(No Model.)

2 Sheets—Sheet 1.

W. WILSON.

CAR COUPLING.

No. 330,279. Patented Nov. 10, 1885.

Fig. 1.

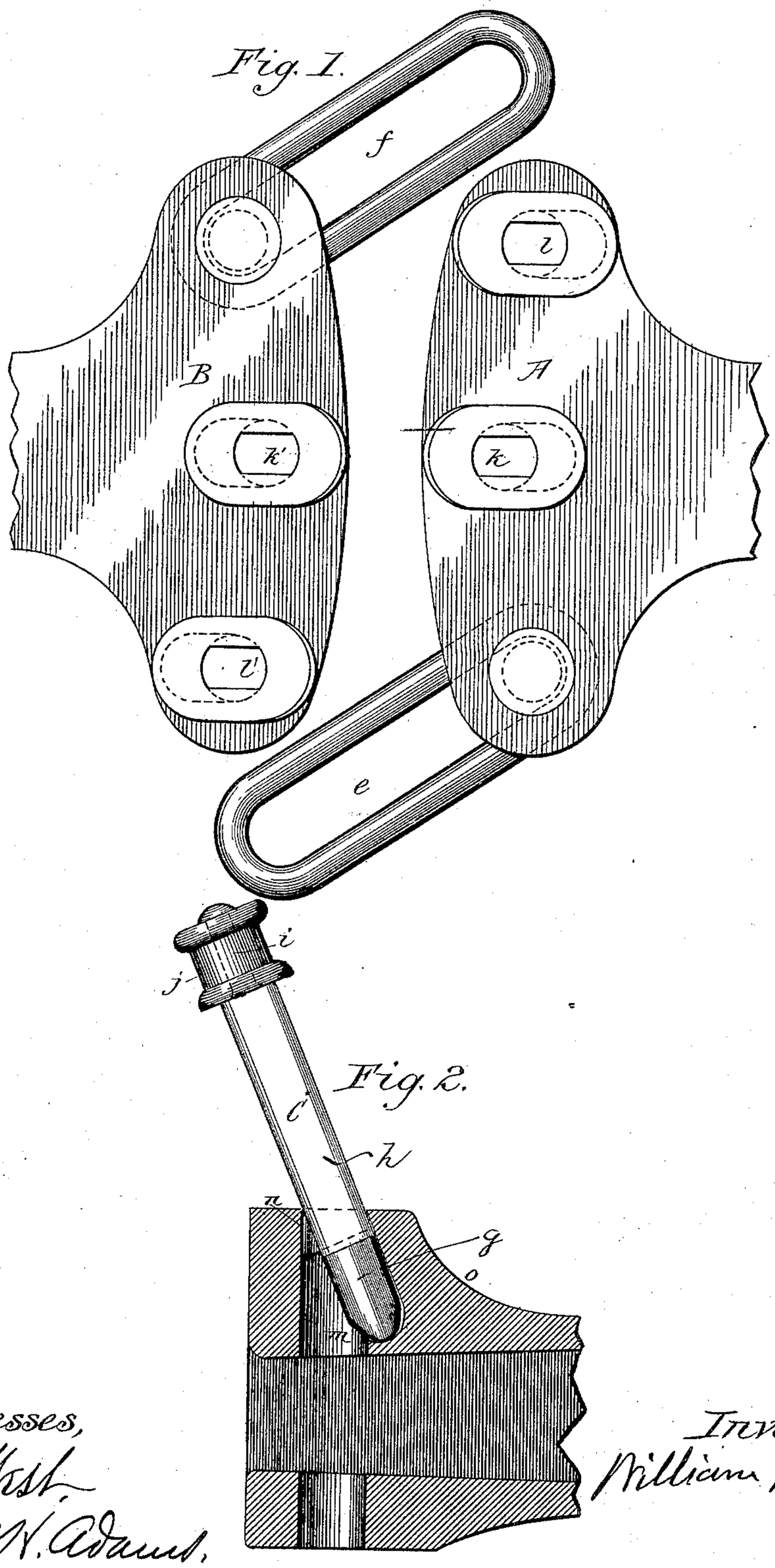

Fig. 2.

Witnesses,
E. A. Wish
Albert V. Adams.

Inventor,
William Wilson

(No Model.)

2 Sheets—Sheet 2.

W. WILSON.

CAR COUPLING.

No. 330,279. Patented Nov. 10, 1885.

Fig. 3.

