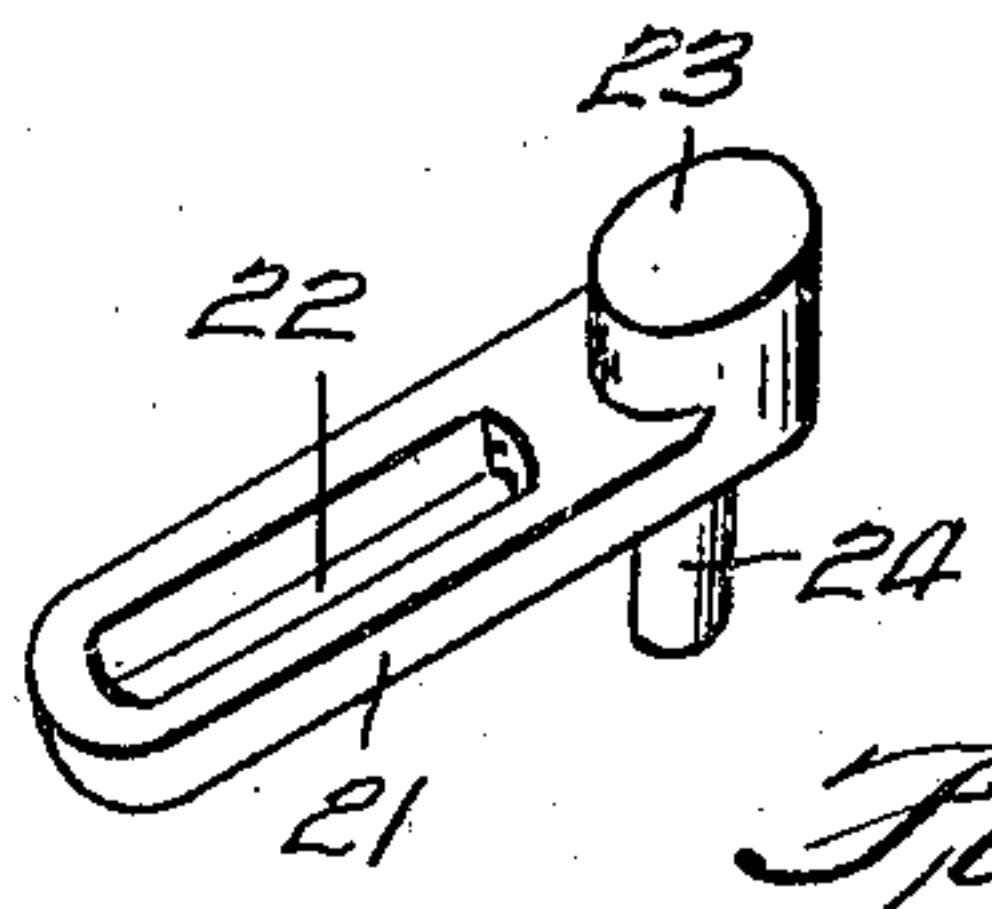
