

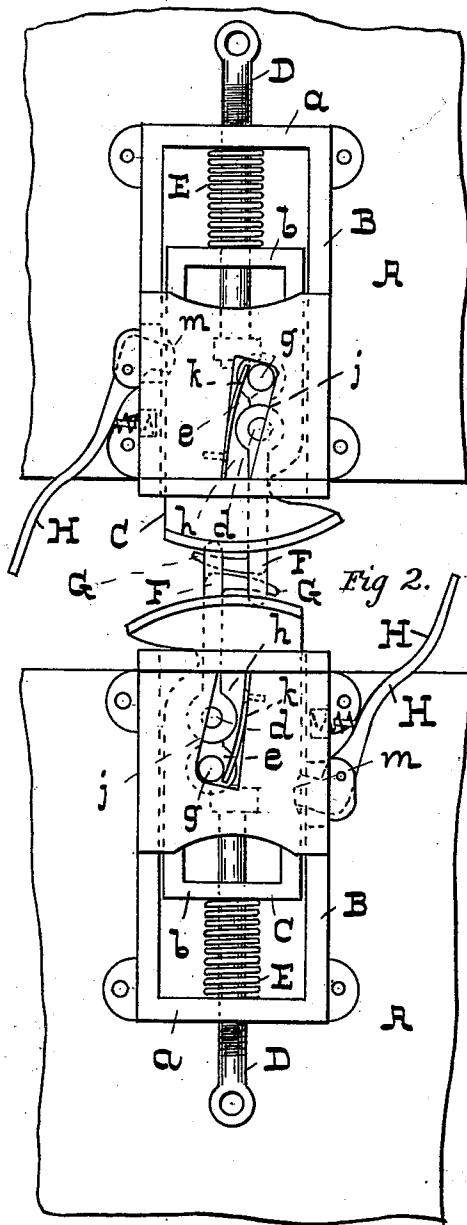
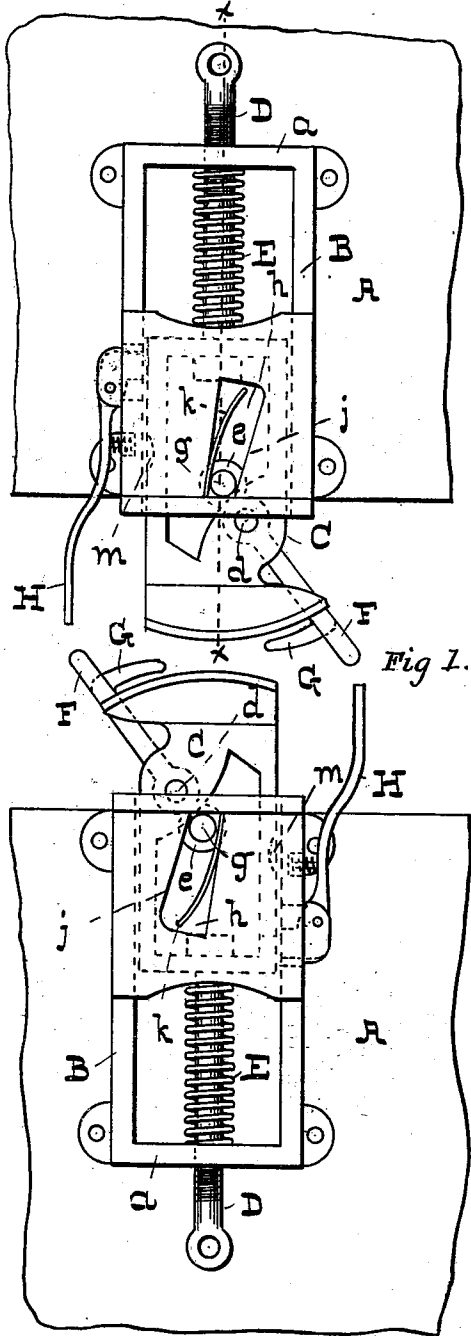
(No Model.)

2 Sheets—Sheet 1.

H. GAY & F. FINKE.
CAR COUPLING.

No. 508,695.

Patented Nov. 14, 1893.



-WITNESSES-

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(No Model.)

H. GAY & F. FINKE.
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Fig 3.

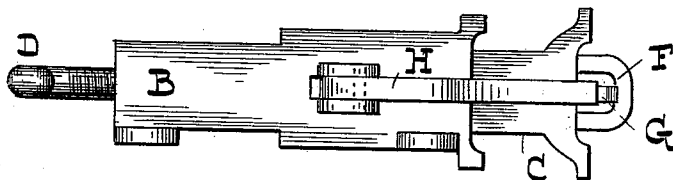


Fig 4.

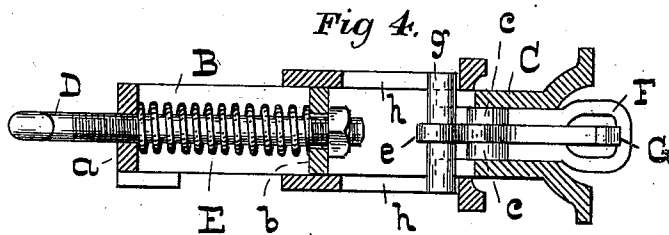


Fig 5.

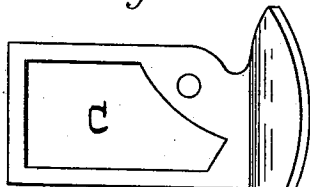


Fig 7.