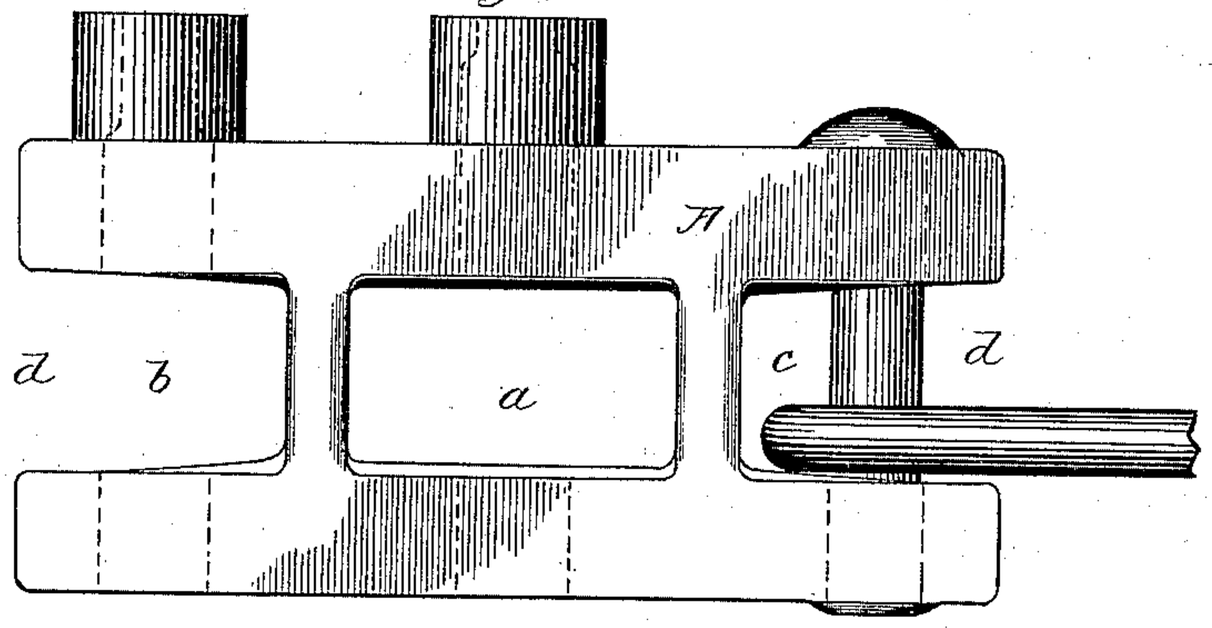

Fig. 4.

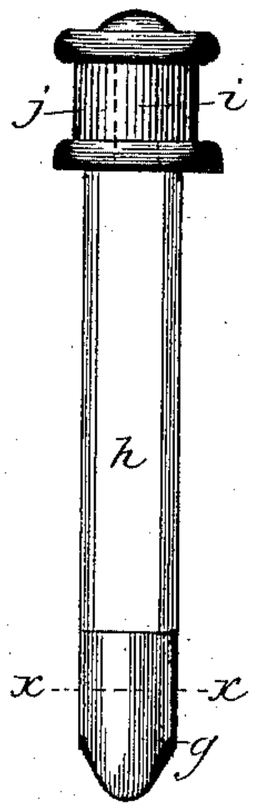

Fig. 5.

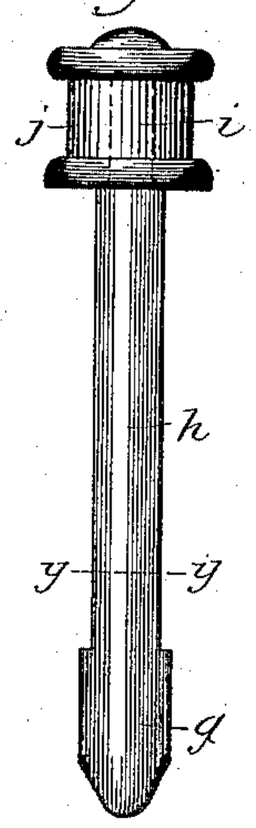

Fig. 6.

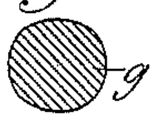

Fig. 7.

Witnesses,
E. A. West.
Albert N. Adams

Inventor,
William Wilson

UNITED STATES PATENT OFFICE.

WILLIAM WILSON, OF BLOOMINGTON, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 330,279, dated November 10, 1885.

