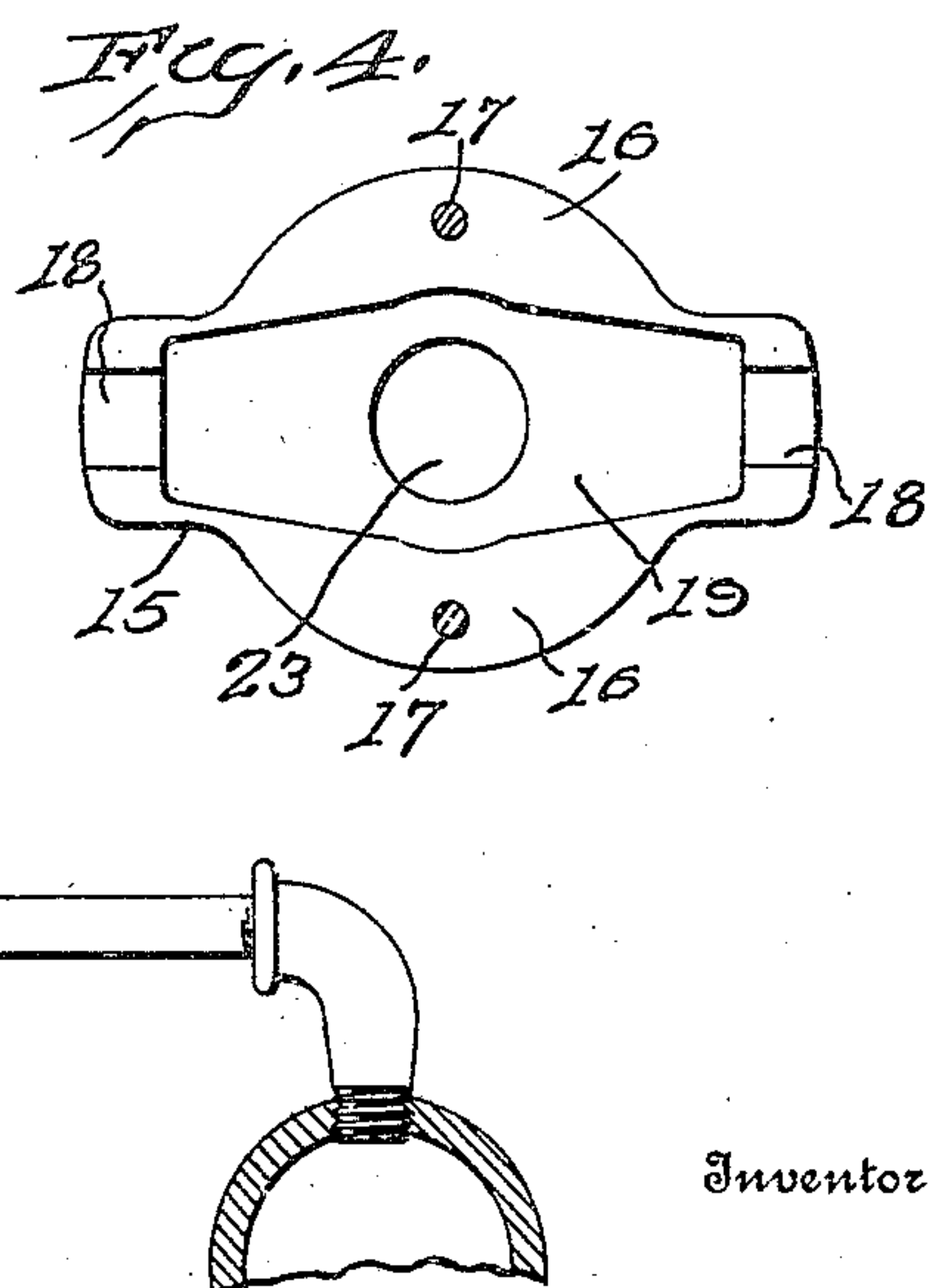
