

No. 626,074.

Patented May 30, 1899.

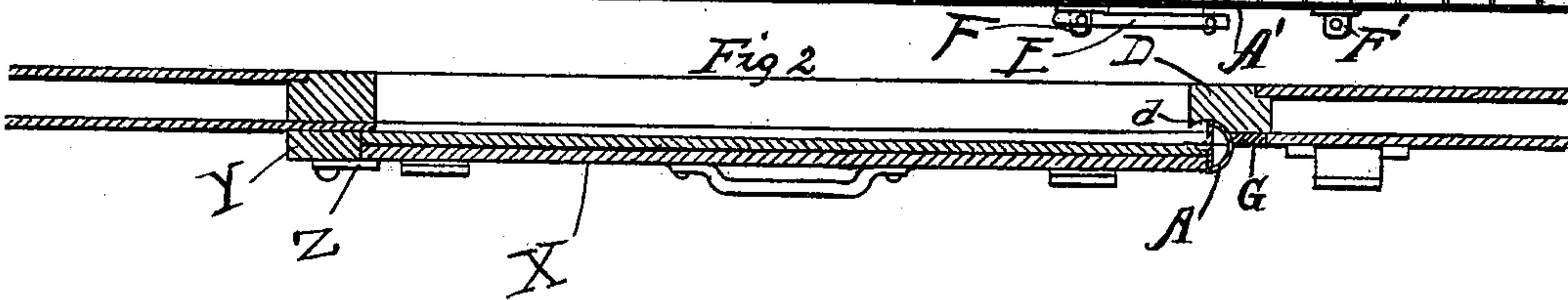
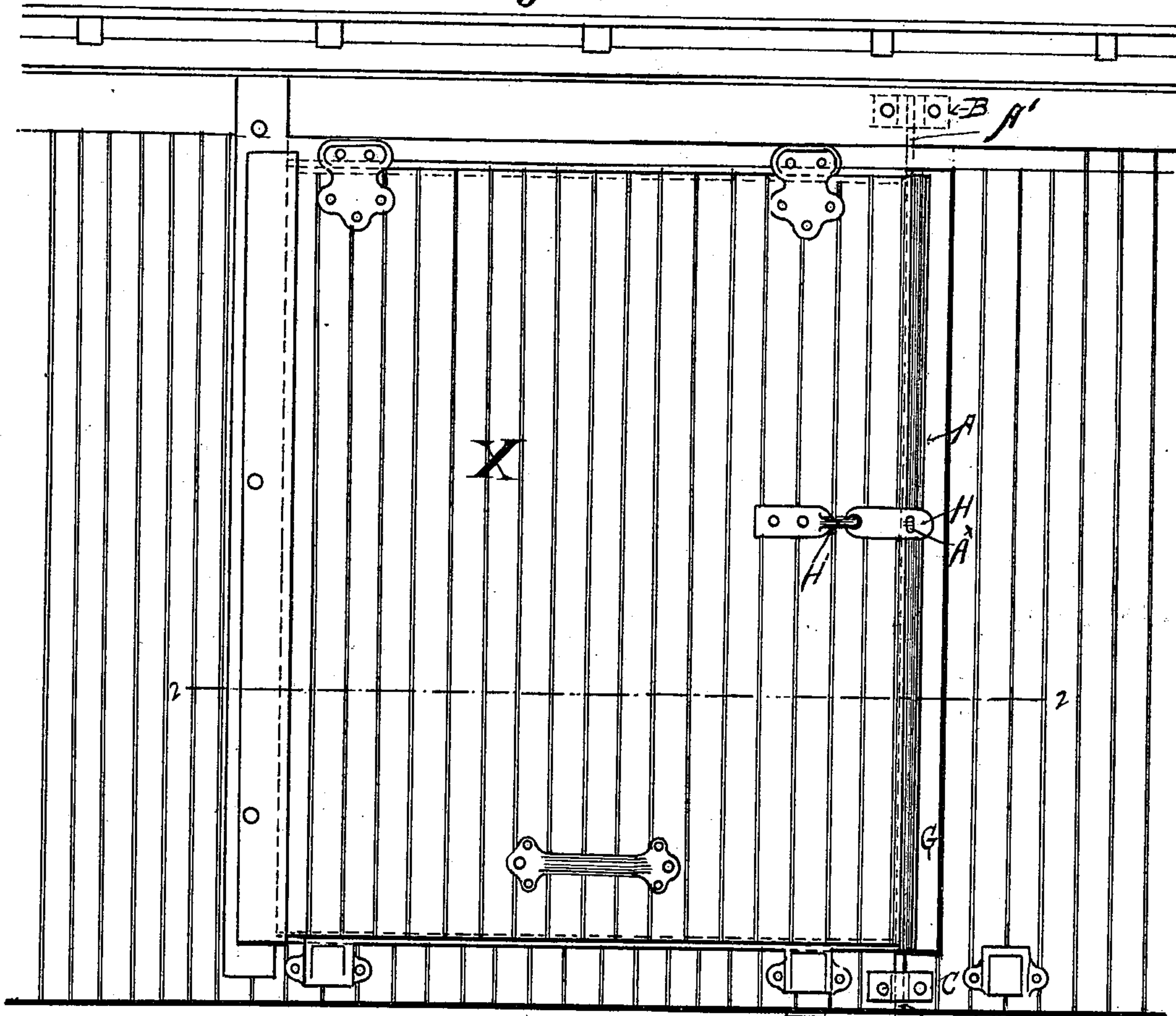
W. M. MILLER.
CAR DOOR CLEAT.

