

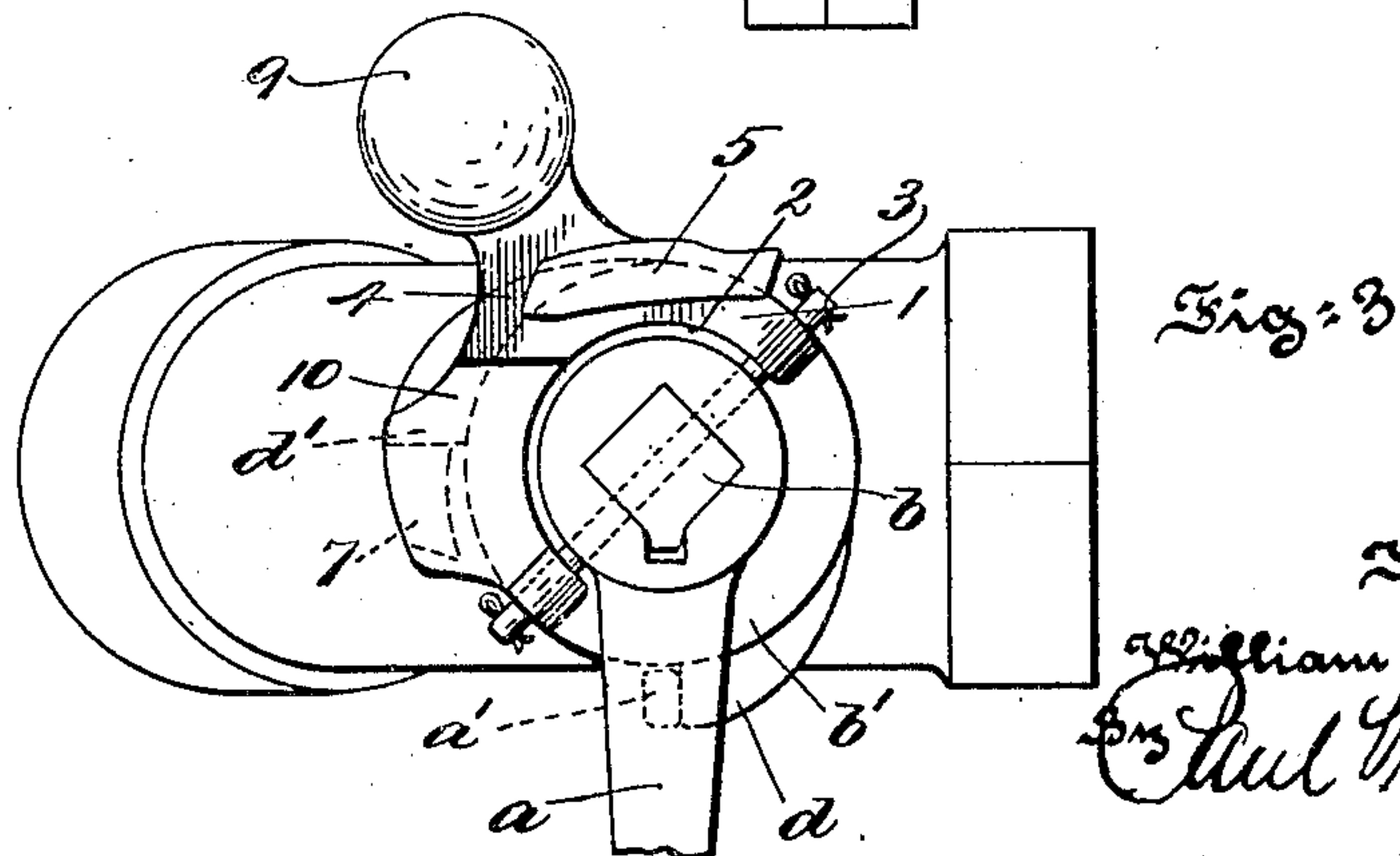
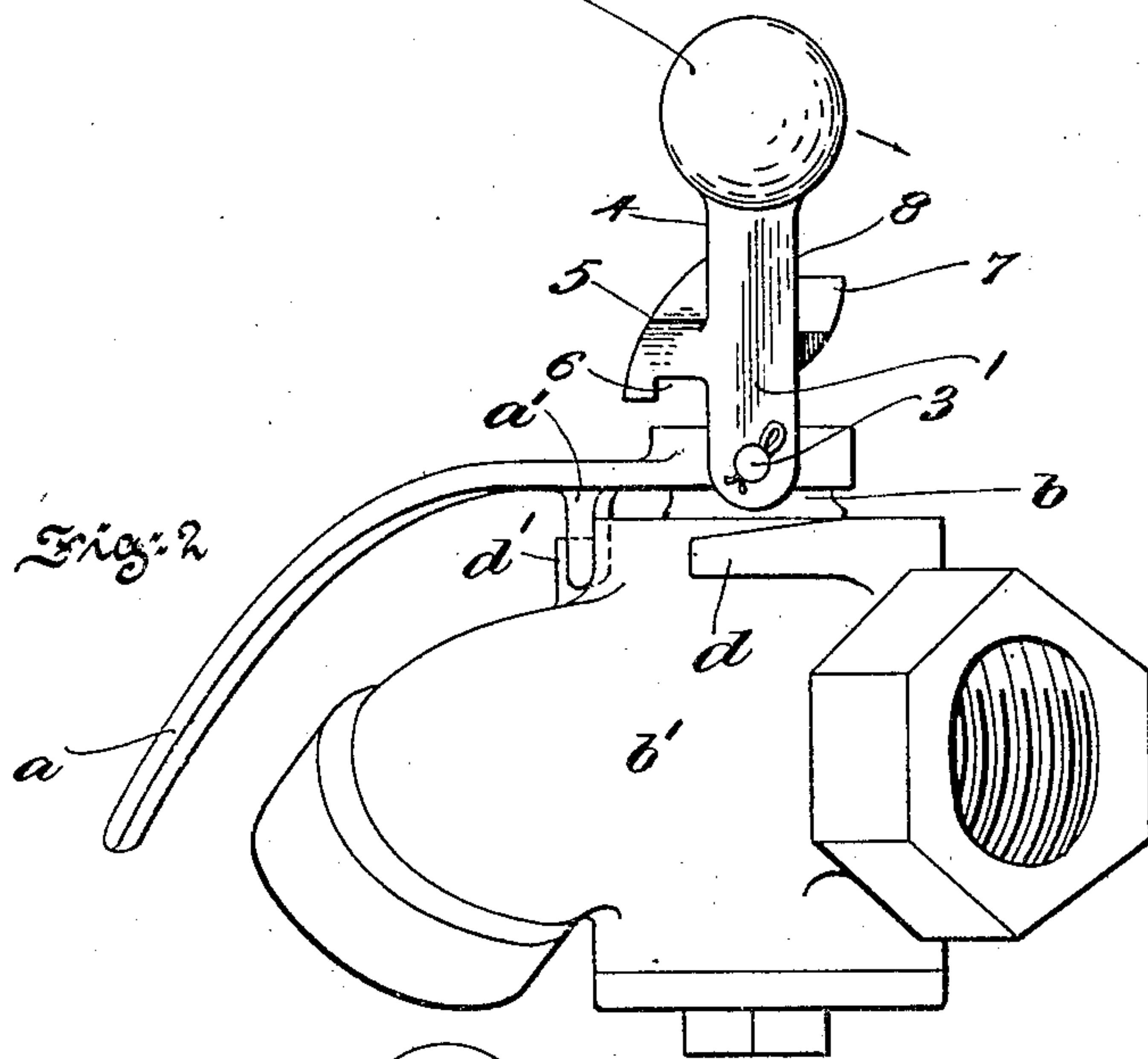
