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Patented Mar. 28, 1899.

F. SCHELLINGER & F. KLEINER.  
RAILWAY CAR COUPLING.

(Application filed July 26, 1898.)

(No Model.)

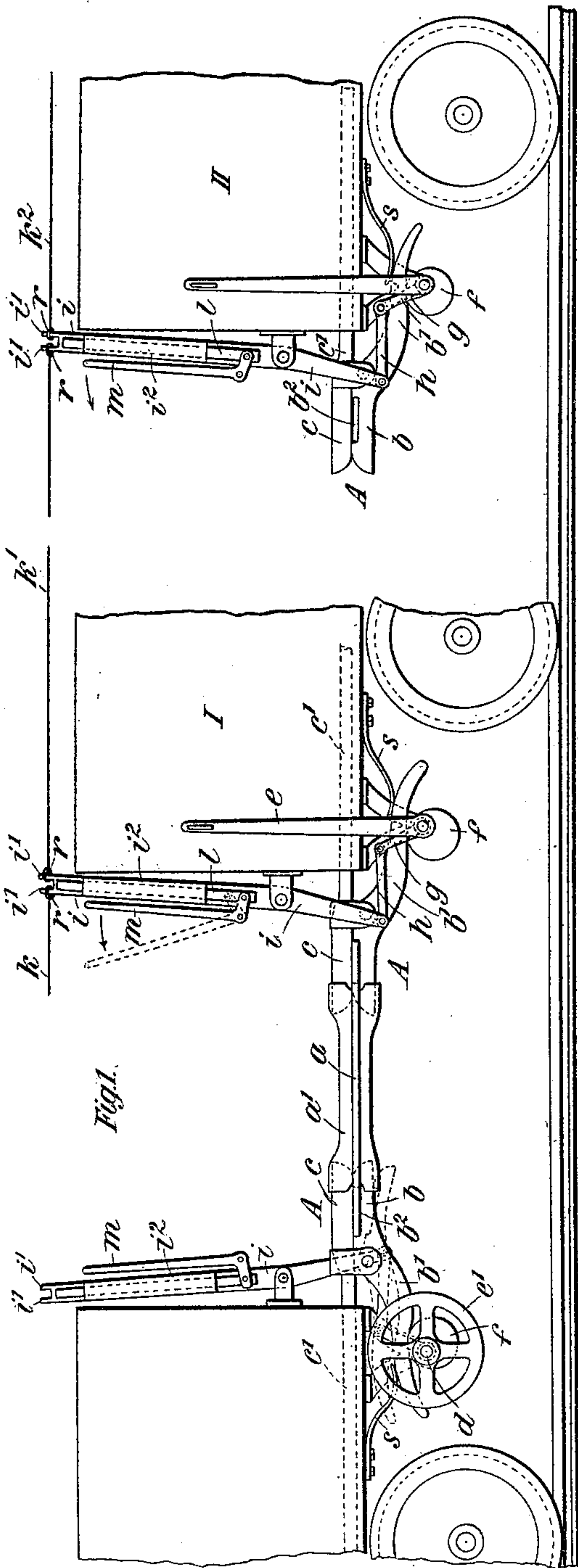


Fig. 1.

Witnesses:  
E. R. Botton  
O. D. Munn

Fig. 3.

