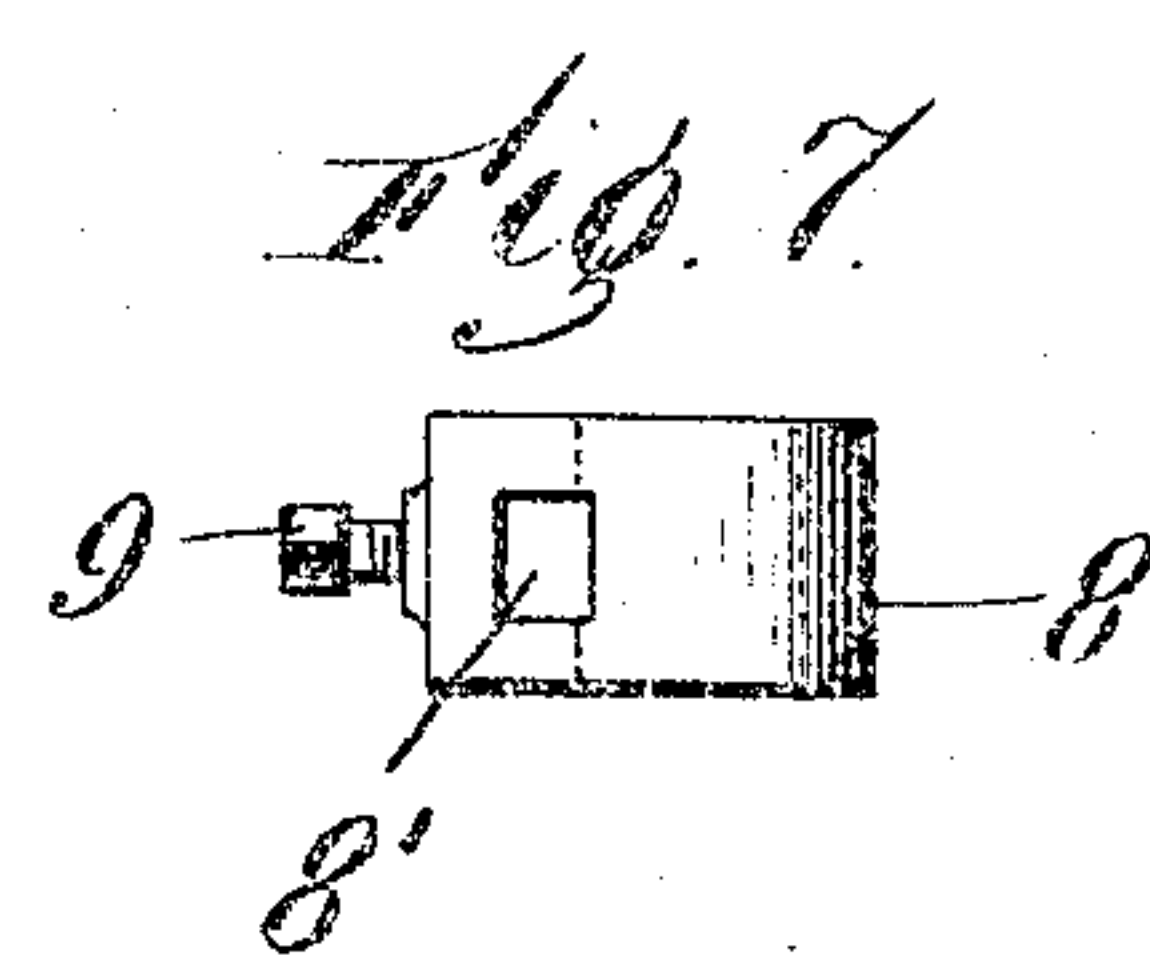
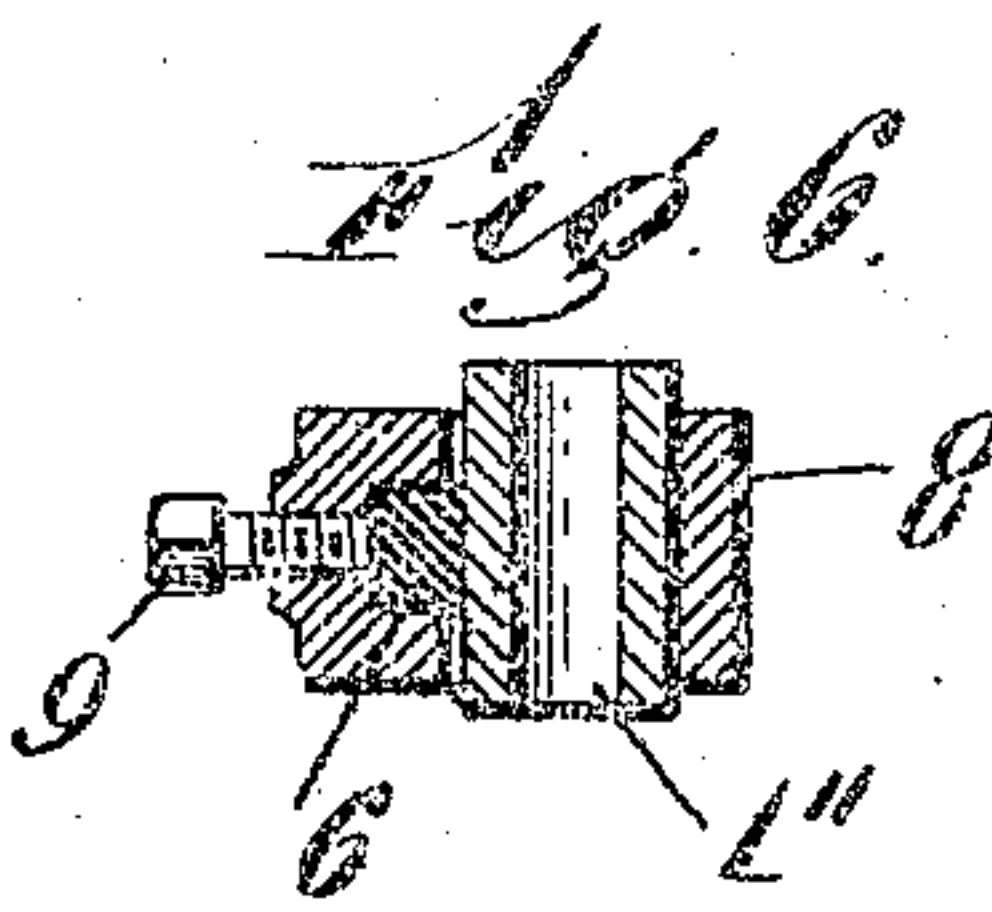
