

(No Model.)

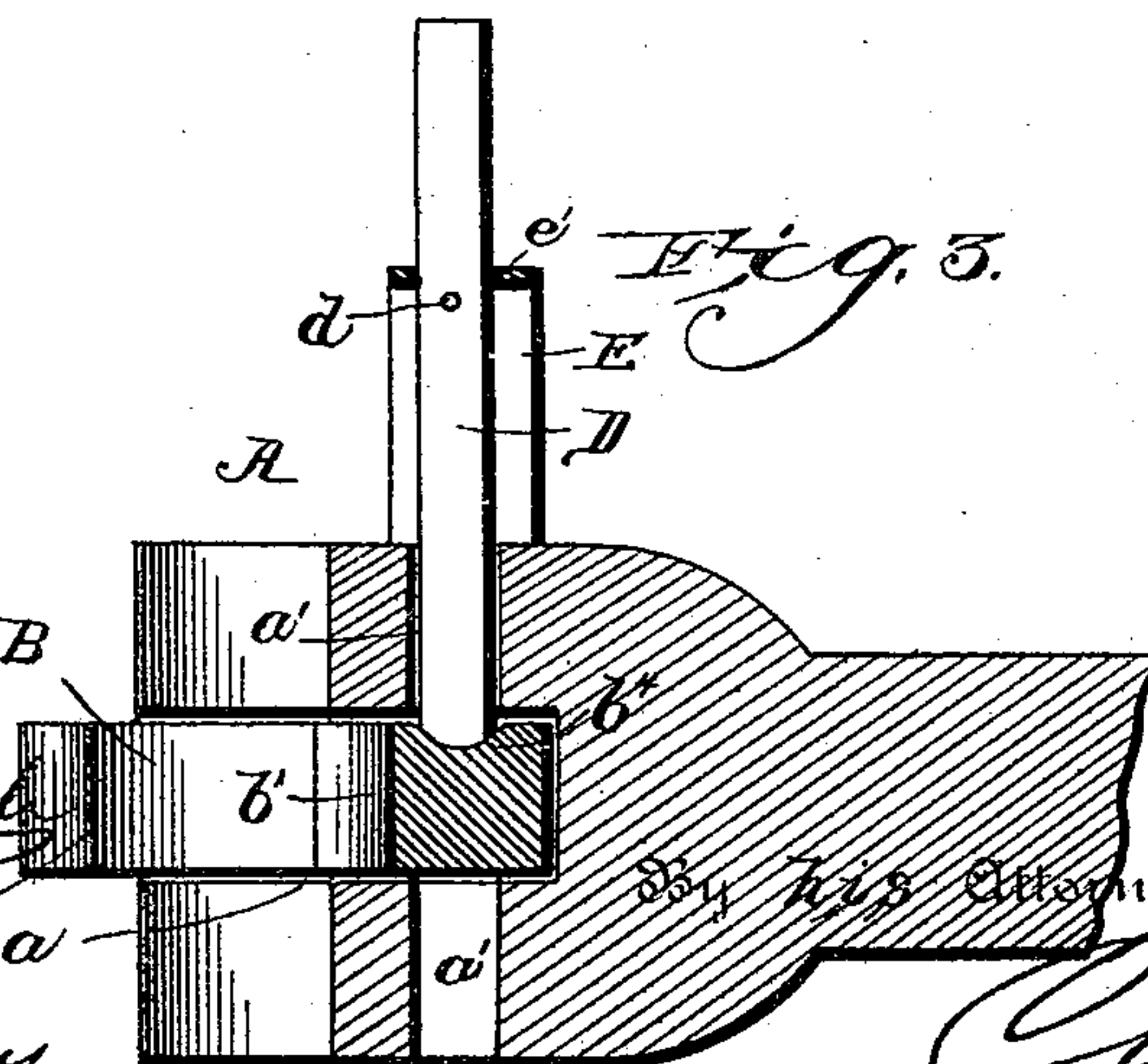
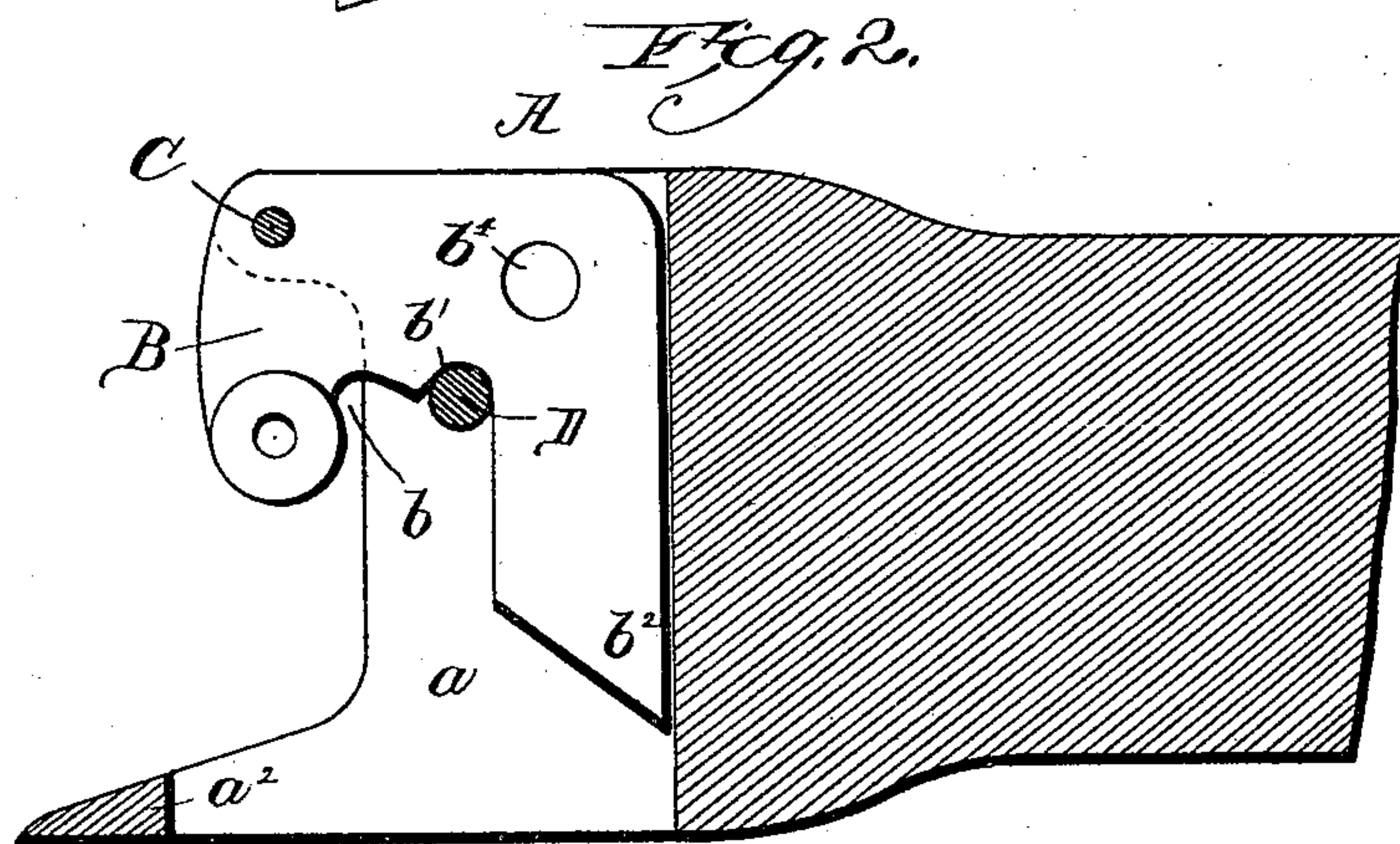
