

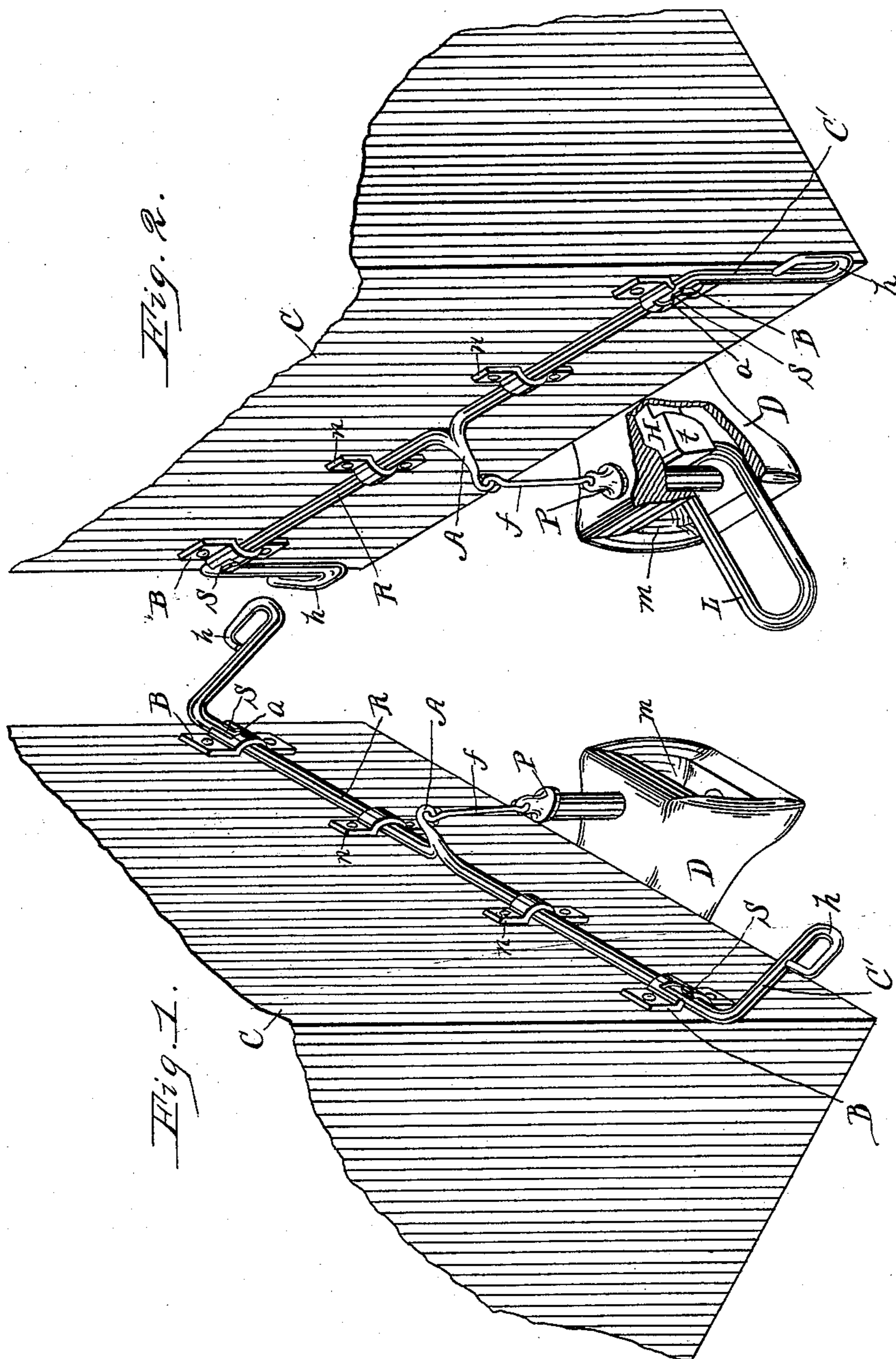
(No Model.)

2 Sheets—Sheet 1.

J. SKINNER.  
CAR COUPLING.

No. 364,867.

Patented June 14, 1887.



ATTEST.

*C. W. Russell*  
*B. H. Wheeler*

INVENTOR.

