R. H. PEARCH.

DRAIN PIPE AND BASIN TRAP FLUSHER ATTACHING DEVICE.

APPLICATION FILED DEC. 10, 1915.

1,221,901. Patented Apr. 10, 1917.

Fig. 1.

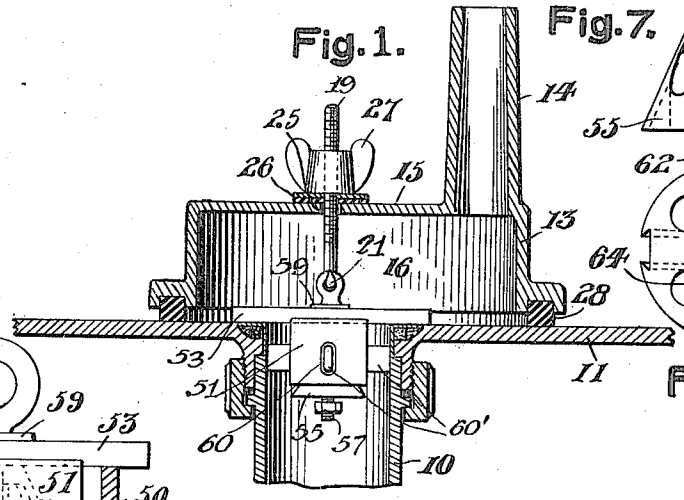
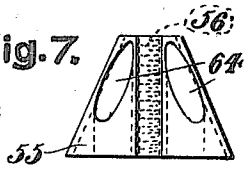


Fig. 7.



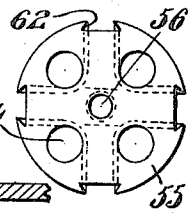


Fig. 8.

Fig. 3.

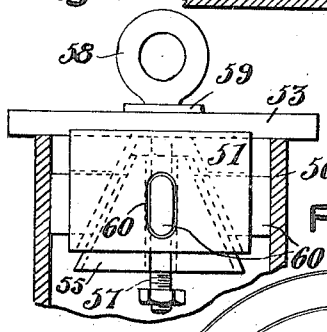


Fig. 2.

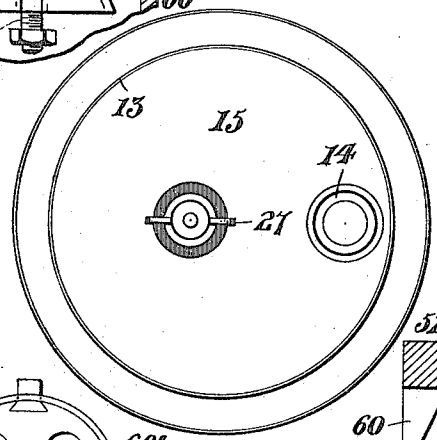


Fig. 4.

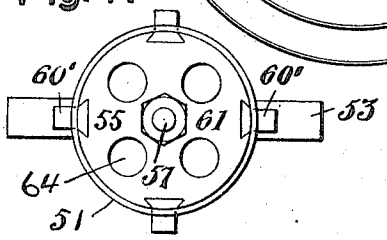


Fig. 5.

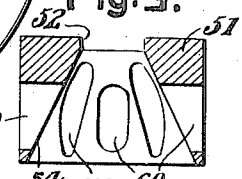


Fig. 6.

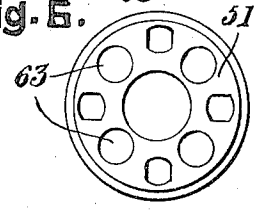
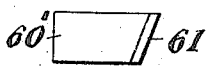


Fig. 9.



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DRAIN-PIPE AND BASIN-TRAP FLUSHER ATTACHING DEVICE.

1,221,901. Specification of Letters Patent. Patented Apr. 10, 1917.

Application filed December 10, 1915. Serial No. 66,179.

To all whom it may concern:

Be it known that I, ROBERT H. PEARCH, a citizen of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Drain-Pipe and Basin-Trap Flusher Attaching Devices, of which the following is a specification.