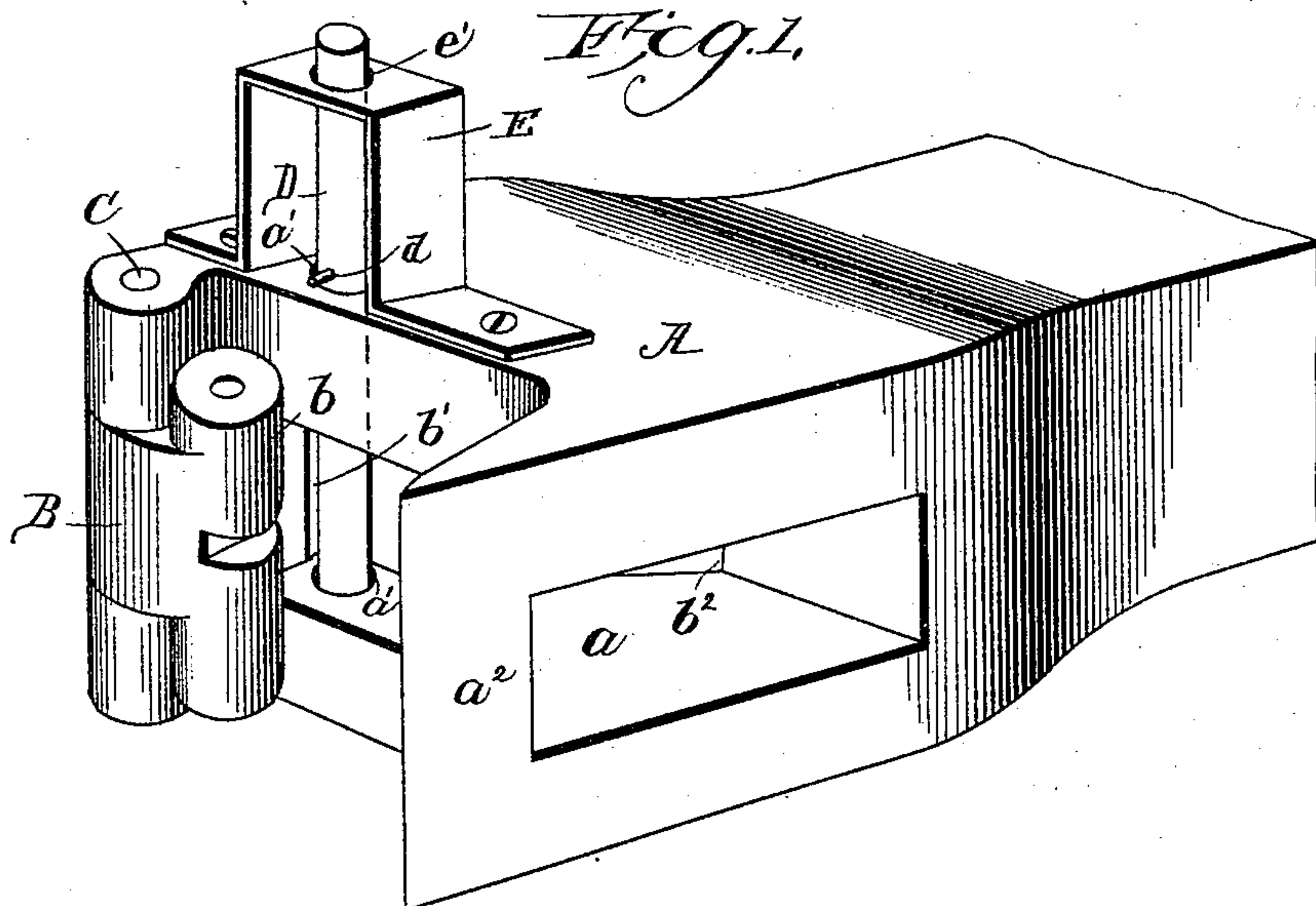
2 Sheets—Sheet 1.

