

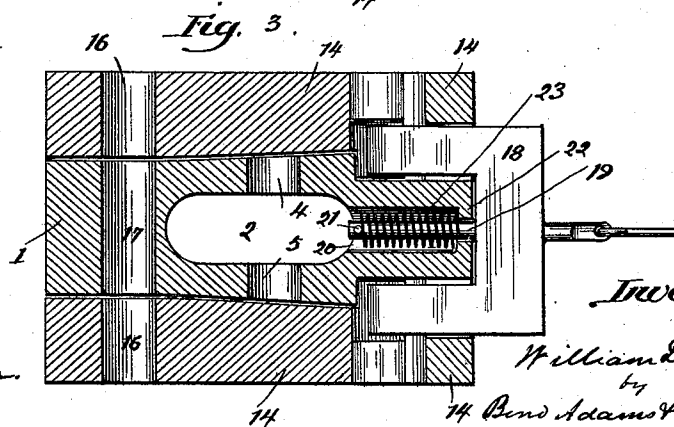
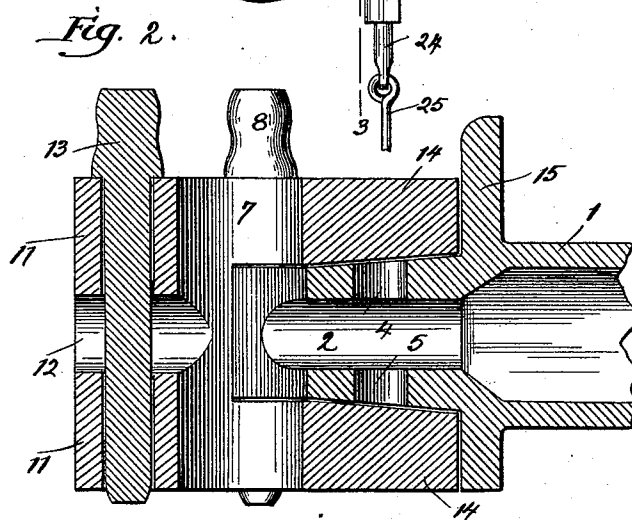
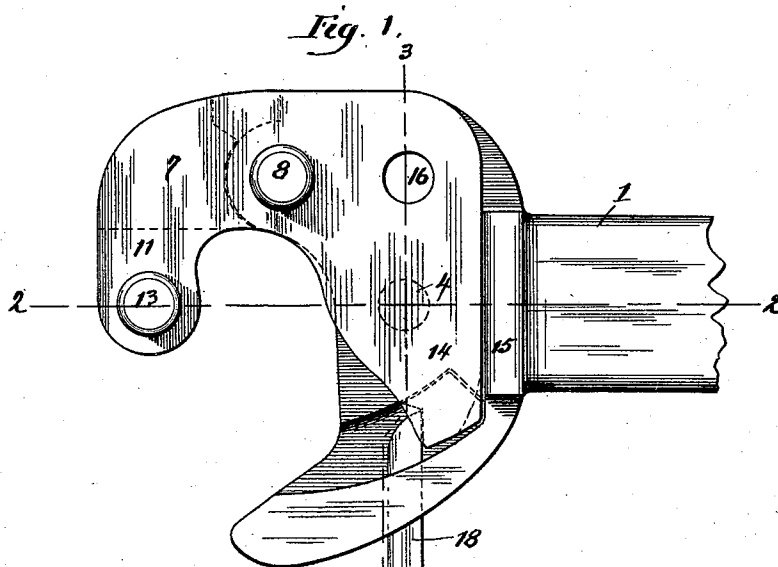
(No Model.)

2 Sheets—Sheet 1.

W. DUECHTING.
CAR COUPLING.

No. 478,578.

Patented July 12, 1892.



Witnesses:
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John L. Jackson.