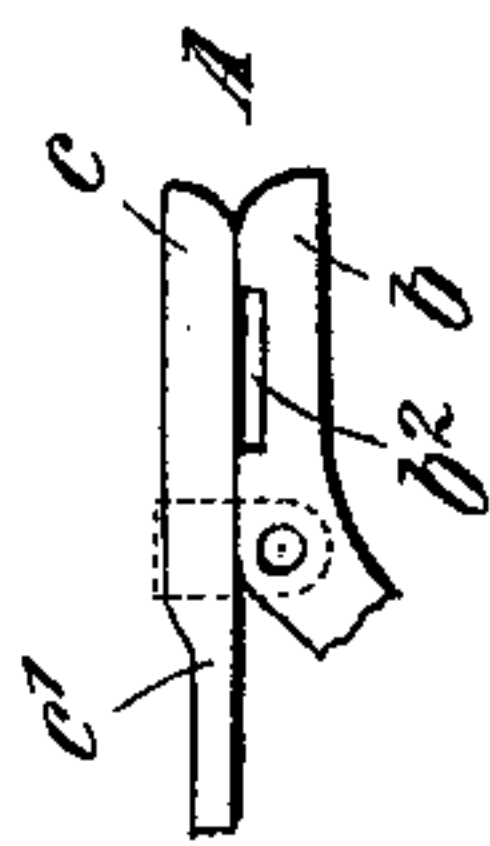
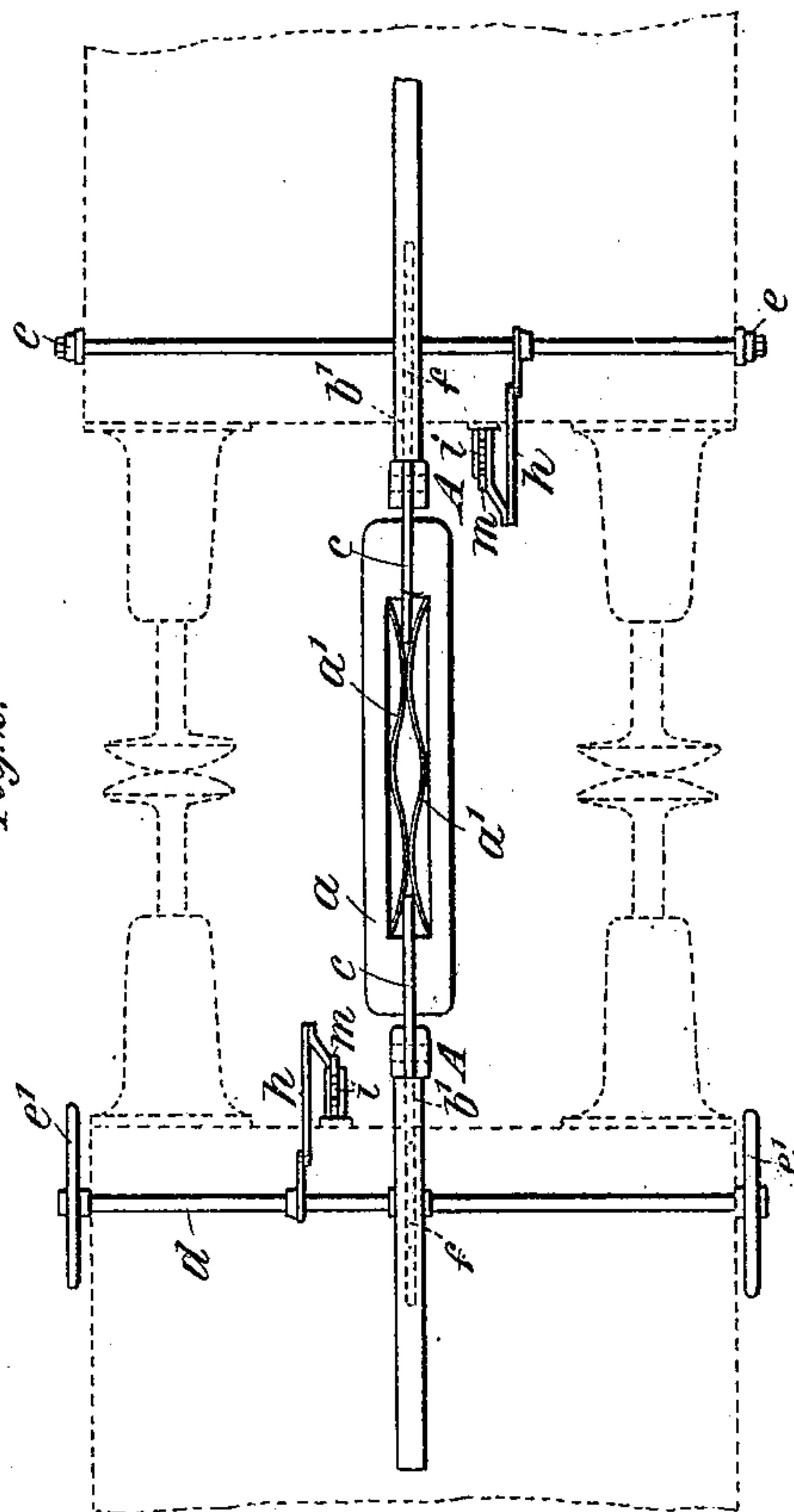


Fig. 4.



Fig. 2.



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# UNITED STATES PATENT OFFICE.

FRIEDRICH SCHELLINGER AND FERDINAND KLEINER, OF AHAUSEN,  
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## RAILWAY-CAR COUPLING.

SPECIFICATION forming part of Letters Patent No. 621,978, dated March 28, 1899.

Application filed July 26, 1898. Serial No. 686,925. (No model.)

*To all whom it may concern:*

Be it known that we, FRIEDRICH SCHELLINGER and FERDINAND KLEINER, subjects of the Grand Duke of Baden, residing in Ahausen, in the Grand Dukedom of Baden, Germany, have made certain new and useful Improvements in Railway-Car Couplings, of which the following is a specification.

Our invention relates to a car-coupling which will permit two cars being uncoupled while running and which is distinguished in that all the couplings of a train may be connected one with another in order to be operated simultaneously, while, on the other hand, this connection may be interrupted at any point in a most simple and convenient manner.

That the invention may be fully understood reference will be had to the annexed specification and the accompanying drawings, in which—

Figure 1 represents a side elevation of the ends of three railway-cars provided with the new coupling. Fig. 2 illustrates a plan view of the coupling, and Figs. 3 and 4 show detail views of the coupling.

