

(No Model.)

2 Sheets—Sheet 1.

A. C. THOMPSON.
CAR COUPLING.

No. 550,732.

Patented Dec. 3, 1895.

Fig. 1.

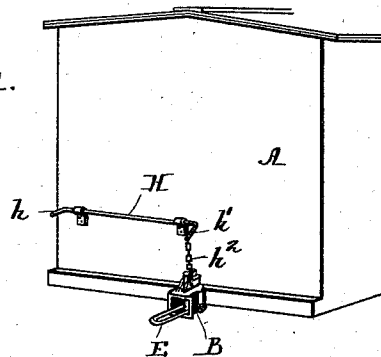


Fig. 2.

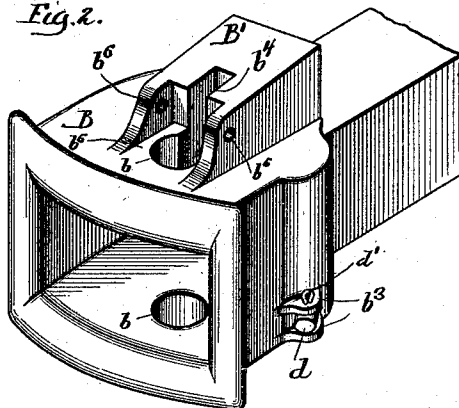
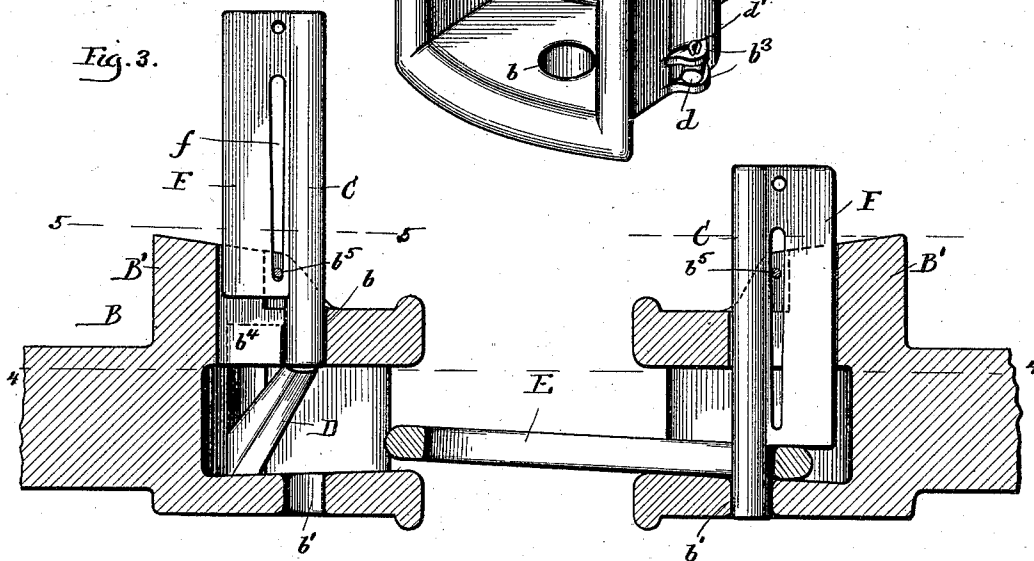


Fig. 3.



Witnesses:

Fred Gulack

Alberta Adamick

Inventor:

A. C. Thompson

By Price & Fisher
Attorneys.

