G. SCHMIDT & F. ESCHE.

CAR-COUPLING.

No. 184,111. Patented Nov. 7, 1876.

Fig. 1.

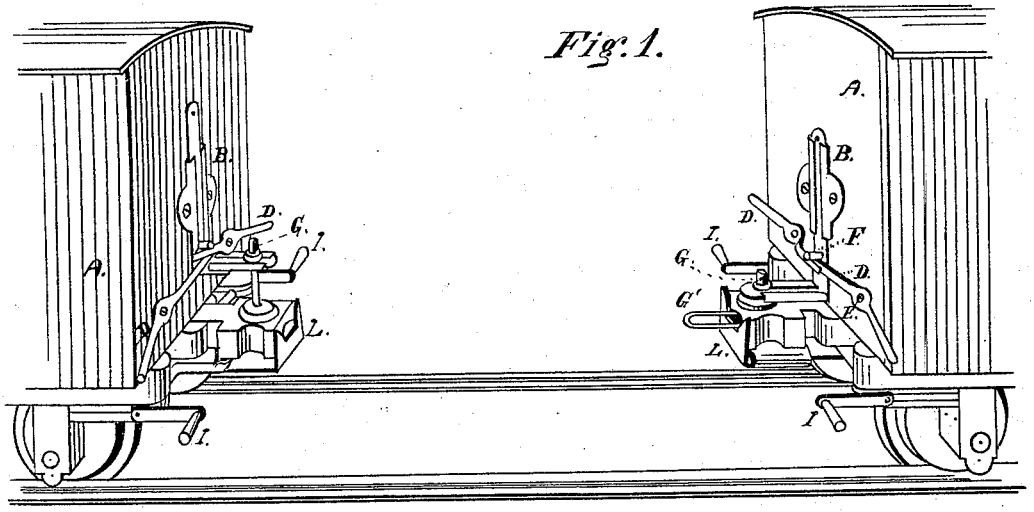



Fig. 2.

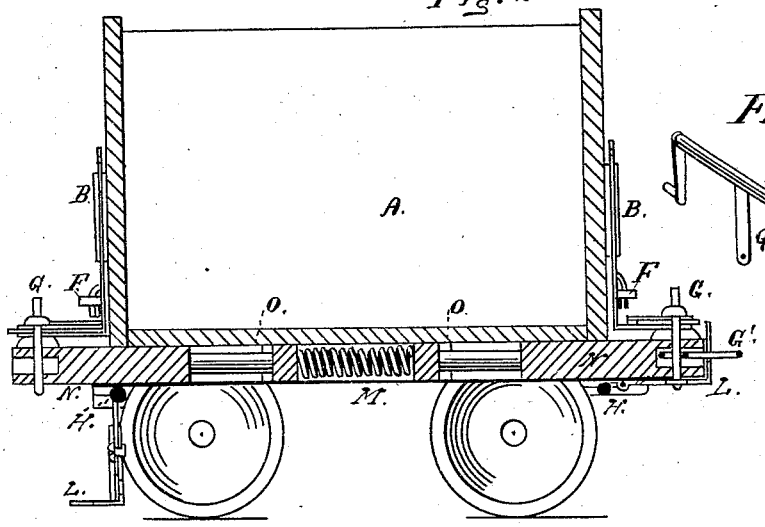
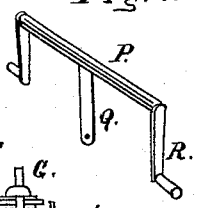



Fig. 4.



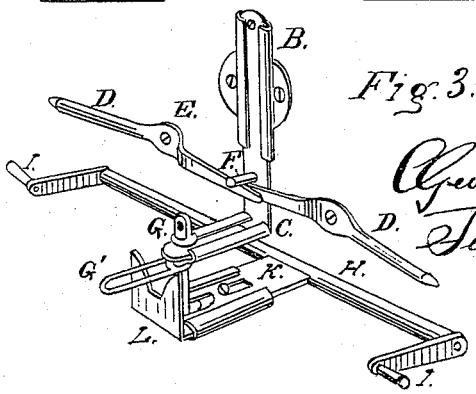




Fig. 3.