*John Skinner*  
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att'y

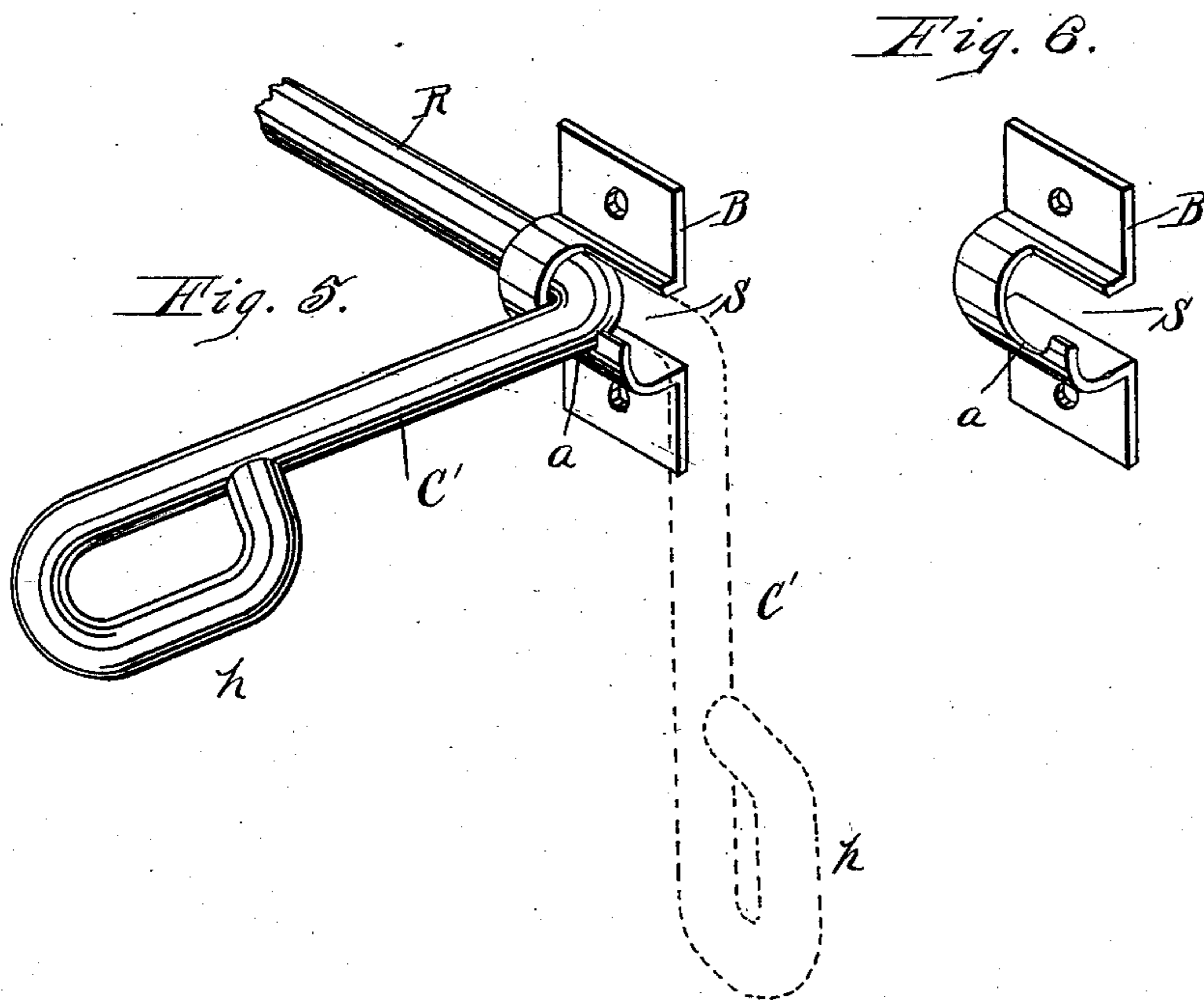
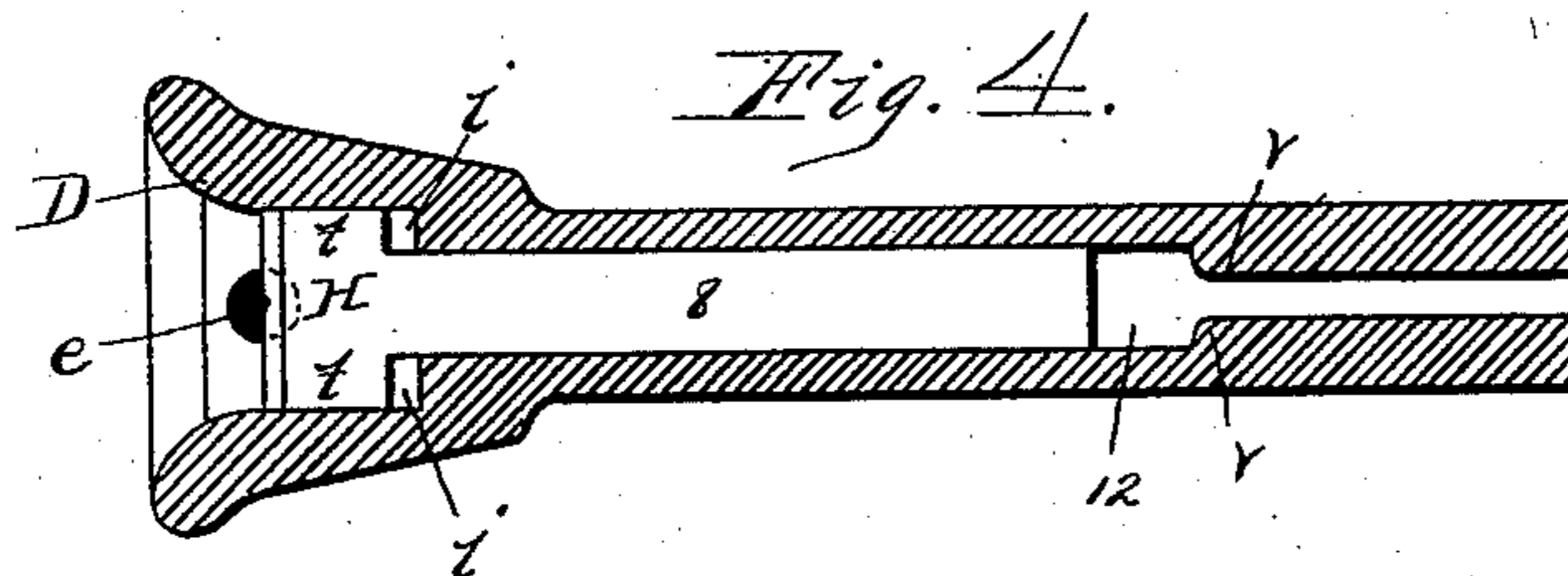
