

(No Model.)

S. C. CORDER.

CAR COUPLING.

No. 263,286.

Patented Aug. 22, 1882.

Fig. 1.

Fig. 2.

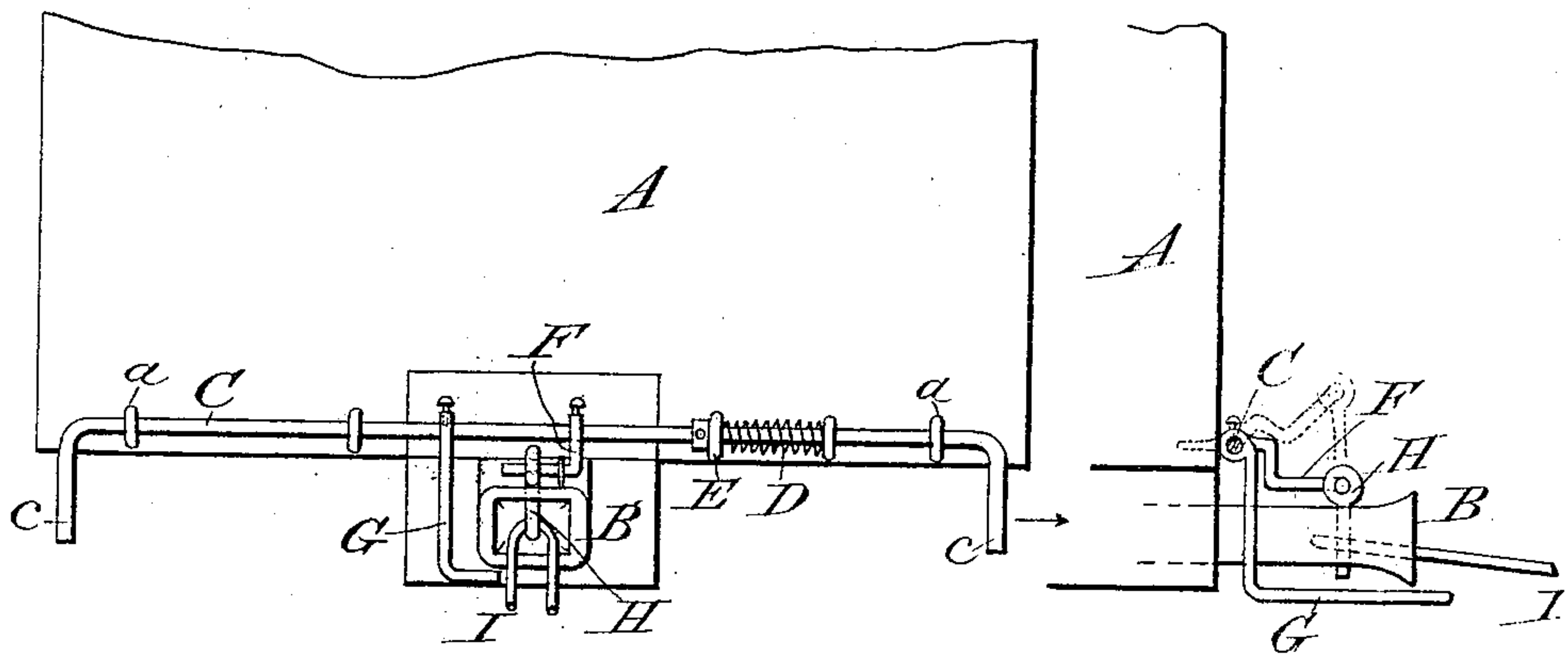


Fig. 3.

Fig. 4.