(Application filed Jan. 28, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



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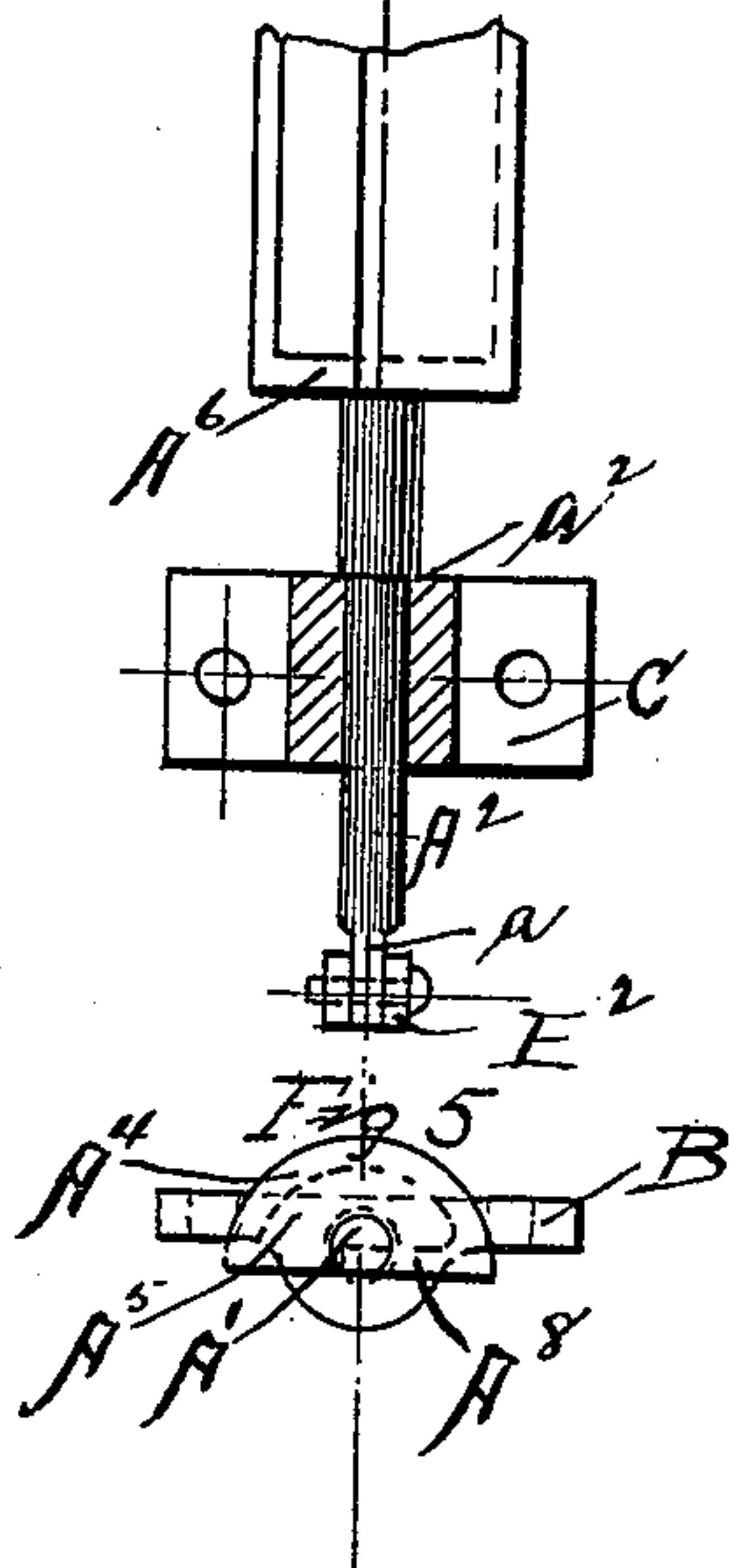