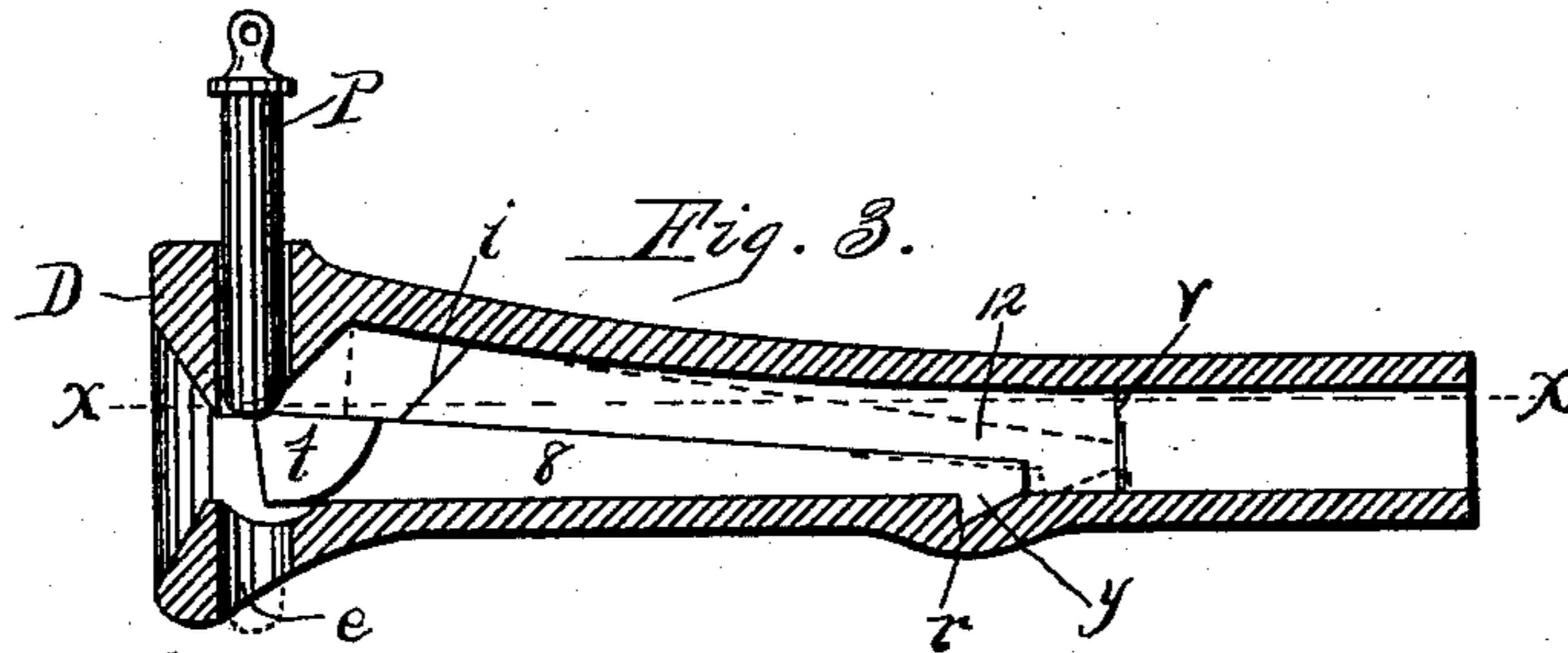
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# UNITED STATES PATENT OFFICE.

