

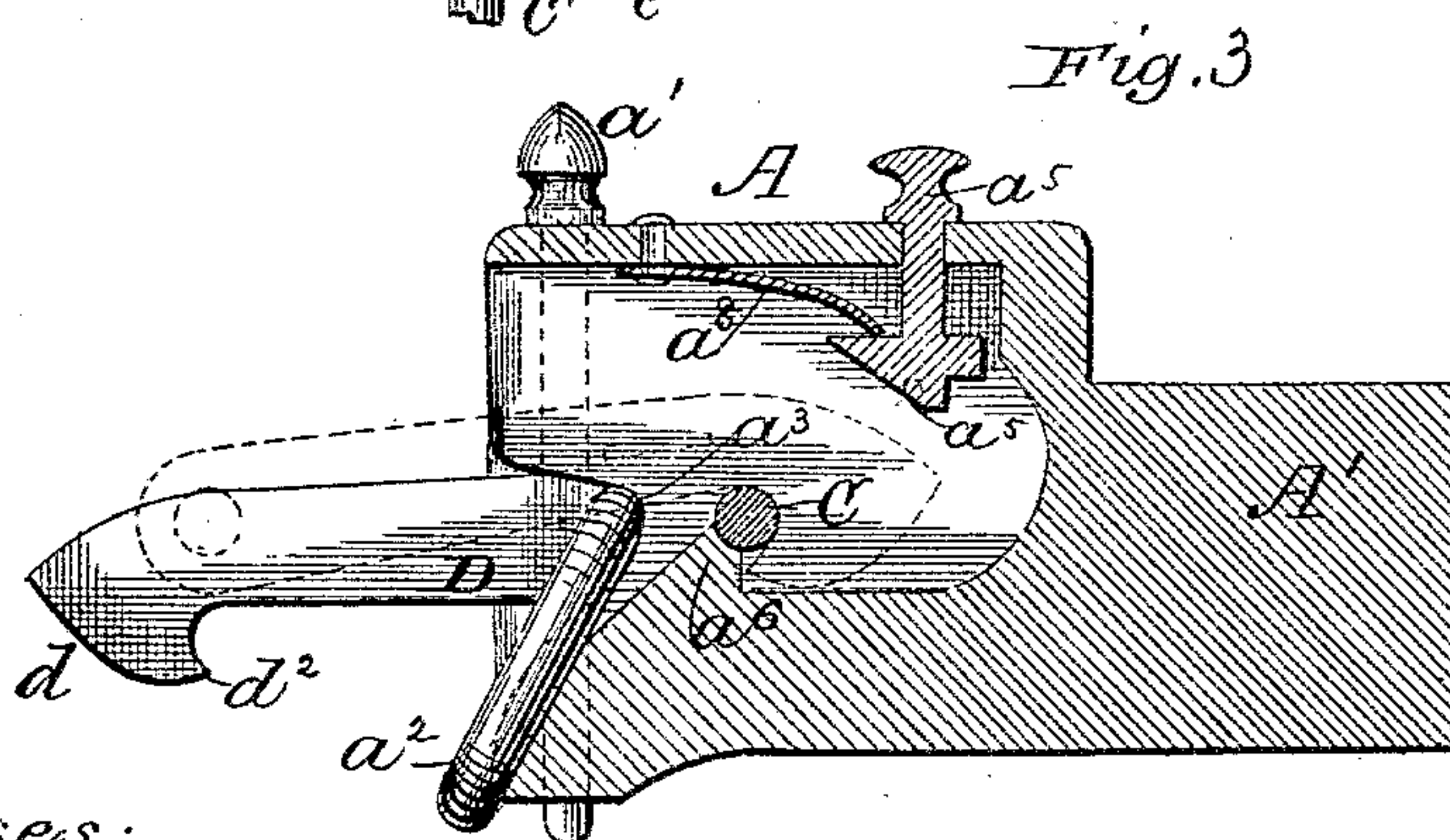