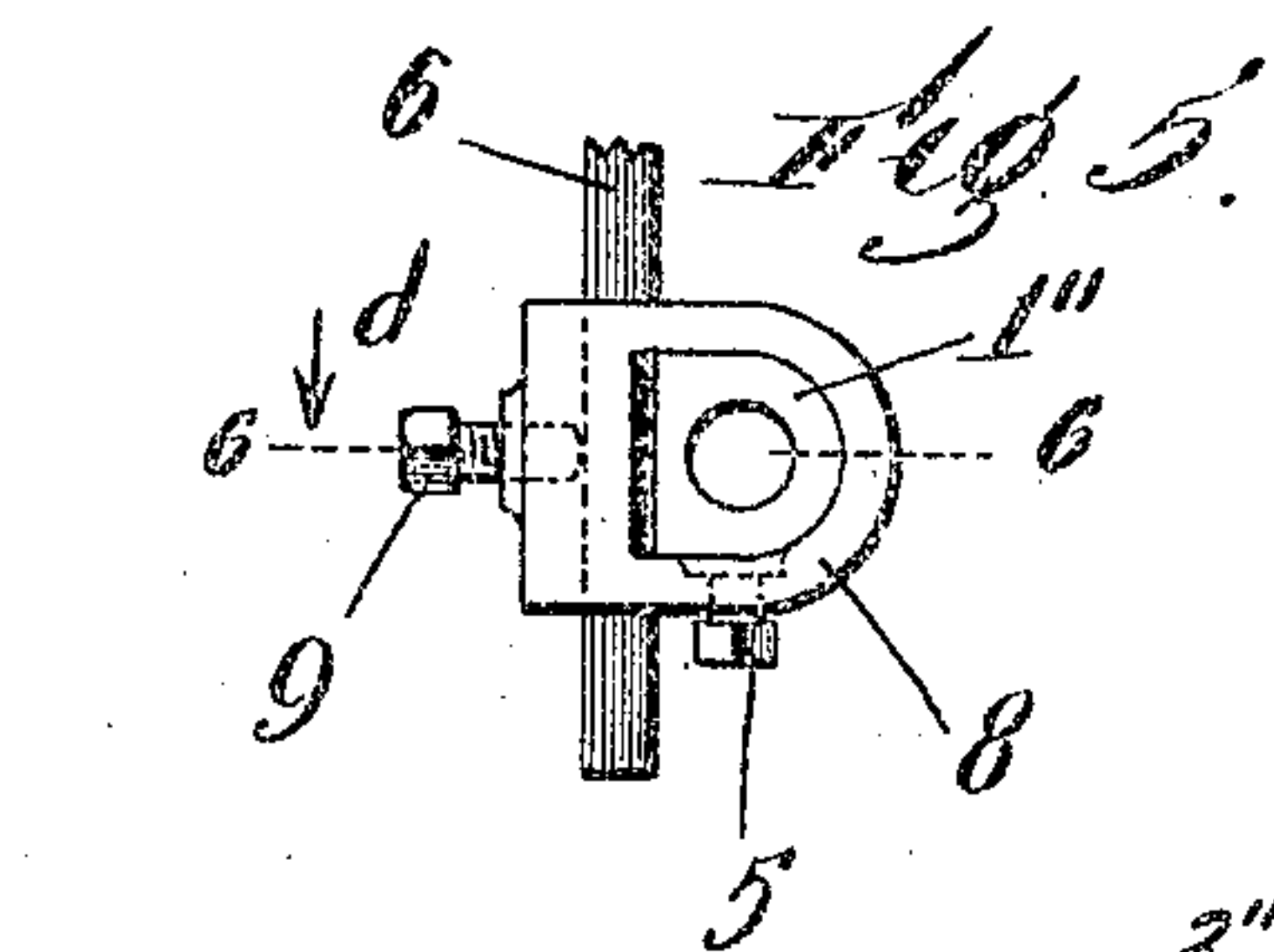
