

No. 841,927.

PATENTED JAN. 22, 1907.

M. A. BROWN.
CAR COUPLING.

APPLICATION FILED JULY 24, 1905.

2 SHEETS—SHEET 2.

Fig. 3.

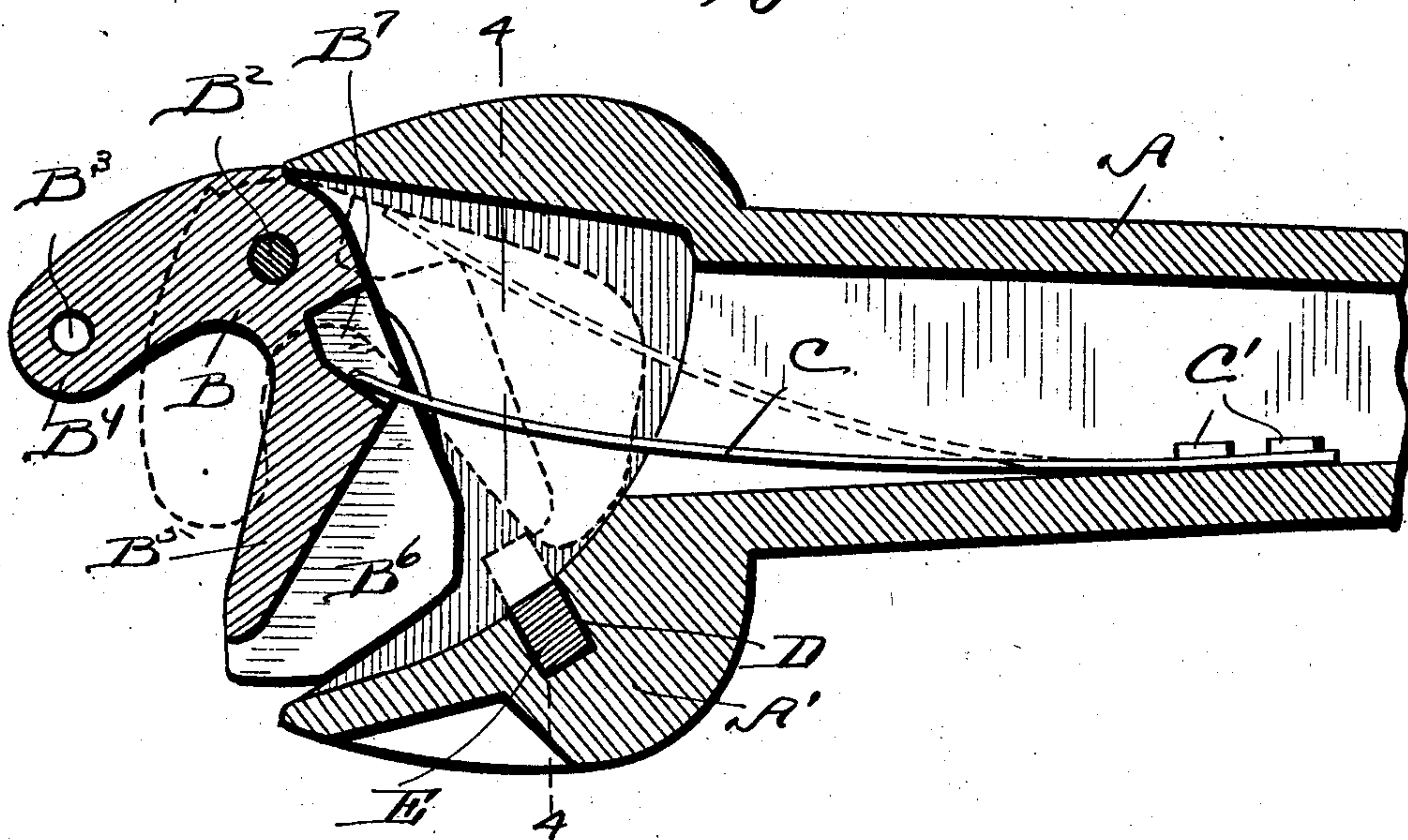


Fig. 4.