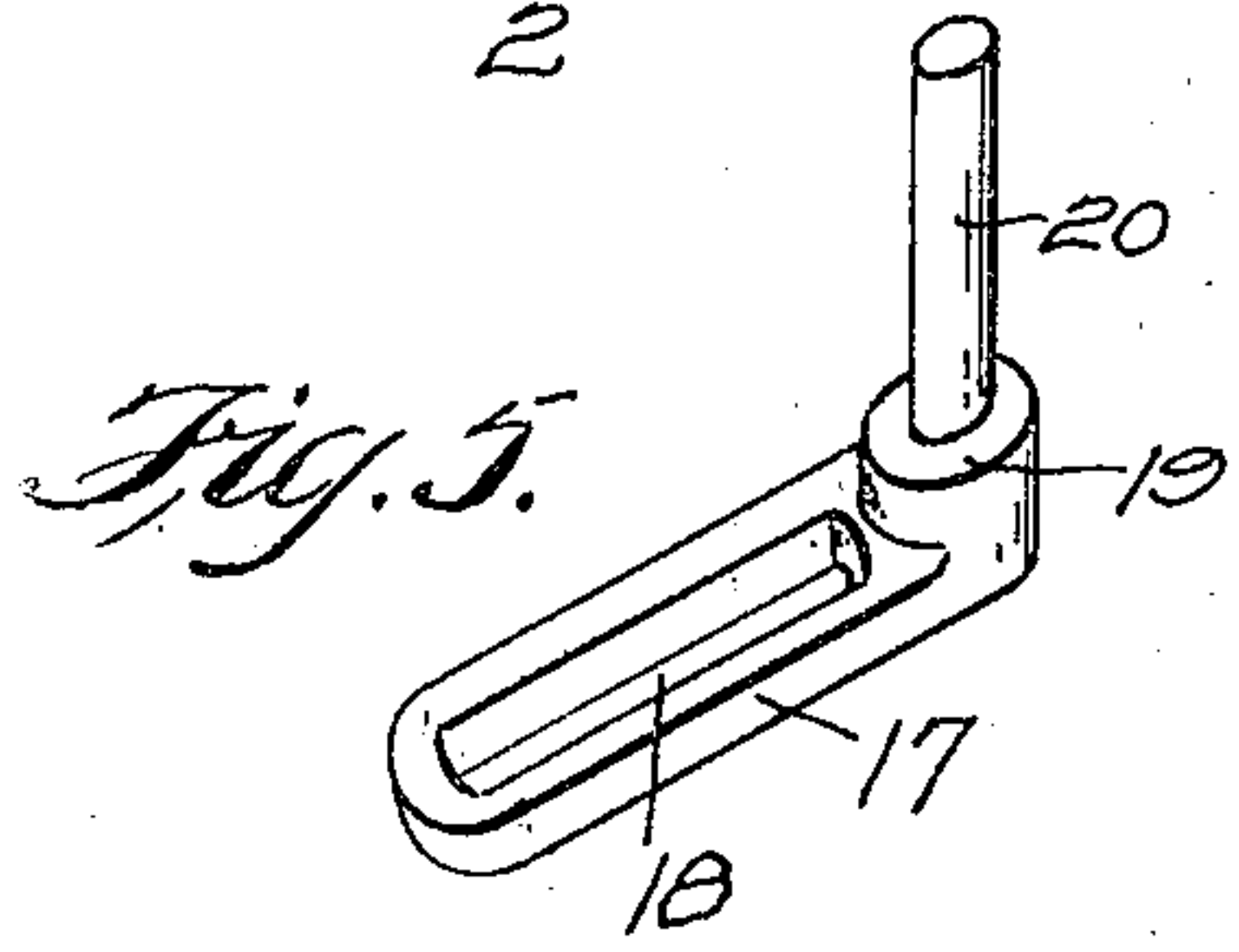
