

(No Model.)

W. F. WHITE.
CAR COUPLING.

No. 514,296.

Patented Feb. 6, 1894.

Fig 1

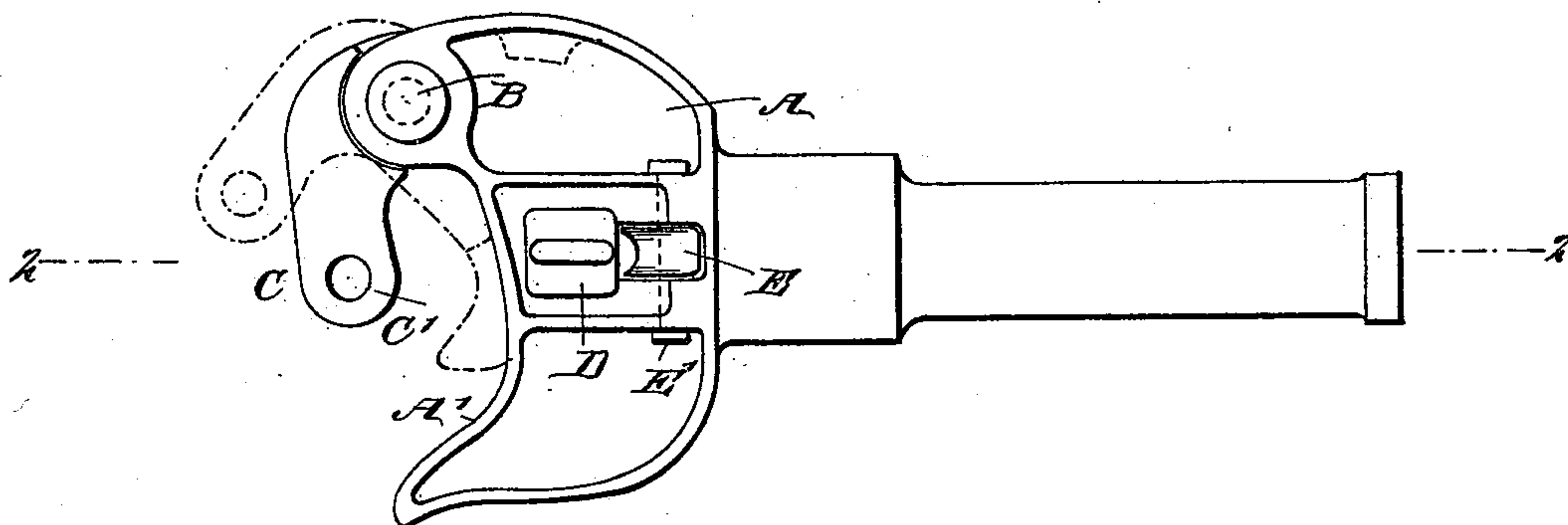