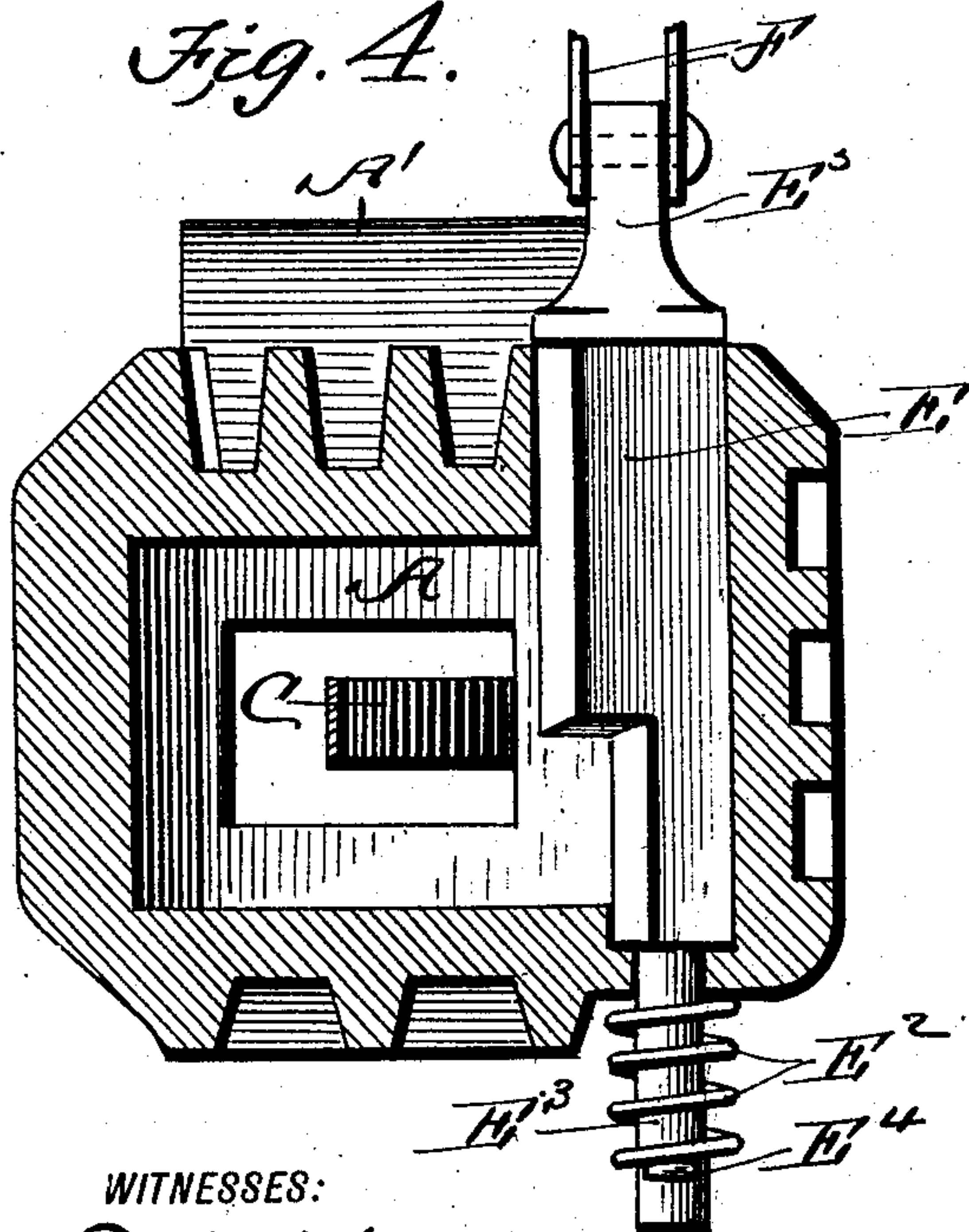