WITNESSES.

J. B. Smith

A. Schattenberg.

INVENTORS.

George Schmidt

Ferdinand Esche

# UNITED STATES PATENT OFFICE.

GEORGE SCHMIDT AND FERDINAND ESCHE, OF MILWAUKEE, WISCONSIN, ASSIGNORS OF ONE-EIGHTH THEIR RIGHT TO RUDOLPH SOLOMON, OF SAME PLACE.

## IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **184,111**, dated November 7, 1876; application filed March 16, 1876.

*To all whom it may concern:*

Be it known that we, GEORGE SCHMIDT and FERDINAND ESCHE, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Car-Couplings, of which the following is a specification;

Our invention relates to that class of machinery that is used for coupling railroad-cars, and is arranged so that the operator of same may stand on the outside of the car and handle the link which is to hold the cars together, and thus be out of the way of accidents, which so often result to the man engaged in coupling cars.

This coupling is a link and pin, similar to the ordinary coupling which is used on railroad-cars, with levers running to the sides of the car, with which to raise the pin, and a crank and shaft, to raise an apparatus which holds the link right to enter the opening for same. This link has a bar across it, which strikes against the pins in the car in which the pin is left standing, which prevents the link from being pushed back too far for the other pin to enter it when the cars come together.

Figure 1 is a view of the ends of two cars on a railroad-track, with the paraphernalia attached for coupling them together. Fig. 2 is a sectional view of a car, showing the outer beams, to which the bumpers are attached, with a spring in the center between the two, which throws them out to their places, so that there may be some yielding when the cars come together; and Fig. 3 a view of the coupling apparatus.

A is the car, to which the coupling apparatus is attached; B, a slide, secured to the end of the car; C, a sliding bar, which slides up and down in slide B. D D, a couple of levers, the ends of which project to the sides of the car. These levers are secured by bolts E E, which form a fulcrum for the levers to work on, the inner ends of these levers passing under a pin, F, in the slide-bar C. G, a pin which holds one end of the link G′. The head of said pin is above and resting on a slotted projection, which is a portion of sliding bar C, and through which said pin passes said slotted projection running out at right angles from bar C. This pin G is raised, when necessary, by placing the hand on the outer end of one of the levers D. H, a crank-shaft attached to the car, with cranks I I on each end of it, by which it is turned; K, a flat projection attached to and projecting out from crank-shaft H, over which projection is turned a handle, L, with a screw in it, which slides in a groove in projection K when the cars come together, and the bumpers strike. This handle L, when the car is to be coupled, is raised by the crank-shaft, which is turned by the cranks I, and the forked projection in the end of same receives the link and holds it high enough to enter the opening in the other car for same. M, a spring in the center between the bumpers N N; O O, stops between the bumpers N N, to prevent them from being shoved back too far.

Operation: The link and pin on one car are placed in position, and the train being backed up, so that the cars shall come together, the man who attends to coupling them stands at the side of the car, and out of danger, takes hold of crank I and turns the shaft, so as to bring the link high enough to enter the opening for it and lift the pin high enough to let the link pass under it, by means of lever D; and when the link passes into the opening, let the pins fall into its place, and the cars are coupled.

There is another apparatus for lifting the pin G on passenger-cars, which is secured under the platform out of the way, and is represented by Fig. 4.

P is the shaft running across the end of the car and secured the same way as shaft H, with a slotted arm, Q, out from same, in which pin G passes down through the head of same, resting on this arm—said shaft operated by cranks R R, same as shaft H.

We claim as new and as our invention—

The combination of the shaft H, provided with a crank or cranks, I, plate K, and handle L, the handle being slotted so that it can be adjusted in and out, as necessity may require, for holding the link G′ ready for coupling, substantially as shown and described.

GEORGE SCHMIDT.
FERDINAND ESCHE.

Witnesses:
J. B. SMITH,
A. SCHATLENBERG.