Fig 2

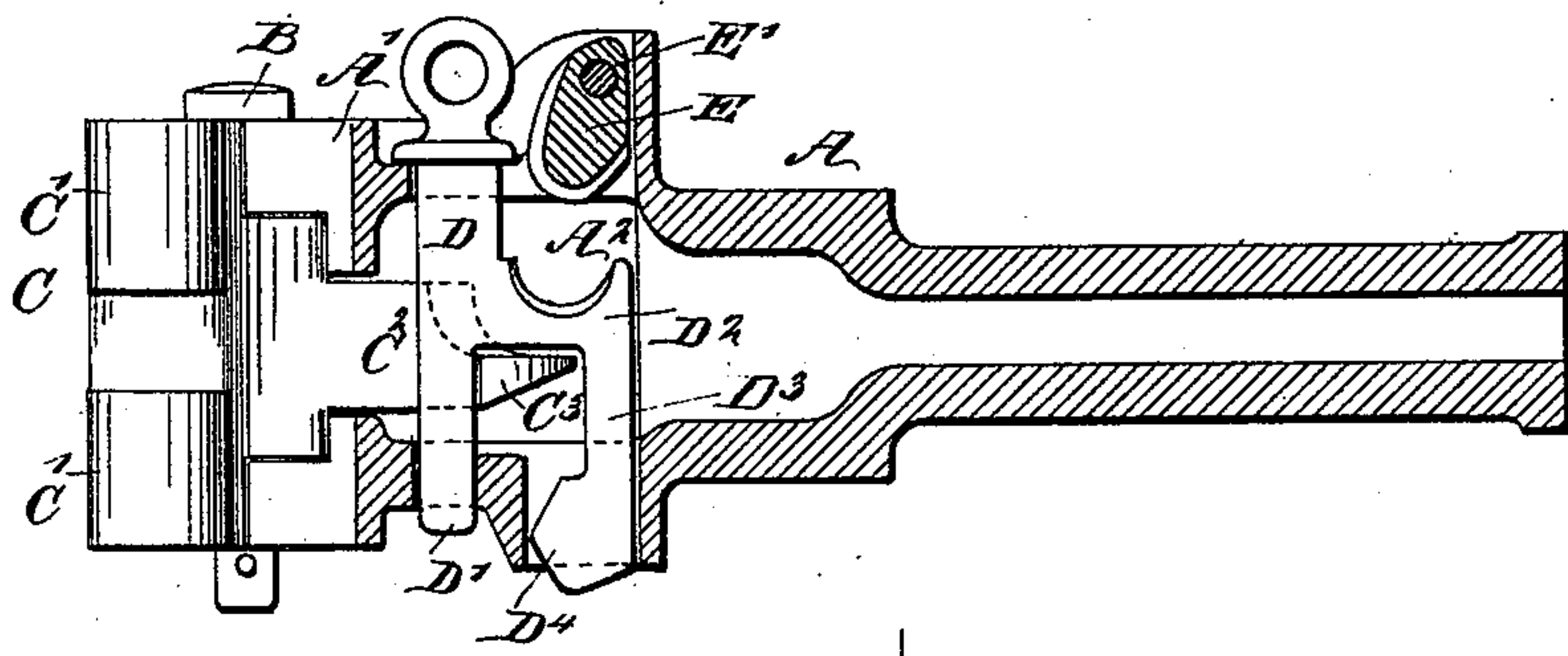
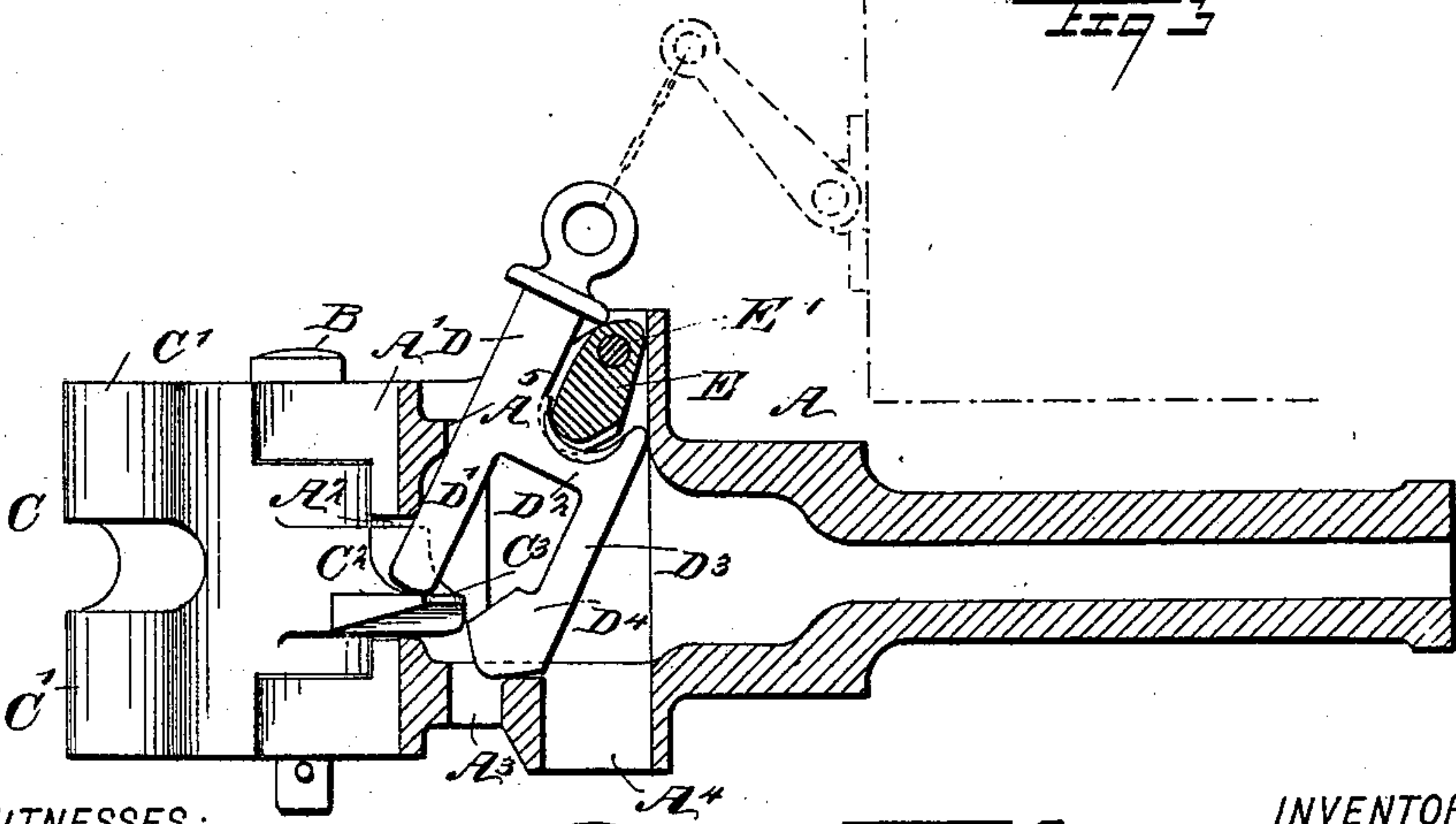