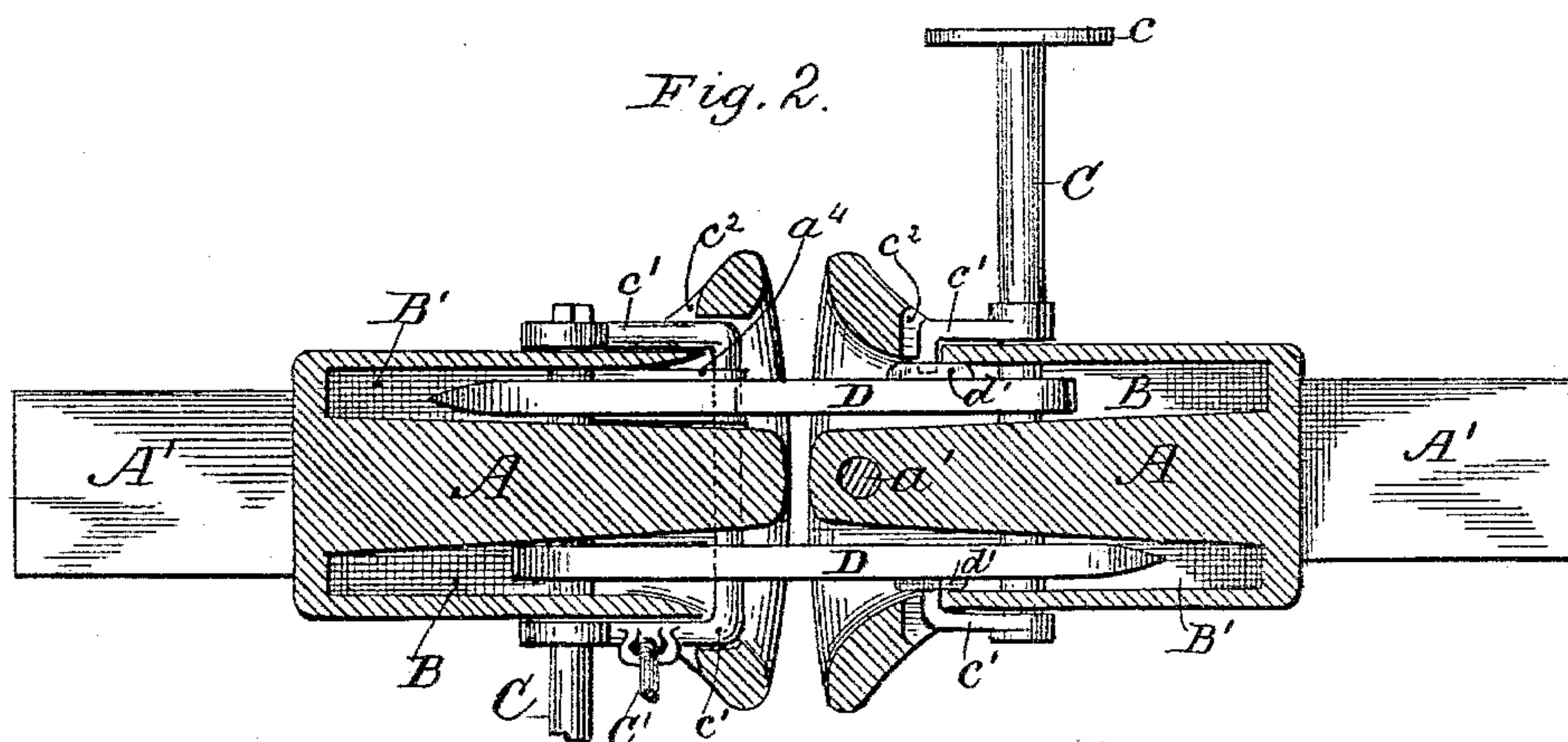