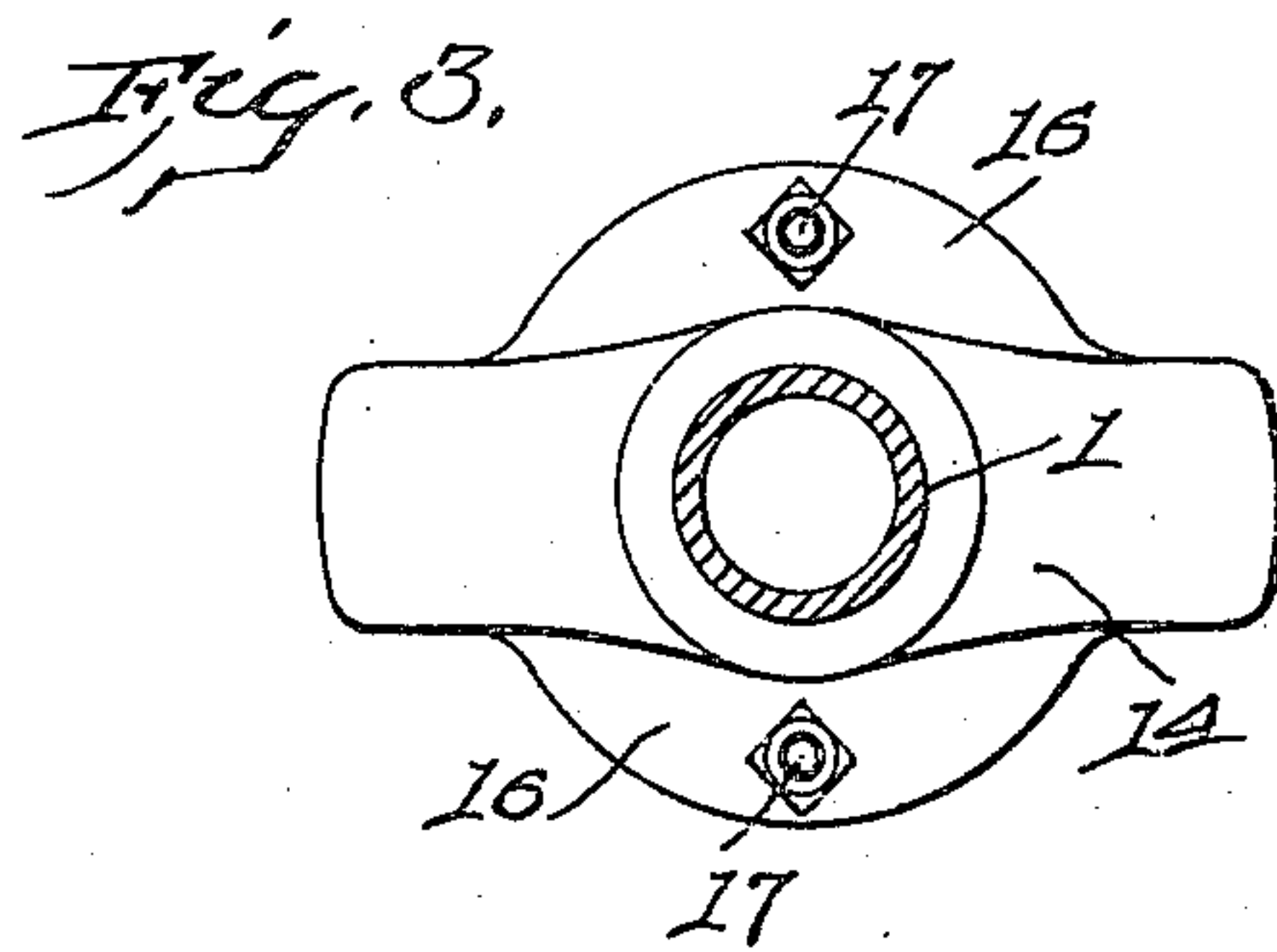
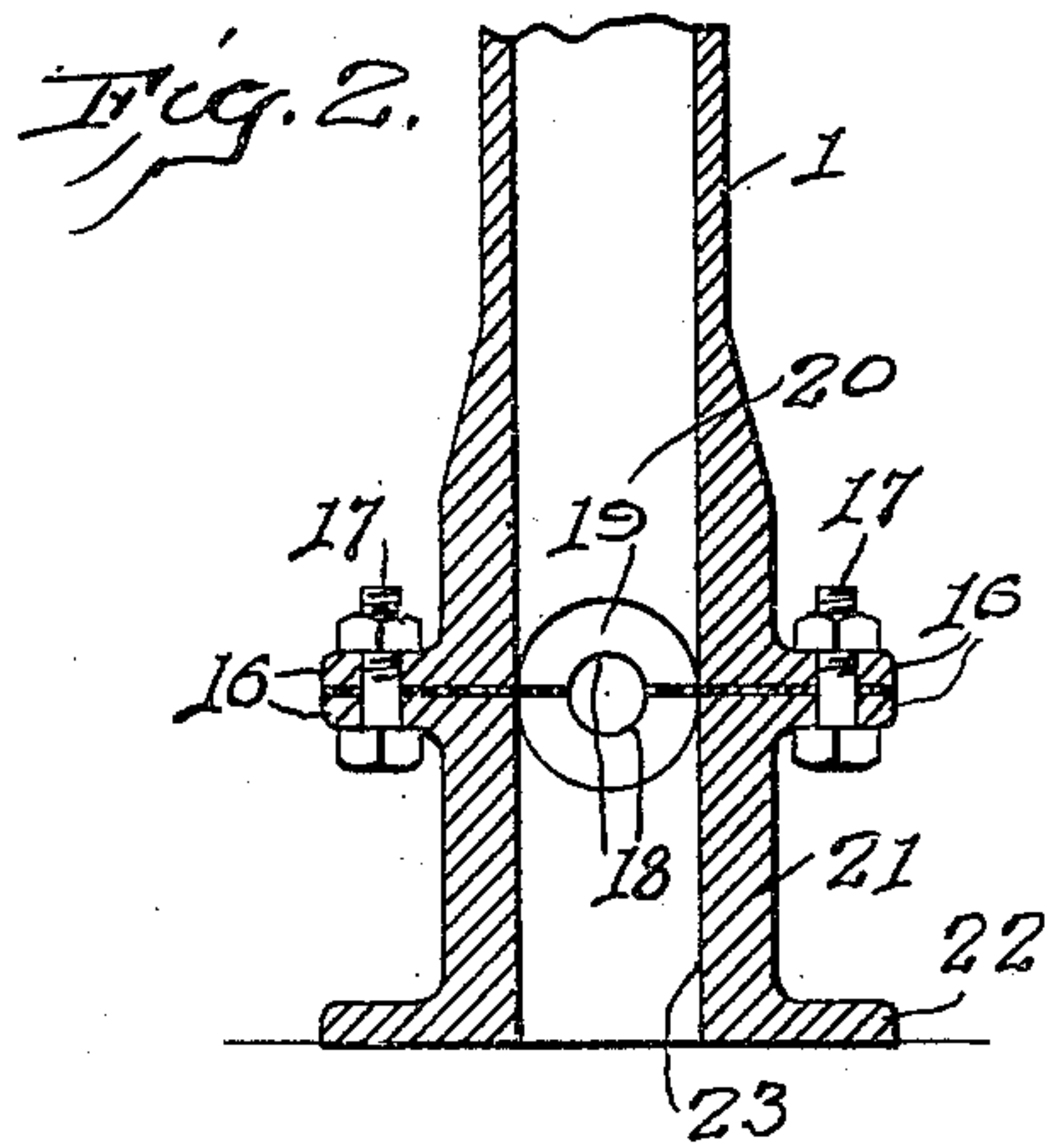