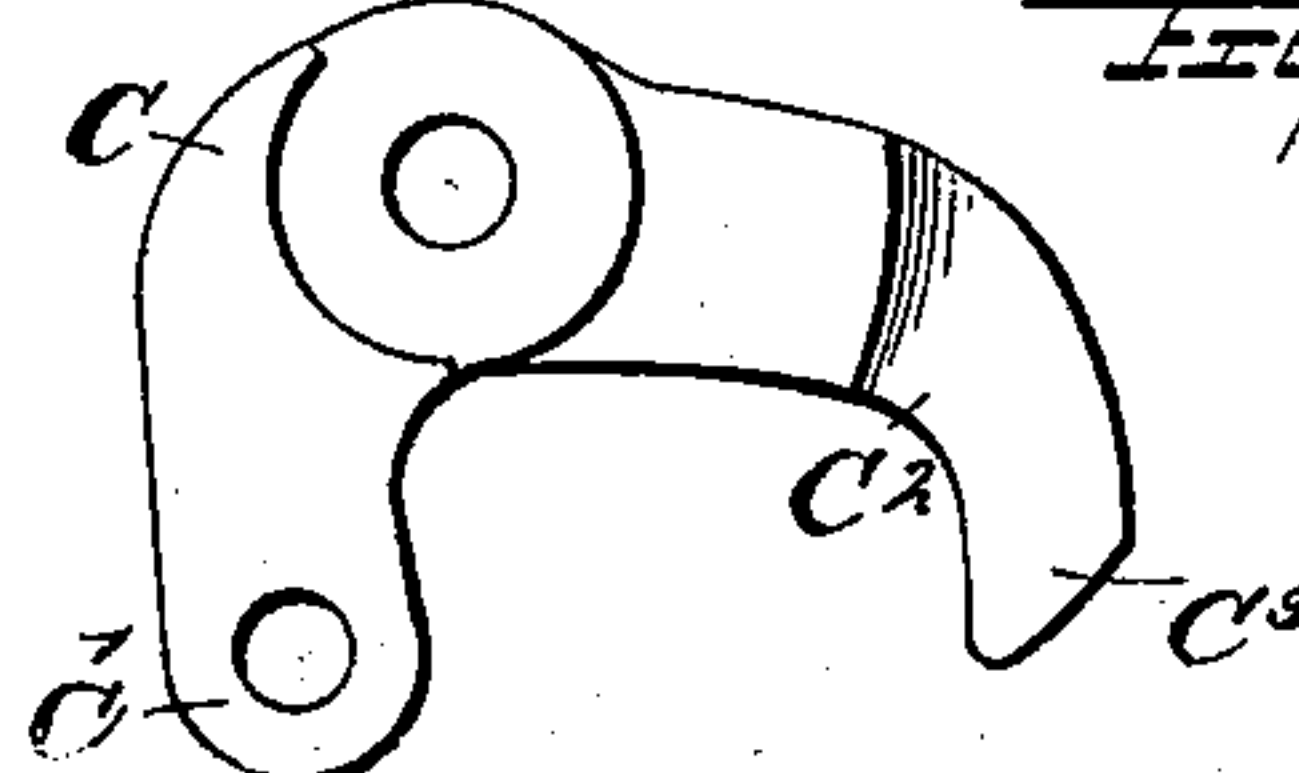
Fig 3



WITNESSES:

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Fig 4



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WILLIAM F. WHITE, OF CHICAGO, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 514,296, dated February 6, 1894.

Application filed June 24, 1893. Serial No. 478,750. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. WHITE, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Car-Couplings, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in car
10 couplings of the Janney type, whereby a secure connection between the cars is obtained and the operator is enabled to readily couple and uncouple the cars without stepping between the cars.

15 The invention consists principally of a pivoted knuckle held on the drawhead and provided with an extension adapted to be engaged by the forked end of the coupling pin.

The invention also consists of certain parts
20 and details, and combinations of the same, as will be hereinafter described and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification,
25 in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement. Fig. 2 is a sectional side elevation of the same
30 on the line 2--2 of Fig. 1. Fig. 3 is a similar view of the same with the coupling open and the coupling pin resting on the top of the extension; and Fig. 4 is a plan view of the knuckle.