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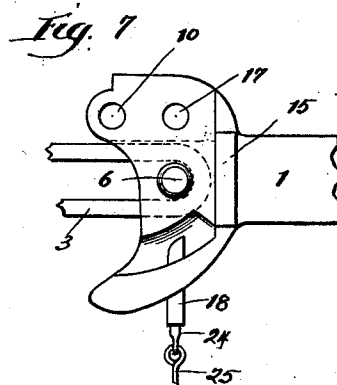
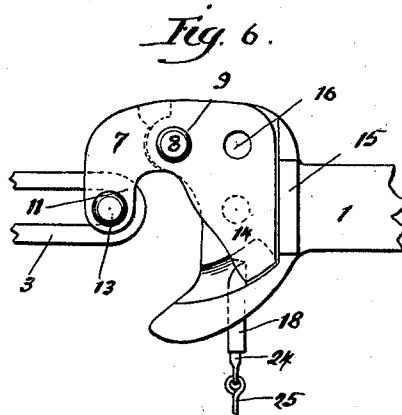
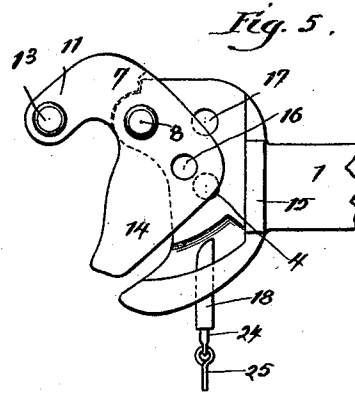
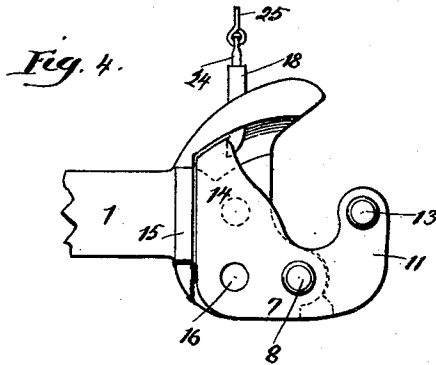
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2 Sheets—Sheet 2.

W. DUECHTING.
CAR COUPLING.

No. 478,578.

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Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM DUECHTING, OF CHICAGO, ILLINOIS, ASSIGNOR TO ANDERSON FOWLER, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 478,578, dated July 12, 1892.

Application filed March 11, 1892. Serial No. 424,598. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DUECHTING, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is an enlarged top or plan view.
10 Fig. 2 is an enlarged longitudinal vertical section on line 2 2 of Fig. 1. Fig. 3 is an enlarged vertical cross-section on line 3 3 of Fig. 1. Fig. 4 is a top or plan view showing the position of the jaw when in use. Fig. 5
15 is a top or plan view showing the jaw in position for coupling. Fig. 6 is a top or plan view showing the link connected to the coupler; and Fig. 7 is a top or plan view, the jaw being removed, showing the link connected to
20 the draw-head.

My invention relates to car-couplers; and its objects are to provide a new and improved car-coupler which will be automatic in its action, which may be easily operated from the
25 side of the car, and which will be so constructed as to be adapted for use in connection with cars having ordinary link-couplings, and to improve the construction of car-couplers in general. I accomplish these objects
30 as hereinafter specified and as illustrated in the drawings. That which I regard as new will be pointed out in the claims.

In the drawings, 1 indicates a draw-head, which is provided with a recess 2, adapted to
35 receive an ordinary link 3.

4 and 5 indicate vertical holes, which extend through the draw-head and are adapted to receive an ordinary coupling-pin 6, as best shown in Figs. 2 and 3.

40 Mounted upon the draw-head 1 is a bifurcated jaw 7, the rear portion of which is adapted to receive the forward portion of the draw-head, as shown in Figs. 2 and 3. The jaw 7 is pivotally connected to the draw-head at one
45 side by means of a pin 8, which passes through suitable holes 9 and 10 in the jaw and draw-head, respectively. The forward portion of the jaw 7 is provided with a curved or bent portion 11, which extends about at right
50 angles to and across the end of the draw-head, as shown, which portion 11 serves to engage

a corresponding portion of a draw-head on another car to couple the two cars together. The portion 11 is provided with a slot 12, adapted to receive an ordinary link, as shown
55 in Fig. 6, and with vertical holes, which pass through the slot 12, which holes are adapted to receive a coupling-pin 13, as shown. The rear portion of the jaw 7 is also provided with a curved portion 14, which extends trans-
60 versely across the draw-head, as shown, and is so shaped as to project beyond the forward end of the draw-head when the jaw 7 is turned to the position shown in Fig. 5, which is the
65 case when the cars are ready for coupling, and to engage a shoulder 15 on the draw-head when the jaw 7 is turned to the position shown in Fig. 1. The projecting portion 14 of the
70 jaw 7 is provided with a suitable hole 16, adapted to register with a hole 17, formed in the draw-head when the jaw 7 is in the position shown in Fig. 1. By inserting a coupling-
75 pin through the holes 16 and 17 the jaw 7 may be rigidly locked in the position shown in Fig. 1.