Similar letters of reference indicate corresponding parts in the different figures.

The essential features of the coupling consist in a frame-like shackle *a*, Fig. 4, and the tongs *A*, being attached to the ends of the cars. The said tongs *A* consist of a rigidly-mounted leg *c*, Fig. 3, forming an extension of the usual coupling-rod *c'*, and of an arm *b*, being pivoted to and leaning against the latter from below. The free end *b'* of the said arm *b* is continuously pressed downward by means of a powerful spring *s*, so that the tongs will be always locked. The arm *b* is provided with a recess *b<sup>2</sup>*, into which the end of the said shackle *a* is neatly fitted and by which it is firmly held in position when the arm *b* is leaning against the leg *c*. When two cars are brought together, the shackle *a*, which has been fixed into the tongs of the one car and is held horizontally by the same, automatically engages the tongs of the other car, so that an automatic coupling takes place.

In order to prevent the coupling parts from being jammed together too violently, springs *a'*, Figs. 1 and 2, may be fitted into the slit

of the shackle *a*, which the legs of the tongs must press apart when the cars meet, thus easing the shock.

The opening of the tongs—that is to say, the uncoupling of the cars—is effected by means of the operating-lever *e* or by hand-wheels or the like, which may be arranged on both sides of the cars by means of a transverse shaft *d*. The said shaft *d* carries an eccentric disk *f*, which supports the free end *b'* of the lower part or arm *b* of the tongs and lifts the arm *b'* when the shaft *e* is turned, thus keeping the arm *b* off the leg *c*. On the shaft *d* is also provided an arm *g*, being connected by means of a link *h* with a double-armed lever *i*, pivoted to the car end. The link *h* transmits motion from the shaft *d* to the lever *i*. The levers *i* of the corresponding ends of the cars may be connected at their upper ends by means of draw ropes, chains, or the like *k k' k<sup>2</sup>*, Fig. 1. If *I* is supposed to be the front car and *II* the next following car and the coupling of the front car *I* is opened by means of its hand-lever *s*, motion will be transmitted from the lever *i* of this car to the lever *i* of the next following car *II* by the rope *k'* and to the next following car by means of the rope *k<sup>2</sup>*, &c. Therefore with the front car all the other cars may be simultaneously and automatically uncoupled. If, however, the ropes *k' k<sup>2</sup>* are not attached to the levers *i*, the coupling of the car *I* only will be uncoupled by lever *c* of the car *I*, while the other cars remain connected to the latter. In the like manner the levers *i*, situated at the opposite ends of the cars, may be connected by means of draw-ropes. The operating of the coupling can be effected instead of by the levers *e*, situated at the side of the cars, by directly operating the levers *i*, for instance, from a brakeman's box.

For the purpose of attaching or detaching the ropes *k k' k<sup>2</sup>*, respectively, to or from the levers *i* the following arrangement may be used: The ropes *k k'* are provided at their ends with rings *r*, by means of which they are hung over fingers *i'*, attached to the upper ends of the levers *i*. The lever *i* has a guide *i<sup>2</sup>*, in which a bolt *l* is sliding, which may be moved up and down by a bell-crank lever *m*,



pivoted to the lever *i*, or by any suitable means. If it is intended to release the ropes *k* *k'* from the levers *i*, in order not to transmit movement to the coupling of the following cars, the bolt *l* is moved upwardly by moving the bell-crank lever *m* in the direction of the arrow into the position shown in dotted lines on the car I, Fig. 1, or by the other means used, so that the rings *r* are shifted off the fingers *i'*, and thereby the ropes released from the levers *i*.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a car-coupling the combination of a link *a* with tongs A attached to the ends of the cars, the said tongs consisting of a rigidly-mounted leg *c* forming an extension of the coupling-rod *c'*, and of a recessed arm *b* pivoted to and leaning against the latter from below, the free end *b'* of the said arm *b* being continuously pressed downward by means of a spring *s*, an operating lever or levers *e* arranged on one or both sides of the car upon

a transverse shaft *d*, an eccentric disk *f* on said shaft, and an arm *g* on this shaft, the latter being connected by means of a link *h* with a double-armed lever *i* pivoted to the car end, substantially as described.

2. In a car-coupling means for attaching or detaching the draw ropes or chains respectively to or from the double-armed levers *i*, consisting of rings *r* attached to the ends of the ropes or chains, by means of which the ropes or chains are hung over fingers *i'* of the levers *i*, the latter being provided with a guide *i<sup>2</sup>* and a bolt *l* sliding in the said guide and when moved upwardly releases the rings *r* from the fingers *i'*, substantially as described.

In witness whereof we have hereunto set our hands in presence of two witnesses.

FRIEDRICH SCHELLINGER.  
FERDINAND KLEINER.

Witnesses:

KATHARINA FEMBROD,  
JOSEPH SIMON.