

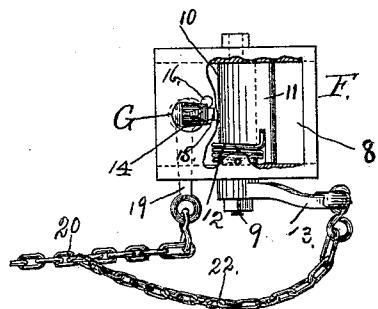
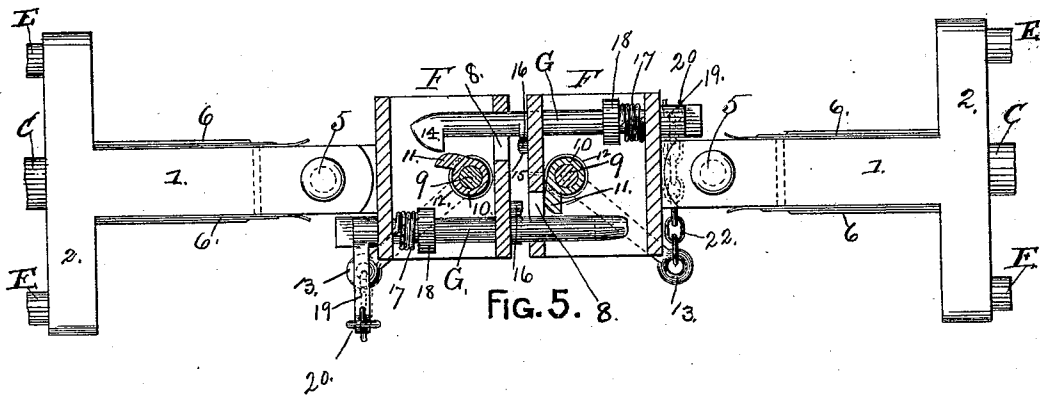
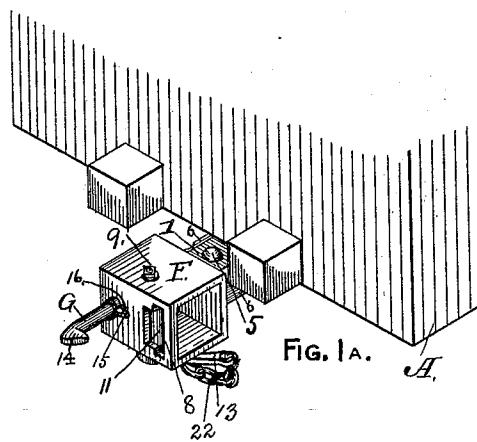
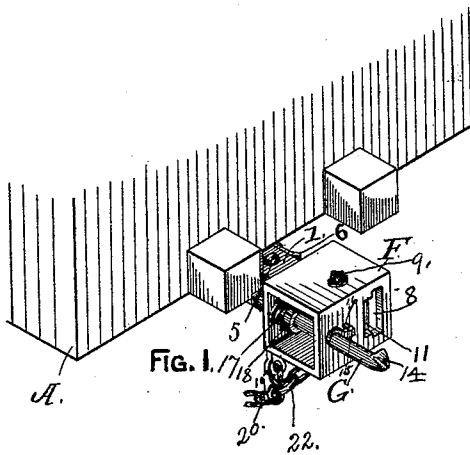
(No Model.)

2 Sheets—Sheet 1.

D. BELLON.
CAR COUPLING.

No. 478,778.

Patented July 12, 1892.



WITNESSES:

S. B. Brewer,
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FIG. 6.

BY

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INVENTOR:

DAVID BELLON,

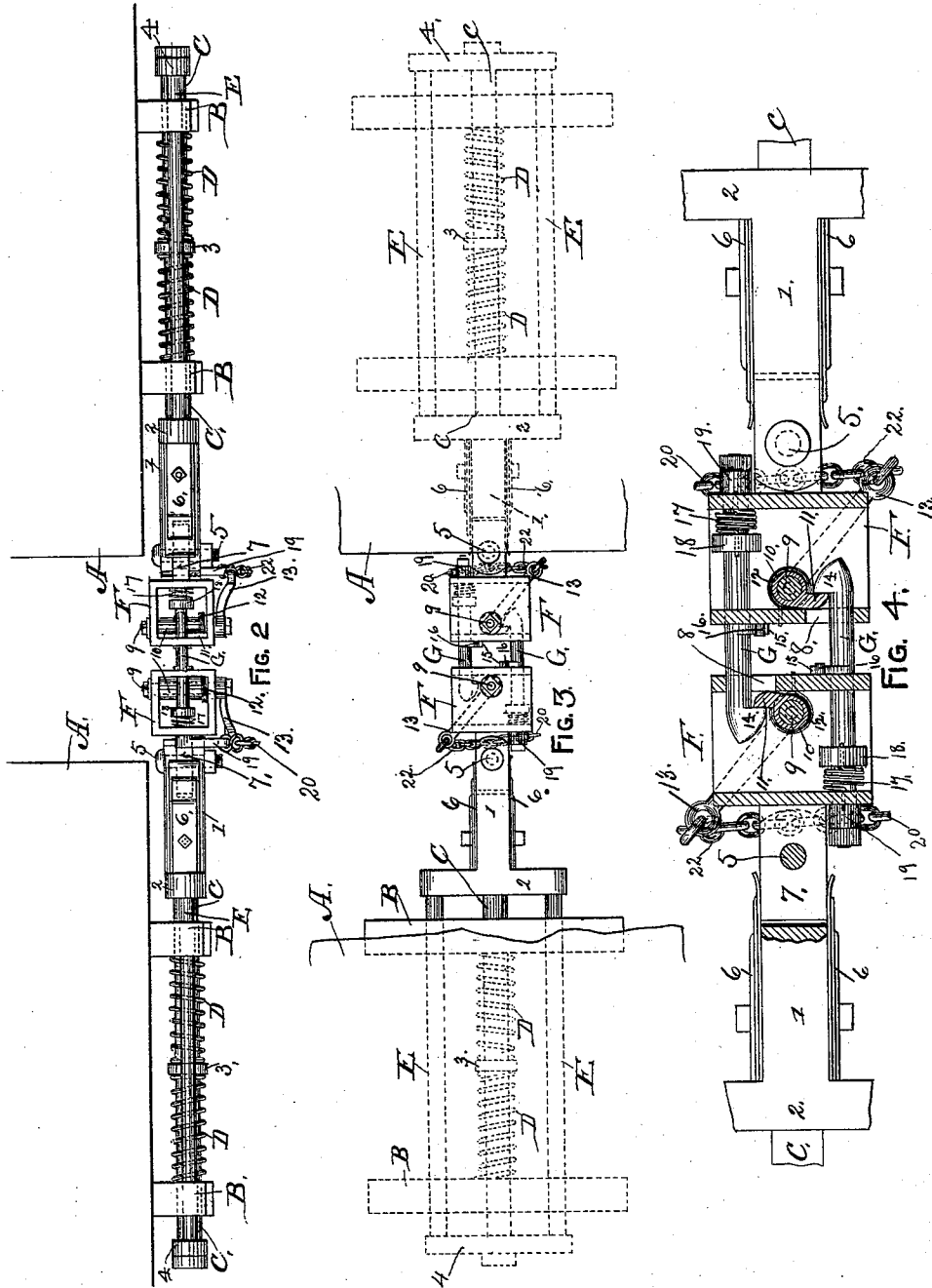
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2 Sheets—Sheet 2.

D. BELLON.
CAR COUPLING.

No. 478,778.

Patented July 12, 1892.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

DAVID BELLON, OF MCKOWNVILLE, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 478,778, dated July 12, 1892.

Application filed January 25, 1892. Serial No. 419,160. (No model.)

To all whom it may concern:

Be it known that I, DAVID BELLON, of McKownville, in the county of Albany and State of New York, have invented new and useful
5 Improvements in Car-Couplers, of which the following is a full and exact description, reference being had to the accompanying drawings, which form part of this specification, in which—

10 Figures 1 and 1^A are perspective views of conjoining ends of two cars provided with my invention. Fig. 2 is a side elevation of the conjoined ends of two cars coupled together by my invention. Fig. 3 is a plan view of the
15 latter. Fig. 4 is an enlarged and detached horizontal section of the draw-heads of two of my couplers when connected together. Fig. 5 is a like section showing the parts arranged to effect an uncoupling of the two couplers,
20 and Fig. 6 is an end elevation of one of the draw-heads with a portion broken out to expose hidden parts.

My invention relates to improvements on car-couplers of that class in which two draw-
25 heads of like construction are made to engage with each other automatically without the intervention of coupling pins and links.

As represented in the drawings, A designates the body of the car to which my coupler
30 is attached, and B transverse abutting blocks secured to the under side of said car.

