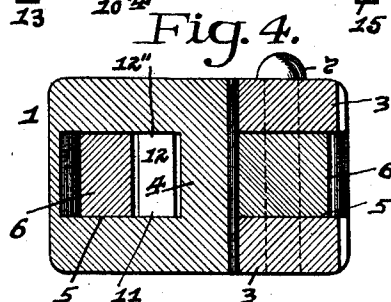
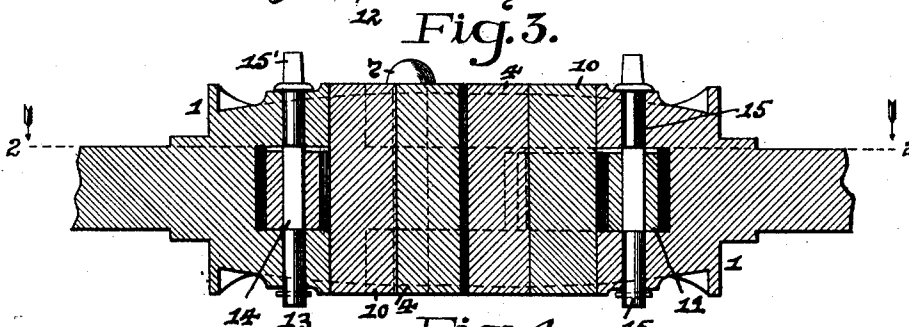
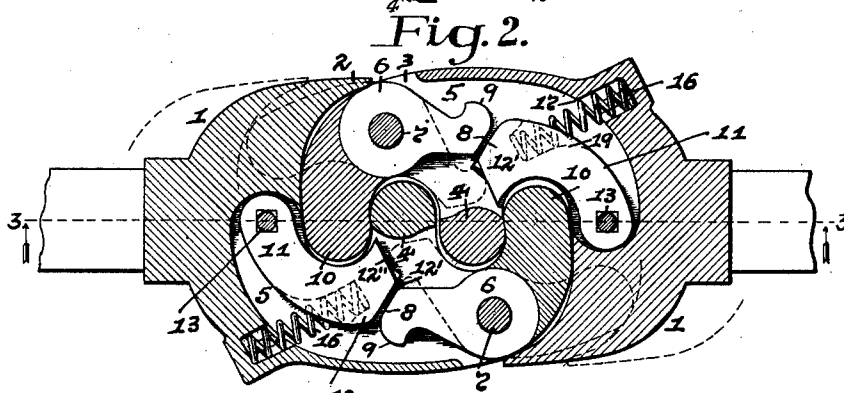
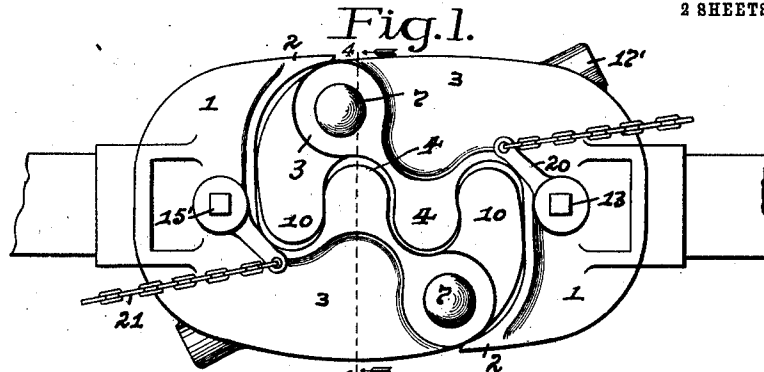


C. ROSENZWEIG.
CAR COUPLING.
APPLICATION FILED MAR. 31, 1910.

1,002,321.

Patented Sept. 5, 1911.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 8.