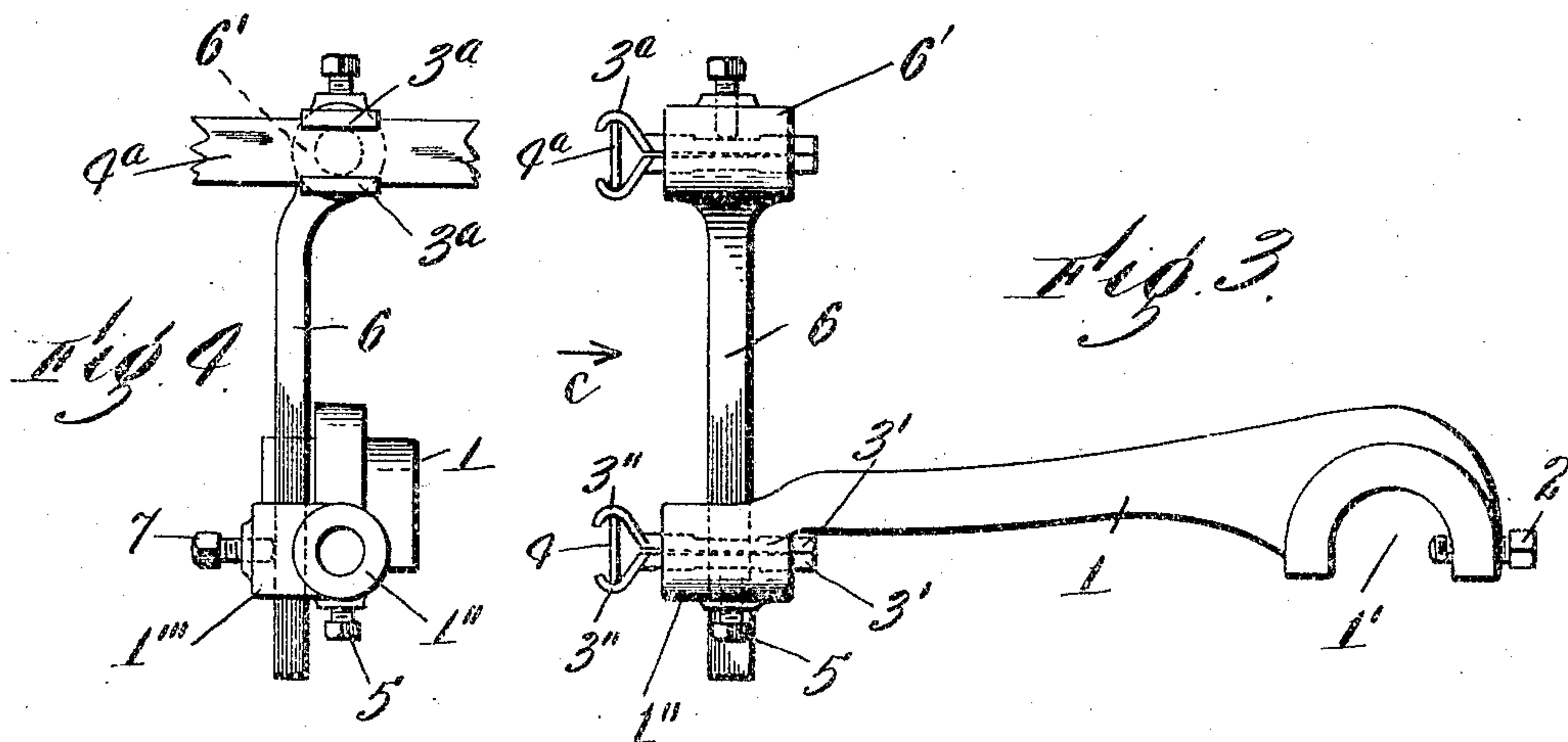
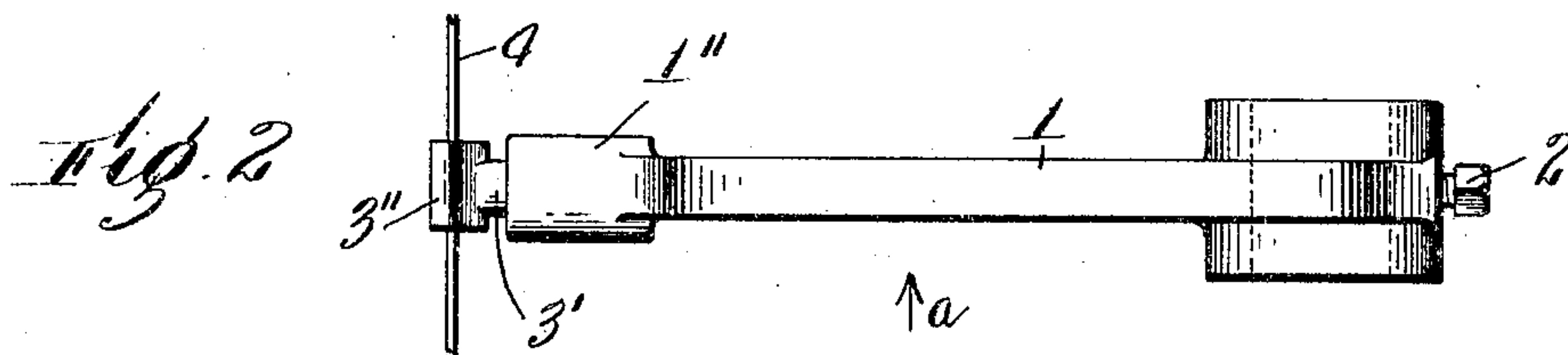