D. Y. WILSON.

CAR COUPLING.

No. 396,447.

Patented Jan. 22, 1889.



Witnesses,  
*Henry G. Dieterich*  
*J. F. Riley*

Inventor  
*David Y. Wilson,*

By *his* Attorneys

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(No Model.)

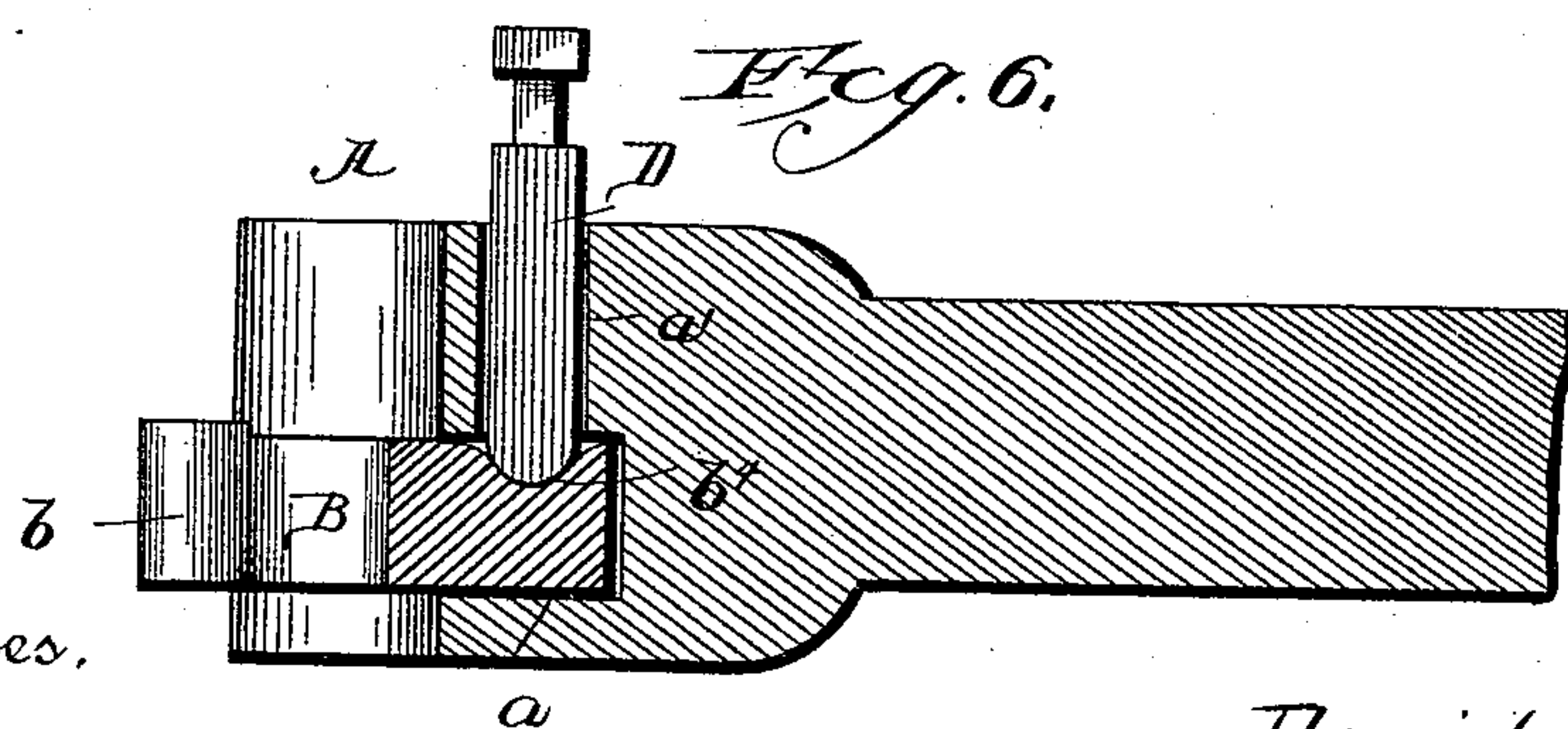