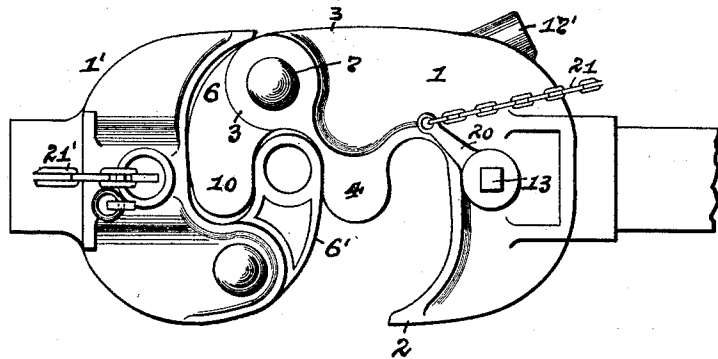


Fig. 5.

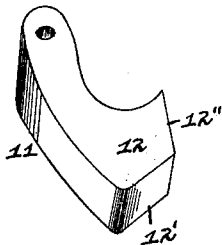


Fig. 6.

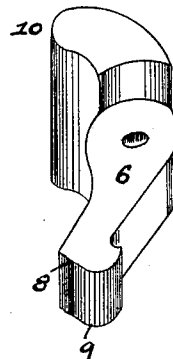
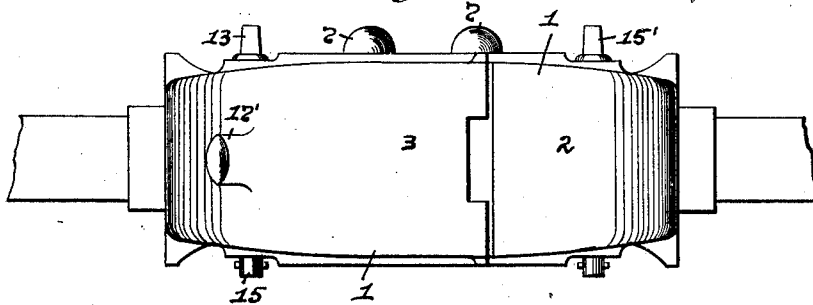


Fig. 7.



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UNITED STATES PATENT OFFICE.

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JOHN SAUERS, OF PITTSBURG, PENNSYLVANIA.

CAR-COUPLING.

1,002,321.

Specification of Letters Patent.

Patented Sept. 5, 1911.

Application filed March 31, 1910. Serial No. 552,653.

To all whom it may concern:

Be it known that I, CHARLES ROSENZWEIG, a resident of Pittsburg, North Side, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to car-couplings.

The object of my invention is to provide a cheap, simple and efficient car-coupling, in which double locking means for the same is enabled when the device is employed for connecting two cars together, as well as one which will be positive and reliable, will be quickly and easily operated in coupling or uncoupling, and will be strong and durable, inexpensive to manufacture by being composed of few parts, and will not be liable to get out of order.

To these ends my invention consists, generally stated, in the novel arrangement, construction and combination of parts, as hereinafter more specifically set forth and described and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use my improved car-coupling, I will describe the same more fully, referring to the accompanying drawing, in which—

Figure 1 is a top plan view of my improved car-coupling. Fig. 2 is a horizontal sectional view on the line 2—2 Fig. 3, looking in the direction of the arrows. Fig. 3 is a longitudinal section on the line 3—3 Fig. 2, looking in the direction of the arrows. Fig. 4 is a cross-section on the line 4—4 Fig. 1, looking in the direction of the arrows. Fig. 5 is a perspective view of the locking member. Fig. 6 is a perspective view of the knuckle. Fig. 7 is a side view of the engaged couplers. Fig. 8 is a plan view showing one of the couplers in engagement with the ordinary approved coupler.

Like symbols of reference herein indicate like parts in each of the figures of the drawing.

As illustrated in the drawings my improved car-coupling is provided with the coupler heads 1, which have the jaw 2 and forwardly extending arm 3 within each of the same and on opposite sides from each other. Between the jaw 2 and arm 3 is the shouldered extension 4 in each of the heads

1 and within each of said arms and said heads is a horizontally extending cavity 5 in which a knuckle 6 is pivotally mounted on a pin 7 extending through the same and the head. The knuckle 6 is provided with an inclined face 8 on the inner or tail end of the same which terminates in a curved or rounded inner portion 9, and a tongue 10 is formed on the other end of said knuckle.