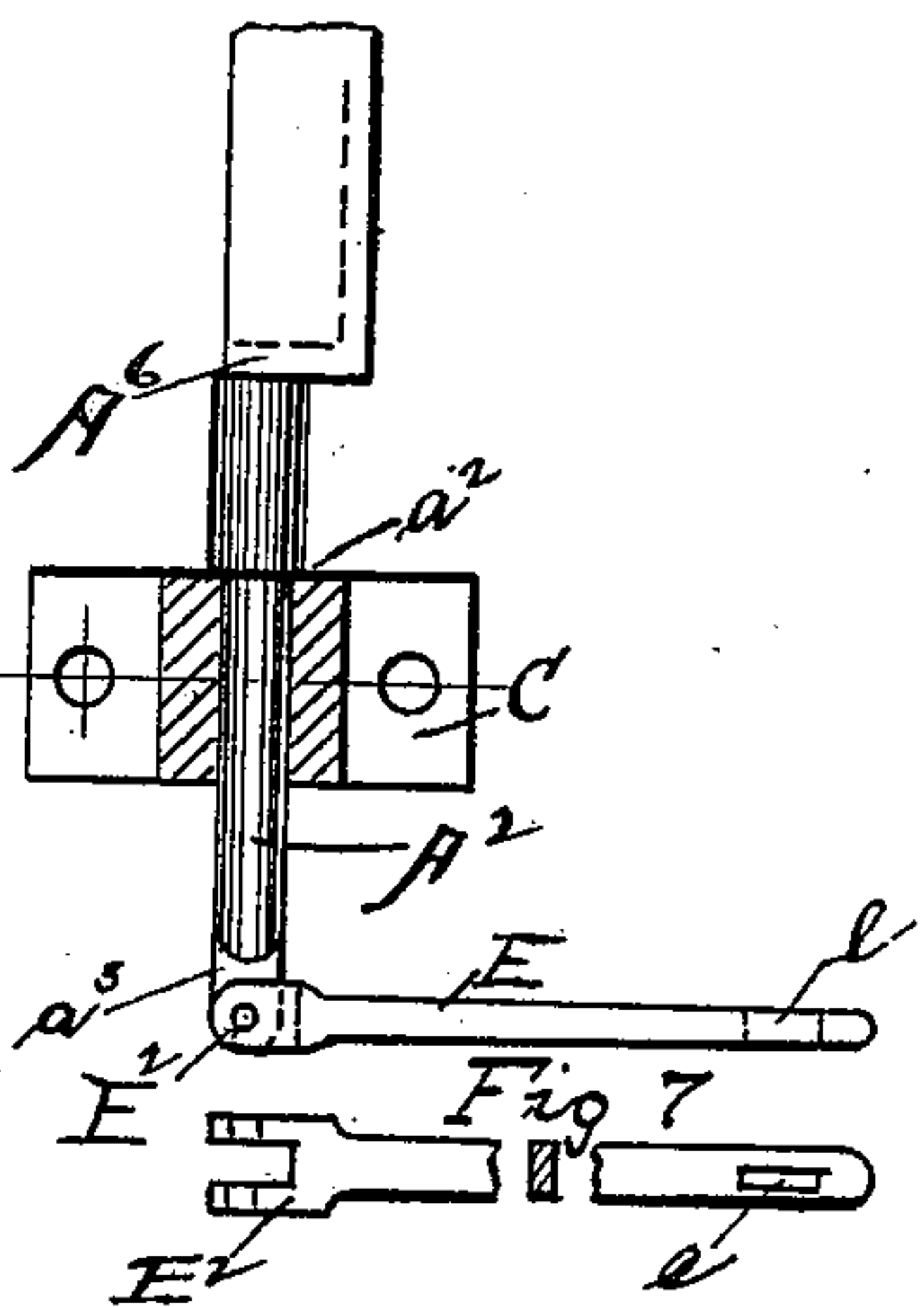
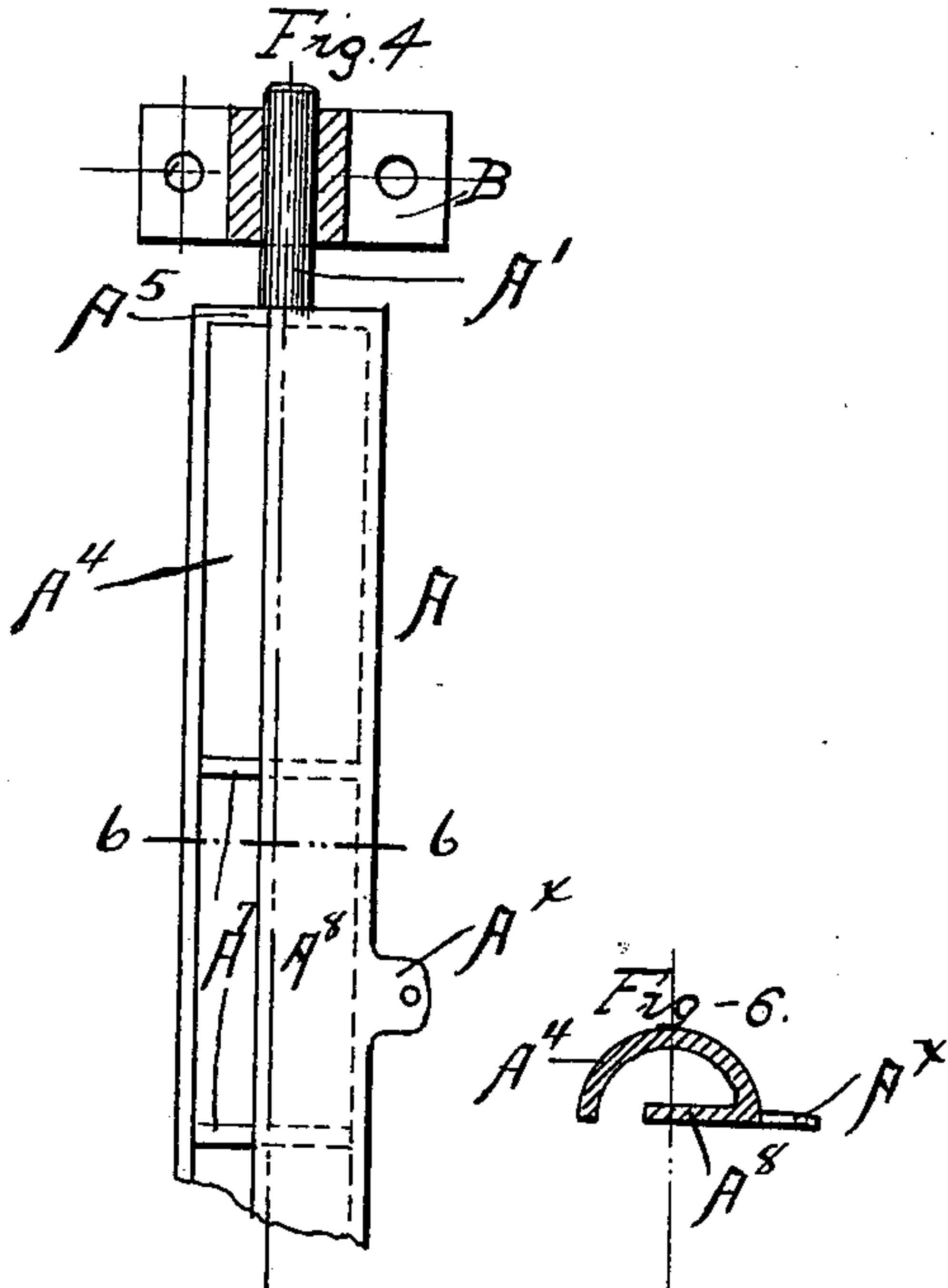