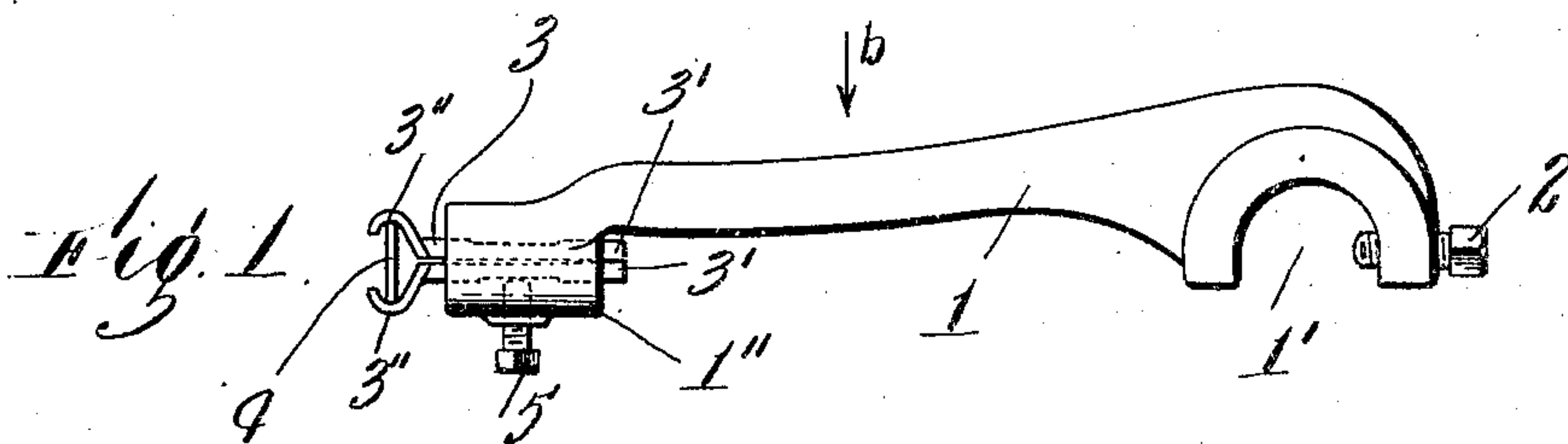


