

June 19, 1923.

1,459,625

A. P. GULLIVER
PIPE CLEANING DEVICE
Filed June 17, 1922

Fig. 1.

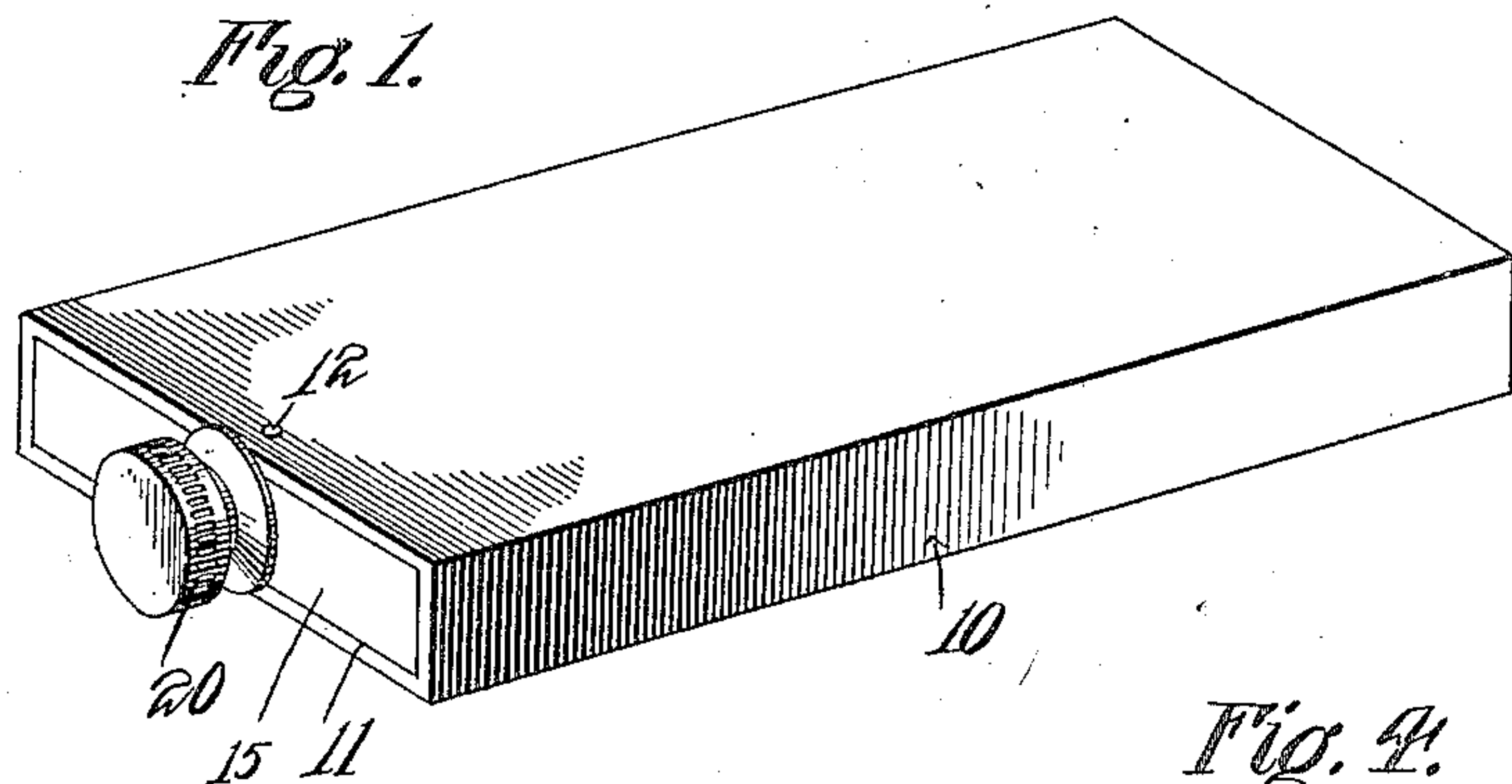


Fig. 2.