Application filed June 12, 1885. Serial No. 168,531. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WILSON, residing at Bloomington, in the county of McLean and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Devices for Coupling-Cars, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan showing the heads of two draw-bars with two links, all of the loose pins being removed. Fig. 2 is a vertical central section through one of the heads, the pin being shown. Fig. 3 is an end elevation of one draw-bar head, showing one link attached, the loose coupling-pins being removed. Fig. 4 is a side elevation, and Fig. 5 an edge elevation, of my coupling-pin. Fig. 6 is a section at line *x* of Fig. 4, and Fig. 7 is a section at line *y* of Fig. 5.

It is common to use three links and six pins to couple two cars together. It is also common to use a single link and two pins for such purpose. In some cases some of the links used have been permanently connected with the cars; but the pins are frequently disconnected, and the expense of replacing lost links and pins is very great.

The leading object of my improvement is to protect against the loss of coupling links and pins, which I accomplish, when three links are used, by permanently connecting one link with the draw-bar at each end of the car, and by so constructing the draw-bars and pins used in coupling that the latter can be inserted in the draw-bars and used, but cannot be removed therefrom, and by making some other required changes in the construction of the heads of the draw-bars, all as illustrated in the accompanying drawings.

That which I claim as new will be set forth in the claim.

In the drawings, A B represent two draw-bar heads, supposed to be connected with the adjoining ends of two cars which are to be coupled together. The head of each draw-bar has a central opening, *a*, to receive a link, as usual.

b c are recesses on opposite sides of the draw-bar to receive links. These recesses are open upon the outside, as shown at *d*.

e is a link connected with A upon one side by a pin riveted or otherwise permanently secured to the draw-bar.

f is a link connected to the opposite side of the head B in the same manner.

C is a coupling-pin made in two parts, the head being made separate from the body of the pin and riveted thereto. The lower end, *g*, of the pin is oval, and may be one and seven-eighths inch in diameter one way and one and three-fourths inch in diameter the other way. The remaining part, *h*, of the body of the pin is in cross-section, as shown in Fig. 7, and may be one and seven-eighths of an inch in diameter one way and one and one-eighth of an inch in diameter the other way. The upper end of the pin is provided with an extension, *i*, which receives the head *j*.

k k' are holes in the upper part of the draw-bars for the central pins, and *l l'* are holes in the upper part of the draw-bars to receive the coupling-pins. All of these holes correspond in size and shape with the parts of the pins which they are to receive, except as herein specified. The part *m* of these holes corresponds in size with the lower ends, *g*, of the pins. The parts *m* of the pin-holes are each interiorly contracted at their top ends to form inwardly-projecting shoulders *n*, such contracted opening corresponding with the body *h* of the pins. The lower part of the draw-bar also has holes to receive the lower ends of the pins. The central holes, *k k'*, in the upper part of the draw-bar are each provided with a recess, *o*, upon one side to receive the point of a pin when desired.

In use the links *e f* are permanently but loosely connected with the heads of the draw-bars of two cars. The pins for the holes *k k'* *l l'* are inserted from below, the heads being removed, and then the heads are riveted in place upon the part *i*, thus permanently but loosely connecting such pins with the draw-bars. The head *j* will prevent the pin from escaping below, and the lower end, *g*, of the pin, by striking the inwardly-projecting shoulders *n*, will thereby be prevented from being drawn out. For the center of the draw-bar a detachable link is used, as usual, and this link is used in switching and making up the trains, in the usual manner, and one of the center

pins can, when desired, be raised, as shown in Fig. 2, and be held by placing its point in recess *o* until released by the switchman. When the train has been made up, the links *e f* are to be swung around into the recesses in the heads of the draw-bars and there secured by the pins.

All cars provided with these improvements can be coupled either with a car using only one link or with one using three links. All of the pins are so connected with the draw-bar that they cannot be lost, and when three links are used two of them will be permanently connected with the cars, and thus great protection is provided against the loss of both pins and links.

In the drawings I have only shown one pin in place; but in use all of the holes *k k' l l'* are to be provided with such pins.

I have described the pins as oval in cross-section, because this form has been adopted to secure the greatest strength with the least metal. The pins might, however, be round in cross-section, the lower end being a little larger than the remaining part of the body of the pin, and the draw-bars being provided with holes, as shown and described, to receive such pins.

What I claim as new, and desire to secure by Letters Patent, is as follows:

The draw-head having the part *m* of its pin-hole interiorly contracted at its top end to form the inwardly-projecting shoulders *n*, in combination with the coupling-pin C, having its body *h* conforming to the interiorly-contracted part of the pin-hole, and its lower end, *g*, enlarged and conforming to the part *m* of said pin-hole, substantially as described.

WILLIAM WILSON.

Witnesses:
E. A. WEST,
A. H. ADAMS.