C designates the draw-bar of my coupler, which is fitted to move endwise in said abutting blocks. Said draw-bar is provided with
35 an outwardly-extending head 1, having a cross-bar 2 at its junction with said draw-bar. A collar 3 is formed on or secured to that part of the draw-bar C that lies between the abutting blocks B, and between said collar and
40 each of the abutting blocks a compressible spring D is interposed, the spring between the collar and the abutting block nearest the corresponding end of the car being provided to resist a pulling strain on the draw-bar and
45 the other spring being arranged to resist a pushing strain on the same part. At the inner end of the draw-bar C another cross-bar 4 is secured, and the outer ends of the cross-bars 2 and 4 are connected together by means
50 of side rods E, which are arranged parallel to the draw-bar C and are fitted to slide in guides formed in the abutting blocks B.

F designates a draw-head, which is jointed to the end of the head 1 by means of a vertical joint-pin 5, so that said draw-head can be de-
55 flected sidewise in either direction to permit the connected cars to pass over curved portions of a railway-track. Said draw-head is normally retained in line with the head 1 by means of springs 6, which are secured to the
60 head 1 to bear upon opposite edges of a tongue 7, which enters a slot in the end of the head 1 to form a flexible joint with said head, said tongue, it should be understood, forming an
65 integral part of said draw-head. The draw-head F is made in the form of an oblong quadrangular box, open at its opposite ends and arranged transversely to the center line of the draw-bar C. Said draw-head has in its
70 outer end plate an opening 8, which is provided for the reception of the coupling-hook G of a conjoining coupler, and adjacently to said opening in the interior of said draw-head a vertical spindle 9 is journaled. Said spindle
75 carries a sleeve 10, which is provided with a tangential flange 11, which is fitted to partially cover the opening 8 and form an engaging
80 lip for the coupling-hook G of a conjoining coupler. The flange 11 is normally retained in position over a portion of the opening 8, as shown in Fig. 4, by means of a spring
85 12, having one of its ends attached to the draw-head and its opposite end bearing against the said flange, so as to hold the latter in its closed position in respect to the opening
90 8. One end of the spindle 9 projects from the draw-head F, and its projecting end is provided with an arm 13 for imparting a partial rotation to said spindle against the resistance
95 of the spring 12.

G designates the coupling-hook of my coupler, which is fitted to receive a partial rotation, and is provided with a hook 14, extending
100 outwardly from the forward end of the draw-head. Said coupling-hook is arranged longitudinally and is provided with an arm 15, fitted to take against a stop-pin 16 in the outer face of the draw-head, and said arm is normally retained against the stop-pin 16 by means of a coil-spring 17, which encircles the
105 body of the coupling-hook G and has one of its ends engaged in a collar 18 and its opposite end engaged in the draw-head F. The coupling-hook G at its inner end protrudes from

the rear end of the draw-head F and its protruding end is provided with an arm 19, whereby a partial rotation can be imparted to said coupling-hook. A chain or rope 20 is
5 connected to the arm 19, and a branch chain or rope 22 forms a connection from the first-named chain to the arm 13, so as to produce a nearly-simultaneous movement of the spindle 9 and coupling-hook F in the operation of
10 disconnecting the couplers from each other; but in the operation of automatically coupling cars equipped with my couplers the coupling-hooks G will be carried into contact with the flanges 11 of the conjoining couplers, and
15 thereby produce a partial rotation of the respective spindles, whereby the coupling-hooks G will be enabled to enter the draw-head of the conjoining coupler, the branch chain 22 of each coupler being slackened thereby until
20 the hooks 14 have passed clear of the flanges 11. This being accomplished, the springs 12 of the respective draw-heads F will cause the flanges 11 to return to their normal positions to form engaging lips for the hooks 14.
25 What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a car-coupler, the combination of a draw-bar having a spring-controlled longitudinal movement, a draw-head jointed to the outer end of said draw-bar and having in its
30 outer face an opening which is partially closed by a flange which is hinged to said draw-head, and a horizontal coupling-hook journaled in said draw-head and having a partial rotative movement therein, said coupling-hook being
35 adapted to enter the draw-head of a coupler of like construction and to engage with the hinged flange of the latter, as and for the purpose herein specified.

2. In a car-coupler, a draw-head provided
40 in its outer face with an opening which is partially covered by a hinged flange or shutter, a coupling-hook journaled in said draw-head to receive a partial rotative movement, arms
45 secured to said shutter and coupling-hook and connected together, so as to effect a simultaneous movement of the shutter and coupling-hook, as and for the purpose herein specified.

DAVID BELLON.

Witnesses:

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S. B. BREWER.