JOHN SKINNER, OF FLINT, MICHIGAN, ASSIGNOR OF TWO-THIRDS TO  
OREN STOWE AND ALEXANDER D. McCALL, BOTH OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 354,867, dated June 14, 1887.

Application filed January 17, 1887. Serial No. 221,542. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN SKINNER, a citizen of the United States, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Car-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention in car-couplings relates to that class employing the common link and pin. The parts are so constructed that when set (prior to the coming together of the cars) the cars will be coupled as soon as the parts meet, and without additional assistance, being automatic in their movements. The parts may also be set to avoid coupling when the cars meet, as in switching a car or several cars back onto another track; and my invention is designed as an improvement upon Letters Patent issued to me on June 10, 1884, No. 300,148; and my invention consists in the organization of parts, as hereinafter set forth, and designated particularly in the claims.

In the drawings forming a part of this specification, Figure 1 is an end view of a car containing my invention, the parts being set to receive the link, as in coupling. Fig. 2 is a like view of car in which the draw-head supports the link for entering the opposite draw-head, and is partially broken away to show device for supporting the link horizontally. Fig. 3 is a central vertical longitudinal section of one of the draw-heads. Fig. 4 is a horizontal section of the draw-head, taken below the dotted line *xx* of Fig. 3. Figs. 5 and 6 are enlarged details, as will be fully explained.

In the drawings accompanying this specification, C represents the cars, D the draw-heads, L the link, and P the coupling-pins, all of which are in common use. The draw-heads and internal bars, 8, are constructed substantially as shown in my Letters Patent No. 300,148, excepting the slot 9 and pivot-pin 10 of

said patent which I dispense with, and simplify construction by forming transversely in the draw-heads a channel, *r*, (see Fig. 3,) leading from the internal chamber, 12, and provide the sliding bar 8 with a hooked or engaging head, *y*, at the rear end, which enters the transverse channel *r* as the sliding bar is advanced by the downward sliding of the ledges *tt*, formed on each side of the forward or head end, H, of said sliding bar, the ledges *tt* being supported on the inclines *ii*, formed in each draw-head. (The ledges and inclines are found in my former patent cited.) By this arrangement, when the hooked end *y* of the sliding bar has entered the channel *r*, the head H of said bar will have advanced over the pin-hole *e* of the draw-head, thereby preventing the draw-pin from dropping, and as the link L enters the mouth of the draw-head the hooked rear end of the sliding bar will move backward out of the channel, being slightly elevated, as shown by dotted lines in Fig. 3, the link forcing said bar backward and upward.