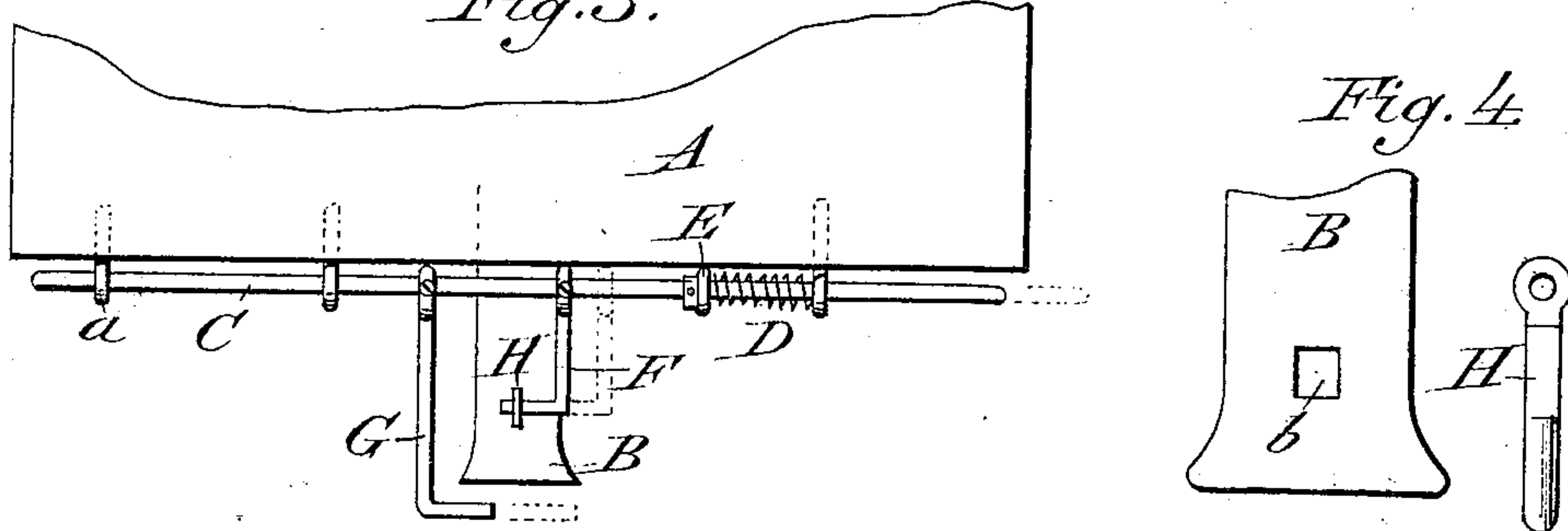
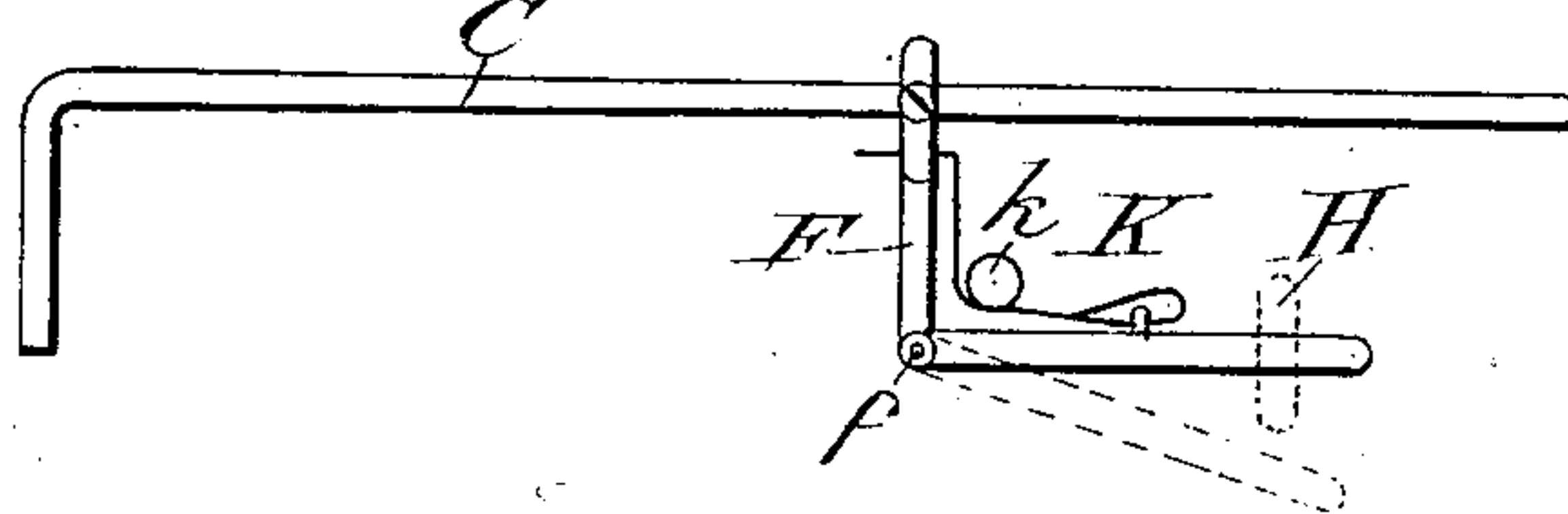


Fig. 5.



Attest:

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# UNITED STATES PATENT OFFICE.

STEPHEN C. CORDER, OF OLMSTEAD, ASSIGNOR OF ONE-HALF TO J. GUTHRIE COKE, OF LOGAN COUNTY, KENTUCKY.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 263,286, dated August 22, 1882.

Application filed July 1, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN C. CORDER, a citizen of the United States, residing at Olmstead, in the county of Logan and State of Kentucky, 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 ap-

10 pertains 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.