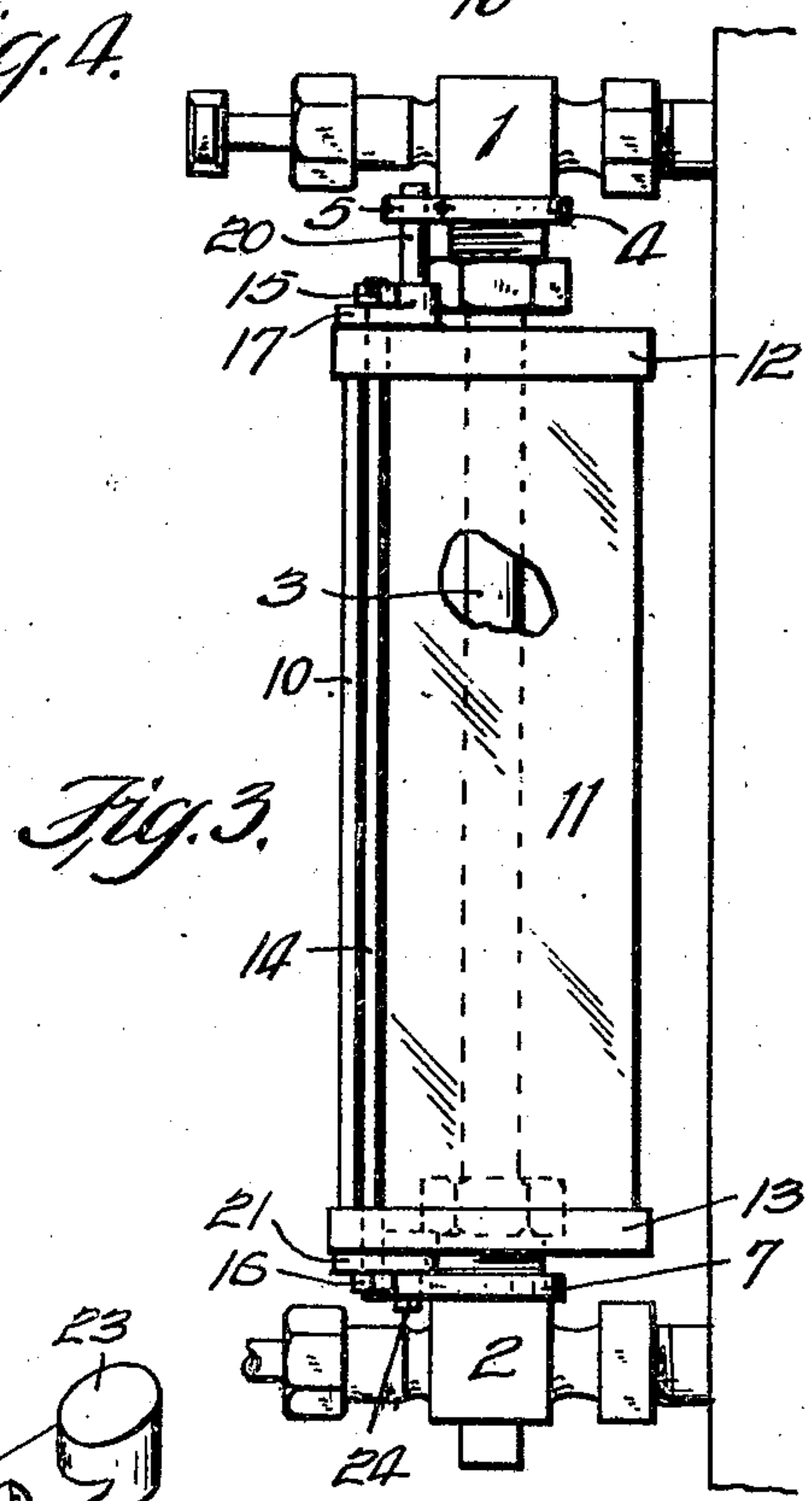
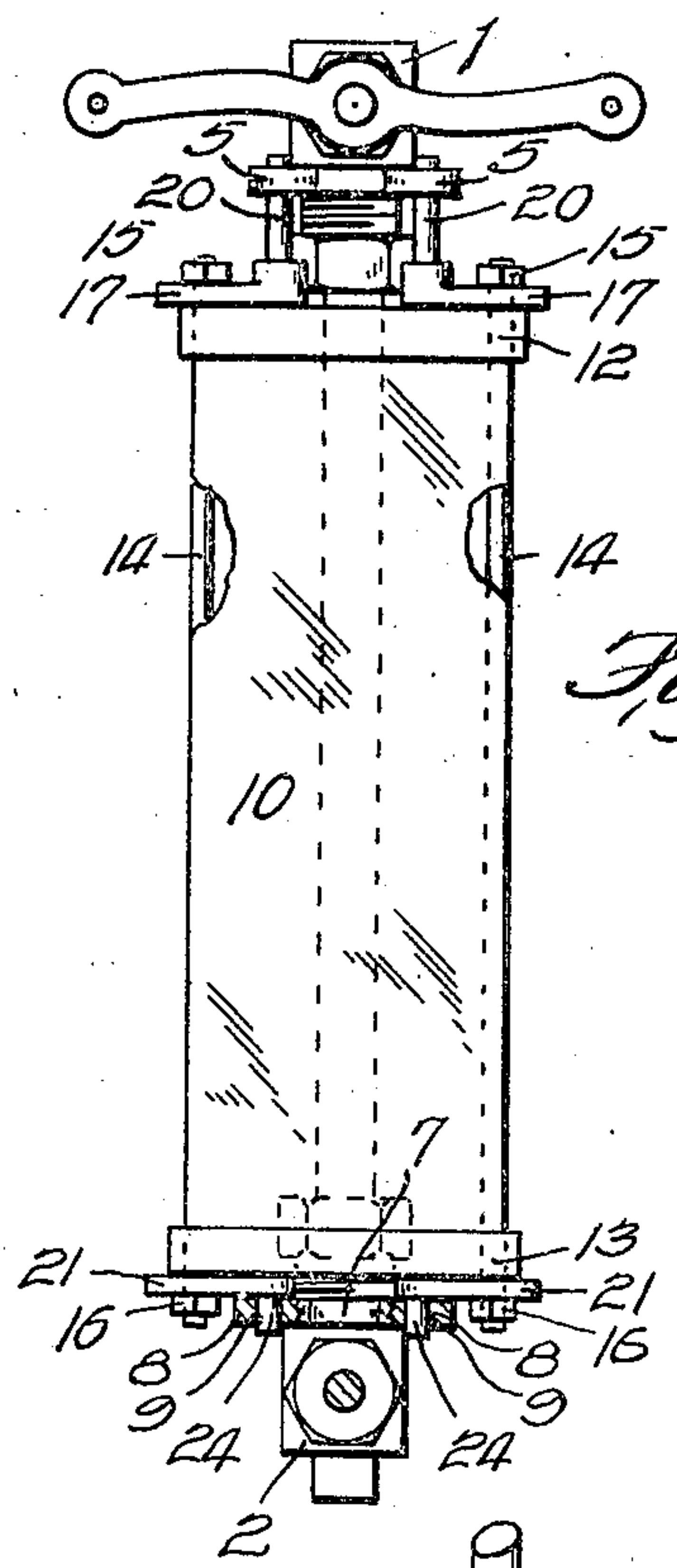
