

G. J. SILVER.

FAUCET.

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966,061.

Patented Aug. 2, 1910.

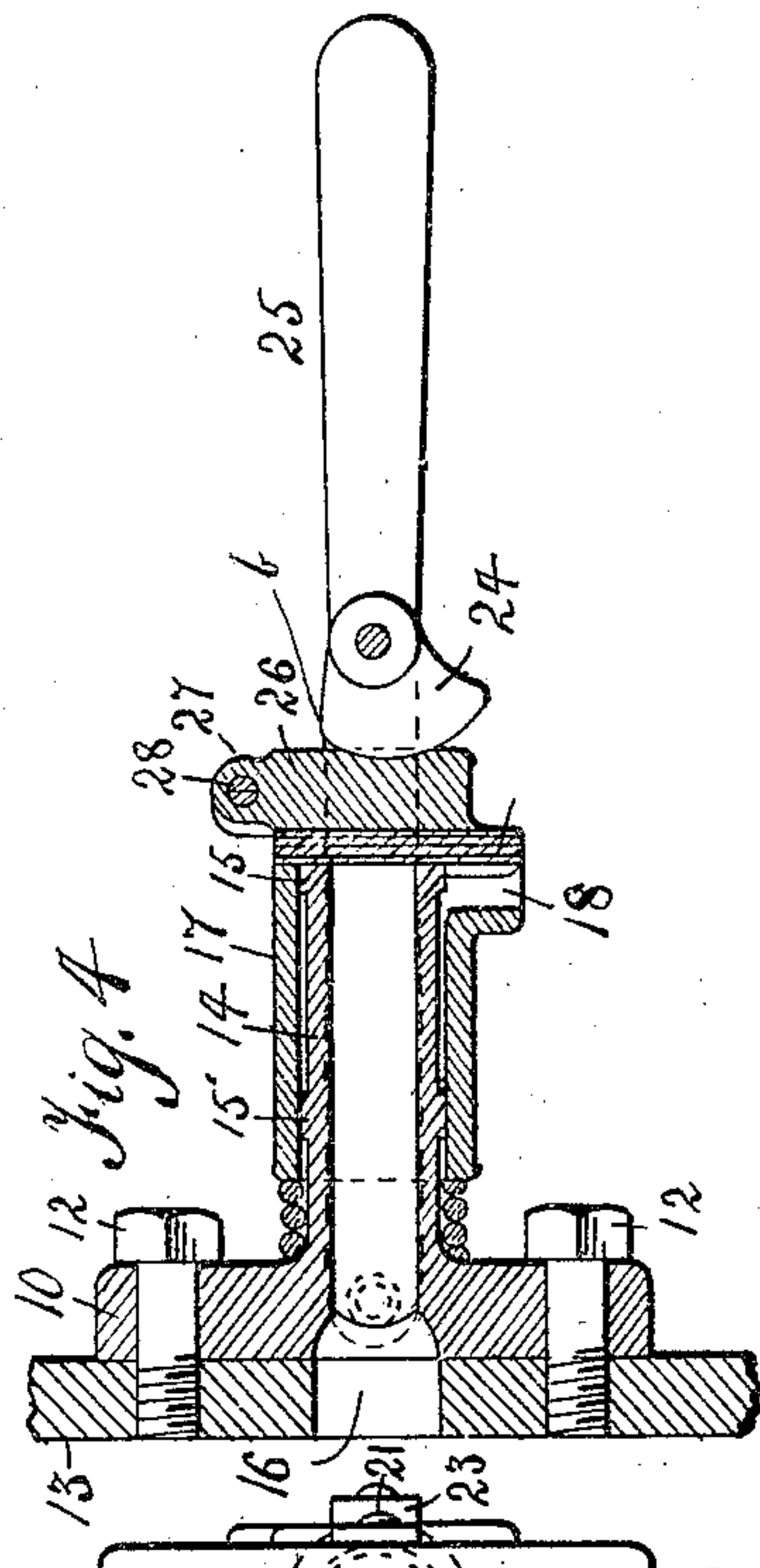