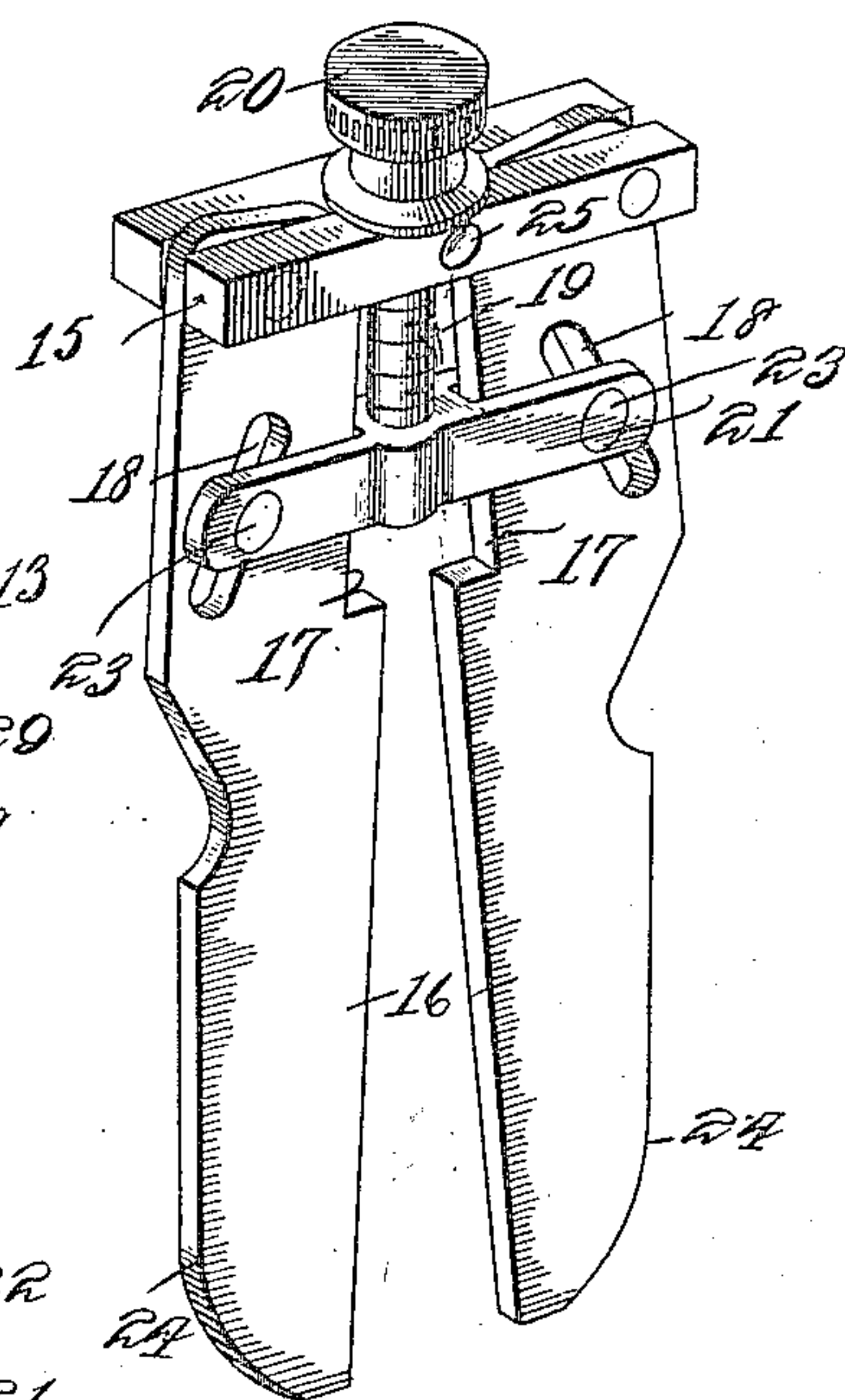


Fig. 3.