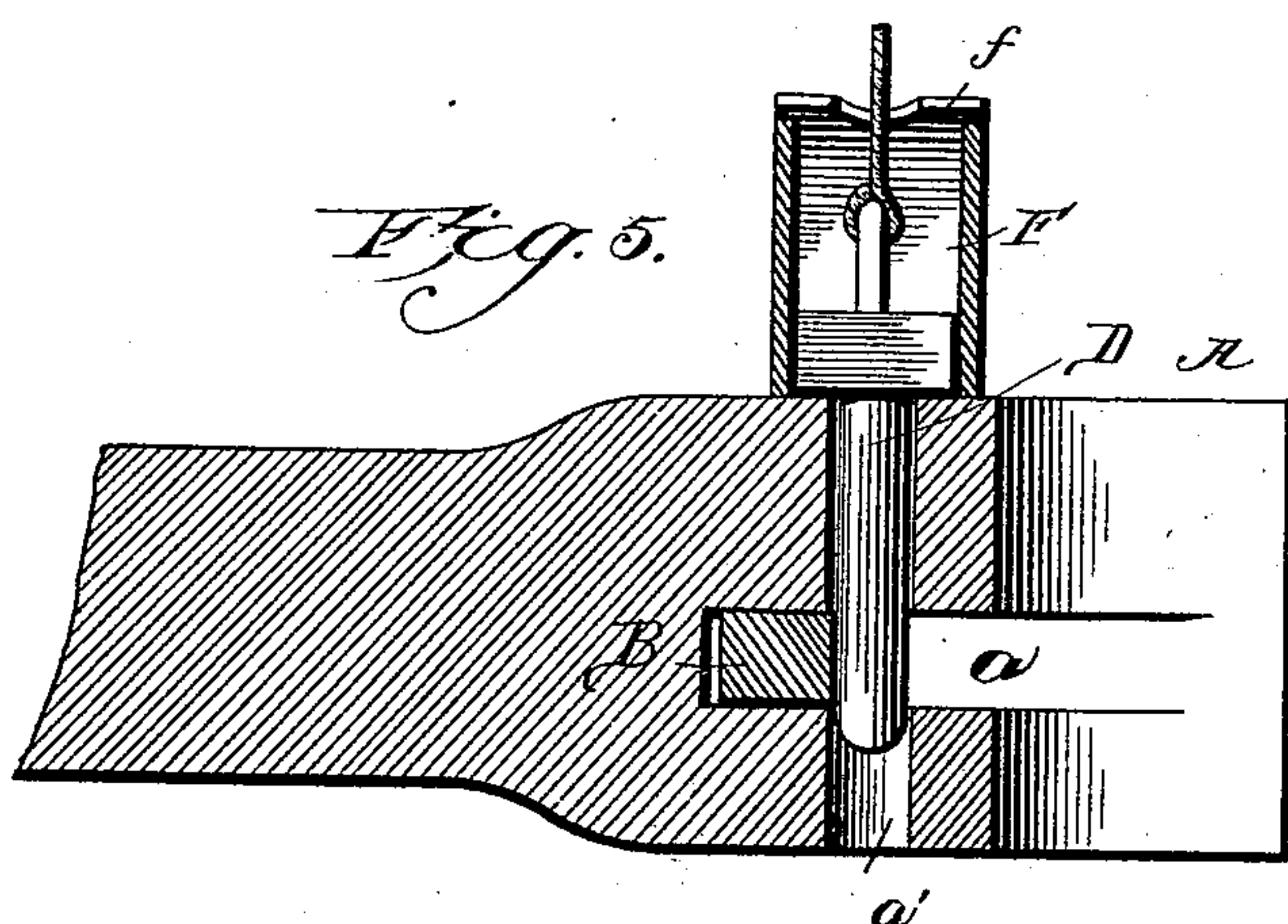
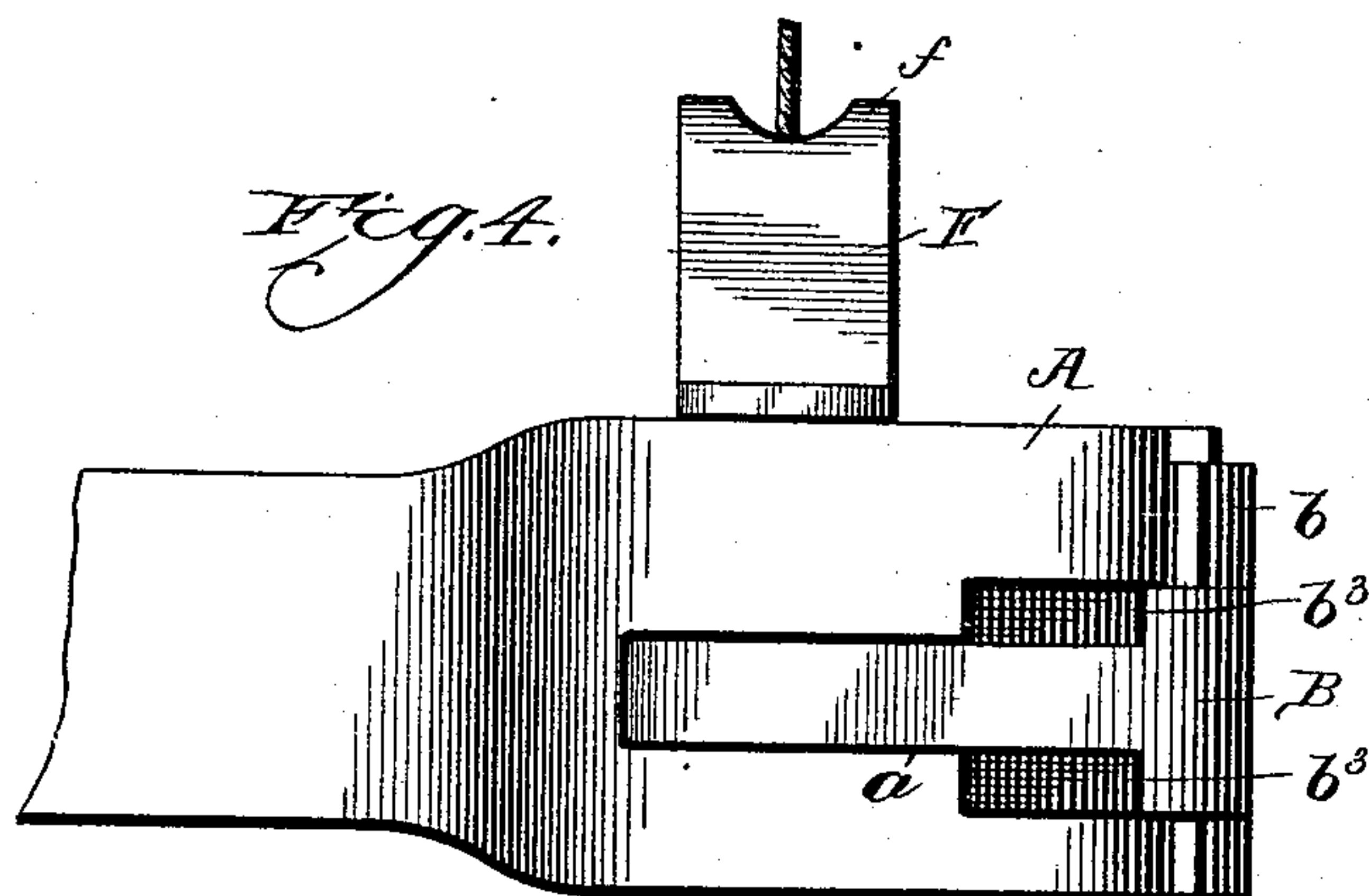
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*C. A. Snow & Co.*