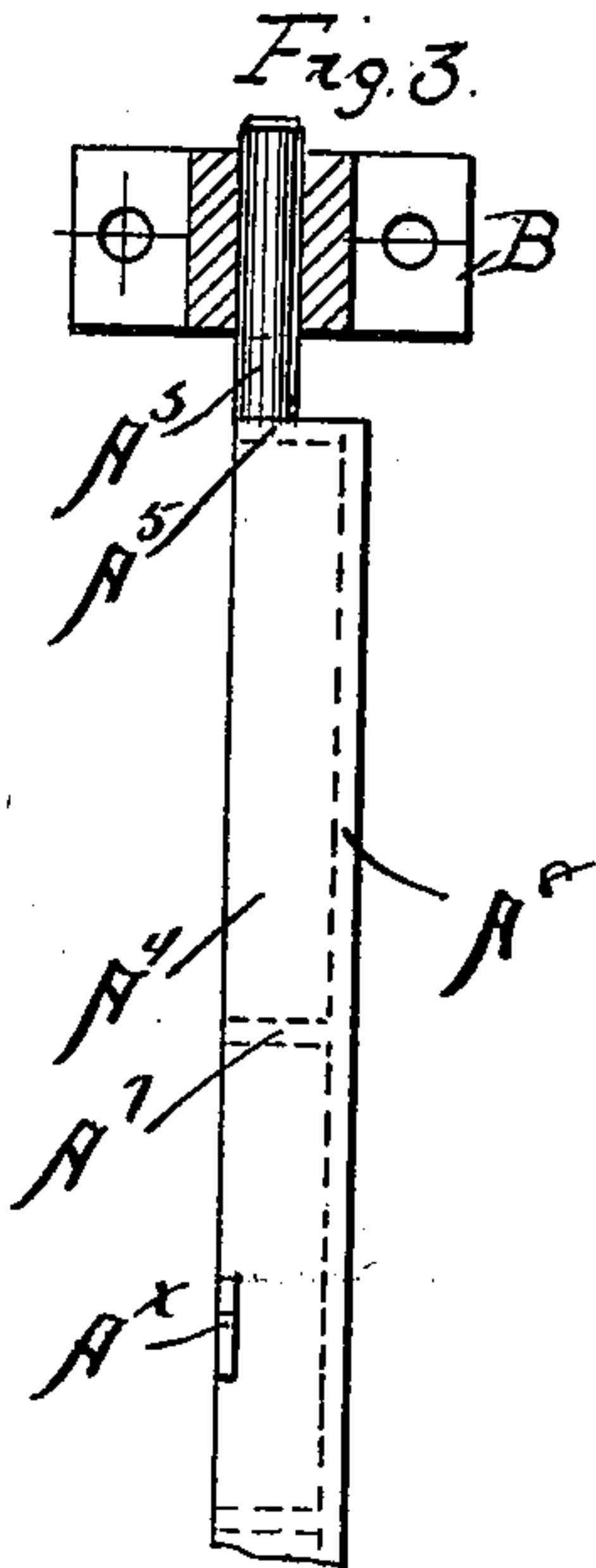
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