18 indicates a bifurcated dog, which is mounted transversely in the side of the draw-head 1, as best shown in Fig. 3. The dog 18 is mounted upon a rod 19, which extends into
80 a recess 20, formed in the side of the draw-head, as best shown in Fig. 3. On the inner end of the pin 19 is provided a pin 21, between which and a shoulder 22, formed at the outer end of the recess 20, is held a spring 23, which
85 is mounted upon the rod 19, as best shown in Fig. 3.

24 indicates a rod connected to the outer portion of the dog 18. By this construction the tension of the spring 23 will constantly tend to hold the dog in its innermost position.
90 When the dog 18 is in its innermost position, it will engage the upper and lower sections of the inner projecting portion 14 of the jaw 7, as best shown in Figs. 1 and 3. The dog will therefore serve to hold the jaw 7 in the position shown in Fig. 1. By pulling outward
95 upon the dog 18 it will be moved out of engagement with the jaw 7, thereby permitting the jaw to be turned to the position shown in Fig. 5 to uncouple the cars or to make ready
100 for coupling. The outer surface of the inner ends of the dog 18 are beveled, as shown in

Fig. 1, to provide for the automatic coupling of cars, as by such construction when the projecting portion 14 of the jaw 7 moves inward it will engage the dog 18 and force it outward, owing to the beveled surface of the dog, and will move past it until the dog is permitted to move inward under the tension of the spring 23. If desired, by removing the pin 8 the jaw 7 may be entirely removed from the draw-head 1, when the draw-head will be adapted for any use to which the ordinary draw-head may be applied.

Under ordinary circumstances the jaw 7 is pivotally mounted upon the draw-head by means of the pin 8 in the holes 9 and 10. When it is desired to couple two cars together, the jaw 7 is turned to the position shown in Fig. 5. When the two couplers come together, the momentum of the cars will cause the jaws to be swung backward to the position shown in Figs. 1 and 4 and the projecting portions 11 of each coupler will engage each other, and the cars will thereby be coupled together, the dogs 18 of each coupler preventing the jaws 7 from swinging. To uncouple the cars, the dogs 18 are pulled outward by means of a rod 25 or other suitable connection, which preferably extends to the side of the car, thereby releasing the jaws and permitting them to swing when the cars separate. If for any reason the dogs 18 should get out of order, the jaws 7 may still be made operative by inserting a pin through the holes 16 and 17, and as it is not necessary that the jaws 7 on both cars be coupled they should be swung to the position shown in Fig. 5 before coupling the cars. By this arrangement an automatic coupling can still be made. If it were desired to couple a car having my improved coupler to another car not provided with such coupler, an ordinary link might be used, which would be connected to the jaw 7 by inserting it in the re-

cess 12 and securing it there by means of a coupling-pin, as indicated in Fig. 2. If the jaw 7 should be broken or get out of order, so that it could not be used, it can be entirely removed by removing the pin 8 and a link then inserted in the recess 2 and secured there by a pin, as shown in Fig. 7. By this construction a coupler is secured which is automatic in its action and which may be used in connection with ordinary cars.

That which I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a draw-head, of a jaw 7, a pin 8, pivotally connecting said jaw to the draw-head, projections 11 and 14 on said jaw, and a dog 18, adapted to engage said projection 14, substantially as and for the purpose specified.

2. The combination, with a draw-head, of a jaw 7, having the projections 14, a pin 8, pivotally connecting the jaw to the draw-head, a bifurcated dog 18, mounted transversely in the draw-head and adapted to slide therein, and a spring 23, acting to press the dog inward, so that its bifurcations engage the projections on the pivoted jaw, substantially as described.

3. The combination, with a draw-head having a recess 20, of a jaw 7, having the outer and inner projections 11 and 14, a pin 8, pivotally connecting the jaw to the draw-head, a bifurcated dog 18, having a pin 19, extending into the recess of the draw-head, and a spring 23, located on the said pin and acting to press the dog inward, so that its bifurcations engage the inner projections on the pivoted jaw, substantially as described.

WILLIAM DUECHTING.

Witnesses:

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