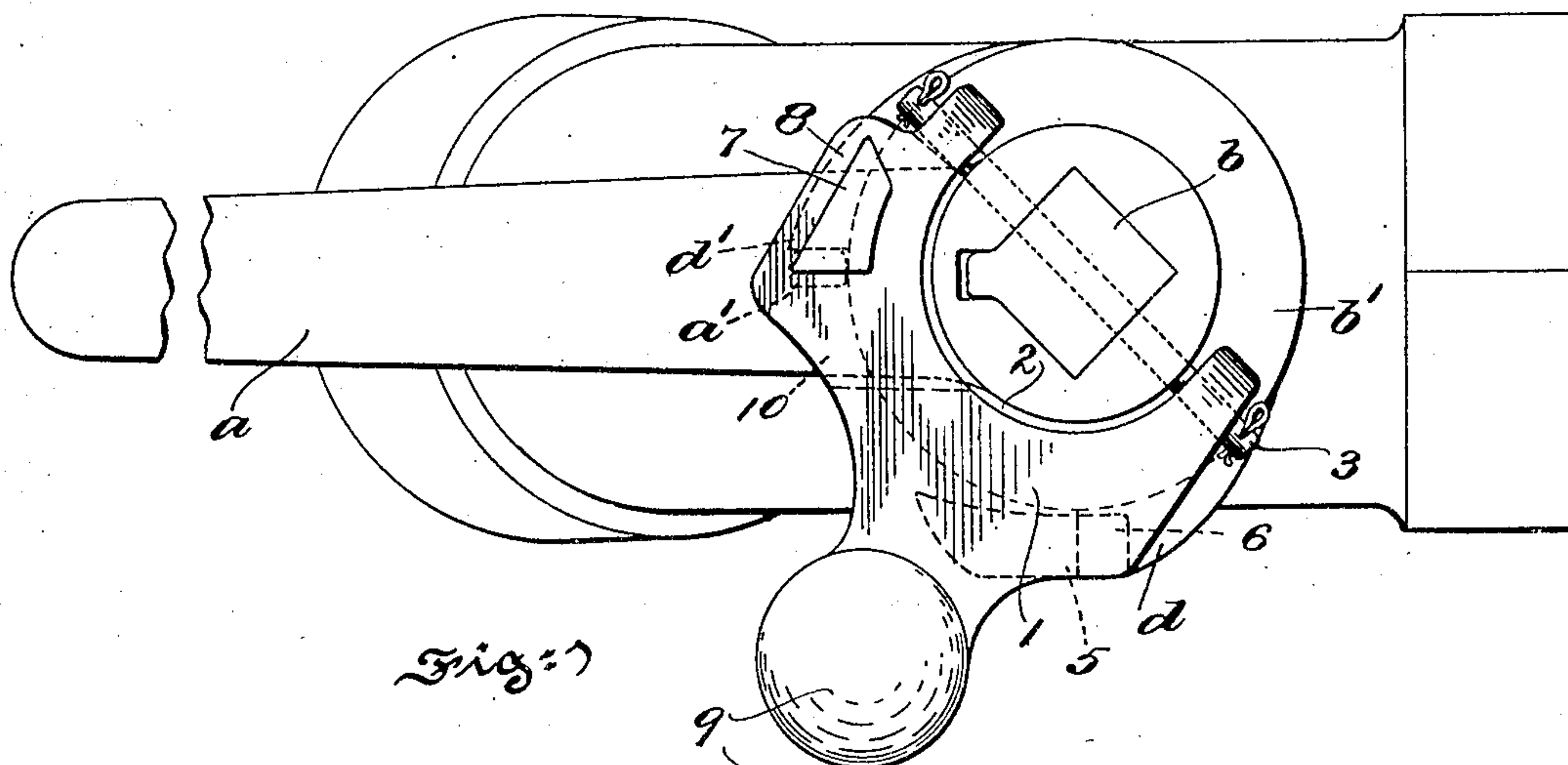
No. 878,368.