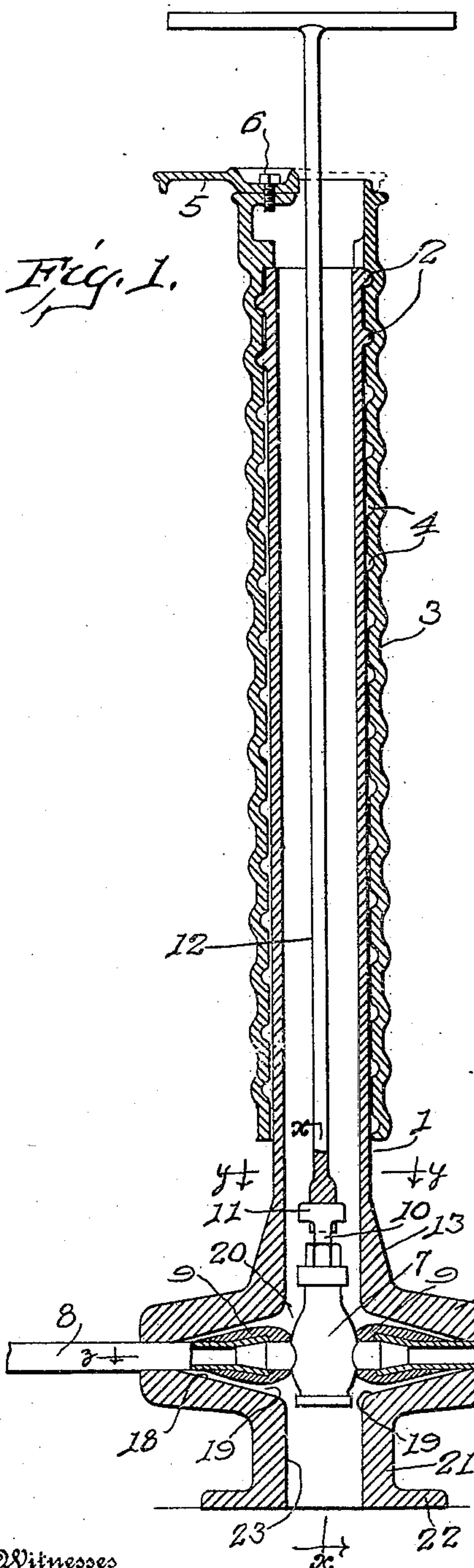