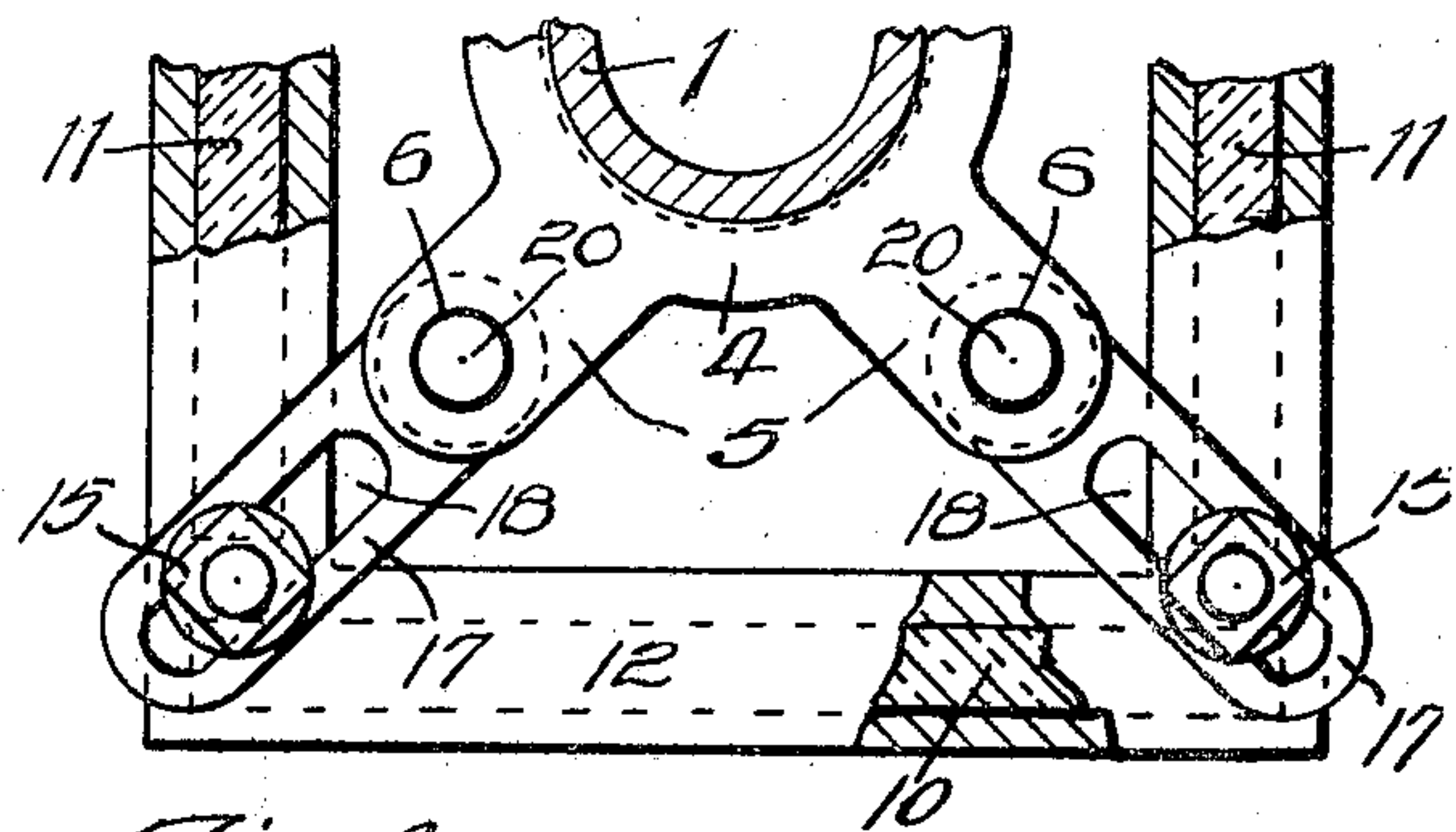
