

(No Model.)

2 Sheets—Sheet 1.

W. H. BOVEE.

## CAR COUPLING.

No. 368,184.

Patented Aug. 16, 1887.

FIG. 1.

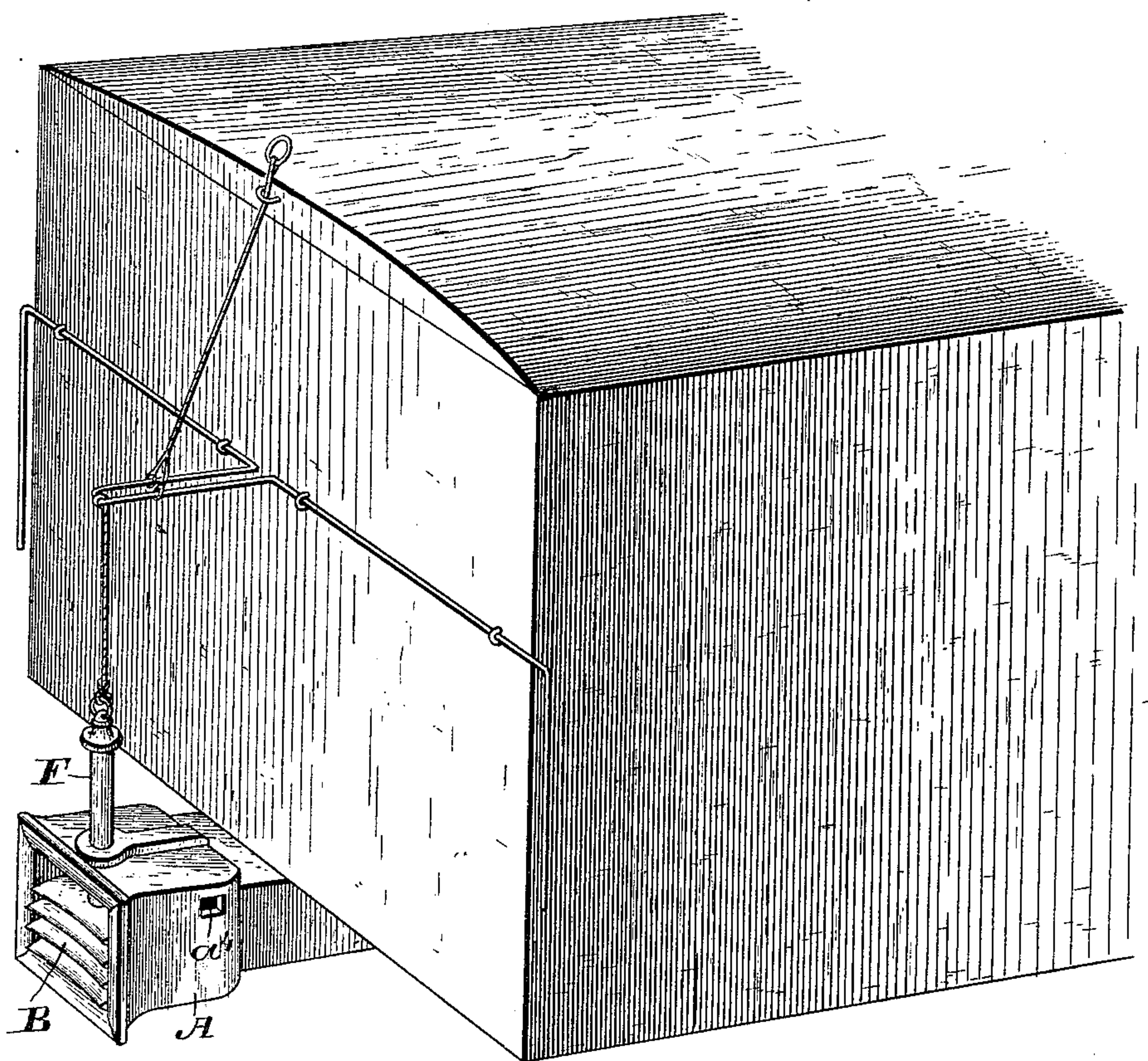
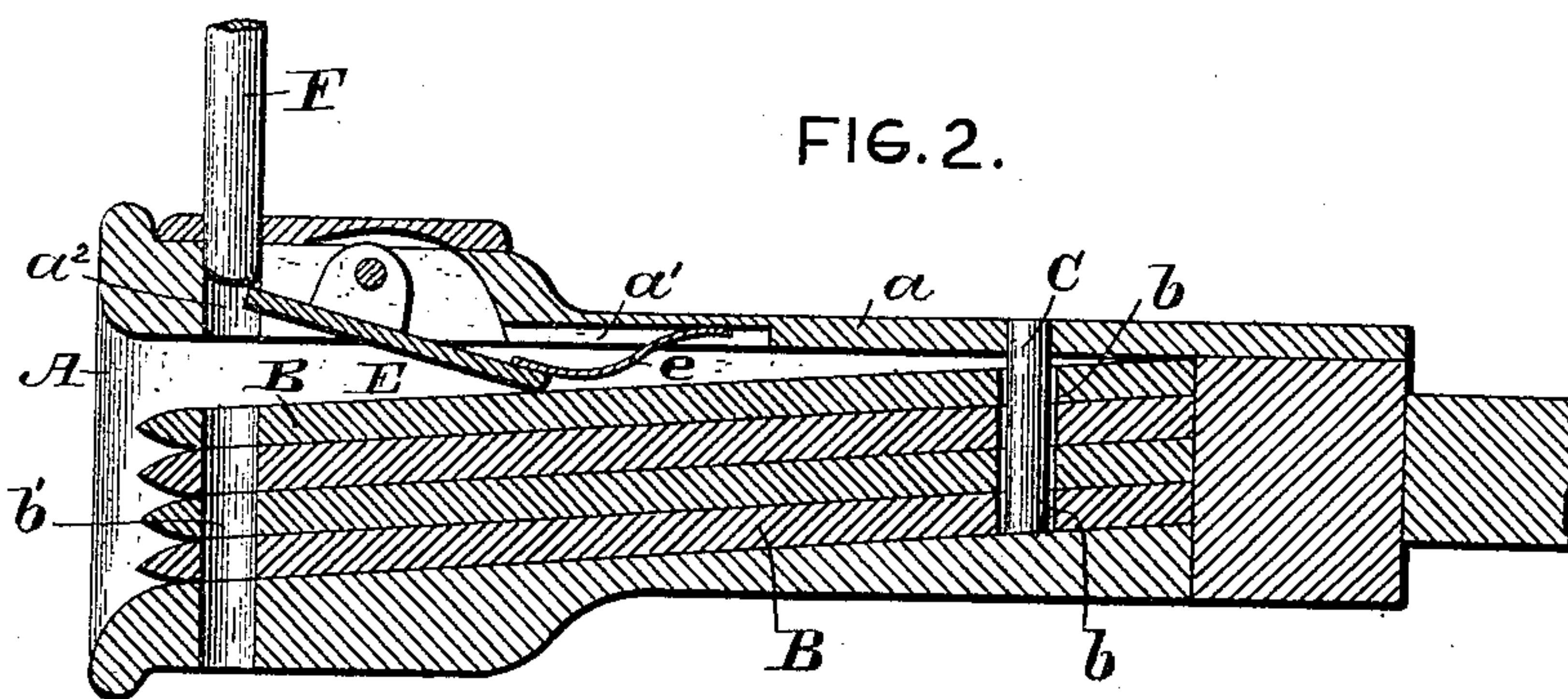