H. C. HUBBELL.
SERVICE BOX.

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936,536.

Patented Oct. 12, 1909.



Witnesses

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SERVICE-BOX.

936,536.

Specification of Letters Patent.

Patented Oct. 12, 1909.

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To all whom it may concern:

Be it known that I, HARVEY C. HUBBELL, a citizen of the United States, residing at Loveland, in the county of Clermont and State of Ohio, have invented certain new and useful Improvements in Service-Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to service boxes such as are usually installed at the curb of the street to afford access to the cut-off or service cock in the service pipe extending from water or gas mains, and the like, to the point of consumption.

In service boxes as now used it frequently happens that the box becomes displaced relatively to the service cock so that the T-head of this cock will lie close to the side wall of the box, thus making it difficult and often impossible to engage the same with the socket wrench, thereby causing a great deal of inconvenience and much loss of time.

One object of the present invention is to provide a service box which will be maintained at all times in a fixed relation to the service cock, thus enabling the socket wrench to be readily engaged with the T-head of the service cock at all times.

A further object of the invention is to provide a service box which will so inclose the service cock as to keep the same free from dirt, gravel, etc.; which will support the service pipe, adjacent to the cock, thereby relieving the joints of all strain and protecting the same against injury; which will receive any pressure which may be exerted on top of the box, thus relieving the service pipe from any strain which might result therefrom; to provide an outlet for any matter, such as water or dirt, which may enter the top of the box, thereby preventing this matter from accumulating about the cock; and to so construct and arrange the several parts of the box as to enable the same to be quickly and easily set in position and connected to the pipe.

With these objects in view my invention consists in certain novel features of construction and in certain combinations and arrangements of parts hereinafter to be described, and then more particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a vertical, sectional view of a service box embodying my invention, showing the serv-

ice cock in position therein; Fig. 2 is a vertical, sectional view of the lower portion of the box, taken on the line $x x$ of Fig. 1, the service cock not being shown; Fig. 3 is a transverse, sectional view, taken on the line $y y$ of Fig. 1; and Fig. 4 is a similar view, taken on the line $z z$ of Fig. 1.