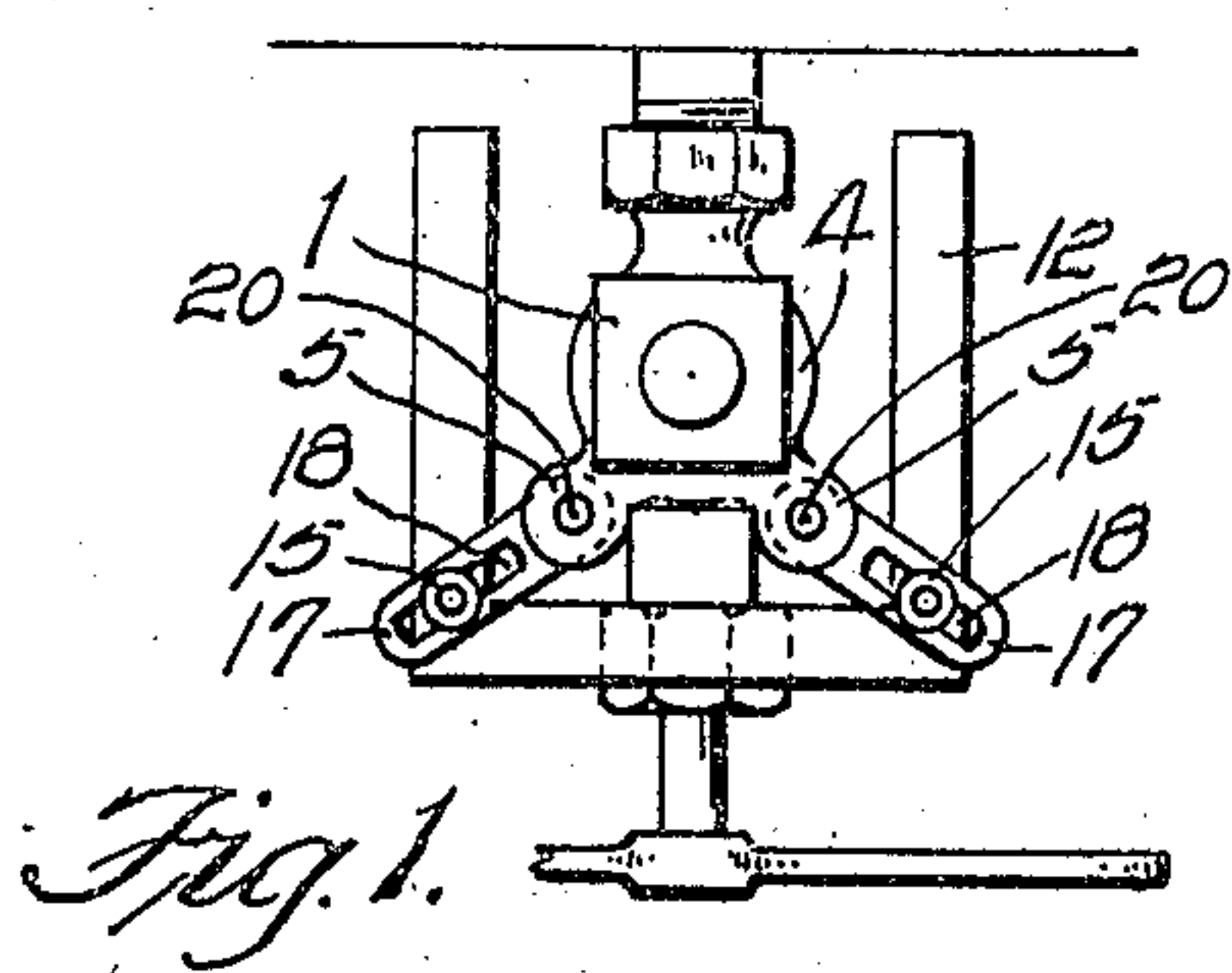