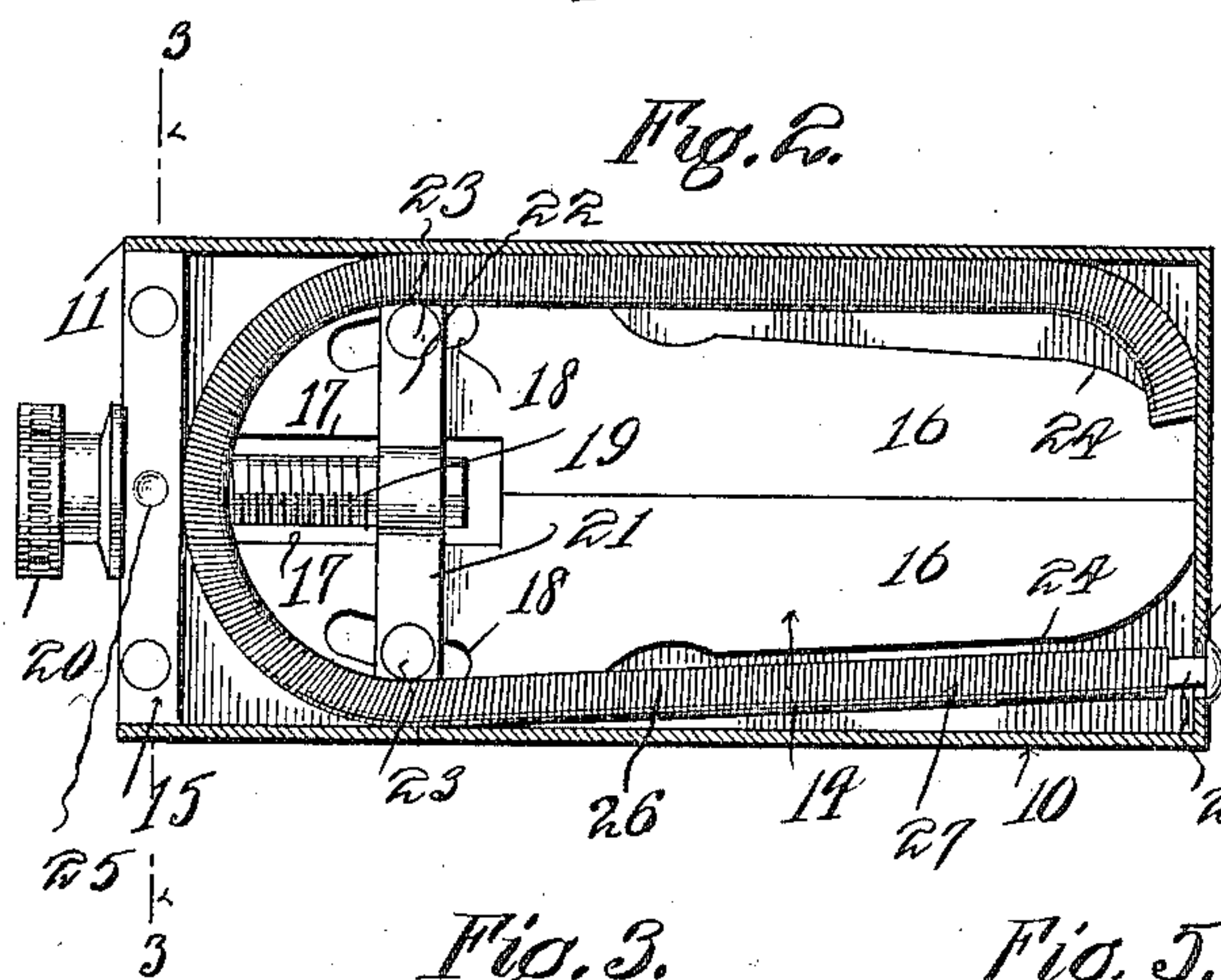


Fig. 4.

