

No. 881,459.

PATENTED MAR. 10, 1908.

C. BOOTH.
TYPE WRITER.

APPLICATION FILED AUG. 12, 1907.

2 SHEETS—SHEET 1.

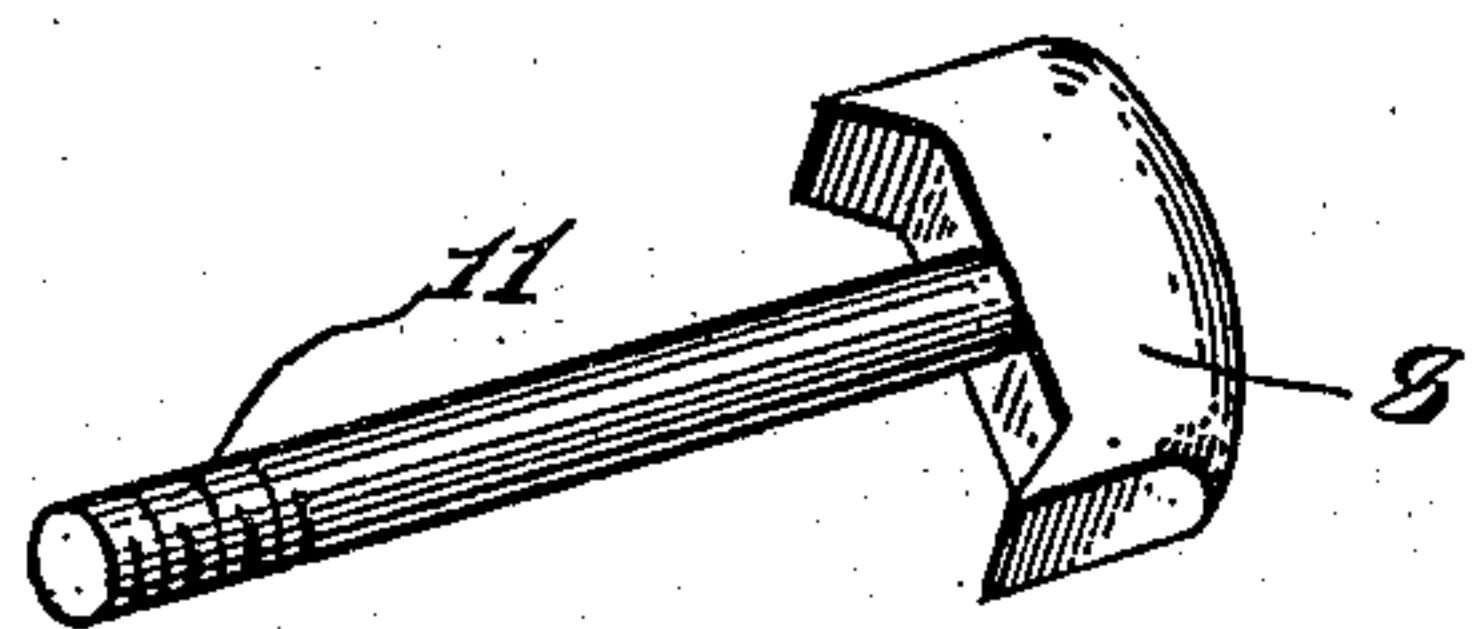


Fig. 5.