WILLIAM M. MILLER, OF TYLER, TEXAS.

CAR-DOOR CLEAT.

SPECIFICATION forming part of Letters Patent No. 626,074, dated May 30, 1899.

Application filed January 28, 1899. Serial No. 703,748. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. MILLER, a citizen of the United States, residing at Tyler, in the county of Smith and State of Texas, have
5 invented certain new and useful Improvements in Car-Door Cleats or Guards; 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
10 it appertains to make and use the same.

My invention relates to improvements in guards for doors of freight-cars and the like to exclude dust, cinders, rain, snow, &c., from entering through the crevice ordinarily exist-
15 ing between the rear edge of the door when the latter is closed and this when the car is moving in either direction.

My invention consists in the novel construction of guard for this purpose hereinafter described and claimed.

Reference is had to the accompanying drawings, wherein the same parts are indicated by the same letters throughout the several views.

Figure 1 represents a side elevation of the
25 middle portion of a box-car, showing the door thereof as fitted with my improved guard. Fig. 2 is a section taken on the line 2 2 and looking down. Fig. 3 represents a side elevation, enlarged, of the guard detached and
30 in the outwardly-turned position for the closed door. Fig. 4 is a view similar to Fig. 3 of the guard in the retracted position for allowing the sliding of the door. Fig. 5 is a top end view of the guard as seen in Fig. 4. Fig. 6
35 is a section taken on the line 6 6 in Fig. 4 looking down, and Fig. 7 is a detail view of the pivoted arm for turning the guard.

A represents my improved car-door guard, which is of a semicylindrical shape in cross-
40 section and preferably hollow for the sake of lightness, as shown, and is provided with end spindles A^1 and A^2 , by means of which the guard is journaled in upper and lower cleats B and C, bolted or otherwise rigidly secured
45 to the side of the car, as seen in Fig. 1. The said guard is journaled in a vertical line parallel with the post D, across which the door moves in opening and closing, and the said post is provided with a vertical longitudinal
50 groove or recess d , curved to receive the guard A when turned to such a position that the flat element thereof lies flush with the side of the

car, allowing the door to move to the open or closed position of the latter. A heavy metallic strip or plate G is fitted over the outer
55 exposed face of the post D, and the edge of such strip or plate which lies adjacent to the recess d in the post is so shaped as to form a continuation of the curved recess in the post and to fit closely against the curved element
60 of the guard, as seen in Fig. 2. This plate serves to protect the door-post D from injury, such as would tend to destroy the closeness of the fit between the guard and the post necessary to prevent the entry of dust, rain, &c.,
65 and to take up wear.

The lower spindle A^2 of the guard is provided at its base with a boss or enlargement to form a supporting-shoulder a^2 , which rests
70 upon the upper side of the cleat C and is elongated somewhat and terminates in a perforated lug a^3 , as seen most clearly in Figs. 3 and 4. An arm E is pivotally attached to the lug a^3 by a bifurcated end on said arm E^2 , and
75 the said arm may be swung through half a circle in a vertical plane about the end of the guard-spindle A^2 , as will be obvious; but when the said arm is held in an approximately horizontal position the said spindle A^2 , and consequently the whole guard A, may be turned
80 through a horizontal plane, as desired. The swinging end of the arm E is slotted, as at e , to fit over a staple or lug F or F', perforated for the passage of a retaining pin or key, and it will thus be seen that when the arm E has
85 been turned to move the guard to the desired open or closed position the said arm may be engaged with either of said staples or lugs F and F' and there secured, holding the guard
90 against accidental turning. But one of these lugs is necessary, although the two may be used, if preferred, for the sake of convenience.

The guard is secured in the closed—that is, extended—position, as seen in Fig. 1, by means
95 of a hasp H, attached to a supporting-link H', fixed upon the outer surface of the car-door X, the said hasp having a transverse slot near one end arranged to engage over a lug A^x on the guard, (shown most clearly in Fig. 4,) the said lug A^x being perforated for the
100 passage of a pin, key, or other locking device not forming a part of the present invention and not herein shown.

The door X closes against a post Y, as in

the common construction of box-cars, and a strip or plate Z, preferably of metal, is secured over the said post in such a position as to overlap the edge of the door more or less when the latter is closed to act as a dust and rain guard for that side of the door, as seen in Figs. 1 and 2.

The body of the guard A, as shown in Figs. 3 to 6, preferably comprises a curved hollow shell A⁴, having segmental end pieces A⁵ and A⁶, a plurality of internal stiffening-pieces A⁷, and the flat element A⁸, extending longitudinally thereof and slightly more than half covering the flat side of the guard, and the spindles A¹ and A² are fixed upon or are formed integral with the end pieces A⁵ and A⁶ of the guard.