Jan. 2, 1923.

1,440,607.

W. KEMP.  
WATER GAUGE PROTECTOR.  
FILED FEB. 7, 1921.



Inventor:  
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# UNITED STATES PATENT OFFICE.

WILLIAM KEMP, OF ST. LOUIS, MISSOURI.

WATER-GAUGE PROTECTOR.

Application filed February 7, 1921. Serial No. 443,012.

*To all whom it may concern:*

Be it known that I, WILLIAM KEMP, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Water-Gauge Protectors, of which the following is a specification.

My invention relates to improvements in water-gauge protectors, and, has for its object means which can be adjusted so as to attach the protector to any make, or style of water-gauge.

A further object of the invention is the provision of means so that the water-gauge protector may be attached to, or detached from the water-gauge by means of one hand.

A still further object of the invention is the provision of means to facilitate removal of the protector from the water-gauge, or the application thereof to the water-gauge.

With the above and other objects in view, the invention consists in the novel features of construction, arrangement and combination of parts hereinafter more fully described and finally pointed out in the claims hereto appended.

Referring to the accompanying drawings forming a part of this specification, wherein like characters of reference denote similar parts throughout the several views:

Fig. 1, is a top plan view of the protector applied to a water-gauge.

Fig. 2, is a front elevation thereof.

Fig. 3, is a side elevation thereof.

Fig. 4, is a detail, full size, in top elevation of the protector with portions thereof broken away, and shown as applied to a water-gauge.

Fig. 5, is a detail, in perspective, of one of the upper adjusting arms.

Fig. 6, is a detail, in perspective, of one of the lower adjusting arms.

Referring to the drawings, the reference character 1 designates the upper valve casing, 2 the lower valve casing and 3 the gauge-glass, or tube supported between the two valve casings. 4 indicates a member having a screw-threaded connection with the upper valve casing 1 for supporting said member. Member 4 is provided with a pair of forwardly and laterally projecting arms 5, each having an opening 6 near its outer end. 7 indicates a member having screw-threaded engagement with the lower valve casing 2 for supporting the member 7. Member 7 is provided with a pair of forwardly and

laterally extending arms 8, each having an opening 9 near its outer end. The members 4 and 7 are held in vertical alignment and the openings of the arms of the upper member 4 are in vertical alignment with the openings of the arms of the lower member 7.

The water-gauge protector comprises a front glass panel 10 and two side glass panels 11 held between the upper and lower metallic U-shaped frames 12 and 13, respectively. The glass panels are held in position by means of the two corner rods 14 which are screw threaded at each end and provided with the upper and lower securing nuts 15 and 16, respectively.

The reference character 17 indicates two like arm members each having a longitudinal slotted opening 18 and a boss 19 formed upon the upper face of each arm at the inner ends thereof. A relatively long, preferably cylindrical, pin 20 although not necessarily cylindrical, extends upwardly from each boss 19, as clearly shown in detail in Fig. 5. The arms 17 each rest upon the top frame 12, at the corners thereof, and the rods 14 pass through the slotted openings 18, as clearly shown in Fig. 4. The securing nuts 15 hold the arms 17 in their adjusted positions, as is manifest. It will be here observed that the slotted openings 18 in the arms 17 permit the arms to be adjusted inwardly and outwardly, and are rotated so that the vertical pins 20 may be adjusted to come in direct alignment with the fixed openings of the arms of the casing members 4, as the opening may be spaced differently upon different types and makes of water-gauge valve casings.