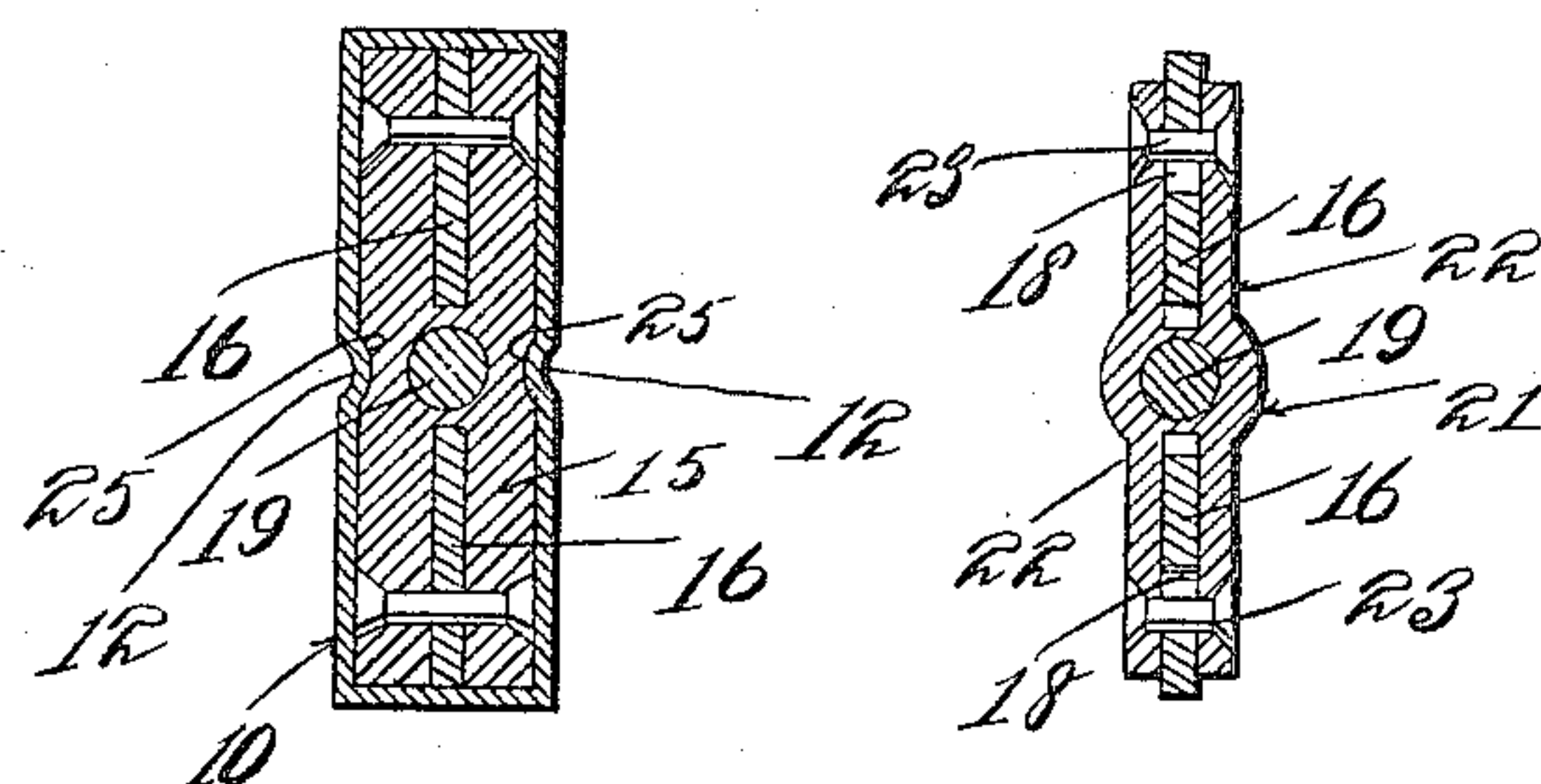


Fig. 5.

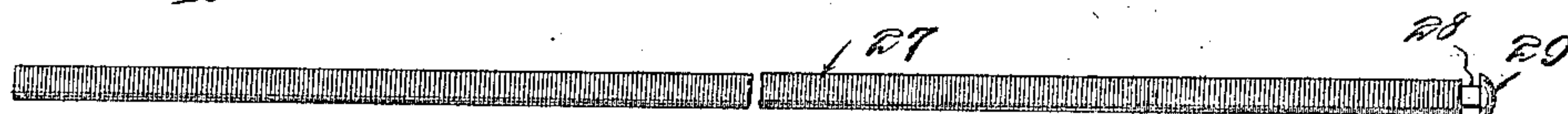


Fig. 6.

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UNITED STATES PATENT OFFICE.

ARTHUR P. GULLIVER, OF BROCKTON, MASSACHUSETTS.

PIPE-CLEANING DEVICE.

Application filed June 17, 1922. Serial No. 569,003.

To all whom it may concern:

Be it known that I, ARTHUR P. GULLIVER, a citizen of the United States, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented new and useful Improvements in Pipe-Cleaning Devices, of which the following is a specification.

An object of the invention is to provide a simple and effective device which will be of a compact nature so that it can be readily carried in the pocket and which is adapted for use in cleaning smoking pipes.

The invention contemplates among other features the provision of a casing or receptacle which is adapted to removably contain a stopper member for use in cleaning the bowl of a pipe and in cutting or removing any deposits from within the bowl, said member having a part thereof constituting a cover for the receptacle with suitable means also removably carried in the receptacle for effectively cleaning the stem of the pipe.

In the further disclosure of the invention reference is to be had to the accompanying drawing constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which:

Figure 1 is a perspective view of the pipe cleaning device,

Figure 2 is a vertical sectional view showing the arrangement of the bowl and stem cleaning members in the receptacle,

Figure 3 is a vertical transverse sectional view showing the arrangement and manner of securing the bowl cleaning device in the receptacle to constitute a cover therefor,

Figure 4 is a perspective view of the bowl cleaning member of the device,

Figure 5 is a horizontal sectional view taken through the bowl cleaning member, and

Figure 6 is a perspective view of the stem cleaning member of the device.