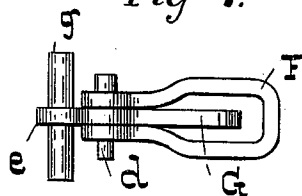


Fig 6.

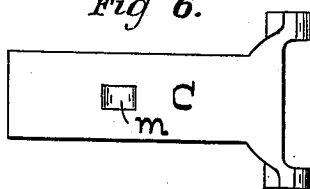
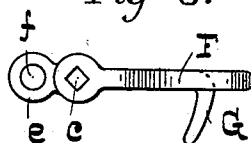


Fig 8.



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UNITED STATES PATENT OFFICE.

HERMANN GAY AND FIDELIO FINKE, OF BALTIMORE, MARYLAND.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 508,695, dated November 14, 1893.

Application filed September 13, 1893; Serial No. 485,391. (No model.)

To all whom it may concern:

Be it known that we, HERMANN GAY and FIDELIO FINKE, both of the city of Baltimore and State of Maryland, have invented certain
5 Improvements in Car-Couplers, of which the following is a specification.

This invention relates to certain improvements in the car couplers described and claimed in Letters Patent No. 501,710, granted
10 to us on the 18th day of July, 1893.

In the description of the present invention which follows, reference is made to the accompanying drawings forming a part hereof and in which—

15 Figure 1 is an under side view of portions of two car bodies provided with our improved car couplers and showing the same before being coupled. Fig. 2 is a similar view showing the cars coupled. Fig. 3 is an exterior side
20 view of one coupler. Fig. 4 is a section of Fig. 1 taken on the dotted line *x—x*. Fig. 5 is an exterior top view of one draw head, and Fig. 6 a side view of the same. Fig. 7 is a side view of a link, hook and pin, forming
25 parts of the coupler. Fig. 8 is a top view of Fig. 7 without the pin.

Referring to the drawings, A represents the car bodies. To each body is secured, in any
30 suitable manner, a box B in which the draw-head C is adapted to slide. The projecting end of the draw head is adapted as a buffer.

D is a bar screwed into the rear wall or plate
35 *a* of the box B, with its outer end passing loosely through the rear wall or plate *b* of the draw-head C, where it is provided with a collar or nut.

Coiled about the bar D and confined end-
40 wise between the draw-head and the rear wall of the box B, is a spring E which serves to hold the draw head yielding in an extended position, as shown in Fig. 1.

F is a link having square eyes *c* in its ends, and G a hook with a similar eye placed be-
45 tween the eyes of the link, see Figs. 7 and 8. The link and hook are connected by a square pin *d* having round ends which rest loosely in
50 holes in the upper and lower walls of the draw head.

The hook G or the link F has an extension
55 *e* with an eye *f* in its end, and through this eye is driven a tightly fitting pin *g* of sufficient length to admit of its ends entering slots

h in the upper and lower walls of the box B, which slots have inclined faces *j*. Within the
slots *h* are confined plate springs *k* which serve
55 to keep the pins *g* in contact with the inclined faces *j*. It is evident that under some circumstances, slots of uniform width, angularly placed, could be used instead of the slots
60 shown, and under such circumstances the plate springs *k* would not be required, but it is preferred to have some elasticity in the connection. Hence we use the plate springs as described.

The object in having the eyes in the link
65 and hook, square and coupled by a square pin, is to prevent any movement of either member, independently of the other, and hence any other arrangement which would effect this result would be the equivalent of the one
70 shown.

In the side of the draw-head C is a depression *m*, and pivoted in the wall of the box D, is a lever H, the short arm of which is constructed as a tumbler to enter the said de-
75 pression when the draw-head is forced back a certain distance or to its extreme limit. The lever is spring held, so that the tumbler is at all times in a condition to enter the depression when the same registers with it, and hold
80 the draw-head back or in the position shown in Fig. 2. When the draw-head is in this position, the pin *g* is in the back end of the slot *h*, and the inclined face *j* together with the
85 plate spring *k* carries the said pin into such position that the link F and the hook G are fully extended or brought into alignment with the longitudinal center line of the car, as
90 shown in Fig. 2. When the draw-head is extended, the link and hook are thrown around or over, as shown in Fig. 1.

The two couplers are constructed in substantially the same manner, and when two cars are brought together, the draw-heads are forced in, the hook of one coupler taking hold
95 of the link of the other, and the car is thereby coupled.

To uncouple the cars, one or both of the levers H are thrown in, when the tumblers are withdrawn from the depressions *m* and in the
100 resulting extension of the springs E, the links and hooks of the two cars are forced outward and from engagement with each other.

We claim as our invention—

1. A car coupler having the following elements in combination, viz: a box secured to the car body having slots with inclined faces, a draw-head situated in the said box and held
5 yieldingly in an extended position with reference to the car body and provided with a depression, as described, a tumbler operated by a spring-held lever constructed to enter the said depression in the draw-head as the same
10 is forced inward, and thereby hold it, a link and hook pivoted within the draw-head having an extension with a pin which enters the slot in the box and is held in contact with the inclined faces of the same, substantially as
15 specified.

2. In a car coupler, a link and hook having a swinging movement with reference to a draw-head to which they are attached, the said link and hook having an extension and a pin which latter is held in contact with an
20 inclined surface, so that in the forcing in of the said link and hook, they are brought into alignment with the longitudinal center line of the car to which the coupler is attached, substantially as specified.

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Witnesses:

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