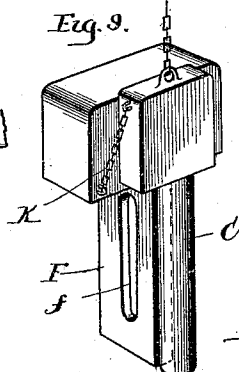
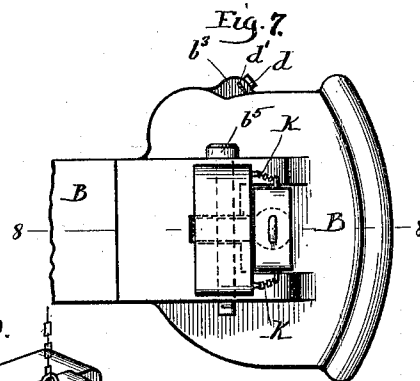
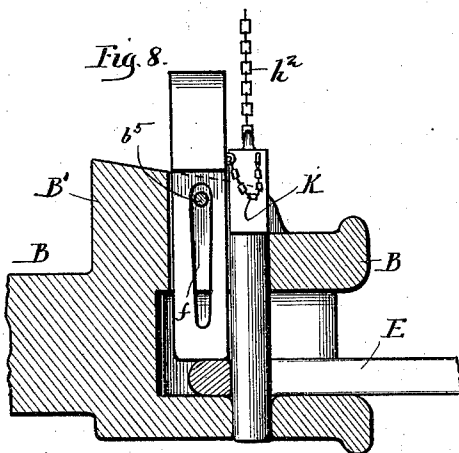
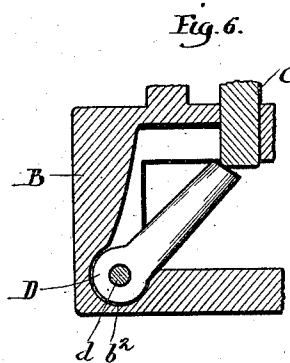
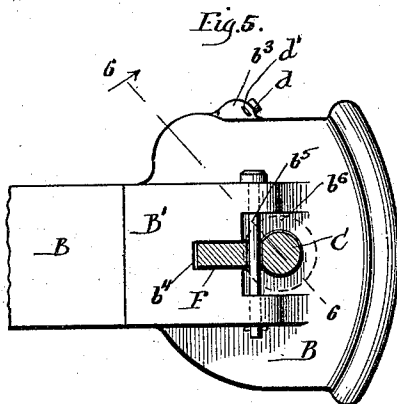
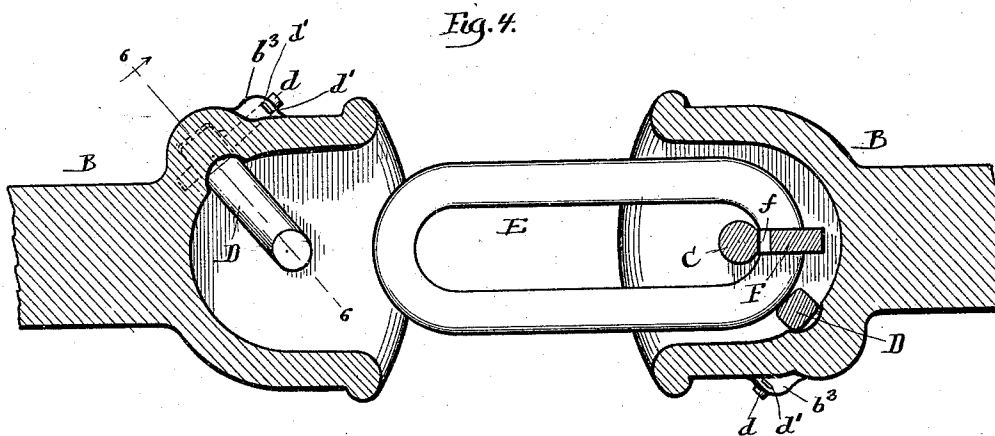
(No Model.)

2 Sheets—Sheet 2.

A. C. THOMPSON.
CAR COUPLING.

No. 550,732.

Patented Dec. 3, 1895.



Witnesses:

Fred Gulack
Alberta Adamick.

Inventor:

A. C. Thompson
By Pierce & Fisher
Attorneys.

UNITED STATES PATENT OFFICE.

ABRAHAM C. THOMPSON, OF DANFORTH, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 550,732, dated December 3, 1895.

Application filed April 15, 1895. Serial No. 545,808. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM C. THOMPSON, a citizen of the United States, residing in Danforth township, Iroquois county, State of Illinois, have invented certain new and useful Improvements in Car-Couplers, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

The present invention has relation more particularly to that class of car-couplers in which provision is made for temporarily holding the coupling-pin raised until the link enters the draw-head and trips the device by which the pin is upheld. One object of the present invention is to provide improved means for holding the coupling-pin in elevated position, so that when the coupling-link is inserted into the draw-head the pin can with certainty and accuracy be dropped into the link.

With this object in view my invention consists in the novel features of construction hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claim at the end of this specification.

Figure 1 is a perspective view of the end portion of a freight-car having my invention applied thereto. Fig. 2 is a perspective view of a draw-head with the coupling-pin and link-holder omitted. Fig. 3 is a view in central vertical section through two draw-heads, showing the position of the parts as the coupling of the draw-heads is about to occur. Fig. 4 is a view in horizontal section on line 4 4 of Fig. 3. Fig. 5 is a view in horizontal section on line 5 5 of Fig. 3. Fig. 6 is a view in vertical section on line 6 6 of Fig. 4. Fig. 7 is a plan view of a draw-head embodying a modified form of my invention. Fig. 8 is a view in vertical section on line 8 8 of Fig. 7. Fig. 9 is a detail perspective view of the coupling-pin and link-holder.