FIG. 2.



ATTEST.

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(No Model.)

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FIG. 3.

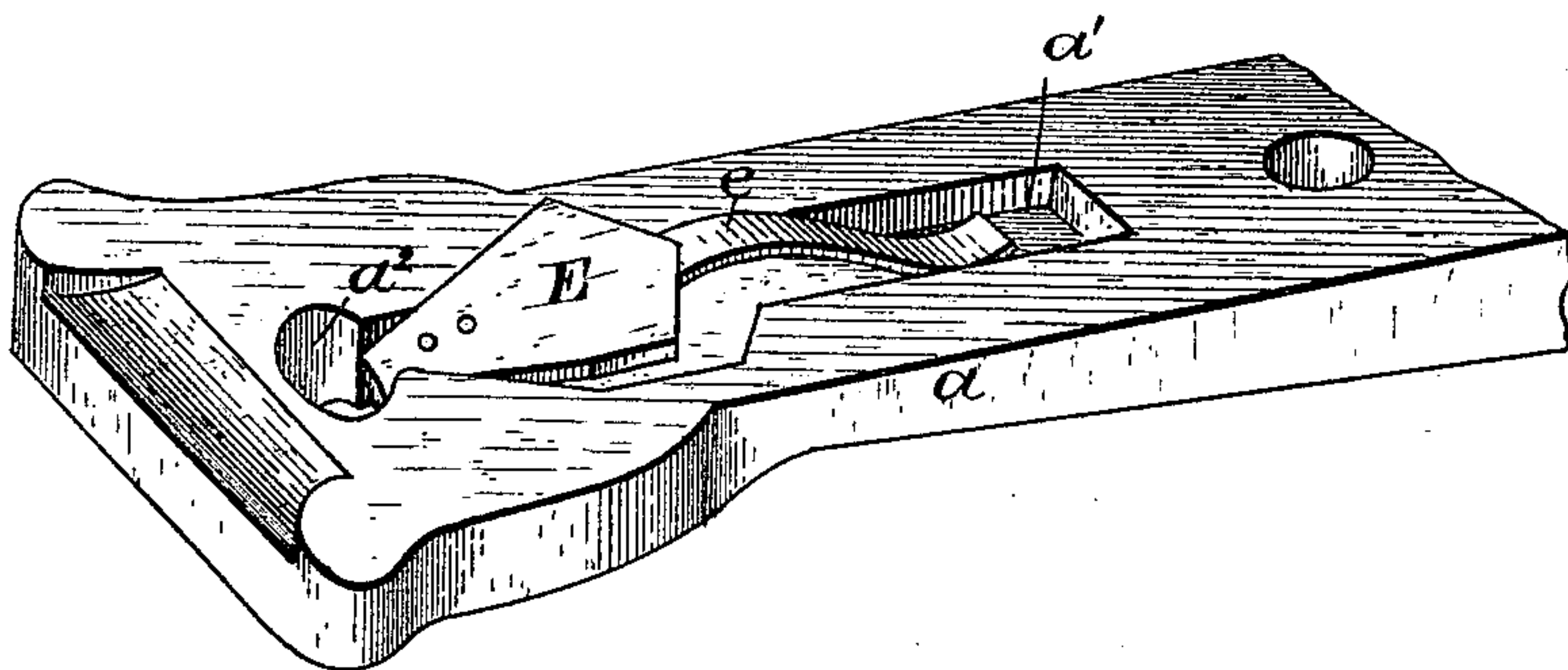