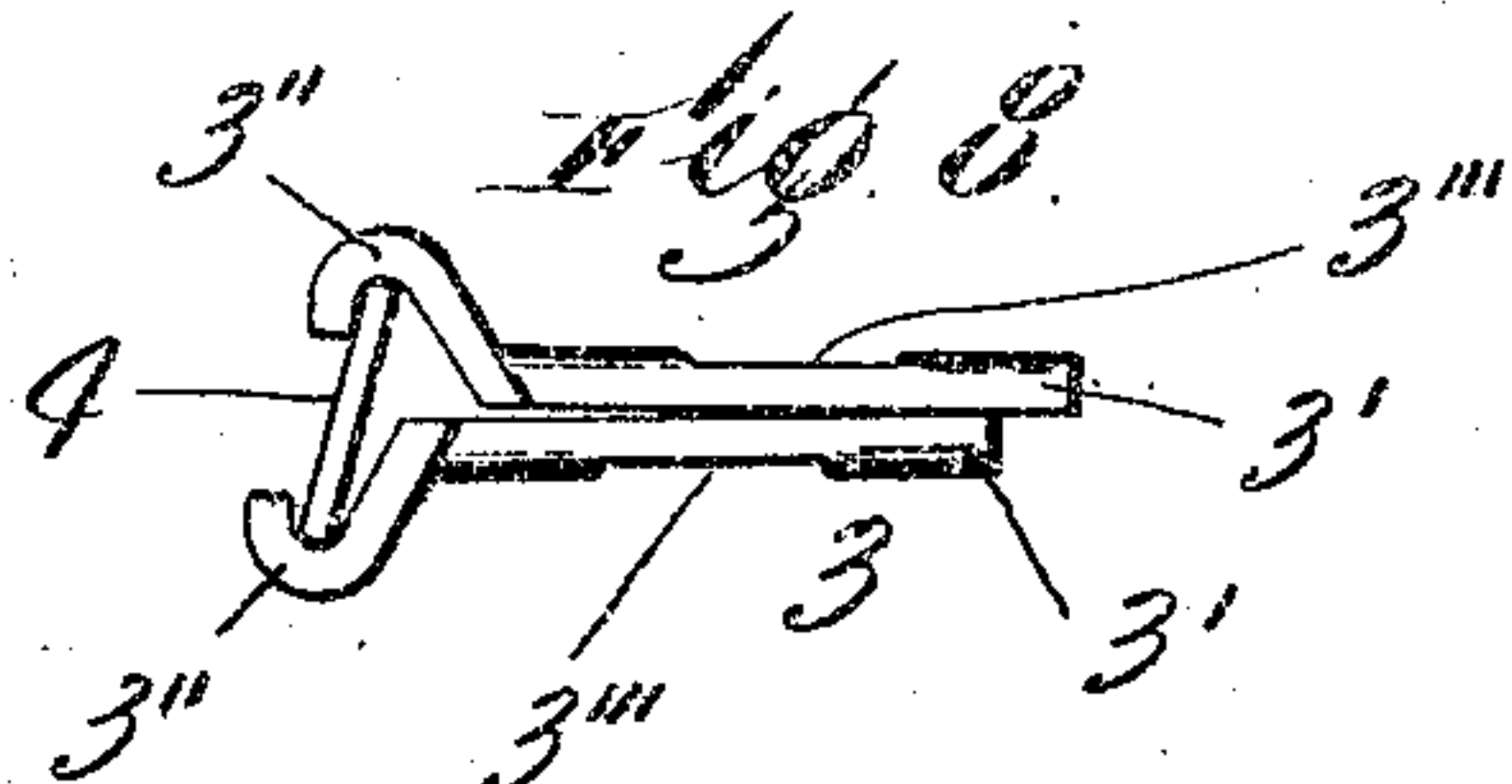
No. 788,184.