This invention relates to certain new and useful improvements in car-couplings; and it consists more particularly in the construction and arrangement of parts, as will be hereinafter more fully described and claimed.

15 In the annexed drawings, illustrating the invention, Figure 1 is an end elevation of a car provided with my improved coupling. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view. Fig. 4 illustrates the manner of constructing the pin-hole in the draw-head, and also the pin; and Fig. 5 is a detail, to be hereinafter described.

Like letters indicate like parts in the several views.

20 The letter A designates a car-body, which is provided with the usual recessed draw-head, B, that is supported in a suitable casing beneath the end of the car. Extending across the end of the car A, nearly its entire width, is a cranked rod, C, which is hung in suitable bearings, *a*. A spiral spring, D, is placed around the rod C, and is confined between one of the bearings *a* and an adjustable collar, E, attached to the rod C. A small cranked arm, F, is adjustably attached to the rod C by means of a set-screw, and is arranged a slight distance to either side of the draw-head B, and a larger cranked arm, G, is also adjustably attached to the rod C in a similar manner on the opposite side of the draw-head.

40 H is a coupling pin or bolt, the upper portion of which is preferably square in form, and the hole *b* in the draw-head, provided for its reception, is also made square to correspond therewith, as shown in Fig. 4.

50 I is a coupling-link, which may be of any preferred construction.

By referring to Figs. 1 and 2 it will be seen

that the small cranked arm F is bent in such a manner as to permit its free end to be passed through the eye in the coupling-pin H, and also that the cranked arm G is similarly bent, so that its free end will pass under and engage with the coupling-link I when the main rod C is properly operated.

55 The spring D and cranked arm G are so adjusted upon the rod C that when the free end of the arm F is in connection with the coupling-pin H the free end of the arm G will not come in contact with the coupling-link I. Thus, by raising the cranked ends or handles *c c* of the rod C the pin H can be withdrawn from engagement with the link I and the cars uncoupled without the arm G interfering with the movement of said link. The cranked ends or handles of the rod C hang downward when not in use, and as the end of the arm F is in engagement with the pin H said pin will be prevented from being jolted out of the draw-head.

75 The object of making the upper part of the coupling-pin H and the hole in the draw-head provided for its reception both square in form is to obviate any liability of the pin being turned in said hole, so as to prevent the free end of the arm F from entering the eye of said pin.

80 When it is desired to couple cars together the rod C will be moved longitudinally in the direction of the arrow shown in Fig. 1, whereby the arm F will be withdrawn from the pin and the free end of the arm or lever G will be brought beneath the link I, when, by rotating the rod C in the proper direction, the arm G will be caused to raise the link, so that it may be guided into its proper position in the draw-head of an approaching car. By this arrangement cars of uniform or of unequal heights may be readily coupled. Upon releasing the handles of the rod C they will fall, and the action of the spring D will cause said rod to seek its normal position.

95 In order to adjust this car-coupling to those cars in which the draw-heads or bumpers are so attached to the car as to permit of their having longitudinal play, I prefer to use the construction illustrated in Fig. 5, which consists in forming a knee-joint, *f*, at the last bend of said arm, which, when the draw-head is either drawn out or moved back, will permit

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of said arm having a longitudinal motion to correspond with that of the draw-head. To insure the hinged portion of the arm F regaining its normal position, I attach a spring, K, 5 having a loop, *k*, to said arm in the manner shown in Fig. 5.

By this construction and arrangement of devices the different parts of the coupling will regain their natural positions when not in use, 10 and the necessity of going between the cars to couple or uncouple them is entirely avoided.

It is obvious that the arms F and G may be arranged respectively at either side of the draw-head, one being opposite the other, and 15 that the precise details of construction above described may be varied within certain limits, without departing from the principle of my invention.

Having thus described my invention, what I 20 claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination of the cranked rod C, the adjustable bent arm or lever F, and coupling-pin H, having square upper 25 portion, with the recessed draw-head pro-

vided with a square hole for the reception of the coupling-pin, substantially as shown and described.

2. In a car-coupling, the combination of the cranked rod C, having spring D and collar E, 30 adjustable cranked rod G, and draw-head B, having pin H and link I, substantially as shown and described.

3. In a car-coupling, the combination of the cranked rod C, having spring D and collar E, 35 adjustable cranked lever F, having joint *f* and spring K, coupling-pin H, and recessed draw-head B, substantially as shown and described.

4. In a car-coupling, the combination of the cranked rod C, having spring D and collar E, 40 adjustable cranked levers F G, and recessed draw-head B, having coupling-pin H and link I, substantially as shown and described.

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

STEPHEN CALVIN CORDER.

Witnesses:

CHAS. S. GRUBB,

S. M. BARGER.