The operation of my device is as follows: The door being closed, as shown in Figs. 1 and 2, and it being desired to open the same the swinging arm E is released from its retaining-lug, as is also the hasp H from the lug A^x on the guard. The arm E, held in an approximately horizontal position, is then turned toward the outer side of the car from the position shown in Fig. 1 (or toward the inner side of the car, if held by the other lug F') through a quarter of a circle, when the guard will have been turned into the recess in the post D, the flat element thereof falling behind the car-door and allowing the passage of the door past the said guard. In closing the door the operation is reversed, the door being first pushed well home and the guard then being turned to the position shown in Figs. 1 and 2 by means of the swinging arm E, which is afterward secured, and the hasp is finally engaged with the lug A^x, if desired, and secured, as hereinbefore described.

From the foregoing description it will be seen that I provide a cheap, simple, and efficient guard for the door, which will prevent the entry of dust, cinders, sparks, or moisture, any one of which might injure the contents of the car.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination with a sliding door, of upper and lower bearings secured to the car and located adjacent to the free edge of the door when the latter is closed; the vertically-disposed guard A in the form of a hollow semicylindrical shell with segmental end pieces; stiffening-pieces A⁷, and flat longitudinal elements A⁸ partially closing the flat open side of said shell from its outer longitudinal edge; rigid spindles upon the upper and lower ends of said guard, the side of the car adjacent to the free edge of the door when the latter is closed, being provided with a vertically-disposed recess conforming to the curved surface of the guard, the axis of rotation of the whole guard being the virtual center of the circle of which the curved outline of said recess forms an arc; a perforated lug on the outer edge of said guard; and means to en-

gage said lug for securing said guard, substantially as described.

2. The combination with a sliding door, of upper and lower bearings secured to the car and located adjacent to the free edge of the door when the latter is closed; the vertically-disposed guard A in the form of a hollow semicylindrical shell with segmental end pieces; stiffening-pieces A⁷, and flat longitudinal elements A⁸ partially closing the flat open side of said shell from its outer longitudinal edge; rigid spindles upon the upper and lower ends of said guard; a boss or enlargement on the lower spindle resting upon the lower bearing-plate; the side of the car adjacent to the free edge of the door when the latter is closed being provided with a vertically-disposed recess conforming to the curved surface of the guard, the axis of rotation of the whole guard being the virtual center of the circle of which the curved outline of said recess forms an arc; a perforated lug on the outer edge of said guard; and means to engage said lug for securing said guard, substantially as described.

3. The combination with a sliding door, of upper and lower bearings secured to the car and located adjacent to the free edge of the door when the latter is closed; the vertically-disposed guard A in the form of a hollow semicylindrical shell with segmental end pieces; stiffening-pieces A⁷, and flat longitudinal elements A⁸ partially closing the flat open side of said shell from its outer longitudinal edge; rigid spindles upon the upper and lower ends of said guard; the side of the car adjacent to the free edge of the door when the latter is closed, being provided with a vertically-disposed recess conforming to the curved surface of the guard, the axis of rotation of the whole guard being the virtual center of the circle of which the curved outline of said recess forms an arc; a vertically-disposed metallic plate secured upon the side of the car adjacent to the outer edge of the said recess; a perforated lug on the outer edge of said guard; and means to engage said lug for securing said guard, substantially as described.

4. The combination with a sliding door, of upper and lower bearings secured to the car and located adjacent to the free edge of the door when the latter is closed; the vertically-disposed guard A in the form of a hollow semicylindrical shell with segmental end pieces; stiffening-pieces A⁷, and flat longitudinal elements A⁸ partially closing the flat open side of said shell from its outer longitudinal edge, rigid spindles upon the upper and lower ends of said guard; the side of the car adjacent to the free edge of the door when the latter is closed being provided with a vertically-disposed recess conforming to the curved surface of the guard, the axis of rotation of the whole guard being the virtual center of the circle of which the curved outline of said recess forms an arc; a vertically-dis-

posed metallic plate secured upon the side of
the car adjacent to the outer edge of the said
recess; a vertically-swinging arm jointed to
the lower spindle of said guard by means of
5 which said guard may be turned; and means
for securing said arm in a horizontal position
against turning, substantially as described.

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

WILLIAM M. MILLER.

Witnesses:

JEFF D. BURNS,

J. E. WHITNEY.