In these drawings I have illustrated the preferred form of my invention and have shown the same as comprising an upper tubular portion, of ordinary construction, consisting of an inner pipe or tube 1 provided with threads or spiral ribs 2, and an outer casing 3 having a screw-thread or spiral groove 4 extending for substantially the full length thereof and adapted to cooperate with the spiral ribs 2 to render the upper portion of the box extensible to accommodate the same to the depth of the particular trench in which it is to be installed. The upper portion of the box is closed by a removable cap 5 which is preferably pivotally mounted thereon by means of a screw 6. A suitable housing or casing is supported from the lower end of the tubular portion 1 and is provided with a central chamber adapted to receive the service cock 7, which is connected to the service pipe 8 by means of suitable joints, the service cock being here shown as of ordinary construction and as connected to the service pipe by means of the usual wipe-joints 9. The service cock is provided with the usual valve stem 10 having a T-shaped head or wrench grasp 11 adapted to be engaged by a socket wrench 12 inserted through the tubular portion of the box. The housing 13 is provided with openings on the opposite sides of the central chamber therein to receive and support the adjacent portions of the service pipe 8. In the present instance, the housing 13 is somewhat elongated, has its greatest length extending parallel with the pipe 8 and is divided along a horizontal plane to form the upper portion 14 and the lower portion 15, each of which portions is provided with flanges 16 adapted to receive bolts 17, by means of which the two portions of the housing are connected. These flanges also assist in preventing the movement of the box after it has been set, as will hereinafter appear. Both the upper and lower portions 14 and 15 of the housing are provided in their adjacent faces with longitudinal grooves 18 which are preferably semicircular in cross section and are of a diameter,

near the ends of the housing, substantially equal to the exterior diameter of the service pipe, whereby, when the pipe is placed in position therein and the two parts are bolted together, the pipe will fit snugly within the openings in the opposite ends of the housing. The grooves 18 are enlarged at their inner ends to accommodate the joints connecting the service pipe to the service cock. In the present instance the walls of the grooves diverge inwardly, thus forming flaring inner ends for the grooves and providing enlarged portions 19 of a shape adapted to receive the wipe-joints 9. The upper portion 14 of the housing 13 has an opening 20 arranged substantially centrally thereof and in substantial alinement with the opening of the tubular upper portion 1, and this opening, combined with the enlarged inner portions of the longitudinal grooves in the housing, forms the chamber within which the service cock 7 is supported.

The lower member 15 of the housing is provided with a hollow base or depending portion 21 provided at its lower end with an outwardly extending flange 22 and having a central opening 23 arranged substantially in alinement with the opening 20 in the upper member 14 of the housing.

In installing the service box the lower portion 15 of the housing is mounted in the bottom of the trench and the dirt is firmly tamped about the same so as to support the groove 18 in a position to receive the service pipe 8 and support the same in its normal position, the opening 23 in the base being arranged in substantial alinement with the service cock 7 and being maintained in an open and unobstructed condition. The upper portion 14 of the housing, which is preferably formed integral with the tubular portion 1, is then bolted firmly to this lower portion, thus securing the pipe 8 in position within the housing and affording a firm support which maintains the pipe in its normal position and which will receive any pressure which may be exerted upon the upper end of the service box and prevent the strain from being exerted upon the service pipe. The service cock and the joints 9, by which it is secured to the service pipe, are entirely inclosed within the housing and dirt, gravel and the like are effectually excluded from the chamber containing the same. Further,

any dirt, water or other matter which may enter the top of the box will pass through the chamber containing the service cock and into the opening 23 beneath the same, thus preventing the accumulation of this matter about the service cock in such a manner as to interfere with the engagement of the T-head thereof by the socket wrench. The service cock is so mounted relatively to the curb box that the T-head occupies a central position in the tubular upper portion thereof and the box is so set in the ground that it is effectually held against all movement, thus maintaining the T-head at all times in its normal relation to the tubular upper portion of the box. The base 21 and flange 22 form an anchor which tends to resist the movement of the box and to hold the same against either vertical or lateral movement, thus assisting not only in maintaining the service box in a fixed relation to the service cock but in protecting the service pipe and the joints by means of which it is connected to the service cock from injury of any kind.

While I have shown and described a service box of a construction such as to adapt the same to the usual service cock and joint it will be obvious that the construction of the box may be materially altered without departing from the spirit of the invention and I, therefore, wish it to be understood that I do not desire to be limited to the details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

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

A service box comprising a housing having a base, a flange to form an anchor, and lateral extensions with pipe openings enlarged inwardly and an elongated tubular portion, said housing and tubular portion having an uninterrupted interior passage extending from end to end and open at the top and bottom, the housing being made in two parts with means to connect them, and the upper part and tubular portion integral.

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

HARVEY C. HUBBELL.

Witnesses:

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