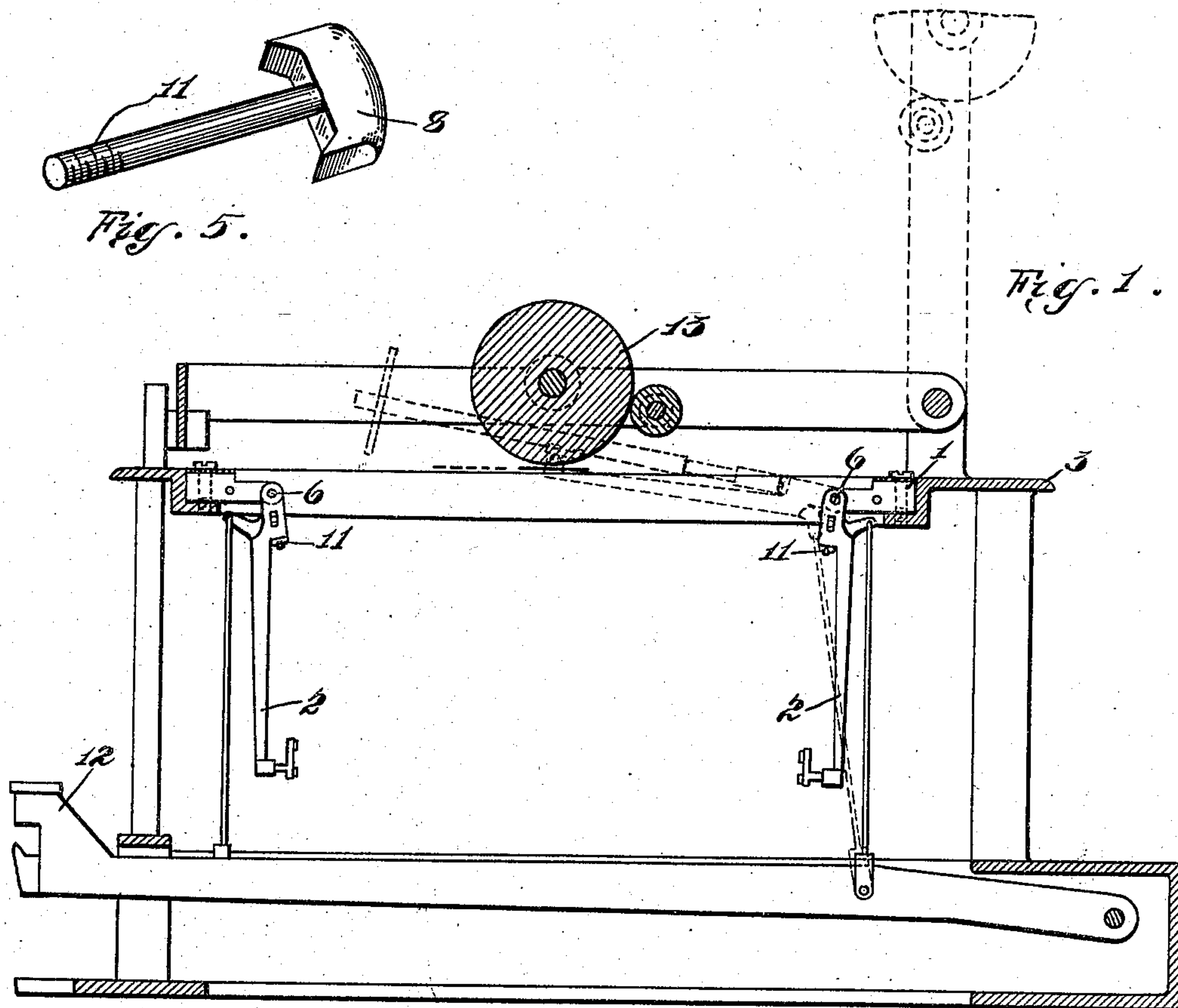


Fig. 1.

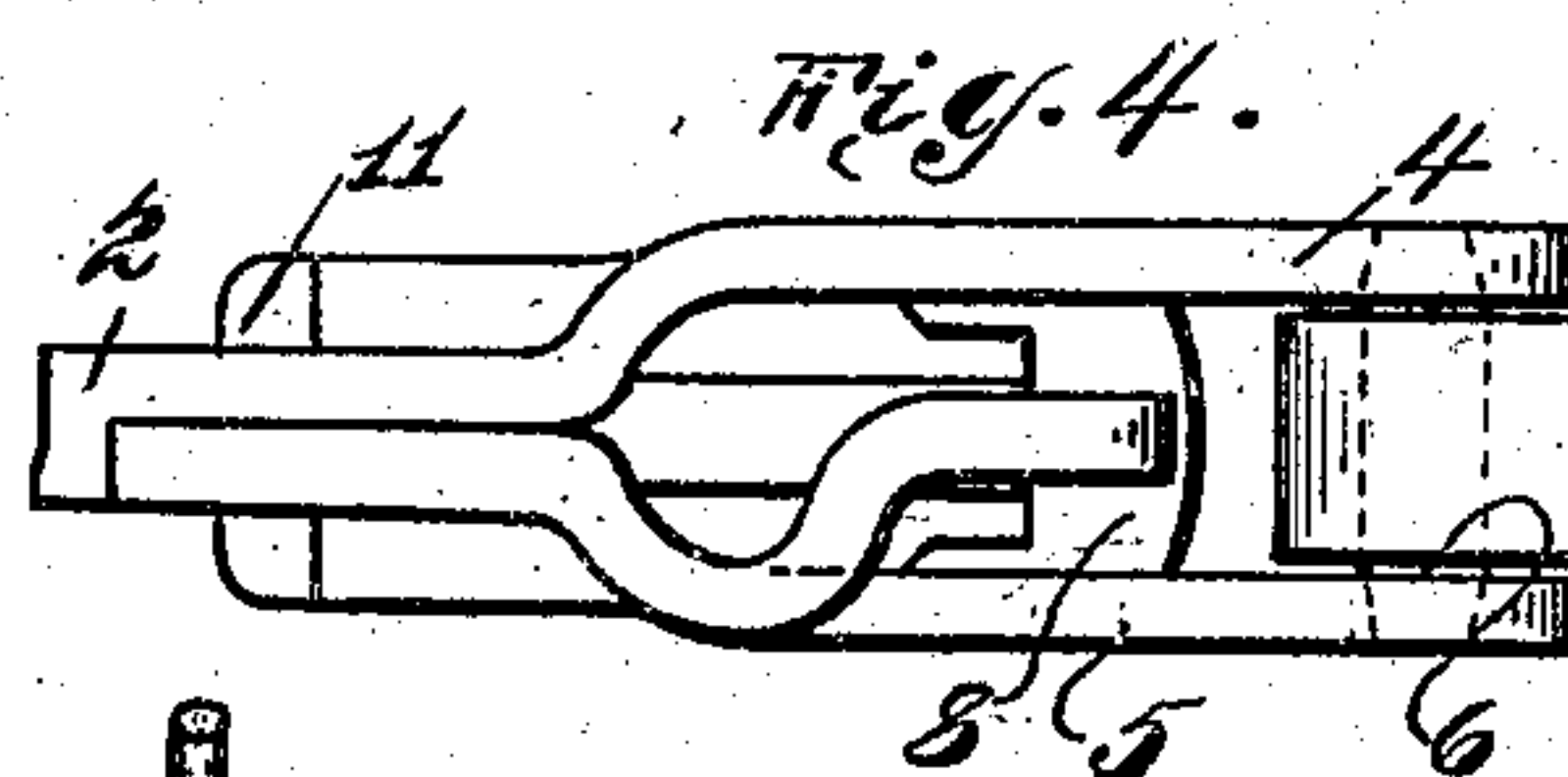


Fig. 4.