In my present invention I have shown mechanism for drawing the coupling-pin without going between the cars, as is the common practice, the parts being so constructed that the coupling-pin, when raised, may be locked in its elevated position, so as to prevent the coupling of the cars when coming together, as is often desired when backing up a train to switch off a car or several cars; and to accomplish these results I attach to each end of a car over the draw-head a rock-shaft, R, being sufficiently long to cross the car, having an overhanging arm, A, at the center, its outer end standing over the coupling or draw pin P, and being coupled to said pin by means of a double-eyed link, *f*, having one end hooked into the upper end of the pin, the other end being hooked into the outer end of the arm A. I provide the rod R with a crank-handle, C', at each end, the ends of the rod being bent over upon itself, forming the loop-handles *h*. Near each corner of the car I attach metal supports or bearing-boxes B B, in which the rod R has a reciprocating motion for raising and dropping the coupling-pin. I also support said rod by means of two bearings, *nn*,

near the center. The boxes or supports B B are provided with a slot or opening, S, to receive the crank-handles C' C', terminating with a depression, *a*, which is made to coincide with the form of the crank-handle, all of which are clearly shown in Figs. 5 and 6. It will be observed that the openings in the plates B B for the reception of the crank-rods are L-shaped. The normal position of the rod R is shown in Figs. 1 and 2, and to raise the coupling-pin to uncouple or to set it for coupling the operator grasps one of the handles *h* of the rod and raises it horizontally, as shown in Fig. 1. As the pin rises the sliding bar 8 advances under the pin, as shown in Fig. 3, thus preventing it from dropping, and holds the handles *h* of the shaft or rod R in a horizontal position, as shown in Fig. 1. As the cars approach the link L enters the mouth of the draw-head, forces the sliding bar 8 backward and upward, allowing the pin to drop through the link, thus making a coupling. The overhanging of the arms *h* causes the pin to move downward rapidly.

To uncouple the cars and set the pin P so as not to couple when the cars are brought together, the operator turns a handle, *h*, of the rod R to a horizontal position, then forcing said rod endwise from or toward him will cause one of the arms or crank-handles C' to enter the slot S, formed in one of the supporting-plates B, and then dropping the handle C' slightly it will enter the depression *a*, thus arresting the descent of the pin and preventing the bar R from moving endwise and dropping down by the jolting of the car.

The locked position of the bar is clearly shown in Fig. 5. The coupling-pin, being held in an elevated position, cannot enter the link when forced into its draw-head, as in shunting a car or cars onto another track.

To set the coupling-pin so as to couple when the bar R is in the locked position shown in Fig. 5, the operator slightly raises the handle C', then forces the bar R endwise sufficiently to release the crank-handle from the slot S, when the crank-handles will drop slightly, the lower end of the pin P will be arrested by the

projecting head of the sliding bar 8, and when the link L forces the sliding bar 8 back the crank-handles will drop down to the position shown in Fig. 1 and indicated by dotted lines in Fig. 5, the parts being coupled.

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

1. In combination with the draw-head having the chamber 12, the transverse channel *r* at the rear end thereof, and inclines *i i* at the front end, the sliding T-shaped bar 8, located in said chamber and having the hooked rear end, *y*, and the link and coupling-pin, as and for the purposes specified.

2. In combination with the car, the draw-head having the chamber with inclines *i i* and transverse channel *r*, the sliding T-shaped bar having the engaging end *y*, the link and pin, the rod R, attached to the end of the car, having the central arm, with link *f*, coupling said arm to the pin, the crank-arms, the boxes B B, and central supports, *n n*, attached to the car, said rod adapted to rock and move endwise, as and for the purposes specified.

3. In combination with the car, the draw-head having the chamber 12 and inclines *i i*, the sliding T-shaped bar located in said draw-head, the link and pin, the rod R, having end arms, C', and arm A, the link *f*, coupling said arm A to the pin, and the boxes B B, attached to the car, said boxes having the slots SS to receive the arm C' of said rod, as and for the purposes specified.

4. In combination with the car, the draw-head, the link and pin, the rod R, having end handles and central overhanging arm, A, the link *f*, coupling said arm to the pin, and the boxes B B, one or both of said boxes having the slot S, with depression *a*, as and for the purposes specified.

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

JOHN SKINNER.

Witnesses:

GEORGE WALKER,  
AARON CREGS.