Within each of the heads 1 is the locking member 11, which is pivotally mounted at one end in the cavity 5 in said heads by means of a pin 13, and its opposite end 12 is provided with the double inclined faces 12' and 12''. The pin 13 is secured to the member 11 by a squared portion 14, and is provided with circular portions 15 beyond said portion for being journaled in the head. The locking member 12 is normally held in a fixed position by means of a spiral spring 16, one end of which fits within a seat 17 in a boss 17' on the head 1, while the other end of said spring fits within a like slot 19 in said member. A lever 20 is secured at one end to the squared portion 15' on the upper end of the pin 13, and the other end of said lever is preferably connected to one end of a chain 21, which leads back to the usual operating cross-bar (not shown) on the car and is connected thereto in any suitable manner for opening the locking member 11 carried by said pin through the drawing back of said chain, which bar has the usual handles at each end of the same for opening the coupler from either side.

In the normal or closed position of the locking member 11, the doubled inclined end on the same is adapted to be limited in its inward movement by the tongue 10, and when in this position will prevent the knuckle 6 from swinging open by the engagement of the inclined face 12' on said member with the inclined face 8 on said knuckle. To release the knuckle 6, the pin 13 is turned by the drawing back of the chain 21 connected to the lever 20 on said pin, which will pull the locking member 11 outwardly until it clears the inclined end 8 of the said knuckle, thereby compressing the spring 16, and when the adjoining head is pulled outwardly, the said knuckle will swing until the shoulder 4 on said head clears the tongue 10 on said knuckle, as shown by dotted lines in Fig. 2, so that immediately upon said knuckle assuming this

position, the locking member assumes its normal or closed position upon the releasing of the chain 21 and the compression of the spring 16 thereby, and the tongue 10 on said knuckle is held in an open position as so shown by dotted lines, by the pressure of the inclined face 12'' on said member against the curved end 9 on said knuckle.

In coupling the heads 1 together, the jaw 2 strikes the tongue 10 of the knuckle 6 on the adjoining head and forces the tongue inwardly, the curved end 9 on the knuckle forcing the locking member 11 outwardly, which will release said member and allow it to assume its normal position in locking the knuckle 6 of one jaw with relation to the locking knuckle of the other jaw. The opening of the knuckle 6 is limited by the tail end of the same engaging with the shoulder 4, as such knuckle in this open position is clear of the inward movement of the locking member 11, and it will be observed that the knuckles 6 in their closed position take a positive grip on the shoulders 4 and cannot be forced open until the locking members are swung outwardly, while the inclined faces on the knuckles and locking members permit of the two coupler heads being automatically locked together.

In Fig. 8, one of the coupler heads 1 of my improved coupling is shown as being coupled by its knuckle 6 with the knuckle 6' in the head 1' of the ordinary approved coupler, known as the M. C. B. type, in which the knuckle 6' is operated by the usual devices from the chain connection 21' attached to the ordinary cross-bar for operating the same, and it will be evident that other forms of couplers can be connected to said head 1, if desired.

Various other modifications and changes in the design, construction, and operation of my improved car coupling within the scope of the appended claims may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as my invention and desire to secure by Letters Patent is—

1. A coupler head having a knuckle pivotally mounted therein and provided with a locking tongue at its outer end, a stationary shoulder on said head and back of said tongue when the latter is in its locked position, said shoulder being adapted to hold the tongue of the knuckle of the engaging coupler in position, and a recess in the rear of said shoulder adapted to receive the knuckle tongue of an opposing coupler of similar type, and means within said head for locking its knuckle.

2. A coupler head having a knuckle pivotally mounted therein and provided with a locking tongue at its outer end, a stationary shoulder on said head and back of said tongue in a longitudinal line substantially central when the latter is in its locked position, said shoulder being adapted to hold the tongue of the knuckle of the engaging coupler in position, and a recess in the rear of said shoulder adapted to receive the knuckle tongue of an opposing coupler of similar type, and means within said head for locking its knuckle.

In testimony whereof, I, the said CHARLES ROSENZWEIG, have hereunto set my hand.

CHARLES ROSENZWEIG.

Witnesses:

GERTRUDE KREMER,
T. B. HUMPHRIES.