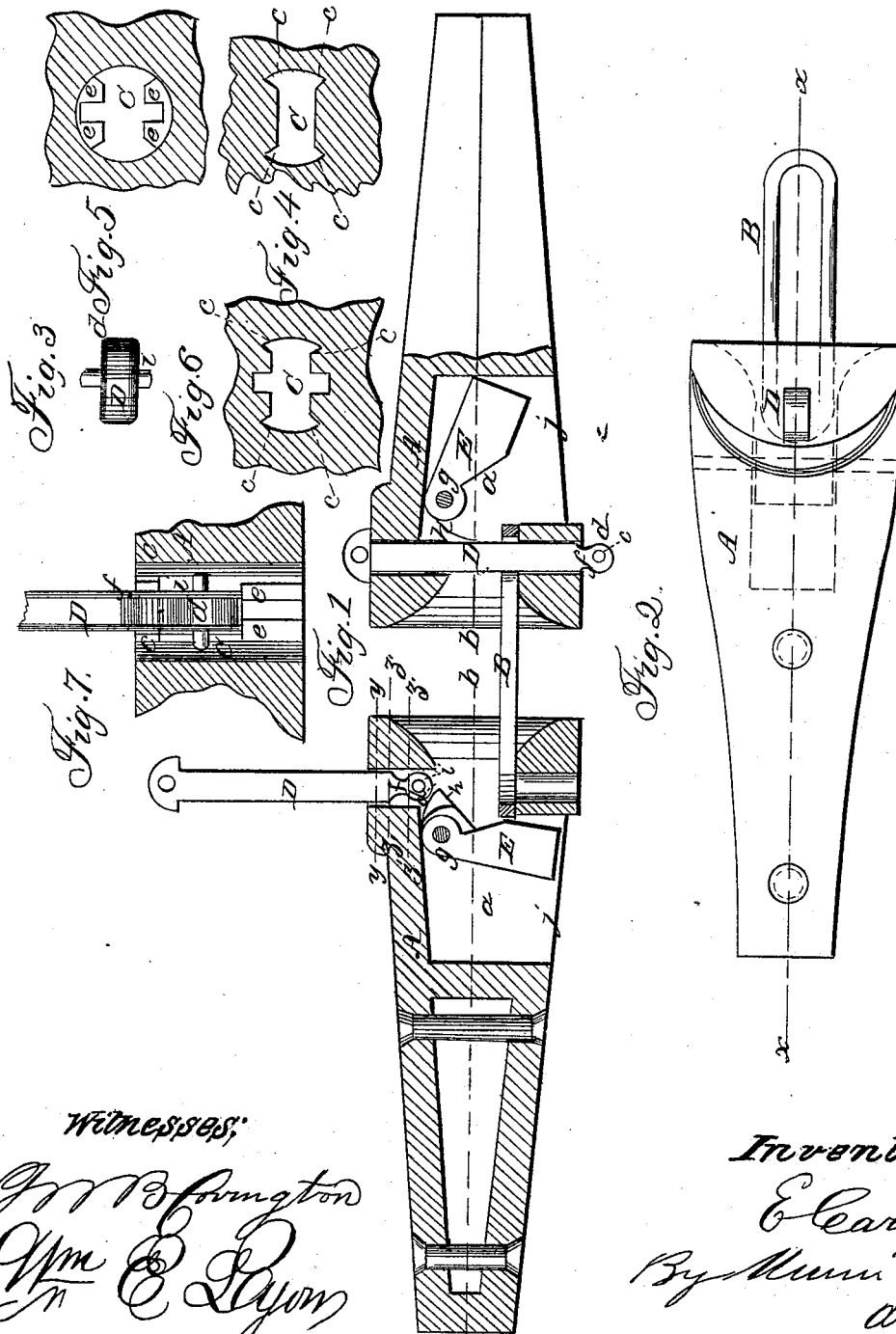


E. CARY.
Car Coupling.

No. 53,215.

Patented Mar. 13, 1866.



Witnesses:

J. W. Huntington
J. M. E. Lyon

Inventor:

E. Cary
By Munn & Co
attys

UNITED STATES PATENT OFFICE.

EBENEZER CARY, OF BURLINGTON, IOWA, ASSIGNOR TO HIMSELF, HORACE H. HAWLEY, AND JOHN SULLY, OF SAME PLACE.

IMPROVED CAR-COUPLING.

Specification forming part of Letters Patent No. 53,215, dated March 13, 1866.