The reference character 21 designates two like arm members each having a longitudinal slotted opening 22 and each provided with a boss 23 formed upon the upper face of each arm at the inner ends thereof, as shown in detail in Fig. 5. A relatively short, preferably cylindrical pin 24, although not necessarily cylindrical, extends downwardly from the lower face of each arm at the inner ends thereof. The arms 21 each engage the lower face of the lower frame member 13, at the corners thereof and the lower threaded ends thereof pass through the slotted openings 22 of the arms 21, as shown in Fig. 2. The lower securing nuts 16 hold the arms 21 in their proper adjusted positions, as is manifest. It will be here observed that the pins 24 pass through the openings 9 of the arms



8 of the lower valve casing member. It will also be observed that the slotted openings 22 of the arms 21 permit the arms to be adjusted so that the pins 24 will register with the openings 9 of the arms 8 of different styles, or makes of water-gauges. The lower arms 21 rest upon the arms 8 of the screw-threaded valve casing member 7, as shown in Figs. 2 and 3.

The pins 20 of the upper arms 17 being longer than the pins 24 of the lower arms, it will be observed, permits the pins 20 to be moved upwardly through the openings 6 of the arms 5 which causes the pins 24 of the lower arms to be withdrawn from the openings 9 in the lower arms 8 permitting the lower end of the water-gauge protector to be moved outwardly or forwardly and then moved downwardly for withdrawing or removing the pins 20 of the upper arms 17 from the openings 6 of the arms 5 of the upper valve casing member 4.

To attach the protector to a water-gauge, the operator first places the pins 20 of the arms 17 in the openings 6 of the arms 5 of the upper valve casing member 4, and after they are forced upwardly as far as they will go, the protector is moved into a vertical position and lowered directing the pins 24 of the lower arms 21 into the openings 9 of the arms 8 of the lower valve casing member 7.

From the foregoing description, it is evident that by loosening the securing nuts 15 and 16 the arms 17 and 21 may be adjusted to the desired and proper position to cause the pins 20 and 24 to lie in alignment with the openings of the arms of the upper and lower valve casing members 4 and 7 so that the pins 20 and 24 can be received by the openings when applying the protector to a water-gauge. This arrangement of parts permits the protector to be applied to any style of water-gauge, regardless as to the spaced relation of the openings in the arms of the upper and lower valve casing members 4 and 7.

It will also be evident from the foregoing description that the protector may be applied, or removed from a water-gauge with the use of but one hand, that the device is simple in construction, durable and applicable to use in connection with any style, or make of water-gauge.

The many advantages of the herein-described invention will readily suggest themselves to those skilled in the art to which it appertains.

I do not desire to be understood as limiting myself to the exact details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made without departing from the spirit and scope of my invention and the terms of the following claims, hence I wish it to be understood that I reserve the right to make any such changes, or modifications as may fairly fall within the scope of the appended claims when fairly construed.

What I claim is:

1. The combination with a water-gauge embodying angle valve casings and a glass tube between the valve casings and in communication therewith, of ears projecting forwardly and outwardly from the valve casings, a glass tube protector U-shaped in cross-section, slotted arms adjustably supported at the upper and lower corners of the tube protector and removably connected with the ears of the valve casings for supporting the protector about the glass tube.

2. The combination with a water-gauge embodying angle valve casings and a glass tube between the valve casings and in communication therewith, of ears projecting forwardly and outwardly from the valve casings, a glass tube protector U-shaped in cross-section, slotted arms adjustably supported at the upper and lower corners of the tube protector and pins extending from the adjustable arms and receivable in openings in the projecting ears of the valve casing for supporting the tube protector in position.

3. The combination with a water-gauge embodying angle valve casings and a glass tube between the valve casings and in communication therewith, of a pair of ears each having an opening projecting forwardly and outwardly from each valve casing, a protector U-shaped in cross-section comprising transparent front and side walls, a rim engaging the ends of said walls, rods for uniting said walls at the corners of the protector, arms arranged at each corner each having slotted openings for the passage of said rods, and securing nuts for holding the arms in their adjusted positions, and means extending from each arm for reception in openings of the ears projecting from the valve casings for supporting the protector in position adjacent a water-gauge tube.

In testimony whereof, I have hereunto signed my name to the specification.

WILLIAM KEMP.