# UNITED STATES PATENT OFFICE.

DAVID Y. WILSON, OF GUM TREE, ASSIGNOR OF ONE-HALF TO ADAM P. REID, OF PARKESBURG, PENNSYLVANIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 396,447, dated January 22, 1889.

Application filed June 4, 1888. Serial No. 276,001. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID Y. WILSON, a citizen of the United States, residing at Gum Tree, in the county of Chester and State of Pennsylvania, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

The invention relates to improvements in car-couplings.

10 The object of the present invention is to simplify and improve and cheapen the construction of twin-jaw car-couplings and render the operation of coupling more positive and reliable.

15 The invention consists in the novel combination and arrangement of the parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

20 In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention and illustrating the position of the parts when coupled. Fig. 2 is a horizontal longitudinal sectional view of the coupling shown in Fig. 1. Fig. 3 is a vertical longitudinal sectional view showing the coupling-pin elevated and the position of parts preparatory to coupling. Fig. 4 is a side elevation of a modification of the invention. Fig. 5 is a vertical longitudinal sectional view showing the construction of the casing, which prevents the pin being separated from the coupler-head. Fig. 6 is a vertical longitudinal sectional view of a modification of the invention, in which a square coupling-pin is employed.

30 A designates a coupler-head adapted to be secured to the draw-bar of a car, and provided in its forward or outer end with a transverse opening, *a*, in which is hinged a locking-tongue, B, by means of a pintle, C, which passes through the parts at one corner of the coupler-head A.