To all whom it may concern:

Be it known that I, EBENEZER CARY, of Burlington, in the county of Des Moines and State of Iowa, have invented a new and Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *xx*, Fig. 2; Fig. 2, a plan or top view of the same; Fig. 3, a detached lower end view of the coupling-pin; Figs. 4, 5, and 6, horizontal sections of the draw-head, taken respectively in the lines *y y*, *z z*, *z' z'*, Fig. 7; Fig. 7, an enlarged longitudinal section of the upper part of the draw-head, taken in the same line as Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved coupling for railroad-cars, and of that class which are commonly termed "self-acting" or "self-coupling."

The invention consists in the employment or use of a suspended coupling-pin supporter, a coupling-pin of peculiar shape, which is fitted and works in a hole or aperture of peculiar form in the draw-head, the above parts being used in connection with a link or shackle and a draw-head of peculiar construction, all arranged in such a manner as to form a simple and efficient coupling of the kind specified.

A represents the draw-head, which may be constructed of either wrought or cast iron and applied to the car in the usual way. The draw-head is formed with a cavity, *a*, at its front part, and with a flaring mouth-piece, *b*, to admit of the proper entrance of the link or shackle B of the draw-head of an adjoining car, whether the platforms of the cars be of equal or unequal height or the draw-heads in or out of line.

The draw-head has a pin-hole, C, in it, extending vertically through its top and bottom, in which the coupling-pin D is fitted and works. This hole C, at its upper part, is notched at its corners or angles, as shown at *c*, Figs. 4 and 6, in order to admit of the pin rising and falling

freely within it should the pin become ragged or burred at its edges from use, and said hole, just below its upper edge, as indicated by the line *z z*, is made of circular form, as shown in Fig. 5, to admit of the lower circular part, *d*, of the coupling-pin being turned around in it when it is desired that the pin shall be sustained, so as to avoid the coupling or connecting of two cars. This will be presently fully described. The pin-hole C below the line *z z*, as indicated by the line *z' z'*, is provided with projections *e e*, two at each side. (See Fig. 6.) On these projections the coupling-pin rests when it is not designed to have the cars connected together. (See Fig. 7.) The coupling-pin D is of rectangular form in its transverse section, corresponding to the shape of the upper end or orifice of the hole C; and the pin a short distance above its lower end is notched in forming a rounded neck, *f*, to admit of the pin being turned when drawn up, and said neck is in line with the upper end or orifice of the hole C.

E represents a block or short bar, which serves as a support for the pin D. This block is fitted within the cavity *a* of the draw-head, and is suspended on journals *g g* at its upper part, the lower end of the block being considerably heavier than the upper part, the object of which will be presently shown. The end of one journal of the block E is provided with a handle or crank by which said block may be turned or raised whenever necessary.

At the front side of the upper part of the block E there is a projection, *h*, which extends forward and serves as a support for the pin when the block is allowed to hang freely down and the device is set ready for coupling, as will be fully understood by referring to Fig. 1.

The lower end of the pin D has a small rod, *i*, fitted transversely in it, which prevents the pin being drawn out from the draw-head, the orifice or upper end of the hole C preventing it, and an opening, *j*, is in the lower part or bottom of the draw-head to prevent the accumulation of dirt in *a*.

From the above description it will be seen that when the pin D is raised or drawn up, so that its lower end will be above the block E the latter will drop owing to the increased

weight of its lower end, and the projection *h* at the upper end of the block will catch and hold the pin *D* as said projection will pass underneath the pin, the block being hung or suspended in such a position as to effect that result; and it will further be seen that by shoving the link or shackle *B* into the cavity *a* of the draw-head the support *E* of the draw-head will be forced back and the pin *D* will drop through the link or shackle.

If it be desired to set the pin so that the draw-heads of two adjoining cars may strike together without coupling, the pin *D* is drawn up to its fullest extent and turned around at right angles to its former position, so that the sides of the upper end or orifice may fit in the notches around the neck *f* of the coupling-pin, the lower end of said pin resting on the projections *e e*, and the pin thereby supported independently of the block *E*.

If it be desired to set the link or shackle *B* so as to couple easily with a draw-head on a

lower car, that result will be attained by drawing the link out as far as possible and slanting it downward, or, if with a higher car, by pushing it in and slanting it upward. When the link is slanted upward or set level it will be kept in place by the pressure upon its rear of the pin-support or block *E*.

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

In combination with the coupling-pin *D*, constructed as described, the peculiar-shaped opening *C* in the draw-head *A*, whereby the pin, being raised and turned, may be supported independently of the block in the draw-head, in the manner as herein described.

The above specification of my invention signed by me.

EBENEZER CARY.

Witnesses:

SHELDON HAWLEY,
E. A. VAN METER.