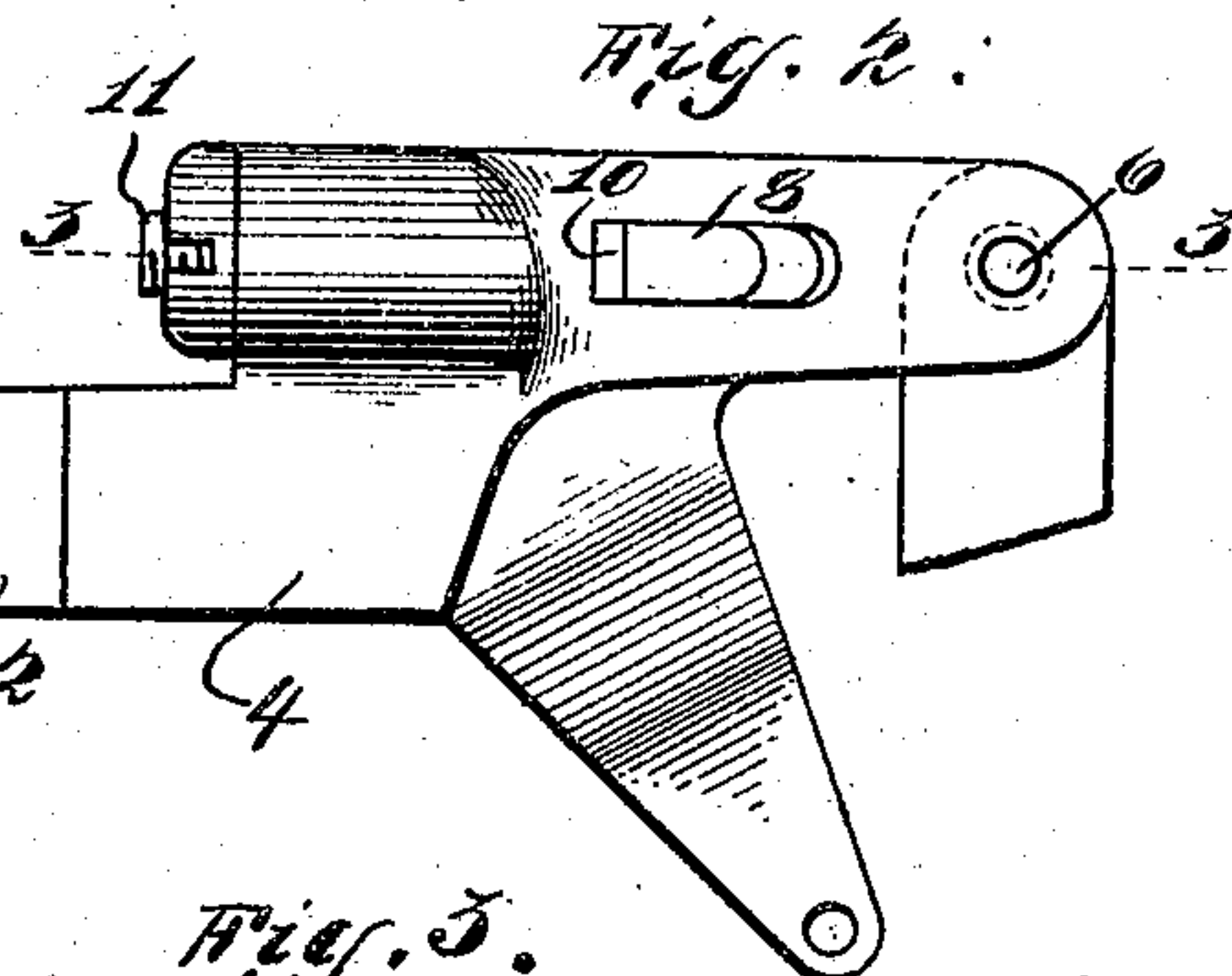


Fig. 2.