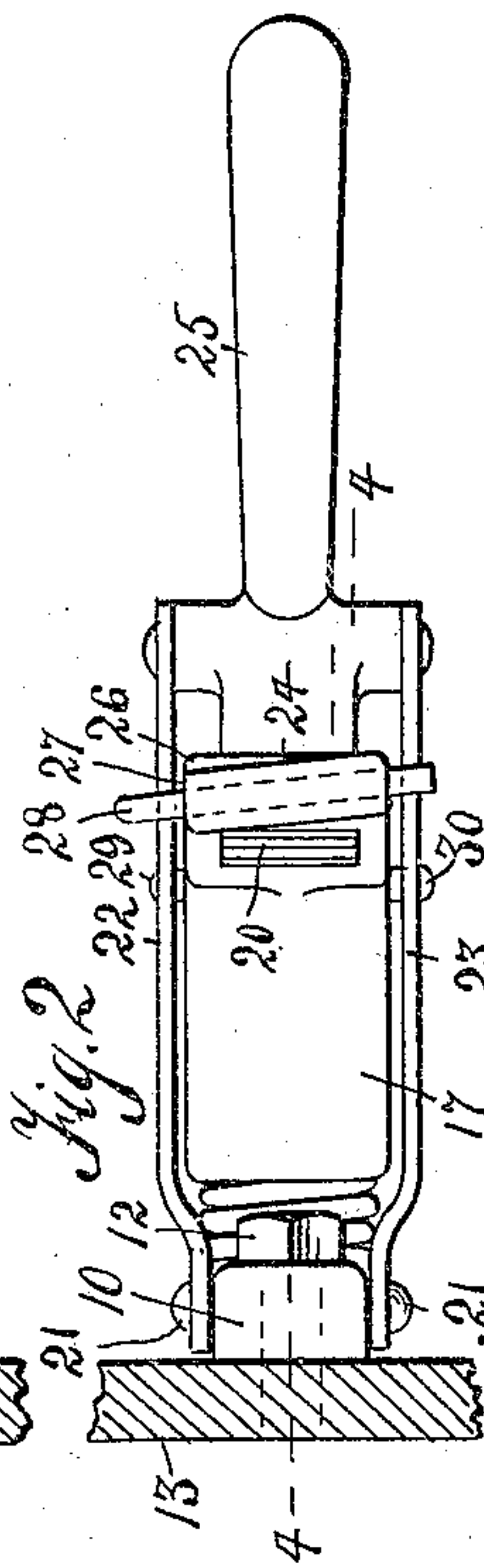
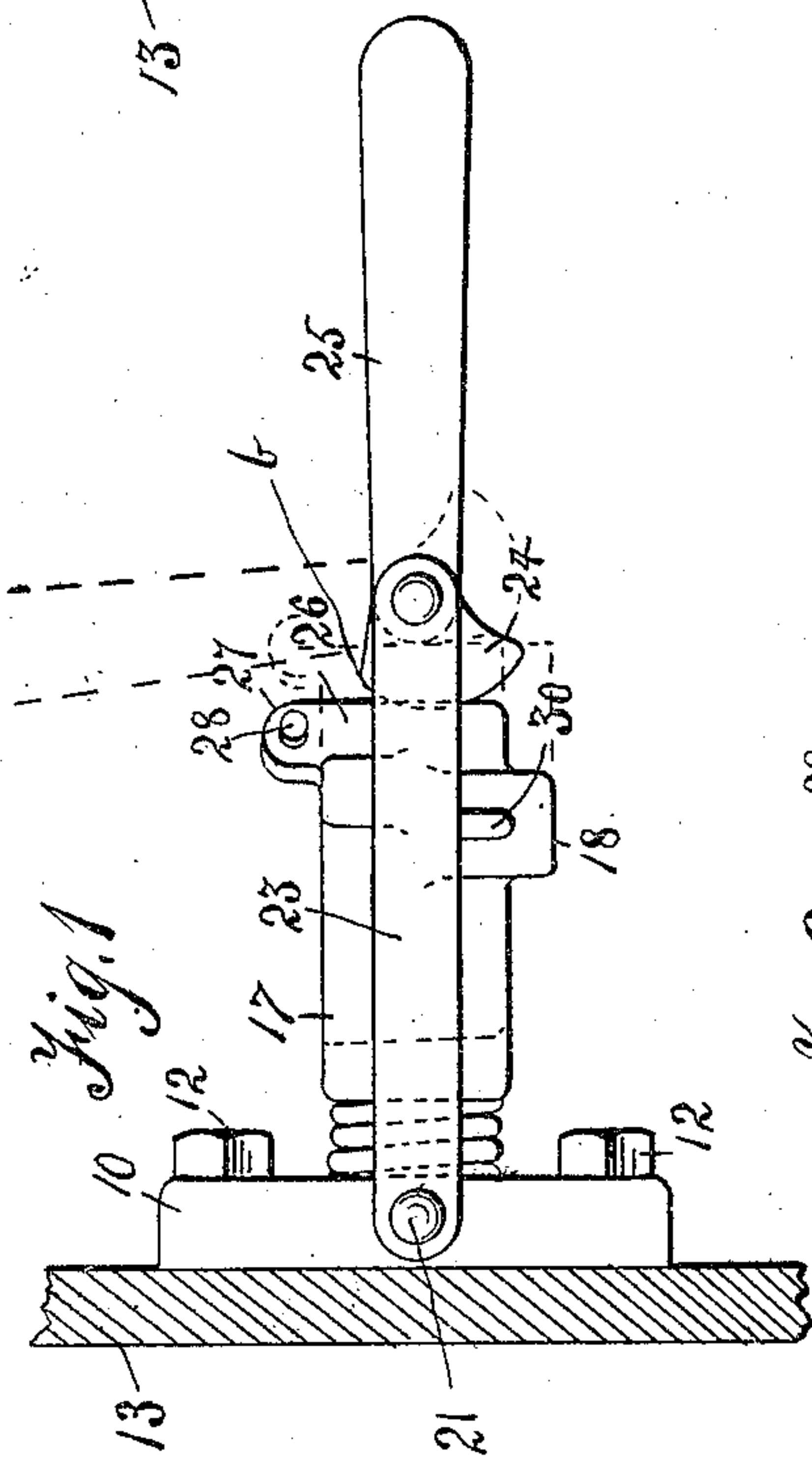