The improved car coupling is provided with
35 the usual drawhead A formed at its front end with the horn A' arranged on one side and a pivot B located at the opposite side and on which the knuckle C is pivoted. The free end of the pivoted knuckle C is provided with the
40 usual apertured lugs C' adapted to receive a pin for connecting the knuckle with an ordinary link. The knuckle C is also provided with an extension C² extending rearwardly from the pivot end of the knuckle, as plainly
45 shown in Fig. 4, the said extension being formed at its free end with the beveled portion C³ plainly indicated in Figs. 2 and 3.

The extension C² is adapted to be engaged
50 by the forked end of a coupling pin D under the control of the operator by a suitable mechanism located on the end of the car, as indicated in dotted lines in Fig. 3. The pin D is

provided with the forward prong D' adapted to engage the front edge of the beveled portion C³ of the extension C² or to rest on top
55 thereof, as indicated in Fig. 3. The pin D is also provided with the horizontal arm D² from which extends downwardly the prong D³ arranged parallel to the prong D' and provided at its lower end with a beveled offset D⁴, see
60 Figs. 2 and 3.

The prongs D' and D³ are adapted to engage apertures A³ and A⁴ formed in the bottom of the drawhead A, and the upper part of the pin D extends through an opening A⁵ in
65 the top of the drawhead. The extension C² is free to move laterally in a recess A² formed in the drawhead proper, the said openings A³, A⁴ and A⁵ leading into the recess, as will be readily understood by reference to Figs. 2
70 and 3.

The top edge of the horizontal arm D² of the pin D is formed with a semi-circular recess adapted to engage a correspondingly-shaped
75 lug E hung on a pivot E' secured in the sides of the drawhead A at the top thereof, as illustrated in the drawings, Figs. 1, 2 and 3.

The base of the recess in the arm D² has a beveled edge, as shown in dotted lines in Fig. 3, and the lower edge of the lug E is also beveled
80 as shown in full lines in Fig. 2. Now, it will be seen that when the knuckle C is in the position as illustrated in Figs. 1 and 2, the pin D is in a vertical position and engages with its prongs D' and D³ the front and rear edge
85 of the beveled portion C³ of the extension C² projecting from the knuckle C. Now, when the knuckle is in this coupling position and it is desired to uncouple, the operator exerts
90 a pull on the pin D in an upward direction, so that the pin assumes the position shown in Fig. 3, that is, its prong D' is withdrawn from the front edge of the beveled portion C³, while the beveled offset D⁴ of the prong D³ engages the beveled portion C³ and thereby imparts a
95 swinging motion to the extension in a forward direction, whereby the knuckle C is caused to open.

It is understood that when the pin D is pulled upward the beveled edge of the recess
100 in the arm D² engages the lug E, so that the said pin assumes an inclined position, the lug E being the fulcrum for the pin. When the knuckle C is in the open position, the prong D'

rests on the top of the beveled portion C³; and when two cars are now coupled and the extension is struck by the opposing drawhead, then the extension swings rearwardly so that finally the prong D' drops down into the position shown in Fig. 2, it being understood that the pin D is caused to assume a vertical position by the beveled portion C³ acting on the lug D' of the prong D³. Thus the knuckle C is securely locked in position by the pin D.

It will be seen that this car coupling is very simple and durable in construction, is easily manipulated, and does not require the operator to step between the cars while coupling or uncoupling the same.

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

1. A car coupling comprising a pivoted knuckle having a rear extension, a lock pin adapted to engage said extension, a stop or abutment portion on the drawhead, said pin held for vertical movement and adapted to engage said abutment and be swung outward, whereby it will be moved from a locked engagement with the knuckle extension, all substantially as shown and described.

2. A car coupling comprising a pivoted knuckle having an extension formed with a beveled under face, a coupling-pin having a forked extension adapted to embrace such extension when in its coupled position, a rest

portion in the drawhead for the rear fork of the pin, when elevated to its uncoupled position, said rear fork having a beveled portion adapted to be engaged by the beveled face of the knuckle extension when the knuckle is swung inward, substantially as and for the purposes shown and described.

3. In a car coupling of the kind described in combination, the draw head, the pivoted knuckle formed with a rear extension, a pivoted abutment, the forked coupling pin having a seat portion in its upper part, adapted to engage the abutment when elevated and be swung forward, all arranged substantially as and for the purposes shown and described.

4. A car coupling, comprising a knuckle pivoted to the drawhead and provided with an extension having a beveled portion, a pin having two parallel prongs adapted to engage the front and rear edges of the said extension, the rearmost of the said prongs being formed with a lug for engaging the beveled portion of the said extension, and a lug arranged in the drawhead and adapted to be engaged by the said pin to impart a swinging motion to the latter when a pull is exerted on the pin, substantially as shown and described.

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Witnesses:

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