PATENTED FEB. 4, 1908.

W. C. FEIGHAN.
SELF LOCKING ATTACHMENT FOR ANGLE COCKS.

APPLICATION FILED APR. 17, 1907.

2 SHEETS—SHEET 1.



Witnesses:
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Inventor:
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No. 878,368.

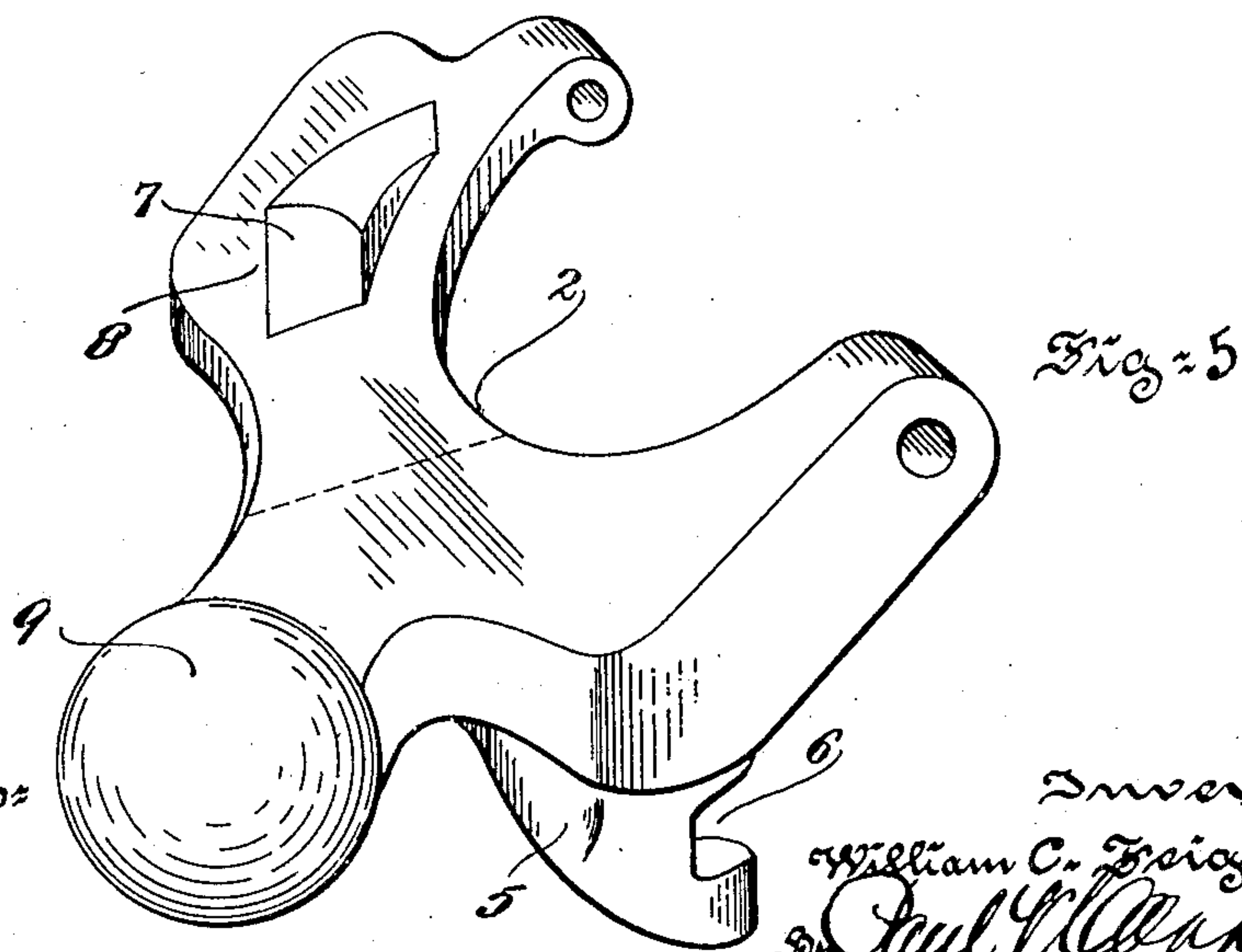
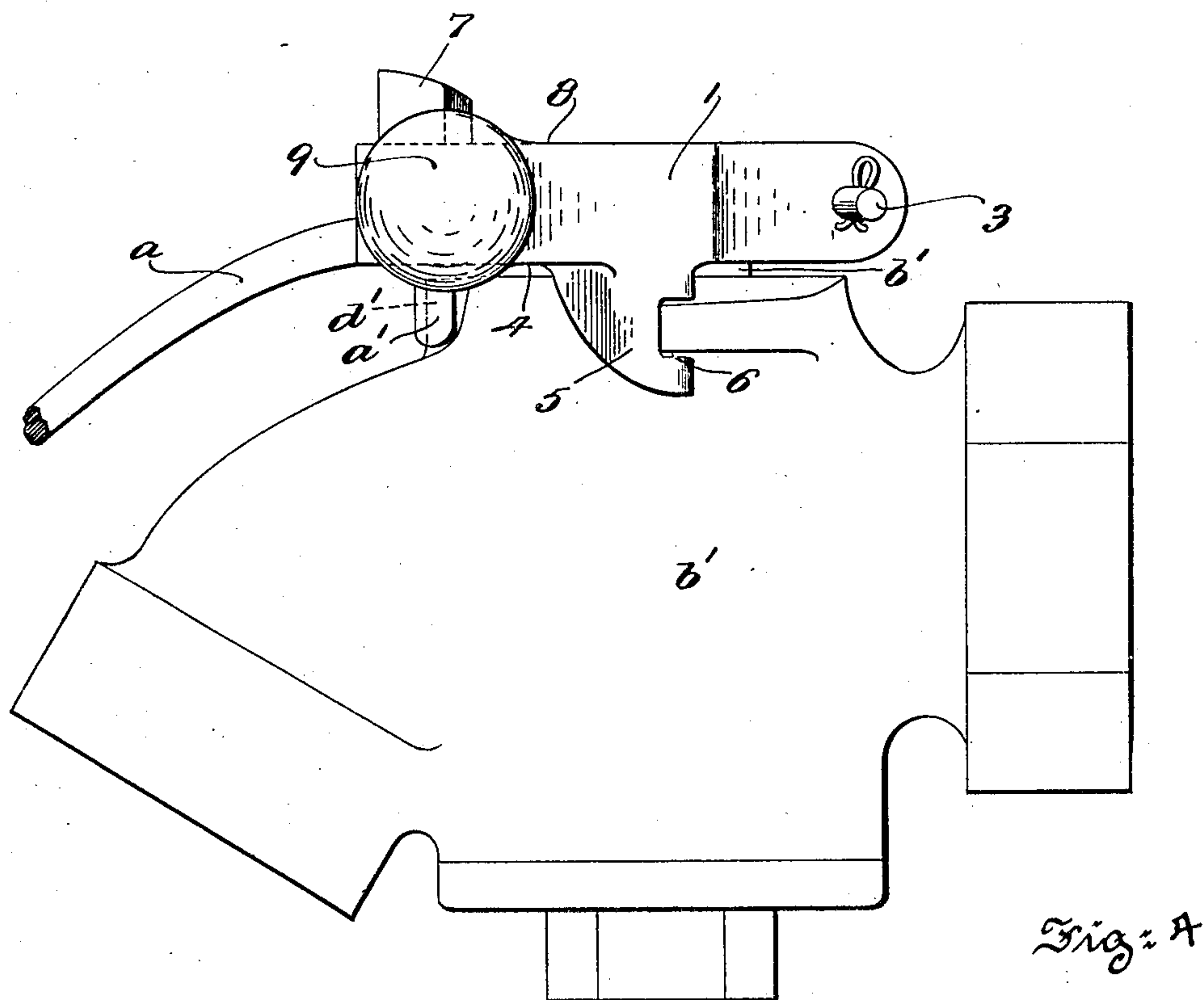
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2 SHEETS—SHEET 2..