A designates the body of the car, each end of which will be equipped with a draw-head B, the means for sustaining the draw-head being those commonly employed in railway-cars. The draw-head B is provided in its top and bottom plates with the holes *b* and *b'* to receive the coupling-pin C. At the back and

one side of the bottom of the open space of the draw-head B is formed a seat *b²*, in which is pivotally mounted the lower end of the support D, whereby the coupling-pin C will be held in raised position and in readiness to engage a link E. The support D is by preference pivotally sustained by the pin *d*, that passes through the lower end of the support D from the side of the draw-head, as more particularly seen in Figs. 2 and 4 of the drawings, and by preference the draw-head B is furnished with the lugs *b³* upon its side to receive a pin or cotter *d'*, that holds the pin *d* in place. (See Fig. 2) The seat *b²*, wherein the support D is mounted, has a raised front edge, (see Fig. 6,) against which the support D will rest by gravity, and when in its normal position the support D will have its free upper end immediately beneath and in position to support the lower end of the coupling-pin C. Hence it will be seen that when the coupling-pin is raised in order to disconnect cars the free end of the support D will drop forward, so that when the coupling-pin is lowered it will be held in elevated position by means of the support D.

My object in locating the support D at one side of the back part of the draw-head opening is not only to insure a more certain dropping of the coupling-pin, but by locating the support D in such position all danger of its catching the link-holder F is avoided. Moreover, by locating the pin-support at the back and at one side of the open space of the draw-head all danger of the pin-support being broken off by the back-and-forth movement of the coupling-link is avoided. It will thus be seen that when the coupling-link E is caused to enter the open space of the draw-head B it will contact with the support D, thereby forcing the free end of this support upwardly and outwardly from beneath the pin C, so as to permit the pin to drop into the open link.

In order to hold the link E in approximately-horizontal position or with its free end slightly above a horizontal position, I provide a link-holder F, that is connected with the coupling-pin C, so that the two can be raised together. The link-holder F may be formed from the same piece of metal as the coupling-pin C, being united directly thereto,

as seen in Figs. 3 and 5 of the drawings; or the link-holder may be connected with the coupling-pin by a suitable lost-motion connection, as shown in Figs. 8 and 9, to be

hereinafter more fully described.

Referring more particularly to the form of my invention illustrated in Figs. 1 to 6 of the drawings, it will be seen that the top plate of the draw-head B is furnished with a slot b^4 , within which the link-holder F is mounted in manner free to slide, it being guided and limited in its movements by a pin b^5 , that passes through a slot f , formed in the link-holder. Preferably the slot f is slightly broader at its upper end than at its lower end, the purpose of this being to allow for a slight back-and-forth shift of the link-holder under the action of the coupling-pin. The pin b^5 is preferably mounted in holes b^6 , formed in an extension B' , that rises from the top of the draw-head B.

By referring more particularly to Fig. 3 of the drawings it will be seen that when the link E has one end coupled to a draw-head by means of the coupling-pin C the link-holder F will rest upon the inner end of the link E, thereby causing the outer end of this link E to be held in a position horizontal or slightly above the horizontal and in readiness to enter the open space of the draw-head that is to be coupled by the link. If, therefore, the draw-head at the left of Fig. 3 is to be coupled, the engineer will shunt the train back and the coupling will be effected without the aid of a trainman, because as the free end of the link E enters the draw-head at the left, as seen in Fig. 3, it will force backward and outward the support D, thereby permitting the coupling-pin C to drop through the link. So, also, when it is desired to uncouple the cars the coupling-pin C and link-holder F will be raised, thereby permitting the pin-support D to move by gravity beneath the pin C, so as to hold the pin in raised position. By preference I raise the coupling-pin C and link-holder F by a rock-shaft H, that is suitably mounted upon the end of the car, the outer end of this rock-shaft being extended to one side of the car and there furnished with a handle h , while the inner end of the

rock-shaft H is formed with a crank h' , that is connected by a chain h^2 with the coupling-pin or the link-holder, so as to raise both of these parts at one operation.

When two draw-heads are coupled together, the link-holders F, resting upon the ends of the link E, will have a tendency to rise somewhat under the jolting action of the draw-heads, and to avoid this movement of the link-holders I may connect each link-holder to its coupling-pin by means of a suitable lost-motion connection. One convenient form of lost-motion connection consists of short chains K, as seen in Figs. 7, 8, and 9 of the drawings. These chains K permit the link-holder and coupling-pin to move independently of each other to a certain extent and yet insure the lifting of the link-holder above the link when the coupling-pin is raised to effect its disengagement. When the construction shown in Figs. 7, 8, and 9 is employed, the link-holder F is preferably made somewhat heavier.

By preference the extension B' upon the top of the draw-head B will have its front portion formed with a broad open space b^6 , so that if at any time it should be desired to substitute an ordinary coupling-pin for a broken pin of my construction the open space b^6 will permit the head of an ordinary coupling-pin to seat itself against the top of the draw-head.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

In a coupler, the combination with a draw head, of a gravitating coupling pin support pivotally mounted to swing in a substantially vertical plane at the back and at one side of the open space of the draw-head and having its free upper end extending normally into position to support the coupling pin, and a link support connected with said coupling pin and located in the rear thereof, substantially as described.

ABRAHAM C. THOMPSON.

Witnesses:

BENJAMIN S. CRANDALL,
EDWARD D. COOK.