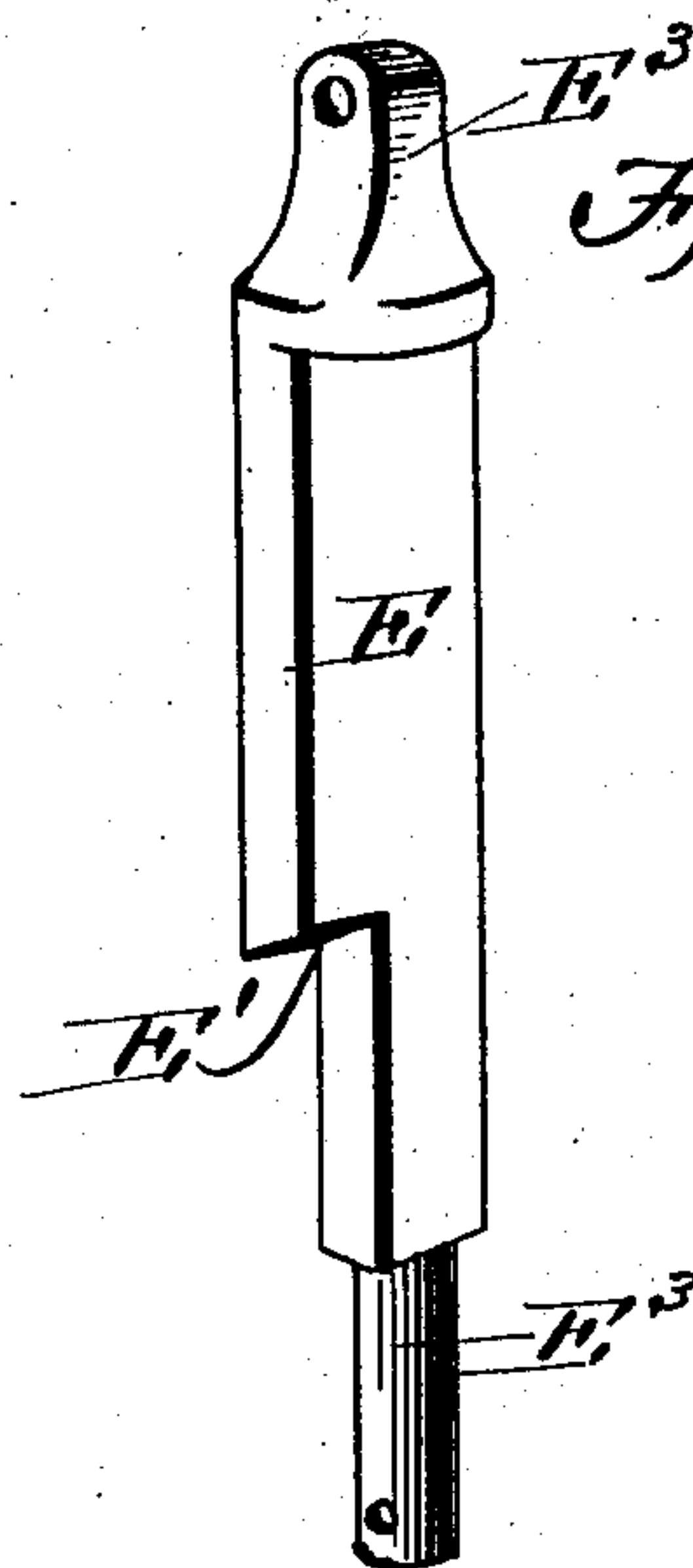