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UNITED STATES PATENT OFFICE.

WILLIAM C. FEIGHAN, OF PHILADELPHIA, PENNSYLVANIA.

SELF-LOCKING ATTACHMENT FOR ANGLE-COCKS.

No. 878,368.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed April 17, 1907. Serial No. 368,640.

To all whom it may concern:

Be it known that I, WILLIAM C. FEIGHAN, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Self-Locking Attachment for Angle-Cocks, of which the following is a specification.

This invention pertains to improvements in angle cocks for train air brake pipes, and has for its principal object the providing of a self-locking device that may be attached to and made part of the standard angle-cock of the so-called Westinghouse air-brake system, without any change whatever in the construction thereof or substitution of parts, for locking the handle of the cock against accidental movement.

With this and other objects in view the invention stated in general terms comprises the improvements to be presently described and finally claimed.

The nature, characteristic features and scope of the invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, and in which

Figure 1, is a top or plan view of an angle cock, illustrating the position of the device when the cock is open. Fig. 2, is an elevational view drawn to a reduced scale illustrating how the attachment is moved vertically upon an arc of a circle to unlock the handle so that the cock may be moved into closed position, Fig. 3, is a top or plan view, also upon a reduced scale illustrating the position of the attachment when the cock is closed. Fig. 4, is an elevational view of Fig. 1, and Fig. 5, is a perspective view of the reversible member, detached from the angle-cock.