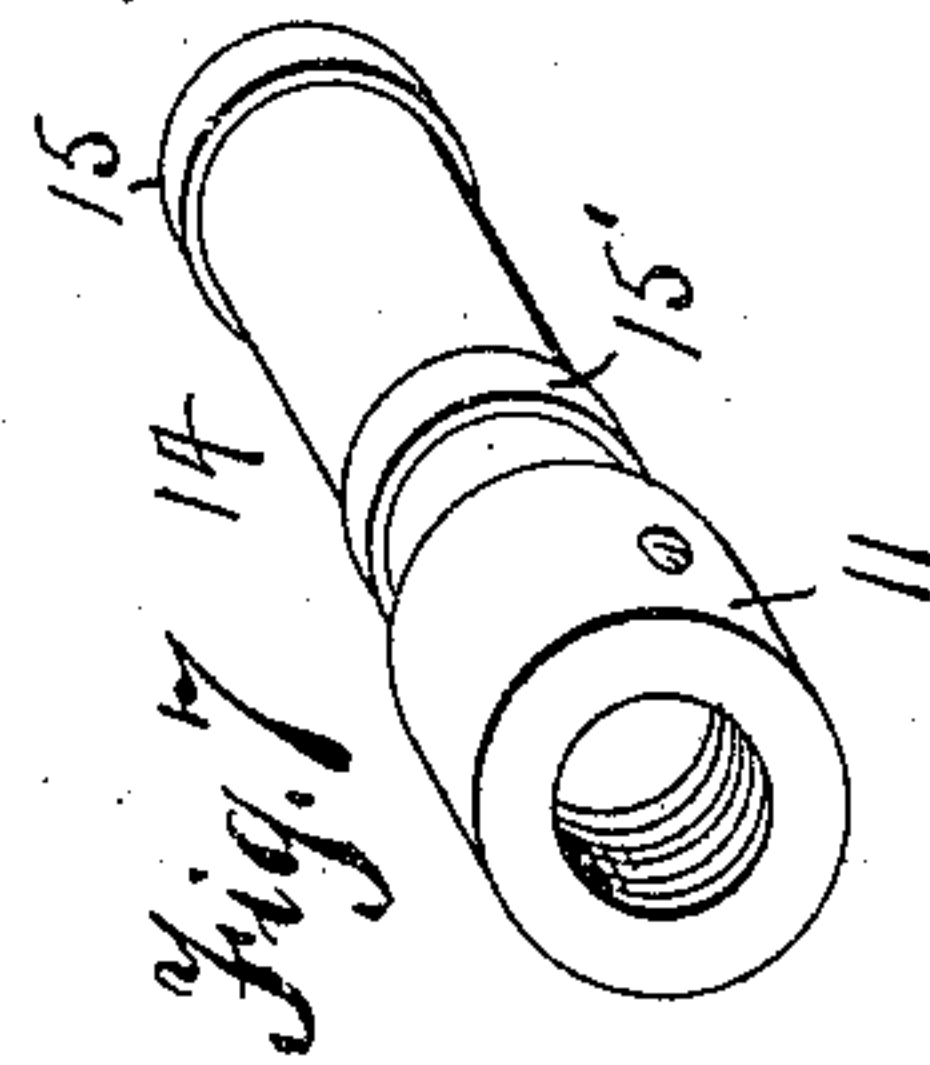
