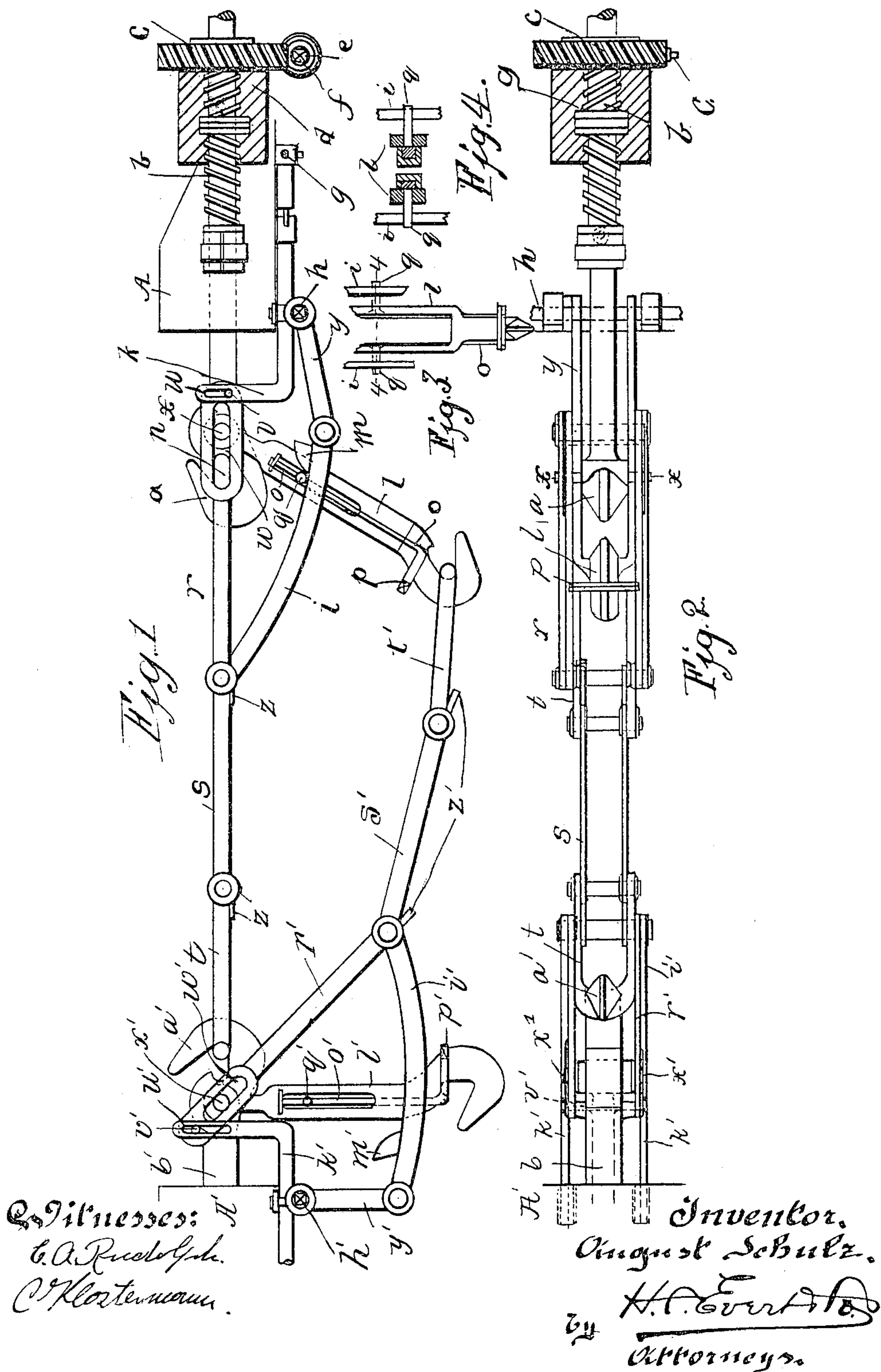


No. 818,564.

PATENTED APR. 24, 1906.

A. SCHULZ.
CAR COUPLING.

APPLICATION FILED OCT. 21, 1904.



UNITED STATES PATENT OFFICE.

AUGUST SCHULZ, OF PODEJUCH, GERMANY.

CAR-COUPLING.

No. 818,564.

Specification of Letters Patent.

Patented April 24, 1906.

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To all whom it may concern:

Be it known that I, AUGUST SCHULZ, a citizen of the German Empire, residing at Podejuch, in the Province of Pomerania and Empire of Germany, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to car-couplings; and the object of the invention is to provide means whereby the coupling and uncoupling of cars may be effected by a person standing at the side of the car and without
15 going between the ends of the cars to be coupled.

The invention consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

20 My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of the ends of the platforms of two cars with my improved car-coupling applied
25 thereto. Fig. 2 is a top plan view of the same. Fig. 3 is a top plan view of one of the coupling-hooks, and Fig. 4 is a sectional view on the line 4 4 of Fig. 3.