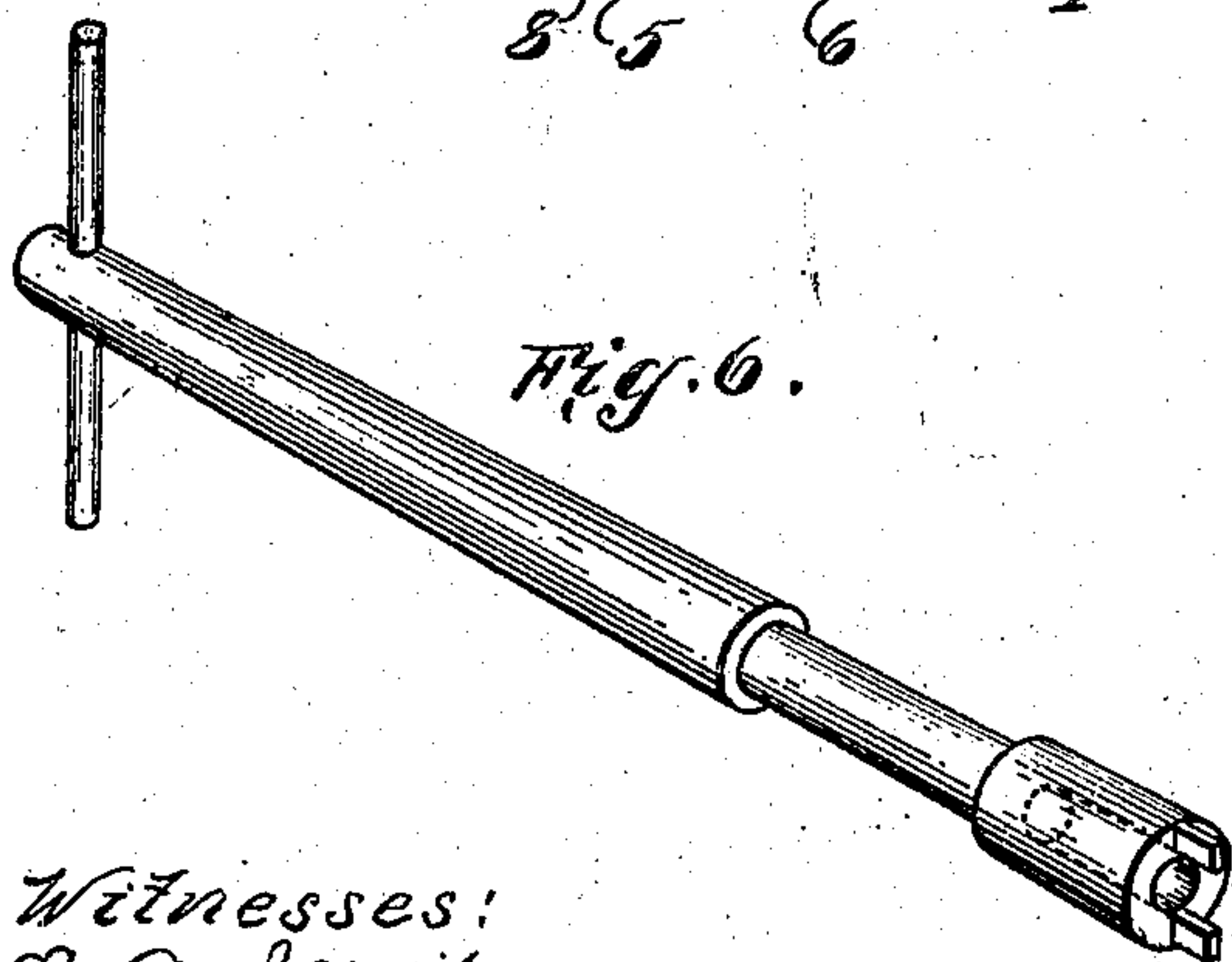


Fig. 6.