PATENTED APR. 25, 1905.

H. G. BEEDE.  
ADJUSTABLE BEARING.  
APPLICATION FILED FEB. 16, 1905.



Witnesses:  
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By his Attorney,  
John C. Dewey.



# UNITED STATES PATENT OFFICE.

HERBERT G. BEEDE, OF PAWTUCKET, RHODE ISLAND.

## ADJUSTABLE BEARING.

SPECIFICATION forming part of Letters Patent No. 788,184, dated April 25, 1905.

Application filed February 16, 1905. Serial No. 245,828.

*To all whom it may concern:*

Be it known that I, HERBERT G. BEEDE, a citizen of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Adjustable Bearings, of which the following is a specification.

My invention relates to supports or bearings for a bar or rod, and more particularly to adjustable supports or bearings for a bar or rod, to adjust the position and angle thereof in a horizontal plane relatively to the fixed position of the arm or support carrying the adjustable supports or bearings.

The object of my invention is to provide means of simple construction and operation for adjusting a bar or rod non-circular in cross-section to vary the position of said bar or rod and its inclination in a horizontal plane relatively to a fixed support for said means.

My improvements are particularly adapted to be used in connection with the arms which support a knotting guide-bar, having thereon a series of guides for the yarns in a twisting or spinning machine for twisting or spinning yarn.

By means of my improvements the position and angle of the knotting guide-bar relatively to its supporting-arms may be adjusted as desired.

My invention consists in certain novel features of construction of my improvements, as will be hereinafter fully described.

Referring to the drawings, Figure 1 is a side view of a supporting-arm and an adjustable bearing embodying my improvements and a bar held therein looking in the direction of arrow *a*, Fig. 2. Fig. 2 is a plan view of the parts shown in Fig. 1 looking in the direction of arrow *b*, Fig. 1. Fig. 3 corresponds to Fig. 1, but shows a modified construction having a supplemental support and an adjustable bearing for a second bar. Fig. 4 is a front view of the parts shown in Fig. 3 looking in the direction of arrow *c*, same figure. The adjustable bearing and bar held therein (shown in the lower part of Fig. 3) are not shown in this figure. Fig. 5 is a detached view of what is shown in the lower part of Fig. 4, showing

a modified construction. Fig. 6 is a section on line 6 6, Fig. 5, looking in the direction of arrow *d*, same figure. The upright support is not shown in this figure. Fig. 8 shows, on an enlarged scale, the adjustable bearing detached and the bar held therein.

In the accompanying drawings, 1 is an arm or support having in this instance a recess 1' in its attaching end to receive the shaft or bar (not shown) on which said arm 1 is supported and a set-screw 2 for securing it in place. The outer end of the arm 1 has a hub or boss 1" thereon, Figs. 1 and 2, with a horizontal opening therethrough for the adjustable bearing or support for a bar.

