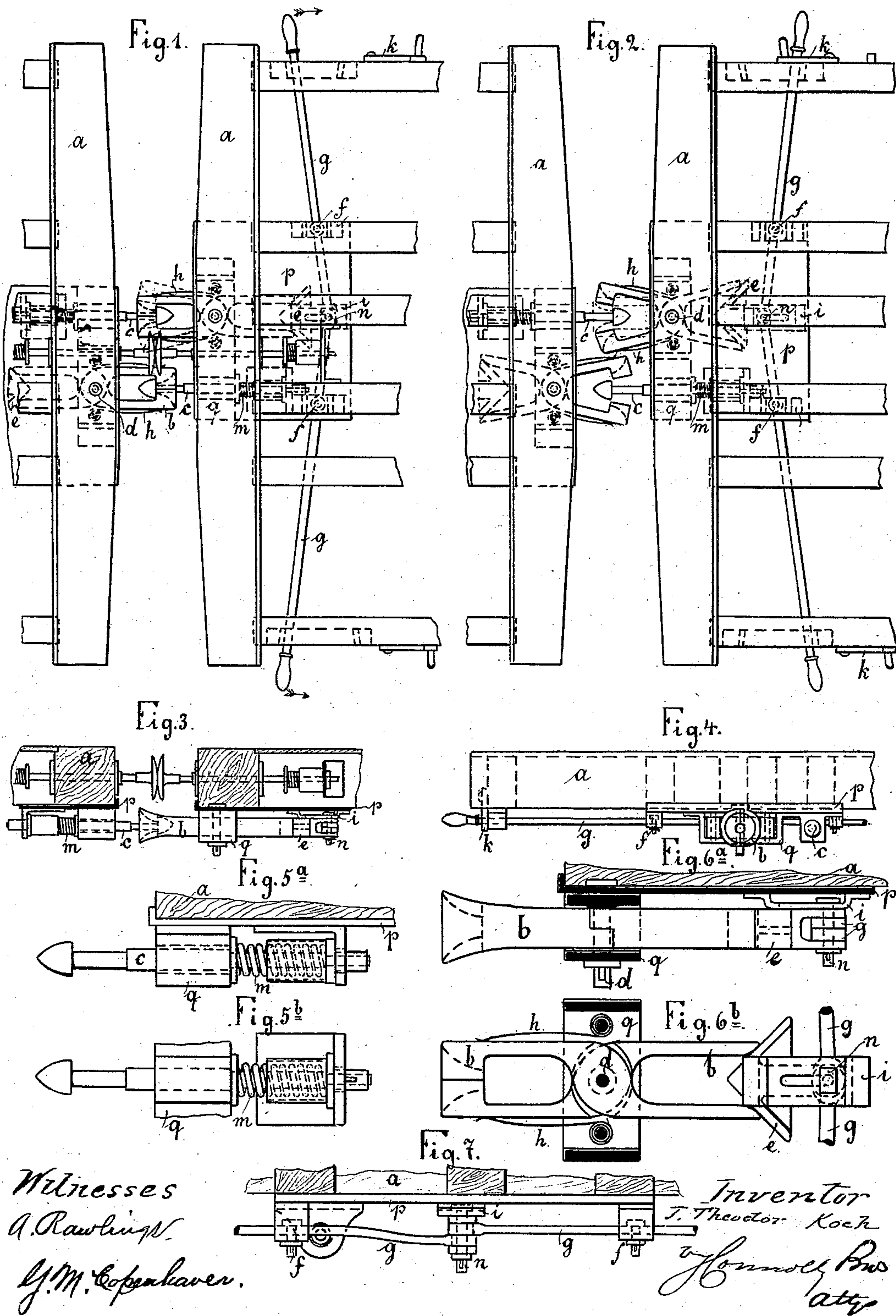


(No Model.)

J. T. KOCH.
CAR COUPLING.

No. 506,598.

Patented Oct. 10, 1893.



UNITED STATES PATENT OFFICE.

JOHANN THEODOR KOCH, OF OFFENBACH-ON-THE-MAIN, ASSIGNOR TO
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 506,598, dated October 10, 1893.

Application filed June 5, 1893. Serial No. 476,623. (No model.)

To all whom it may concern:

Be it known that I, JOHANN THEODOR KOCH, a subject of the German Emperor, residing at Offenbach-on-the-Main, Germany, have invented certain new and useful Improvements in Automatic Side-Action Couplings for Railway-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification.

This invention has relation to car couplers, and has for its object the provision of an automatic coupler, which shall be adapted to couple cars of different heights, and which may be operated to uncouple cars from the sides of the car.

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

The car coupler is shown in the accompanying drawings and Figures 1 and 2 are plan views thereof. Fig. 3 is a longitudinal section. Fig. 4 is a front elevation and Figs. 5^a 5^b 6^a 6^b and 7 are the details on a larger scale. Fig. 1 shows the coupler closed with the buffer above it. Fig. 2 represents the coupler in open position without the buffer.

The coupling of the cars is effected simultaneously in a double manner. Below the bufferplank *a* is arranged the base-plate *p* and the guide piece *q* secured to it. The catcher *b* on one side, and the draw bar *c* on the other side, are both located between *p* and *q* at equal distance from the middle of the car. The catcher *b*, shown by Fig. 6^a in longitudinal section and by Fig. 6^b in ground plan, consists of two equal parts forming a pair of scissors, being fulcrumed in the middle on a bolt *d* secured to the parts *p* and *q* and being provided in front with a claw widening out like a funnel. The rear ends of the catcher *b* abut against the wedge piece *e*, which is connected with the levers *g g* so as to admit of an operation by the same from either side of the car. The levers *g g* are in common pivotally arranged upon the bolt *n*. Fig. 7 moving in a slot, and they are fulcrumed in *f f*. When one or the other of the levers *g g* is moved laterally in the direction

of the arrow (a motion which is followed automatically by the other lever) the wedge *e* glides forward, and the two parts of the catcher are separated; this separation of the parts will last as long, as the pressure of the wedge continues to act on them, and when the wedge is drawn back, the catcher will close again under the influence of the springs *h h*.

The opening of the couplers is effected in the following manner: One of the levers *g* is shifted back and made fast by the hook *k*; the respective wedge piece is thus thrown forward, thereby separating the parts of the catcher and opening its claws, so that the corresponding draw-bar of the other car becomes free. The same operation is repeated with the corresponding parts of the next car, and thus the coupling of both cars is immediately disengaged, as shown in Fig. 2. When the two cars have been moved far enough from each other so that the claws of the catcher *b* cannot grasp the draw-bar, the hooks *k* should be thrown back, so that the springs *h* can close again the catcher, and that the wedge *e* as well as the levers *g* go back into their normal positions, to be ready for another self acting coupling. The draw-bar *c* transfers the traction on the car by means of springs *m* Figs. 5^a and 5^b, and has some vertical play so as to answer readily to the variations of the heights of the cars.

I claim—

In a self acting car coupler to be disengaged from the sides, the combination of a tongue shaped catcher *b* with funnel shaped claws at the front, fulcrumed on a bolt *d* and pressed together by springs *h h*, with levers *g g* projecting from either side of the cars, and wedge piece *e*, the parts being so constructed and arranged that the draw-bar *c* of the next car may at will be held by said catcher or be disengaged therefrom, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of April, 1893.

JOHANN THEODOR KOCH.

Witnesses:

ALVESTO S. HOGUE,
GEORGE MITCZEWSKI.