In the several figures of the drawings like
30 letters of reference indicate like parts, and A A' designate the platforms of two cars, each of which is provided with coupling members, the coupling members on one car being of the same construction as the coupling members
35 on the other car.

It will be only necessary to particularly describe one coupling member, and for the sake of a clearer understanding of the construction of the parts I have applied a prime-mark
40 to each of the reference-letters applied to the coupling members which are secured to the platform A'. The coupling member on each platform comprises a main draw-hook *a* and a spare hook *l*, the former sustaining the
45 traction of the coupling under ordinary circumstances, while the latter is provided as an adjunct to sustain the traction of the coupling in the event of breakage of the connections between the main couplings. The
50 draw-hook *a* terminates in a draw-bar *b*. The draw-bar passes through the end of the platform, of the car, and its threaded end screws into a nut *d*, which is revolubly mounted within the platform. The nut *d*
55 carries on its rear end a worm-wheel *e*, that meshes with a worm *e*, carried on a shaft *f*,

and by turning the shaft *f* the nut is caused to revolve and move the draw-bar in or out, as may be desired. An L-shaped arm *k* is slidably mounted on the bottom of the plat-
60 form, and said arm is provided with a slot *u* in its vertical arm, which receives a pin *v* on the end of one of the coupling-loops hereinafter described. A lever *g* is pivotally
65 mounted on the bottom of the platform and is connected to the arm *k*, and by means of its lever the arm *k* is moved forward and backward to effect a similar movement of the coupling-loops.

The coupling-loops are designated *r s t*, and
70 the innermost loop *r* is formed with a slot *w*, through which passes pins *x x*, that project from the sides of the main draw-hook *a* and pass through the bifurcated end of the spare hook *l*. The coupling-loops are pivotally
75 connected at the juncture of the loops *r* and *s* to a link-rod *i*, which is connected at its other end to a crank *y* on a rock-shaft *h*, mounted on the bottom of the platform. Each of the
80 coupling-loops *r s* is provided with a lug *z* on one end, and these lugs *z* serve when the coupling-loops are raised to maintain the loops *s t* in alinement with the loop *r*. The link *i* is provided with a flap *m*, which bears
85 against a guide-bolt *q*, carried by a movable bar *o*, mounted in the spare hook *l*. The bar *o* is provided with a connecting-rod *p*, which when at rest rests on the head of the hook, as shown in Fig. 1.

The coupling of two carriages is effected in
90 the following manner: The shaft *h* is made to turn by means of a lever placed on it, the link-rods *i*, which are securely connected with *h*, lift the coupling-links *r*, *s*, and *t* upward. In order to now swing them into the
95 opposite hook, the coupling-links are drawn as far back with the lever *g* by means of the rectangular arm *k* as is permissible by the opening in the link *n*, thus carrying the coupling-loop upward before the opposite hook,
100 and the brakeman is then able by a backward pressure of the lever *g* to carry the same clear above the hook and drop it into position, the tension then being effected by the worm-shaft *e* and the worm-wheel *c*. As is shown
105 by Fig. 1, the spare hook *l* is hereby lifted so high upward that it is possible for it to swing into the coupling-loop on the carriage standing opposite, and this is done in the following
110 manner: With the upward movement of the main coupling the hook *l*, which when at rest is hanging free between the link-rods *i* perpen-

dicularly to the draw-bar, is at the same time
 carried along by the flaps *m*, fastened onto
 the links *i*, which, striking against the guide-
 bolts *q* *v*, Fig. 1, fastened on the bars *o*, are
 5 brought into a sloping position. If the spare
 coupling is to be swung into position, the
 same procedure as with the main coupling
 follows. The coupling-loops on the carriage
 standing opposite are lifted upward by means
 10 of *h*, the link *t* strikes against the lower part
 (*i. e.*, the cross-bar *p*) of the bar *o* and lifts
 the same as far as the guide-bolts *q* allow, the
 latter running in two slots of the hook *l*,
 dragging over the curve of the flaps *m*, owing
 15 to the centripetal power of the hook. The
 sliding of the bolts *q* over the flaps *m* is pre-
 vented by the coupling-loop *t* not permitting
 a further sinking of the hook, as the hook,
 owing to its own weight, falls by itself into
 20 the coupling-loop *t*. Hereupon the lever
 fixed on *h* is released, the coupling returns to
 its position of gravity, and the spare hook *l* is

continually held by the flaps *m* in the posi-
 tion shown in Fig. 1. The uncoupling is ef-
 fected vice versa.

25

I claim—

In a car-coupling member, the combina-
 tion with a main draw-hook mounted on the
 platform, coupling-loops pivoted together
 and to said draw-hook, a link connected to 30
 said coupling-loops, a rock-shaft mounted on
 the platform of the car and having a crank
 attached to said link, a spare hook pivotally
 mounted on said main hook, a bar mov-
 ably mounted in said spare hook and pins 35
 projecting laterally from said bar and engag-
 ing said flaps carried by said links when the
 link is raised.

In testimony whereof I affix my signature
 in the presence of two witnesses.

AUGUST SCHULZ.

Witnesses:

HORST MINER,
 ALBERT BREWING.