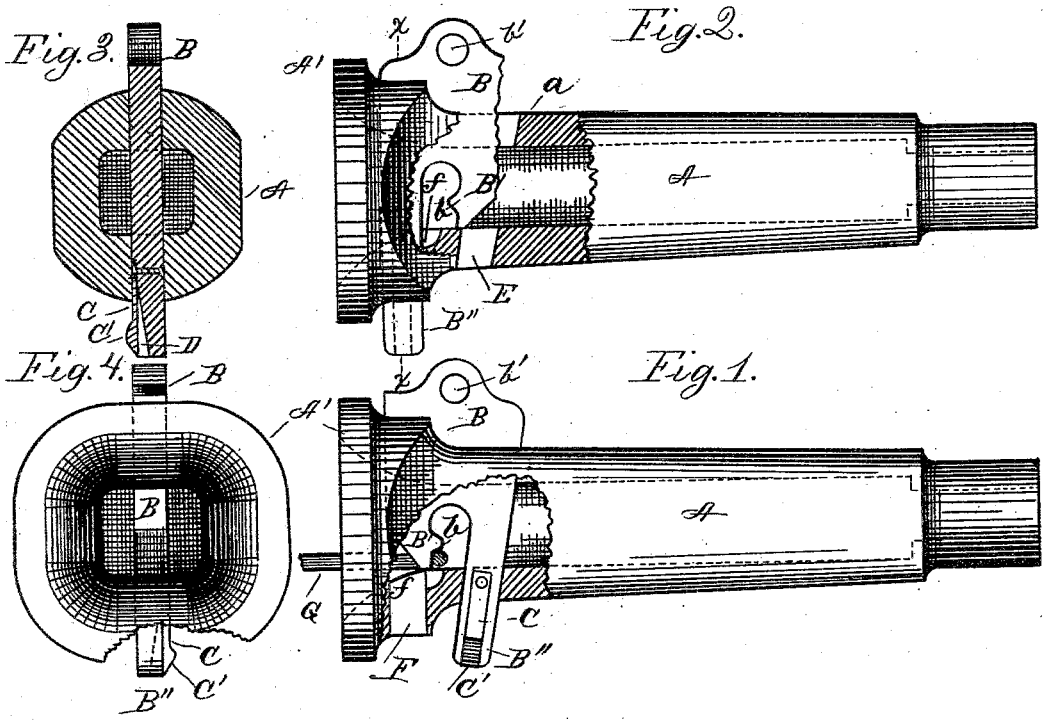
(No Model.)

J. SCHOFIELD.

CAR COUPLING.

No. 301,527. Patented July 8, 1884.



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UNITED STATES PATENT OFFICE.

JAMES SCHOFIELD, OF MARSHALL, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 301,527, dated July 8, 1884.

Application filed April 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES SCHOFIELD, of Marshall, in the county of Harrison and State of Texas, have invented a new and useful Improvement in Car-Couplings; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of this improvement is an automatic car-coupling pin that can be adjusted and used for coupling cars having the ordinary draw-bars and coupling-pins. This result is attained by the mechanism illustrated in the drawings herewith filed as part hereof, in which the same letters of reference denote the same parts in the different views.

Figure 1 is a side elevation, partly in section, showing the coupling-pin in position for automatic action. Fig. 2 is a sectional view, showing the pin in position for use in the ordinary way. Fig. 3 is a transverse section taken on the line *x x* of Fig. 2. Fig. 4 is a sectional end elevation.

A A′ represent the draw-bar, to be secured to the car in the usual manner, and provided at the top with a slot having a slight rearward inclination at the inner or rear end, as shown at *a*, Fig. 2, and at the bottom with a slot, E, having a corresponding inclination, as shown in the same figure, and an adjacent vertical slot, F. (More fully shown in Fig. 1.)

B is the coupling-pin, having a beveled front, B′, provided with an inner projection, *b*, and a recess, D, in its shank or extension B″. (More fully shown in Fig. 3.)

C is a spring set into the recess D, and provided with an inclined lateral projection, C′. The object of the spring C is to operate as a latch for preventing the removal of the coupling-pin, excepting by special effort. By reversing the position of the pin, as shown in Fig. 2, with the shank B″ in the slot F, it is obvious that the same will act as an ordinary coupling appliance. When adjusted as shown in Fig. 1, the projection *b* of the beveled front B′ will engage with the link G, and the gravitation of the pin will hold the link in an exact or approximate horizontal position, substantially as shown, so that its outer end will engage with the curved entrance to the opposite draw-bar, and, by coming in contact with the beveled front of the coupling-pin, will force the link from under the projection *b* of the beveled front B′ of the advancing car, and simultaneously raise the outer end of the link and pass it under the point of the opposite pin, and the points of both pins will drop through the links into the recesses *f* of the opposite draw-bars, and thus complete the connection, after which the link ends will automatically take position above the inner projections, *b*, of the pin-fronts B′, and the greater the strain of the draft the more closely the pins will adhere to their positions. As any force applied from an opposite direction would naturally tend to move the pin in the direction of the widest part of its inclined bearing, its inclined position, as shown in Fig. 1, will greatly facilitate its automatic upward movement for the purpose intended.

When necessary to change the pins to or from the positions shown, the latch C C′ will press into the recess D, and thus readily clear the parts.

Levers may be affixed to the end of the car on each side of the draw-bar, with handles extending to the sides of the car, and points entering the opening *b′* in the head of the coupling-pin, which may thus be operated for connecting in the ordinary way without going between the cars.

Having explained the construction and operation of my improvement, what I claim as new, and desire to secure by Letters Patent, is—

1. The draw-bar A A′, provided with an upper slot having a rearward inclination, *a*, at its inner end, a correspondingly-inclined lower slot, E, and a lower vertical slot, F, having a recess, *f*, substantially as specified, for the purpose set forth.

2. The coupling-pin having a recessed head, B, a shank or extension, B″, provided with a latch, C, and a beveled front, B′, having an inner projection, *b*, substantially as specified, for the purpose set forth.

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

JAMES SCHOFIELD.

Witnesses:
GEO. ANDERSON,
J. E. DAVIS.