The adjustable bearing or support 3 for a bar 4 is preferably made in two halves 3', one movable on the other in a longitudinal direction, and each half has a projecting curved or hooked end 3'', provided with a curved recess on its inner surface to receive the edges of the bar 4. (See Fig. 8.) The two halves 3' of the bearing 3 are preferably of curved shape on their outer surfaces, with flattened portions 3''' thereon, and extend through the hub or boss 1" on the outer end of the arm 1 and are secured therein by a set-screw 5, turning in a threaded hole therein, with its inner end adapted to bear against the flattened portion on the lower half 3' of the bearing 3 to press against the bearing and secure the two parts thereof in their adjusted position within the hub 1". The angle of the bar 4 may be varied by moving the two parts 3' of the bearing 3 upon each other longitudinally, as will be readily understood. The position of the bar 4 relatively to the end of the supporting-arm may be adjusted as desired to move the bar outwardly or inwardly relatively to the supporting-arm 1 by moving the two parts 3' of the bearing 3 longitudinally in the hub or boss 1" and clamping them in their adjusted position by means of the set-screw 5, as will be readily understood.

In Figs. 4 and 5 are shown a modified construction of my improvements. In said figures a second bar 4<sup>a</sup> is shown, adjustably supported by a second bearing or support 3<sup>a</sup>, corresponding to the support 3, which is supported in a hub or boss 6' on the upper end



of a vertically-extending arm 6. The lower end of the arm 6 in this instance extends through a vertical opening in an extension 1''' on one side of the boss 1'' on the arm 1 and is secured therein by a set-screw 7, turning in a threaded hole in said extension and bearing at its inner end against the vertically-extending arm 6. (See Fig. 4.) By means of the arm 6, combined with the arm 1 and the bearings 3 and 3<sup>a</sup>, two bars 4 and 4<sup>a</sup> may be supported and adjusted as desired.

In Figs. 5, 6, and 7 is shown a modified construction of the construction shown in Figs. 3 and 4. Instead of having the side extension 1''' on the hub or boss 1'' on the arm 1 for the vertically-extending arm 6, as shown in said Figs. 3 and 4 and above described, I employ a clamp or strap 8, which is adapted to be combined with the hub or boss 1''. (Shown in Figs. 1 and 2.) Said hub or boss 1'' is flattened on one side, as shown in Fig. 5, and the clamp or strap 8 is passed over the outer end of the boss before the bearing 3 is inserted therein, and the vertically-extending arm 6 is inserted through an opening 8' in said clamp or strap 8, extending in a direction at right angles to the opening for the hub or boss 1''. A set-screw 9 turns in a threaded hole in the strap 8 and bears at its inner end against the arm 6 and presses said arm against the flat side of the hub or boss 1'', as shown in Fig. 6, to secure the arm 6<sup>a</sup> in position and also to secure the clamp or strap 8 on the boss 1''.

The operation of my improvements for supporting and adjusting a bar 4 or its equivalent or two bars 4 and 4<sup>a</sup> will be readily understood by those skilled in the art.

It will be understood that the details of construction of my improvements may be varied,

if desired, and in practice two or more supporting-arms 1 are used, according to the length of the bar or bars to be supported.

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

1. The combination with a supporting-arm, having an opening therein, of a bearing or support for a bar or rod, supported and held in said opening, and comprising two parts movable longitudinally on each other, to adjust the angle and position of said bar or rod, substantially as shown and described.

2. The combination with a supporting-arm, having a hub or boss thereon, and a bearing or support for a bar or rod, supported and held in said boss, and comprising two parts movable longitudinally on each other, to adjust the angle and position of said bar or rod, of a second supporting-arm, attached to the first-mentioned supporting-arm, and having a hub or boss thereon, for a bearing or support for a second bar or rod, and said bearing or support, substantially as shown and described.

3. The combination with a supporting-arm having an opening therein for a bearing or support for a bar or rod, and said support, comprising two parts movable longitudinally on each other, to adjust the angle and position of said bar or rod, of a second supporting-arm having an opening therein for a bearing or support, and a clamp for securing said second supporting-arm to the first-mentioned supporting-arm, substantially as shown and described.

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