FIG 4

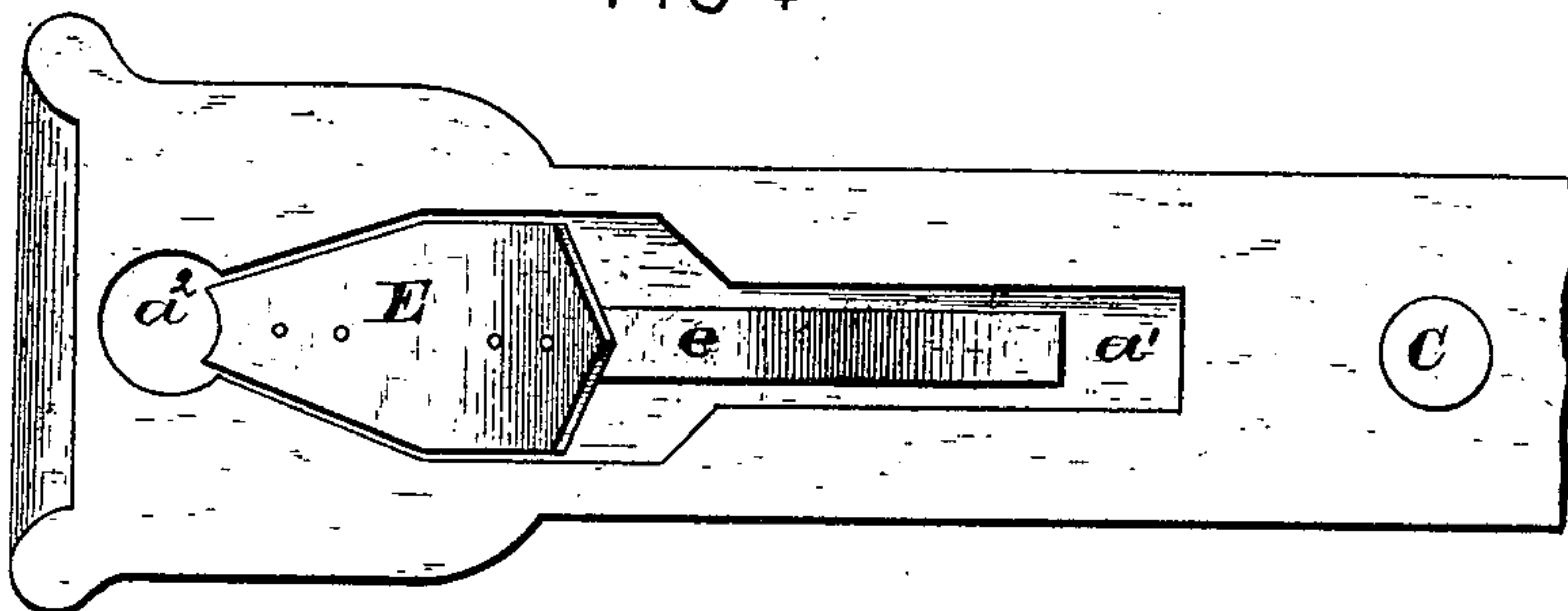
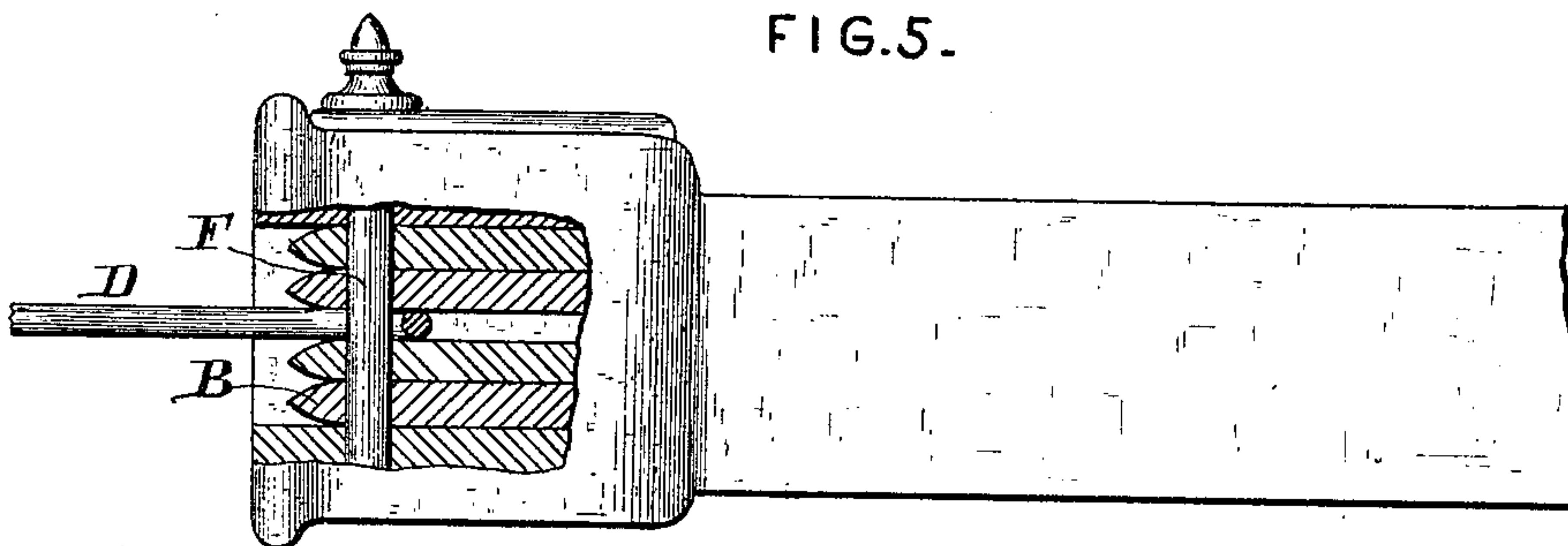


FIG. 5.



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# UNITED STATES PATENT OFFICE.