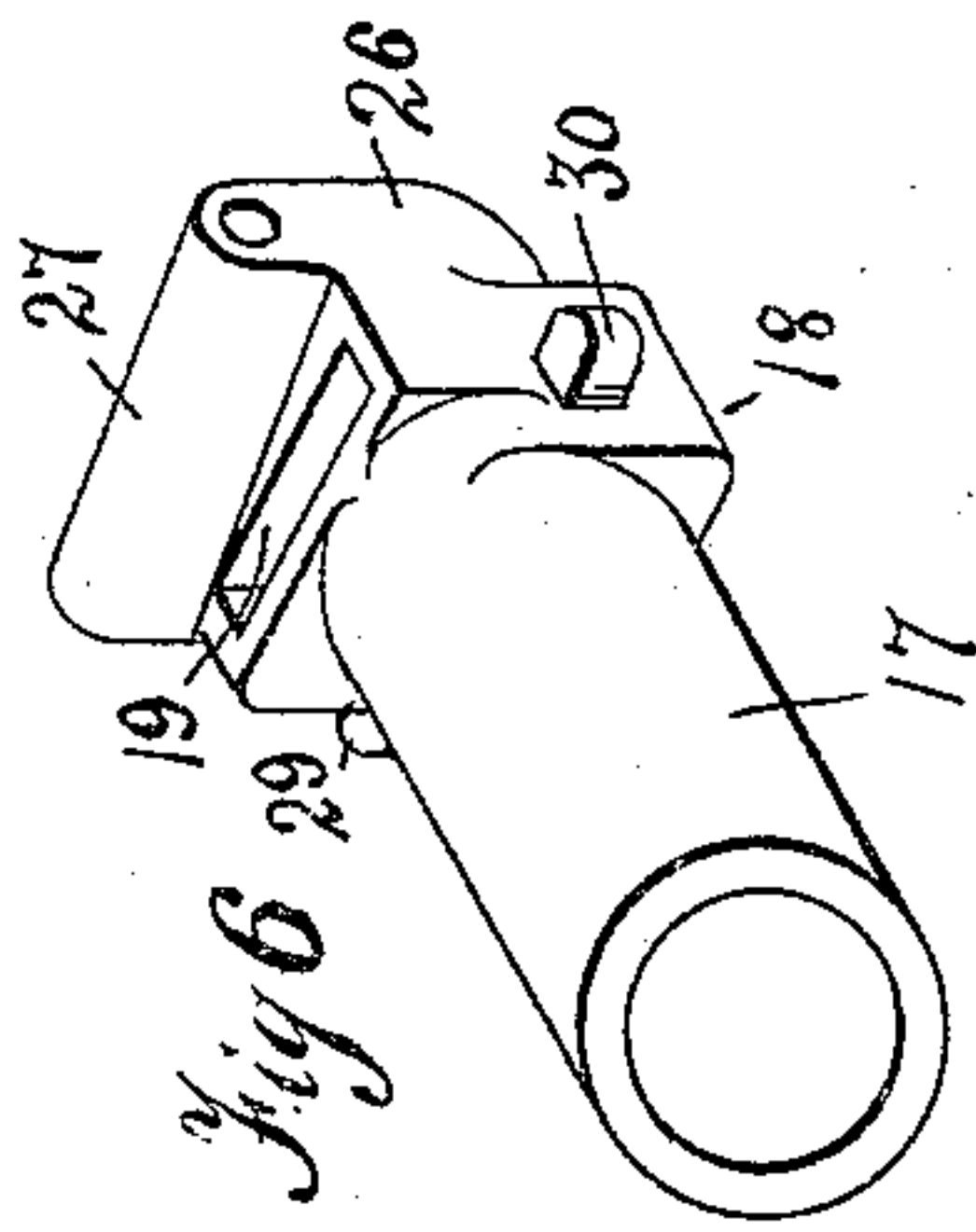
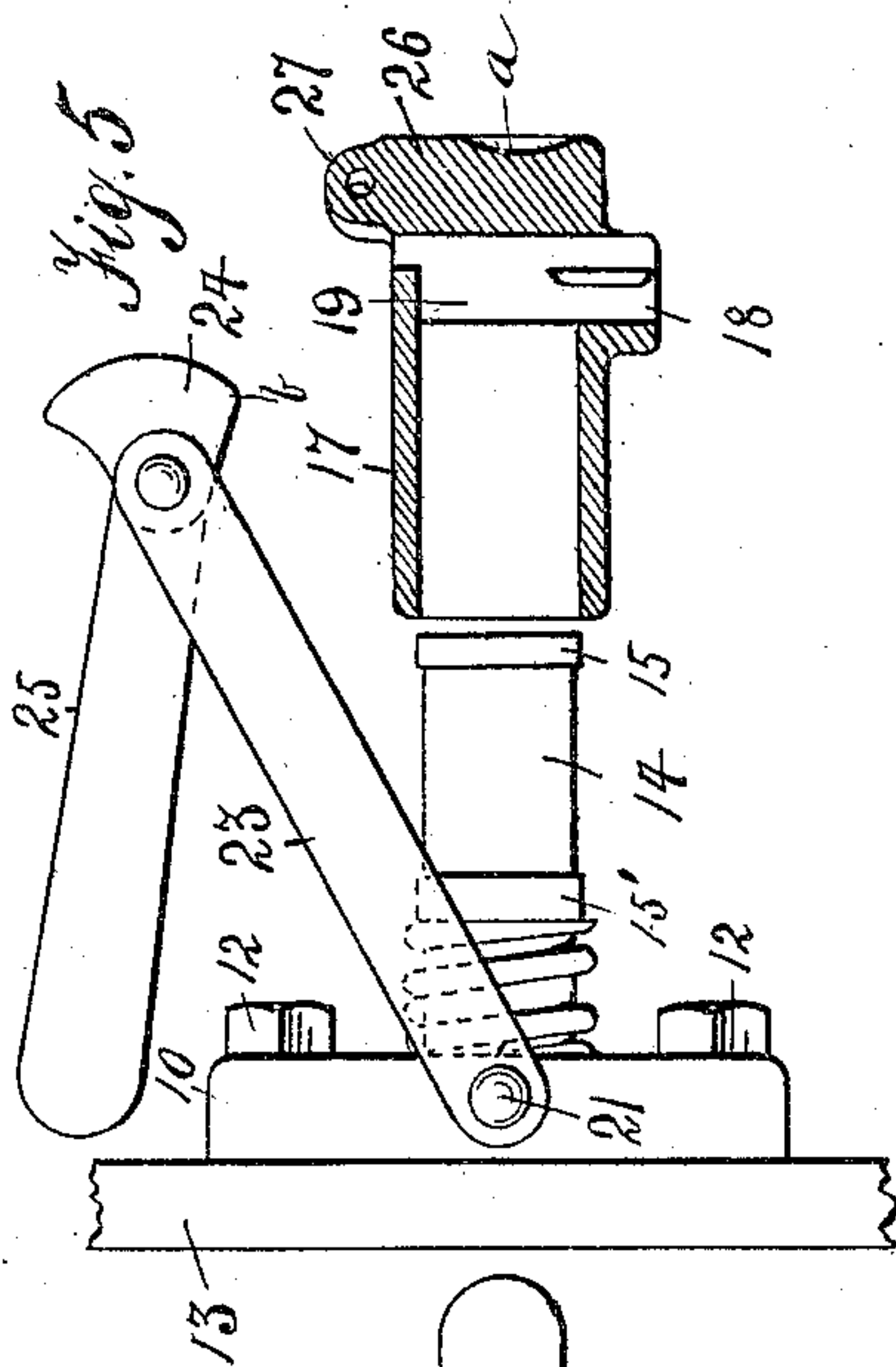