In the drawings *a*, is the handle for actuating or turning the plug *b*, of the well known type or form of angle cock employed in air-brake pipes for traction purposes, said plug having its inclosing casing *b*¹, constituting a coupling between the sections of said pipes. Provided upon the upper portion of the casing are suitable stops *d*, and *d*¹, which prescribe or restrict the horizontal arc of movement of the handle *a*, in operating the plug *b*. This handle is fitted to the plug after the fashion of a wrench, and is usually pinned thereto and is provided with a depending lug or stop *a*¹. These parts are all well known in the art and constitute the so-called West-

inghouse standard angle cock. In practice it has been demonstrated that the excessive jolting to which they are subjected upon a moving car tends to move the handle with its plug from open to closed position, which obviously is disadvantageous and often dangerous results follow. To overcome this disadvantageous feature numerous improvements have been made in the said angle cocks by substituting various new handles, which while possessing merit, necessitate the disuse of certain old parts.

Referring now to the self-locking attachment of the invention which may be applied to the above described angle cocks, or other types if desired; 1, is a forked member recessed as at 2, to pass around the cylindrical portion of the handle *a*. The tines of this forked member are provided with apertures to accommodate a pin 3, that passes through the handle and plug *b*, thus providing pivotal relation between the forked member and handle whereby the said member is afforded a reversible vertical movement upon an arc of a circle. In this connection it will be observed that the forked member 1, not only has the arc of movement as prescribed by the handle and plug, but in addition may be moved vertically in an arc of a circle, as shown in Fig. 2, completely over upon itself or reverse itself, hinge fashion, the object of which will be hereinafter described. The member 1, has downwardly projecting from the face 4, thereof, a lug or detent 5. As shown this lug is notched as at 6, and is adapted when the cock is in open position to abut against the stop *d*, in the position shown in Figs. 1 and 4. At the same time the stop *a*¹, of the handle abuts against the lug *d*¹, and the plug *b*, is securely locked against accidental movement. In order to move the handle from this, or open position, to that shown in Fig. 3, which is closed, it is necessary to reverse or turn the member 1, completely over upon itself, see Fig. 3, and move the handle *a*, around until the lug or detent 7, projecting from the face 8, of the said member, passes over and abuts against the stop *d*¹, the stop on the handle meanwhile abutting against the stop *d*. The pivotal relation of the member 1, to the angle cock permits of this, and in this connection it may be remarked that the part 9, acts in the capacity of a handle and also of a weight for causing the member 1, to easily seat itself in respect to the angle cock after such a move-

ment. The face 4, of the member 1, is cut away at 10, to provide clearance for the handle *a*, when in open position. It will be, of course, understood that to open the angle
5 cock it is necessary to first move the member 1 vertically as described before reversing the handle *a*.

By this arrangement it will be obvious that no amount of jarring can possibly cause the
10 member 1, to turn over upon itself, thus providing a locking attachment that is absolutely reliable. Further existing types of angle cocks may be made thoroughly efficient by the mere application of the above
15 described device, which is simple, economic and effective.

I do not intend by the use of the above language or words to limit my invention further than the prior state of the art may
20 require, but

Having thus described the nature and objects of my invention, what I claim as new and desire to secure by Letters Patent is:

1. A device of the class described comprising
25 ing a plug cock, a casing having stops to limit the movement of the cock at its open and closed positions, a handle for said cock having a projection for engaging one of the limit stops on the case and vertically reversible means pivotally secured to the cock
30 adapted to engage the other of said stops for preventing accidental movement of the cock.

2. A device of the class described comprising a plug cock, a casing having stops to limit the movement of the cock at its open and
35 closed positions, a handle for said cock having a projection for engaging either of said limit stops, and a reversible member adapted to be moved vertically upon an arc of a circle pivotally secured to the cock and handle hav-
40 ing oppositely disposed projections for engaging one at a time the alternate stops for preventing accidental movement of the cock.

3. A device of the class described comprising a plug cock, a casing having stops to limit
45 the movement of the cock at its open and closed positions, a handle for said cock having a projection for engaging either of said limit stops, and a reversible member pivoted to said cock and handle and adapted to be
50 moved vertically upon an arc of a circle said member having oppositely disposed faces equipped with projections adapted to alternately lie in the path of and engage the other
55 of the aforesaid limit stops during the turning of the handle to prevent accidental movement of the cock.

In testimony whereof I have hereunto signed my name in the presence of witnesses.

WILLIAM C. FEIGHAN.

Witnesses:

WM. J. JACKSON,
ELLWOOD HENRY.