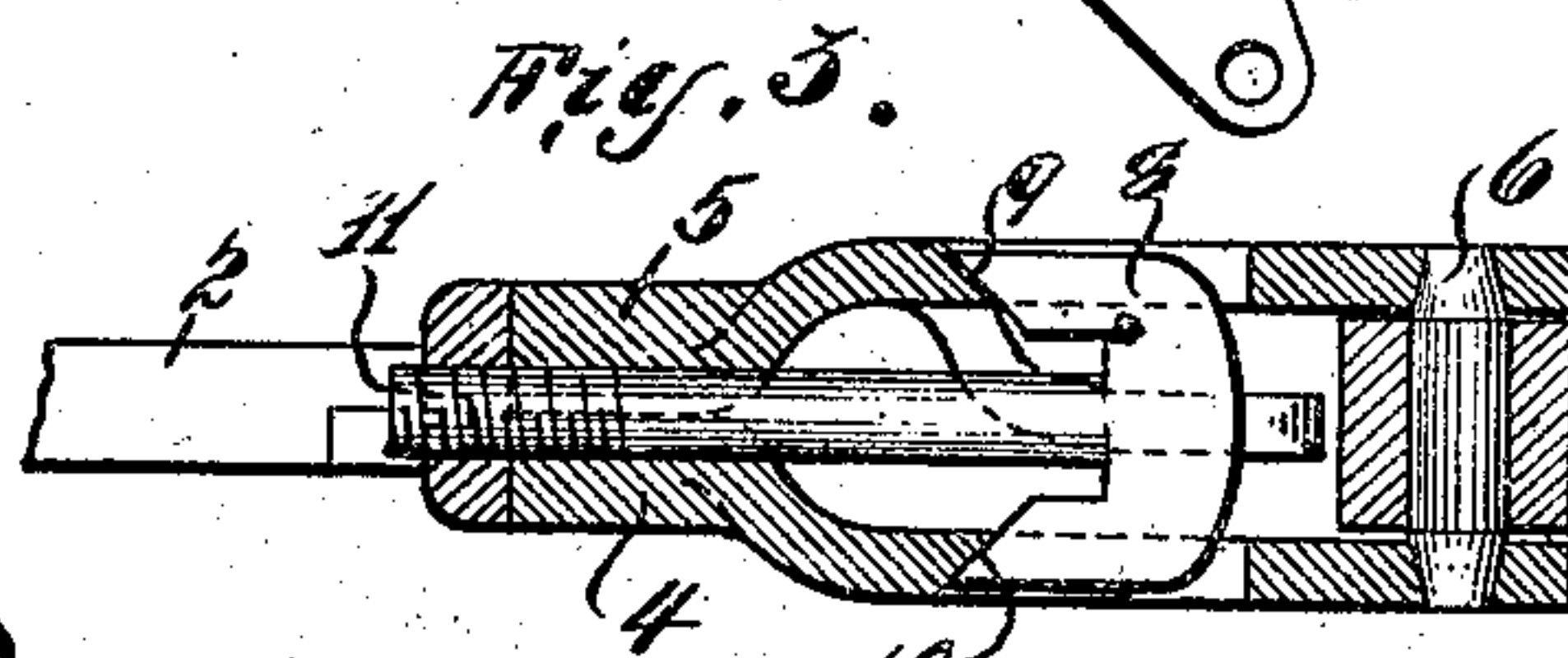


Fig. 3.

Witnesses:
C. A. Jarvis
G. W. Wright

Clement Booth, Inventor:
By *Emmanuel R. Russell*
his Attorney:

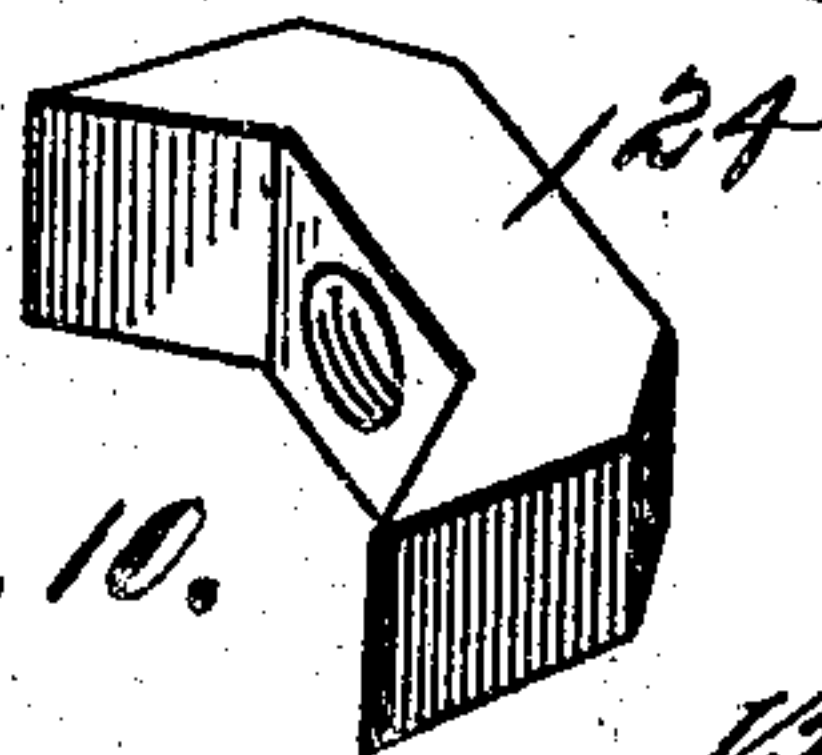
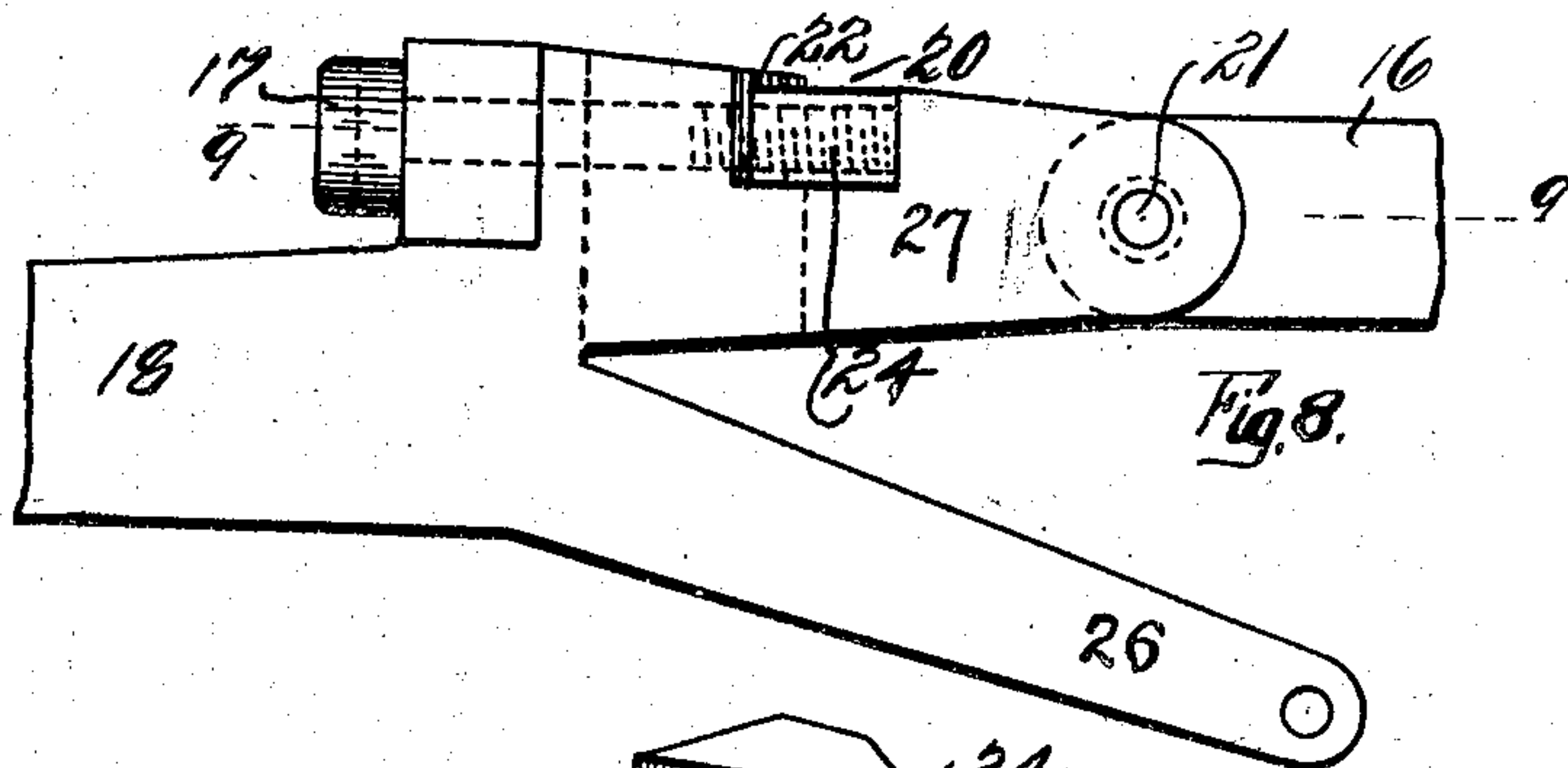
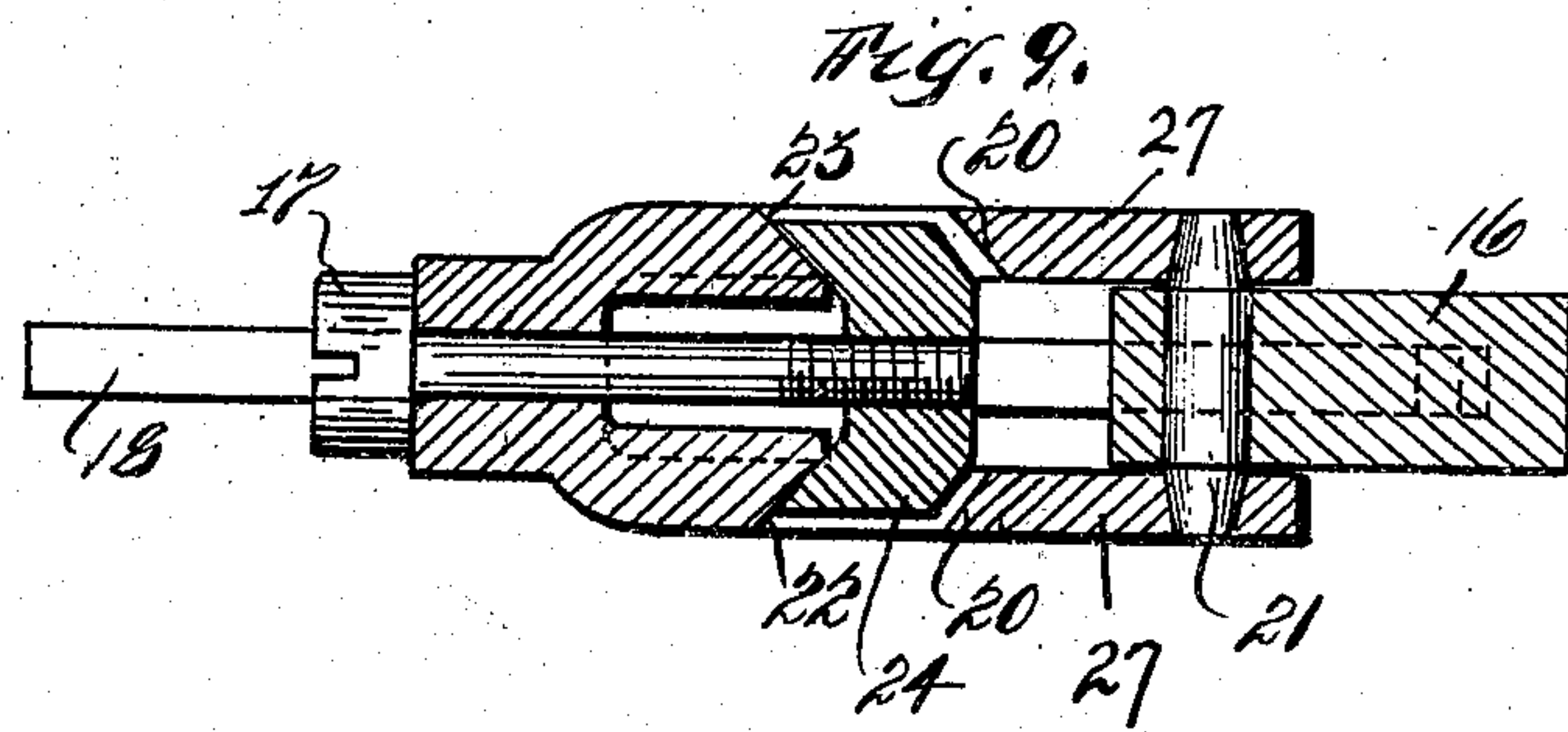
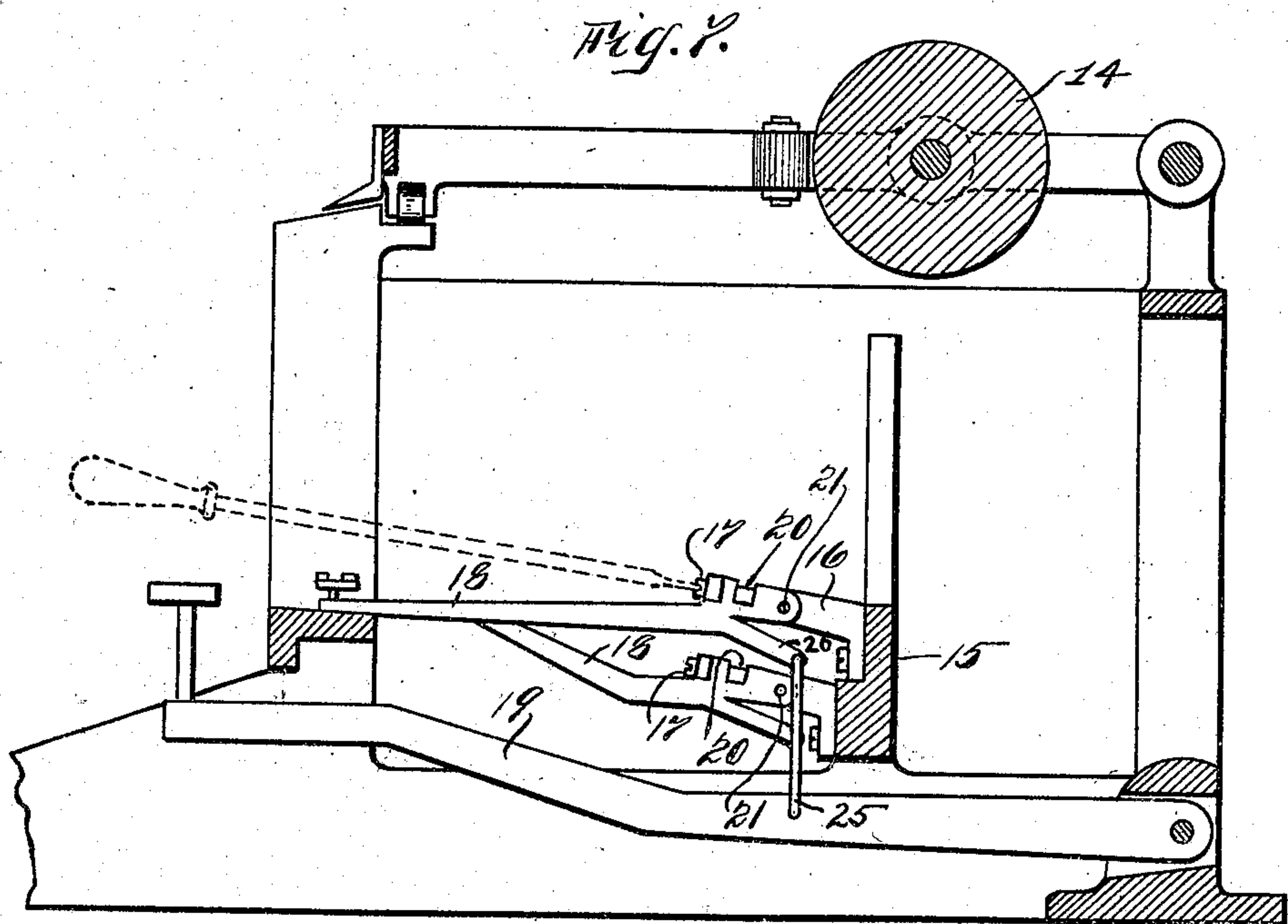
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TYPE WRITER.

