

(No Model.)

J. E. SMITH.
Car Coupling.

No. 239,990.

Patented April 12, 1881..

Fig. 1.

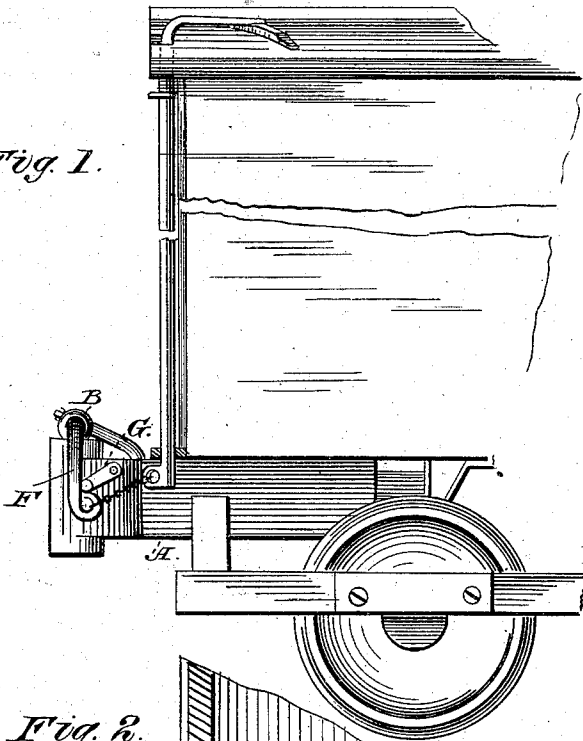


Fig. 2.

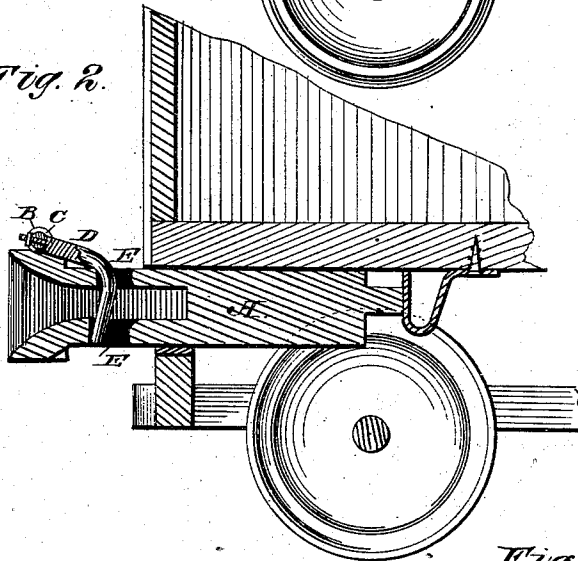


Fig. 3.

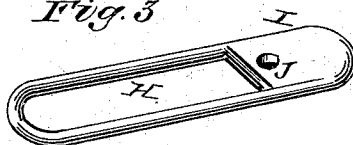
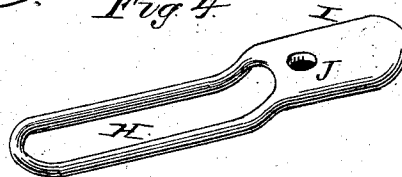


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES E. SMITH, OF WILKESBARRE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ISAAC LIVINGSTON, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 239,990, dated April 12, 1881.

Application filed February 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. SMITH, of Wilkesbarre, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, 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, which form a part of this specification.

Figure 1 is a side view of my improved car-coupling. Fig. 2 is a longitudinal sectional view of the same, and Figs. 3 and 4 are perspective views of various links to be used in connection with the same.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to that class of car-couplings that are described in Letters Patent No. 187,519 and No. 211,410. The improvement consists in the combination and arrangement of parts whereby a simple and improved device is obtained, as hereinafter described and claimed.

In the drawings hereto annexed, A represents the draw-head, which is provided with bearings B for a transverse shaft, C, to which the pin D is secured detachably, as shown. The pin D works in longitudinal slots E in the draw-head, so as to be automatically lifted when the link of the next car enters the draw-head, when it drops down into the link, thus completing the coupling.

The shaft C is provided at one end with a crank, F, the end of which is connected, in any suitable manner, with a crank-lever extending to the platform or top of the car, and by means of which the coupling may be conveniently operated.

G is a dog or catch, pivoted to the side of the draw-head and capable of being thrown forward against the crank F, as shown in Fig. 1 of the drawings, thus preventing the shaft C from operating.

In combination with my improved coupling I employ a link, H, shown in Figs. 3 and 4 of the drawings, by reference to which it will be

seen that one end, I, is made solid and provided with a perforation, J, for the coupling-pin. The solid end of the link being inserted into the draw-head, counterbalances the projecting end, which is thus held in a horizontal position for engagement with the coupling of the next car, thus avoiding the injury to link frequently caused by cars coming together when the link is in a slanting position.

When coupling is to be effected with cars higher or lower than that carrying the link the bent link shown in Fig. 4 of the drawings may be advantageously employed.

In practice the weld of the link is located at the solid end of the link, which is in this manner considerably strengthened.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed.

The solid end of a link is inserted into the draw-head of a car and engaged with the coupling-pin. The dog G upon the side of the draw-head is now thrown forward against the crank F, thus locking the coupling and preventing the link from being displaced while in the act of entering the draw-head of the adjoining car.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination, with the draw-head formed with the slots E, of the transversely-arranged shaft C, journaled in the bearing B, that is secured directly to the draw-bar, the bent pin D, secured to said shaft and arranged to work in the slots of the draw-head, the crank-arm F upon one end of the shaft C and connecting with the operating-lever, and the dog G, pivoted to the side of the draw-head in position to be brought against the crank, substantially as described.

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

JAMES E. SMITH.

Witnesses:

ISAAC LIVINGSTON,
WILLIAM F. MCLEAN.