Fig. 3

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UNITED STATES PATENT OFFICE.

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FAUCET.

966,061.

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To all whom it may concern:

Be it known that I, GEORGE J. SILVER, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Faucets, of which the following is a specification.

This invention relates to improvements in faucets, more particularly to devices of this class employed for the discharge of syrups, molasses, and similar liquids or semi-liquids, or for "slimes," and is especially applicable for use in drawing the products from filter presses.

The invention consists in certain novel features of construction, as hereinafter shown and described and specifically pointed out in the claims.

In the drawing is shown the preferred form of the embodiment of the invention, and in such drawing, Figure 1 is a side elevation, and Fig. 2 is a plan view of the improved device. Fig. 3 is a view from the inner end of the device detached. Fig. 4 is a longitudinal sectional elevation on the line 4-4 of Fig. 2. Fig. 5 is a side elevation with the parts disassociated with one portion in section. Fig. 6 is a perspective view of the movable portion of the device. Fig. 7 is a perspective view of the stationary portion of the device, illustrating a modification in the construction.

In one embodiment of my invention, the reference character 10 indicates a base which may be oblong or of any other formation, as disclosed in Figs. 1 to 5, inclusive, or in the form of an internally threaded cylinder indicated at 11 in Fig. 7, or in any other form, according to the structure with which my improved device is associated, the means for mounting the device being immaterial.

The character 13 indicates a portion of a container from which liquid is to be drawn, and the base 10 of the faucet may be secured to the container in any suitable manner, preferably, however, by means of bolts 12.

Projecting from the base member 10 is a tubular portion 14 preferably provided with spaced annular raised portions 15 and 15' designed to reduce friction between the tubular portion 14 and the sleeve 17, which latter is slidably mounted upon the tubular portion, the inner annular raised portion forming a shoulder to prevent displacement of the spring 29, which has a normal tend-

ency to force the sleeve 17 outwardly, for a purpose hereinafter explained. The tubular portion and its base have their bores alining with an aperture 16 formed in the base member 10 by which communication is established between the faucet and the container.

The sleeve 17 which slides upon the tubular member 14 is provided with a depending discharge aperture 18 and a guide-way or recess 19 to receive a removable packing member 20, which may be composed of rubber, asbestos, leather or any other suitable material, the packing being adapted, when the device is in closed position, to bear against the outer end of the tubular member 14, as illustrated in Fig. 3.

Pivoted at 21 to the sides of the base member 10 are links 22 and 23, and swinging between the free ends of these links is a cam device 24 having an operating handle 25, the cam being adapted to bear in the recess α in the outer closed end 26 of the slidable sleeve 17. When the cam member is in its lower position, that is, as shown in full lines in Figs. 1 to 4, inclusive, the packing 20 will be compressed firmly against the outer end of the tubular member 14 and thus close the faucet against leakage, holding the device closed tightly, but when the handle 25 is disposed at its uppermost limit of movement, that is, elevated, as shown in dotted lines in Fig. 1, the pressure of the liquid against the packing 20 will cause the sleeve 17 to follow up the cam device and thus open the faucet, permitting of the discharge of the liquid. If the handle 25 should be thrown to a point intermediate the full and dotted line positions shown in Fig. 1, the sleeve 17 would be forced inwardly and cause the packing to engage the outer end of the tubular member 14 in such a way as to close the faucet, but the closure would not be as tight or lock, as is the case when the handle 25 is thrown to said full line position. In other words, when the handle 25 is thrown to said intermediate position, the heel b of the cam 24 will be in alinement with the pivot points 21 and the pivot on which the cam device is mounted in the free ends of the links 23 and 24. Such position of the handle 25 will close the faucet, as stated, but in order to insure a positive closure of the faucet, it is preferred to throw the handle 25 to the full line position shown in Fig. 1. Thus the cam has

ample movement for compression of the packing and provides means for taking up the wear on the gasket and also on the links and cam, if any. Projecting from the upper side of the head 26 of the sleeve 17 is a lug 27 through which a stop pin 28 is disposed, with its ends projecting above the links 22 and 23 to limit the upward movement of the links and thus lock the sleeve and prevent it from being blown off from the tubular portion 14 in the event of the faucet being employed to discharge liquid under pressure. Stops 29 and 30 project from the sides of the sleeve 17 and upon these stops the links 22 and 23 are adapted to rest when the handle 25 is thrown to its full line position shown in Fig. 1, thus limiting the downward movement of the links 22 and 23. The lug 27 is preferably disposed at an angle transversely of the member 26, as clearly shown in Fig. 2, so that if a series of faucets be disposed side by side, as is common when devices of this character are employed in connection with filter presses, the pins 28 will overlap sufficiently to enable any one of them to be removed without disturbing the others, as will be obvious.