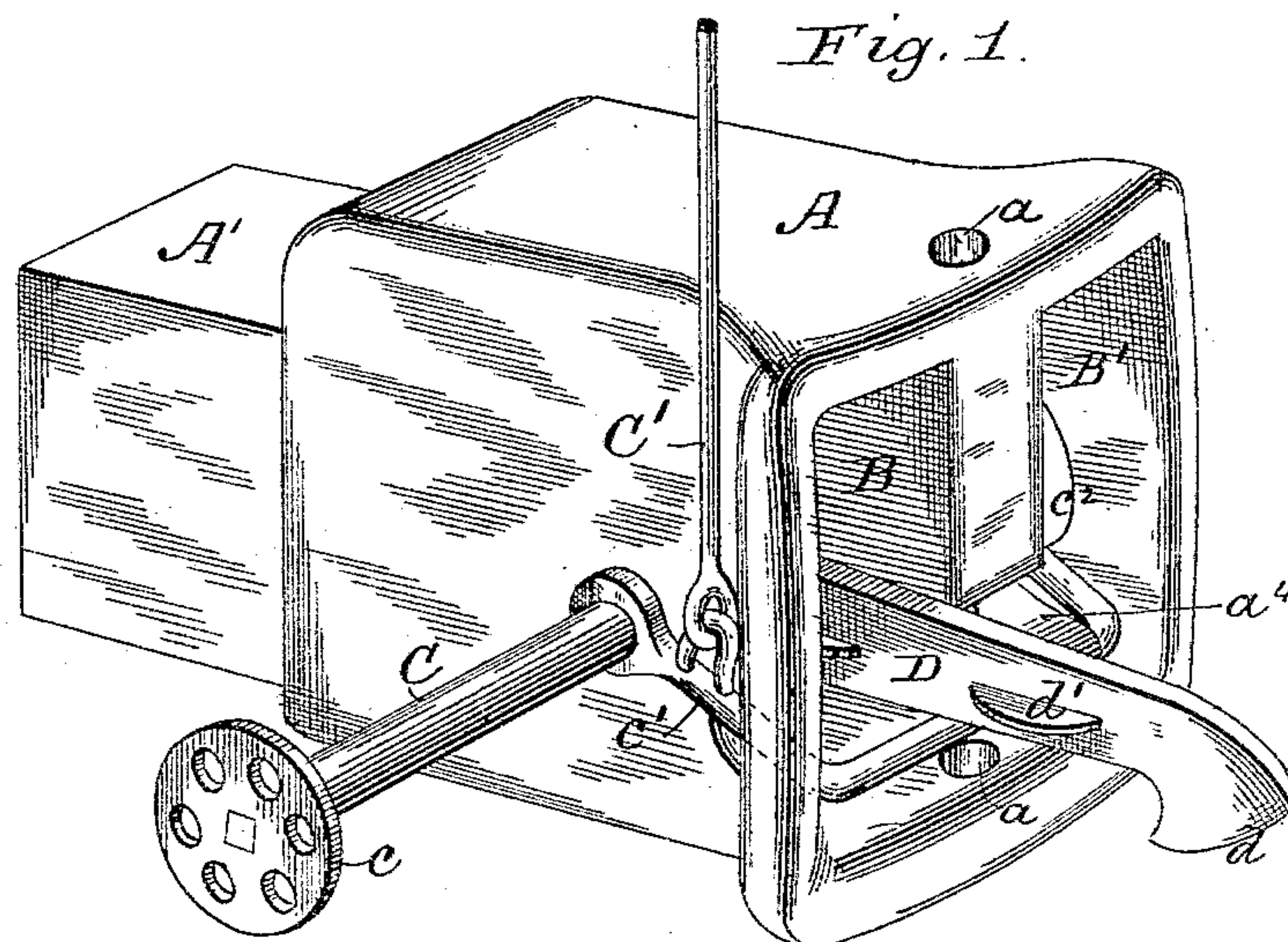
(No Model.)