Referring more particularly to the views, I provide a casing or receptacle 10, preferably of an elongated nature and having an open end 11, said casing at its open end being provided with a plurality of opposed inwardly struck locking beads 12 and its closed end having an opening 13. A pipe bowl cleaning member 14 is adapted to normally repose in the casing 10 and consists more particularly of a plate 15 on which a plu-

rality of cutting members 16 are mounted to swing. The cutting members are adapted to swing toward or away from each other and each is provided with a cut-out portion 17 adjacent the end having pivotal connection with the plate. Each cutting member is also provided with a slot 18 and having inverted engagement with the plate 15 and passing transversely therethrough is a screw rod 19 terminating at its outer end in a suitable knob 20 and having its inner end pivotally connected to the medial portion of the strap 21. The strap 21 is preferably formed into sections 22 which are connected at the point of swiveling the screw rod 19 therein and passing through the extremity of the sections are transverse pins 23 also passing loosely through the slots 18 in the cutting members 16.

Now it will be apparent that when the free ends of the cutting member 16 are disposed in the bowl of the pipe, rotation of the screw rod 19 will through the medium of the strap 21 and pins 23 thereof operating in the slots 18, tend to spread the free or lower portion of the cutting members apart so that opposed edges 24 of the cutting members will engage the inner wall of the pipe so that upon rotating the bowl cleaning device in the pipe any deposits on the inner wall will be cut or removed therefrom and can be subsequently removed from the bowl by inverting the same and scraping the removed deposits or particles therefrom. It will be apparent by referring to the views that the plate 15 constitutes a cover for the open end of the casing 10 so that when the member 14 is placed therein the plate will effectively close the casing. The plate is provided with a plurality of opposed indentations 25 into which the beads 12 are adapted to spring when the member 14 is arranged in the casing thus holding the member within the casing so that the plate will clearly constitute a cover for the casing and which will be held in locked relation thereto by the locking beads.

A stem cleaning member 26 also constitutes a part of my device and consists more particularly of a flexible spring like member 27 in one end of which is rigidly secured a shank 28 terminating in a knob 29. It will be readily apparent that the stem cleaning member is used to clean out the stem of a pipe and is simply forced longitudinally through the central portion of the pipe and

rotated therein to remove or cut loose any deposits in the stem. After the bowl cleaning member 14 has been arranged in the casing 10 as mentioned the stem cleaning member 26 is adapted to have its free end inserted through the opening 13 in the bottom or closed end of the casing and the said stem cleaning member is then pushed into the casing and will curl up therein as shown until only the knob will appear exteriorly of the casing and this knob together with the shank 28 will close the opening through which the stem cleaning member extends as stated.

Thus it will be seen that the pipe cleaning device comprehends simply a casing, a bowl cleaning member normally held in the casing and having a portion constituting a cover therefor and a stem cleaning member which when arranged in the casing tends to coil about the bowl cleaning member therein thus not only securing the stem cleaning member in the casing but also tending to more securely hold the bowl cleaning member in the casing inasmuch as the casing is of meager width and after the bowl cleaning member has been arranged therein there is only left sufficient space between a face of the bowl cleaning member and a wall of the casing to permit of the insertion of the stem cleaning member therein thus causing the stem cleaning member to frictionally bind with the wall of the casing which it engages and the face of the bowl cleaning member which it engages.

What I claim is:—

1. In combination with a casing having an opening in its closed end, a member for insertion in the casing, said member in-

cluding a plate having a plurality of opposed indentations therein, locking beads on the casing and adapted to spring into the indentations of the member to hold the member in the casing with the plate thereof constituting a cover for the casing and a second member for insertion in the opening in the closed end of the casing and adapted to frictionally engage a face of the member and a wall of the casing whereby the said second member will be frictionally held in the casing and will frictionally bind the first mentioned member to more securely hold the same in the casing.

2. In combination with a casing, a member for insertion therein and comprising a plate, a plurality of cutting members on the plate and having their inner ends in pivotal engagement therewith and means movably supported on the plate and having connection with the cutting members for relatively moving the free ends thereof, said members being adapted to normally lie within the said casing with the plate adapted to constitute a cover for the casing.

3. In combination with a casing, a member for insertion therein and comprising a plate, a plurality of cutting members on the plate and having their inner ends in pivotal engagement therewith and means movably supported on the plate and having connection with the cutting members for relatively moving the free ends thereof, said members being adapted to constitute a cover for the casing and means on the casing and engaging the plate to secure the same in position to constitute a closure for the casing.

In testimony whereof I affix my signature.

ARTHUR P. GULLIVER.