WALTER H. BOVEE, OF WILLIAMSPORT, PENNSYLVANIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 368,184, dated August 16, 1887.

Application filed December 6, 1886. Serial No. 220,825. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER H. BOVEE, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and I do hereby 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of this device in readiness for use. Fig. 2 is a longitudinal vertical section of Fig. 1; Fig. 3, a detail in perspective showing the under side of the top piece of the draw-head, with the pin-support and spring. Fig. 4 is a plan view of the under side of the top piece; Fig. 5, a side elevation, partly in section, showing the coupling-link in position in the draw-head, with the pin passing through one end of it and the front ends of the hinge-plates inside of it.

This device belongs to that class of inventions known as "car-couplers;" and the novelty consists, in general, in such construction of the draw-head as will adapt it to receive the coupling-link of cars where the draw-head is lower or higher or on the same level with the car to which my invention is applied, and also in the special construction which provides for the automatic release of the coupling-pin when the link has entered the draw-head, and in the construction and combination of the several parts, all as will now be more fully and specifically set out, reference being had to the accompanying drawings.

In the drawings, A denotes the draw-head, which, so far as the shell is concerned, may be of any usual or ordinary construction. Within this draw-head the horizontal plates B are pivoted, by means of the vertical pin C, toward the rear of the draw-head, and this is accomplished by means of the hole or slot *b*, near the inner end of each plate. By means of this each plate is placed upon said pin; but the hole *b*, being of somewhat larger diameter than the pin, a considerable vertical movement of the front end of each plate will be allowed. The front end of each plate is curved

and cut away or beveled on each side, so as to afford between each pair of plates a guideway for the coupling-link D to enter. There may be as many of these plates B inside each draw-head as may be desired; but ordinarily four of these plates will be sufficient, because in this way the usual range of difference in the heights of the draw-heads of the different cars now made will be provided for.

On the under side of the top part or lid, *a*, of the draw-head A is pivoted the supporting-piece E, to which the spring *e* is attached, the rear free end of which spring has play in the recess *a'* in the under side of this lid or top piece. This supporting-piece is placed in such relation to the pin-hole *a''* in the front end of this piece that in its normal position its front end will be projected by means of its spring partially beneath the pin-hole *a''*. Upon this projecting end of the supporting-piece the coupling-pin F will be supported prior to the coupling. In the act of coupling the link enters between any of the pairs of hinge-plates, or between the upper hinged plate or leaf and the upper lid of the draw-head, and thus raises all the plates above it, and so the upper one of these plates acts upon the under side of the supporting-piece E, and, raising its rear end up into its recess or socket *a'* in the under side of the lid and flattening its spring, serves to retract its projecting end from the pin-hole, and the coupling-pin thereupon, being released, falls into and through the holes *b'* of the hinged plates.

Through the horizontal opening *a'* from side to side in the front end of the draw-head the position of the pin and its supporting-piece may, when desired, be easily seen. It is not absolutely necessary that the front and double-beveled ends of the hinged plates shall be curved; but ordinarily this will be found the most usable form.

The simplicity of the structure of this device is one of its essential points of excellence, because thereby it can be easily and cheaply made and is not likely to get out of repair. It is found as a matter of experience in practical use that the device is very effective in accomplishing the ends for which it is designed.

Having thus described my invention, what I claim is—

1. The draw-head provided with the hinged

plates having pin-holes near their front ends, and a hinged and spring pin-support on the under side of its top or lid, substantially as and for the purposes set forth.

5 2. In a draw-head, substantially as described, the top lid having on its under face a recess or socket and pivoted therein, and a hinged and spring pin-support, substantially as and for the purposes set forth.

10 3. In a draw-head provided on the under side of its lid with a hinged and spring pin-support, a series of leaves hinged at their rear end, each having a pin-hole near their front ends, the edges of each plate being double-  
15 beveled, all substantially as described.

4. The draw-head A, having the pin-hole  $a^2$

near its front end, leaves or plates B, hinged inside at their rear ends, their front ends being double-beveled, combined with the pin-support E, pivoted near its front end in a 20 socket or recess in the lid of the draw-head, and having a rearwardly-extending spring, e, playing in the socket  $a'$  in the under side of said lid, substantially as and for the purposes set forth.

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

WALTER H. BOVEE.

Witnesses:

CLINTON LLOYD,

THOMAS W. LLOYD.