H. T. BEAM.

CAR COUPLING.

No. 300,299.

Patented June 10, 1884.



Witnesses:  
L. C. Hills.  
E. E. Masson

Inventor:  
Henry T. Beam  
by E. E. Masson  
atty



# UNITED STATES PATENT OFFICE.

HENRY T. BEAM, OF ROBINSON, ILLINOIS, ASSIGNOR OF TWO-THIRDS TO  
WILLIAM C. JONES AND THOMAS ATEN, BOTH OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 300,299, dated June 10, 1884.

Application filed March 22, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY T. BEAM, a citizen of the United States, residing at Robinson, in the county of Crawford and State of Illinois, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

10 Figure 1 is a perspective of the draw-bar and self-coupler constructed in accordance with my invention. Fig. 2 is a horizontal section of two draw-bars provided with my improvement in couplers. Fig. 3 is a longitudinal vertical section of one of the draw-bars, the hook of the co-operating draw-bar being shown in dotted lines.

Like letters refer to like parts in all the figures.

20 A represents a coupling-head of any suitable draw-bar, as A', and it is divided into two compartments, B B', the central portion between them being perforated, as at a, for the passage of any ordinary coupling-pin, a', which may be used with an ordinary coupling-link, a'', which is passed back of the coupling-pin in a recess, a'', formed in the front edge of the partition. By the construction thus far described my coupler is adapted for use in connection with draw-bars of old style. Passing transversely through the walls of the coupler-head and through the partition is a shaft, C, provided with a hand-wheel, c, or it may be with any suitable crank or lever rigidly mounted thereon. In one of the compartments—as, for example, the compartment B—is a hook, D, mounted loosely upon the shaft C, and upon which shaft, outside of the head, is mounted an arm or arms, c', which is bent inwardly and projected into the compartments B B' and under the hooks in said compartments, so that by rotating the said shaft the hooks in each compartment may be disengaged in order to separate the cars from each other.

45 There being in each head a single hook projecting from one of its compartments, it will be seen that when two heads are brought opposite each other the hook of one compartment of each head will enter the vacant com-

partment of the opposite head, and the beveled point d of each hook will come against the shaft C, ride up and over the same, and then drop to place, thus connecting the two heads together through the medium of the hooks. So, also, as described, the rotation of the shaft and of the arms rigidly connected therewith serves to elevate the free ends of the hooks, so as to free them from the shafts and permit of the separation of the cars.

As shown in Fig. 1, a rod, C', may be connected pivotally with one of the arms c' and extended to the platform of a car or to its roof, whereby the shaft and its arms may be operated from these localities. As seen in the draw-head at the right of Fig. 2, the arms c' do not extend completely through the head, but only partially into the compartments thereof, where they come in contact with flanges or ribs d', formed on the outside of each of the links, whereby the hooks may be elevated, as above described. To permit the passage and operation of the arms c' in and across the compartments, a slot or opening, c'', is made through the flanged portion of the head.

If desired, there may be secured to that portion of the arm c' which comes beneath the hooks a metallic spring-finger or guide-pieces, a'', upon which the hook may ride in its passage over the shaft, and which will prevent the hook from catching on the arm c' as it is withdrawn from the head.

If desired, a spring-depressed latch, a'', having its front edge beveled, as shown in Fig. 3, may be suspended from the upper wall of the head in one or both of the compartments thereof. To maintain the latch in a depressed condition, a spring, a'', is secured to the inner upper surface of the compartment, with its free end resting upon a projection formed on the latch, (or the spring above may be used,) so that as the hook advances within the compartment over and back of the shaft C the spring-latch has a tendency to force it down and prevent it from reacting and escaping from the shaft. This feature is not absolutely essential to the operation of my invention, because each of the hooks D is given sharp positive undercut, so that its point D' projects



well under the shaft. It will be noticed that, as the strain comes ultimately upon the shaft, the solid portion of the head, as shown clearly in Fig. 3 at  $a^6$ , acts to re-enforce the shaft, 5 whereby great strength is secured.

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

1. The head A, having the passages leading 10 into the compartments B B' beveled upward, and the shaft C, passing therethrough, supported by the floor of the beveled passages, and adapted for engagement with the coupling-hook, in combination with a hook, D, 15 loosely mounted on the shaft C, and the arm or arms  $c'$ , rigidly mounted on said shaft and passing through the compartments, substantially as shown and described.

2. The combination of the shaft C, arms  $c'$ , and spring-finger or guides  $a^4$ , substantially 20 as shown and described.

3. The combination of the shaft C, and having arms  $c'$ , with hooks D, having the ribs or flanges  $d'$ , substantially as shown and described. 25

4. The combination of the head A, having the compartments B B', the hook D, and shaft C, with the latch  $a^5$  and spring  $a^8$ , substantially as shown and described.

In testimony whereof I affix my signature in 30 presence of two witnesses.

HENRY T. BEAM.

Witnesses:

E. E. MASSON,  
L. C. HILLS.