40 The locking-tongue B has its portion that lies forward of the pintle C formed into a hook, *b*, which is designed to engage a twin tongue of a similar coupling on the adjacent end of another car when it is desired to couple two cars. The portion which lies back of the pintle C, and which is within the transverse opening *a* of the coupler-head A, is

curved and is flat upon its upper face to provide a support for the coupling-pin D to hold said pin in an elevated position preparatory to coupling. The flattened portion of the locking-tongue is provided with a concavity, *b*<sup>4</sup>, which forms a pin-seat, and the pin when elevated bears upon the locking-tongue, which is held steady and is prevented from shaking and moving from side to side when uncoupled.

60 The coupling-pin D, which may be constructed either circular or square in cross-section, as I have illustrated in the drawings, passes through the pin-holes *a'*, formed in the coupler-head A, and when the cars are coupled it also rests in a pin-notch, *b'*, formed in the front edge of the rear portion of the locking-tongue B. These pin-holes *a'* and the pin-notch *b'* conform to the configuration of the coupling-pin D and are constructed either square or round, as a square or round pin is employed.

70 The coupling-pin D is held in an elevated position preparatory to coupling, in which position it rests upon the rear portion of the locking-tongue, which forms a gravity-support, and when two cars come together the rear portion of the locking-tongue B is forced backward, and the support being withdrawn from the pin D the pin falls in front of the rear portion of the locking-tongue in the pin-notch *b'* and prevents forward motion of the same. Simultaneously with the backward motion of rear portion of the locking-tongue the hook is thrown inward and engages a similar hook on the adjacent car, whereby the cars are coupled.

80 To prevent the rear portion of the coupling-tongue B coming too far forward and allowing the coupling-pin to drop behind it, the rear portion may be elongated, and the extreme end, *b*<sup>2</sup>, comes in contact with the portion *a*<sup>2</sup>, the front wall of the transverse opening of the coupler-head. The portion *a*<sup>2</sup> closes the transverse opening *a* in the coupler-head A and limits the forward motion of the rear portion of the locking-tongue B.

90 Instead of increasing the length of the rear portion of the locking-tongue B, the forward portion or hook, *b*, may be constructed to form the shoulders *b*<sup>3</sup>, which strike against the side of the coupler-head and prevent a too-far-



forward motion of the rear portion of the locking-tongue.

The coupling-pin D is retained in position and prevented separating from the coupler-head by providing a pin which passes through the coupling-pin and projects upon both sides and lies across the pin-opening  $a'$  to keep the coupling-pin from falling through. A guard, E, consisting of a piece of metal bent into approximately U shape, and having its ends turned outward to provide means for securing it to the coupler-head A, is placed in position, and the top of the pin rests and is steadied in an opening,  $e'$ , formed in the top of the guard E, and the pin  $d$  prevents the withdrawal of the coupler D.

I have illustrated in Figs. 4 and 5 of the accompanying drawings a coupling-pin having a square head, which slides up and down in a rectangular casing, F, that is secured to the top of the coupling-head A. The upper edges,  $f$ , of the casing are bent over to keep the coupling-pin D within it.

From the foregoing description and the accompanying drawings the construction, operation, and advantages of the invention will readily be seen, and I desire it to be understood that I do not limit myself to the precise details of construction herein shown and de-

scribed, as I may, without departing from the spirit of the invention, make any minor changes therein.

Having described my invention, I claim—

In a locking mechanism for car-couplings, the combination, with a coupler-head provided with a transverse opening and a locking-tongue in the transverse opening, and limited in its forward movement by the front wall thereof, and having its rear portion flattened to afford a gravity-support, and provided upon its upper face with a concavity forming a pin-seat and on its front edge with a pin-notch, of a coupling-pin adapted to be supported by the rear portion of the locking-tongue and rest in the said concavity, forming a pin-seat to hold the locking-tongue in the proper position preparatory for coupling, and fall in front of said tongue in the pin-notch when the support is withdrawn, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DAVID Y. WILSON.

Witnesses:

J. H. SIGGERS,  
E. G. SIGGERS.