The spring 29' is disposed between the inner end of the sleeve 17 and the base portion 10, and exerts its force outwardly against the sleeve 17 to cause the positive opening of the valve when the cam device is elevated to the dotted line position shown in Fig. 1, this spring 29' exerting such force upon the sleeve 17 when the device is employed for drawing liquids not under pressure, although when the device is associated with containers confining liquid under pressure, the spring 29' coöperates with the pressure itself in forcing the sleeve 17 outwardly to open the faucet.

To disconnect the faucet from the container 13, the pin 28 may be removed and then the links 22 and 23, together with the cam device and handle 25 may be elevated, as shown in Fig. 5, leaving the sleeve 17 with its packing 20 free to be detached.

It will thus be seen that I provide an exceedingly simple faucet, and one particularly applicable for discharging hot syrup and other semi-liquid bodies. It will also be appreciated that the device can be manufactured in any size and of any suitable material, and that it is inexpensive of manufacture.

What is claimed is:—

1. A faucet comprising a tubular member provided with annular raised portions, a sleeve movable upon the tubular member, a spring bearing against the inner end of the sleeve and arranged to engage one of said raised portions when the sleeve is removed from the tubular member to prevent displacement of the spring, pivotally mounted links on opposite sides of the tubular mem-

ber and sleeve, and a lever pivotally mounted at the outer ends of said pivoted links and coöperating with the sleeve to open and close the faucet.

2. A faucet comprising a tubular member provided with spaced annular raised portions, a sleeve slidable upon the tubular member and provided with a depending outlet and a slot opposite the outlet, packing material removably fitted in said slot and adapted to rest upon one of said raised portions when the sleeve is in one position, links adjacent the tubular member and sleeve, a cam lever pivotally secured to said links and coöperating with the sleeve to force the latter inwardly upon the tubular member and to also force the packing material upon the last mentioned raised portion, and a spring adapted to engage the other of said raised portions of the tubular member when the sleeve is removed from the latter, said spring being arranged for compression by the sleeve and to move the latter outwardly upon the tubular member and consequently the packing from engagement with the first raised portion when the cam lever is operated in one direction.

3. A faucet comprising a body member having means for attachment to a container from which a liquid is to be drawn and provided with a tubular member communicating with the body member, a sleeve slidably disposed over said tubular member and closed at the outer end and provided with a depending discharge and with an aperture communicating with the discharge between the closed outer end and the body of the sleeve, said sleeve having an apertured lug, a stop pin extending through the aperture of said lug and projecting at the ends, a cam device having a projecting handle and adapted to engage the closed outer end of the sleeve, and links pivoted at their ends respectively to said cam device and to said body member.

4. A faucet comprising telescoping tubular members, one of said members having an outlet and a closed end, packing material carried by one of the tubular members, links adjacent said tubular members and a cam lever pivotally secured to said links coöperating with the said closed end of one of the members to effect an opening and closing of said outlet.

5. A faucet comprising a tubular member having means at one end for attachment to a container and a valve seat at the other end, a sleeve slidable upon said tubular member and closed at the outer end, links having connection with said attaching means, a cam device having operative engagement with said links to maintain said sleeve in closed position relative to said tubular member, and a spring arranged between said attaching means and the inner end of said

sleeve to automatically move the latter when released.

6. A faucet comprising a tubular member having means at one end for attachment to a receptacle and provided with a valve seat at its other end, a sleeve slidable over said tubular member and closed at its outer end and bearing by said closed end over said tubular member, means for supporting said sleeve upon said tubular member, links having operative connection with said attaching means, a cam device having connection with said links and cooperating with the sleeve to open and close the faucet, and oppositely arranged stop devices to limit the movement of the device in correspondingly opposite directions.

7. A faucet comprising a tubular member having means at one end for attachment to a receptacle and provided with a valve seat at its other end, a sleeve slidable over said tubular member and closed at its outer end and bearing by said closed end over said tubular member, means for supporting said sleeve upon said tubular member, a cam device cooperating with the sleeve to open and close the faucet, and oppositely arranged stop devices to limit the movement of the cam device in correspondingly opposite directions, the stop devices on one side being constituted of a single piece of material and removable.

8. A faucet comprising a tubular member having means at one end for attachment to a receptacle and provided with a valve seat at its other end, a sleeve slidable over said tubular member and closed at its outer end and bearing by said closed end over said tubular member, means for supporting said sleeve upon said tubular member, a cam device cooperating with the sleeve to open and close the faucet, and oppositely arranged stop devices to limit the movement of the combined toggle and cam mechanism in correspondingly opposite directions, the stop devices on one side being constituted of a single piece of material and removable and also being disposed upon an incline.