Fig. 5.



WITNESSES:

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CAR-COUPLING.

No. 841,927.

Specification of Letters Patent.

Patented Jan. 22, 1907.

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To all whom it may concern:

Be it known that I, MARK ANTHONY BROWN, a citizen of the United States, residing at Savannah, in the county of Chatham and State of Georgia, have invented a new and useful Car-Coupler, of which the following is a specification.

My invention relates to certain new and useful improvements in car-couplers of the automatic type, and especially to improvements over my coupler shown and described in United States Letters Patent No. 691,019, and has for its object to improve the general construction of the draw-head, knuckle, locking-pin, and lift-lever.

Another object of my invention is to provide a coupler which will be perfectly automatic in operation and one that is connected to the lift-lever by a chain, so that in case the coupler is drawn out by accident it will be suspended above the track, thus preventing the wrecking of the train by the coupler falling on the track; and a still further object of the invention is to provide a knuckle operated by a flat spring of such a length that the locking-pin can be located on the opposite side from the knuckle, preventing the knuckle of the other car from wedging in between points of the knuckle and coupling-heads, thereby overcoming the difficulties that often occur with other couplings of becoming wedged, so that they cannot be separated until they are smashed up.

A further object of my invention is to provide a coupling that can be coupled with both couplers open and with certainty and safety on curves and one that the tail-pin can be taken out without interfering with the locking device, as the locking-pin is located to one side of the coupler and is secured therein, so that it can be removed easily and quickly.

With these objects in view the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described, and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view of the coupler, showing it attached to the car. Fig. 2 is a side view showing one draw-head being withdrawn from its place and the lift-lever just starting to raise the coupler. Fig. 3 is a longitudinal section of the same.

Fig. 4 is a sectional view on the line 4 4 of Fig. 3, and Fig. 5 is a perspective view of the locking-pin removed.

Referring to the drawings, A indicates the hollow draw-bar provided with the coupling-head A' at its end projecting outwardly therefrom and adapted to register with a corresponding coupling-head carried by the other car. The coupling-head A' on one side is provided with outwardly-projecting lugs A² and between which the perforated lug B' of the knuckle B is secured by a vertical pin B², passing through the lugs A², and is provided with an opening B³ in the outer end B⁴, which is of the ordinary form of the automatic coupling.

Extending inwardly from the knuckle B is an arm B⁵, formed integral therewith and is provided with a downwardly and inwardly extending cam B⁶. The arm B⁵ is provided with a recess B⁷, in which the free end of the flat spring C, secured in the draw-head by bolts C', is adapted to fit and shove the knuckle open when released by the locking means. The other side of the coupling-head is provided with an opening D, in which the locking-pin E is adapted to work. The locking-pin is partly cut away and is provided with a beveled shoulder E', adapted to move upwardly on the cam B⁶ and to be drawn downwardly by the coil-springs E², surrounding the projecting end E³ of the pin E and secured thereon by a pin E⁴ after the high portion of the cam has passed over and securely locks the knuckle. The pin is provided with a perforated head E⁵, having chains F connected thereto.

Secured in the bearings G and G', carried by the car, is a rocking shaft I, provided with the arms I' and I² and the handle I³. The arm I' is connected to the chains F, carried by the pin, so that when the shaft is rocked by the handle the pin will be lifted, allowing the knuckles to swing outwardly.

The arm I² is provided with a chain I⁴, the other end of which is connected to the coupling-lever, so that the head will be supported if accidentally detached.

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

1. A coupling device comprising a hollow draw-bar, provided with a coupling-head, at one end, a knuckle pivoted to one side of the

head provided with an arm having a cam-surface, a flat spring secured in the draw-head, the front end of which rests in a recess in said arm, a spring-actuated locking-pin
5 provided with a beveled shoulder working through an opening in the other side of the coupling, and a shaft provided with outwardly-extending arms, one of the arms being connected to the locking-pin, and the
10 other to the coupling-head, and a handle for rotating the shaft, for the purpose described.

2. In a device of the kind described, the

combination with a draw-bar, having a coupling-head at one end, of a spring-actuated knuckle provided with a cam-arm, secured to
15 one side of the head, a spring-actuated pin provided with a beveled shoulder, working in an opening in the other side of the head, and a shaft carried by the car connected to said pin and head, for the purpose described.

MARK ANTHONY BROWN.

Witnesses:

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