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2 SHEETS—SHEET 2.



Witnesses:
C. A. Jarvis.

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Fig. 10.

Inventor:
Clement Booth.

By Emerson R. Newell
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UNITED STATES PATENT OFFICE.

CLEMENT BOOTH, OF ILION, NEW YORK.

TYPE-WRITER.

No. 881,459.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed August 12, 1907. Serial No. 388,079.

To all whom it may concern:

Be it known that I, CLEMENT BOOTH, a citizen of the United States, residing at Ilion, New York, have invented certain new and useful Improvements in Type-Writers, of which the following is a clear, full, and exact description.

My invention relates to an improvement in typewriters, and my object is to provide a simple and efficient construction of pivot connection between the type bar and its hanger, so that the play of said connection may be readily adjusted as desired.

My invention will be set forth in the claims.

In the drawings, Figure 1 is a sectional view of that much of a typewriter as will readily illustrate the application of this invention; Fig. 3 is a sectional view on line 3—3 of Fig. 2; Fig. 2 is a side elevation of the pivot and of my improved type bar; Fig. 4 is an underneath plan of Fig. 3; Fig. 5 is a perspective view of the adjusting bolt; Fig. 6 is a perspective view of the tightening tool; Fig. 7 is a view similar to Fig. 1 showing my invention applied to a visible writing machine; Fig. 8 is a side elevation of my preferred form of type bar and adjusting means; Fig. 9 is a transverse section on line 9—9 of Fig. 8; and Fig. 10 is a perspective view of a detail.