9. A faucet comprising a tubular member provided with means for attachment to a container, a sleeve slidable upon the tubular member and provided with an outlet and a slot adjacent and above the outlet, said discharge and slot being disposed intermediate the ends of the sleeve, the outer end of the sleeve being closed, a packing material in said slot and carried by the sleeve for engagement with the outer end of the tubular member to close the faucet, and means for operating said sleeve to open and close the faucet.

10. A faucet comprising a tubular member provided with means for attachment to a container, a sleeve slidable upon the tubular member and provided with an outlet and

a slot adjacent the outlet, said discharge and slot being disposed intermediate the ends of the sleeve, the outer end of the sleeve being closed, a packing material in said slot and carried by the sleeve for engagement with the outer end of the tubular member to close the faucet, and a cam device to operate the sleeve to open and close the faucet.

11. A faucet comprising a tubular member having means for attachment to a container, the outer end of the tubular member being open, a spring pressed sleeve slidable upon the tubular member and having a closed outer end, said sleeve having a discharge opening and a slot adjacent said open end of the tubular member, packing material in said slot for engagement with the outer open end of said tubular member to close the faucet, means acting upon the closed outer end of the sleeve to force the latter inwardly upon the tubular member and cause the packing to engage the outer end of the tubular member to close the faucet, a reverse movement in operation of said last mentioned means permitting the opening of the faucet.

12. A faucet comprising a tubular member having means for attachment to a container, the outer end of the tubular member being open, a spring pressed sleeve slidable upon the tubular member and having a closed outer end, said sleeve having a discharge opening and a slot adjacent said open end of the tubular member, packing material in said slot for engagement with the outer open end of said tubular member to close the faucet, means acting upon the closed outer end of the sleeve to force the latter inwardly upon the tubular member and cause the packing to engage the outer end of the tubular member to close the faucet, a reverse movement in operation of said last mentioned means permitting the opening of the faucet, and stop devices to limit the movement of the said last mentioned means.

13. A faucet comprising a tubular member, a sleeve slidable longitudinally only upon the tubular member and having a closed outer end, packing material carried by the sleeve for engagement with the outer end of the tubular member to close the faucet, means operable whereby the sliding member may move upon the tubular member to open and close the faucet, and an inclined stop pin piercing the sleeve and projecting upon opposite sides thereof to limit the movement of said sleeve operating means when the latter is operated in one direction.

14. A faucet comprising a tubular member, a sleeve slidable upon the tubular member and having a closed outer end, packing material carried by the sleeve for engagement with the outer end of the tubular member to close the faucet, means operable

whereby the sliding member may move upon the tubular member to open and close the faucet, and a stop pin to limit the movement of said sleeve operating means when
5 the latter is operated in one direction, said stop pin being removable and disposed upon an incline.

15. A faucet comprising a tubular member having an open outer end, a sleeve slidable upon the tubular member and having a closed outer end and also provided with a discharge opening and a slot adjacent the discharge opening, packing material carried by the sleeve for engagement with the
15 open outer end of the tubular member, a cam device operable to permit of an opening and closing of the faucet, and a pin removably secured to the sleeve to limit the movement of said operating means to limit
20 the operating means in its movement in one direction, said pin being disposed upon an incline.

16. A faucet comprising a tubular member provided with means at one end for attachment with a container and open at its
25 outer end, a sleeve slidably mounted upon the tubular member and having a closed outer end, said sleeve carrying packing for engagement with the open outer end of the
30 tubular member to close the faucet, links

pivotaly mounted upon said attachment means, a cam pivotaly mounted between the outer ends of said links for engagement upon the closed outer end of the sleeve, said
35 cam having a handle, the handle when assuming one position causing opening of the faucet and when moved from such position in one direction effecting a closing of the faucet and when moved another step in the
40 same direction causing a locking of the faucet.

17. A faucet comprising a tubular member having means at one end for attachment to a container and having an open outer end, a sleeve slidable freely and longitudinally
45 on the tubular member and provided with a discharge opening and having a closed outer end, packing carried by the sleeve for engagement with the open outer end of the tubular member, the outer closed end of the
50 sleeve having a recess, and a cam mounted for operation in said recess and arranged so that operation of the cam will permit of an opening and closing of the faucet.

In testimony whereof I affix my signature, 55
in presence of two witnesses.

GEORGE J. SILVER.

Witnesses:

WILLIAM J. STARK,

JOHN H. RADCLIFFE.