In the above embodiment illustrated in Fig. 1 to 7 inclusive, 1 is a hanger in which the type bar 2 is pivoted, said hanger being provided with means for slightly adjusting the position of the same in order to slightly vary the position at which the type will strike the paper, such means consisting (in the present embodiment) of a screw passing through a suitable slot in the hanger. One of said parts is made in the form of a spring fork, and I have shown the type bar as formed at one end into such fork, the legs 4, 5, of which straddle and are pivoted upon a stationary pivot-bar 6 carried by the hanger.

In order to adjust the play of the pivot connection I preferably provide a cam portion 8 which is adapted to contact with incline faces 9 and 10 on the legs of the fork, and a suitable threaded device such as a nut and bolt 11 to draw said cam portion against the incline faces on said legs in order to draw said legs together so as to tighten up the pivot connection.

It will be observed that, in the embodiment illustrated in the drawing, the nut or

bolt 11 causes the cam portion to move longitudinally of the type bar and is in a position such that it may be readily gotten at in order to make the required adjustment. 12 represents one of the keys of the typewriter, and 13 the platen.

I prefer that the adjustable mechanism shall be all carried upon the type bar itself, as this attains many advantages. It will be observed that if it is desired to slightly adjust the position at which the type shall strike the paper, it may be done by slightly shifting the position of the hanger without interfering with or changing the adjustment of the pivot connection. Other advantages will be apparent to those skilled in the art. The tool 14 shown in Fig. 6 may be used to adjust the nut 11. It is provided with a central recess and projecting edges straddling the recess adapted to engage a slot in the nut.

In the preferred embodiment of my invention as illustrated in Figs. 7 to 10 inclusive, 14 represents the platen of a visible writing typewriter, 19 a key lever, 25 a link connecting the lever 19 with the arm 26 of the type bar 18. 15 represents the standard to which is secured the hangers 16.

The type bar 18 is preferably of one piece having a bifurcated butt end straddling the hanger 16 and pivoted on a pivot bar 21 fixed thereto. The butt end is drilled to permit the passage of an ordinary screw 17 and straddling legs 27 are provided as shown with bevels 20, 20' and 22, 23. The cam or wedge 24 is located between these bevels and is threaded to receive the screw 17.

Upon turning the screw to draw the wedge forward, the legs 27 will be squeezed together to take up lost motion, while upon moving the screw and wedge oppositely, the legs will spread on account of the spring of the metal.

While in the foregoing I have described and illustrated the preferred form of my invention, it will be obvious that the construction illustrated may be varied without departing from the spirit of my invention as claimed, and therefore do not limit myself to the embodiment shown in the drawings.

What I claim is:

1. In a typewriter in combination, a hanger, a type bar having at one end a fork pivoted to said hanger, and means carried by said type bar acting lengthwise thereof for adjusting the legs of said fork to adjust the play of said pivot.

2. In a typewriter in combination, a

hanger provided with a fixed pivot-bar, a type bar having at one end a fork straddling and pivoted to said pivot-bar, and means carried by said type bar and acting lengthwise thereof for adjusting the legs of said fork to adjust the play of said pivot.

3. In a typewriter in combination, a hanger, a type bar having at one end a fork pivoted to said hanger, and means carried by said type bar for adjusting the legs of said fork to adjust the play of said pivot, said means comprising a movable cam adapted to contact with the legs of said fork to vary the distance between the same and an adjustable threaded device to move said cam at will.

4. In a typewriter in combination, (a hanger provided with means for slightly adjusting the position of the same) and carrying a pivot-bar, a type bar formed at one end into a spring fork straddling and pivoted on said pivot-bar, a cam portion carried by and movable longitudinally of said type bar and acting against the legs of said fork to draw them together, and a threaded device also carried by said type bar to move said cam portion to vary the play of said pivot.

5. In a typewriter in combination, a hanger (provided with means for slightly adjusting the position of the same) and type bar, one of said parts having a spring fork the legs of which are pivoted to said other part, said fork being provided with a cam portion adapted to move longitudinally of said fork and contact with the legs of the same to vary the distance between said legs to adjust the play of said pivot connection,

and threaded means adapted to move said cam portion at will.

6. In a typewriter machine in combination, a hanger provided with a pivot bar, a type bar bifurcated at one end and mounted upon said pivot bar, the arms of said bifurcated portion being slotted in oppositely-inclined directions, the walls of said slots forming oppositely inclined beveled faces, a movable cam located adjacent thereto, having two oppositely inclined beveled faces to cooperate with the beveled faces of the slotted arm portions and means to move said cam.

7. In a typewriter machine in combination, a solid one piece hanger provided with a pivot bar, a one piece type bar bifurcated at one end to embrace the hanger and provided with bearings for said pivot bar, the arms of said bifurcated portion being slotted in oppositely-inclined directions the walls of said slots forming oppositely-inclined beveled faces, a movable cam located adjacent thereto having two oppositely-inclined beveled faces to cooperate with the beveled faces of the slotted arm portions, said cam adapted when moved to compress the bearings of the bifurcated arm portions upon the pivot bar, and a screw-threaded bolt engaging with said cam to operate the same.

Signed at Ilion, N. Y., this 8th day of August, 1907.

CLEMENT BOOTH.

Witnesses:

EDWARD H. CLARK,
JOHN BEAVER.