This invention relates to certain new and useful improvements in drain pipe and basin trap flusher attaching devices.

The primary object of this invention is the provision of an appliance in the nature of a tool or implement especially adapted for plumbers' kits whereby a flusher for cleaning and flushing drain pipes and basin traps, is readily attached for operation in connection therewith.

A further object of the invention is to provide an anchoring means for flushing devices adapted for being readily secured within the end of any pipe desired to be flushed or cleaned and allowing the free passage of flushing fluid therethrough during the operation of the device.

With these general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings forming a part of this application and in which like-designating characters refer to corresponding parts throughout the several views:—

Figure 1 is a vertical longitudinal central sectional view through one form of flusher operatively positioned by the device in connection with a basin outlet.

Fig. 2 is a top plan view thereof.

Fig. 3 is a sectional view of the end portion of a drain pipe illustrating an anchoring device in side elevation positioned therein.

Fig. 4 is a bottom plan view of the device detached.

Fig. 5 is a central sectional view of the female member of the anchoring device.

Fig. 6 is a top plan view thereof.

Fig. 7 is an elevational view of the male member of the anchoring means.

Fig. 8 is a bottom plan view thereof, and Fig. 9 is a side elevation of one of the locking jaws.

In referring more particularly to the device, the same and one manner of its use is herein illustrated in Fig. 1 being in connection with a flusher casing 13 attached to the drain pipe 10 of a basin and seated upon the bottom 11 of the latter, the said pipe being connected to the basin in the usual manner.

The flusher casing 13 has a nozzle 14 communicating with the chamber 16 therein and adapted to be attached to a supply pipe (not shown) connected to the service water main in any desired manner and whereby water under pressure from the service pipe is fed through the chamber 16 into the pipe 10.

An attaching screw 19 is provided whereby the casing 13 may be attached to the member to be flushed by engaging the terminal hook 21 of the said screw with the ring 58 of the present device, when the device is operatively positioned as best illustrated in Fig. 1.

The present anchoring device is more especially provided for employment where the drain pipes are not provided with strainers or cross bars, the same being herein shown in Fig. 1 in connection with the basin pipe 10 and in Fig. 3 in connection with the end portion of a drain pipe 50. The female member 51 of the anchor has a transverse slot 52 in the top thereof for the reception of a cross bar 53 which latter is positioned spanning the opening to be flushed.

The female member 51 has a substantially conical bore 54 adapted for the clutching reception of the male member 55 the latter having a central screw threaded opening 56 therethrough which opening is adapted for accommodating a threaded screw 57 which latter also extends through the open top of the female member 51 and is journaled centrally through the cross bar 53.

A ring 58 is provided on the outer end of the screw 57 and has a washer 59 carried thereby, it being thus evident that when the male and female members are operatively positioned, a turning of the screw 57 frictionally engages the said members together.

Jaws 60′ of the form shown in Fig. 9 are radially carried by the female member 51 slidably projecting through side openings

60 therein, the said jaws having inclined end flanges 61 which are slidably received in correspondingly formed dove-tailed grooves 62 in the inclined sides of the male member 55. Openings 63 are arranged longitudinally through the body of the female member 51 and similar openings 64 are longitudinally positioned through the male member 55 all of the said openings being adapted for allowing the free passage of the water through the clamp member when operatively positioned, these openings 63 and 64 being cut away as large as desired. By inserting the clamp member within the pipe such as 10 or 50 when the male and female members are separated and the jaws 60 retracted, a turning of the screw 57 by means of the ring 58 will move the male member 55 toward the female member 51, thus forcing outwardly the jaws 60 into firm engagement with the inner surface of the pipe, thus locking the anchoring member to the said pipe. The screw 19 may then be attached to the ring 58 as shown in Fig. 1 for maintaining the casing 13 upon the basin bottom 11, the said screw extending through a perforation 25 in the casing cap 15 and provided with washers 26 and a set nut 27.

While the form of the invention herein shown and described is what is believed to be the preferred embodiment thereof, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as set forth in the claims.

What I claim as new is:—

1. A flusher attaching means adapted for seating within the end of a pipe, comprising a cross-bar positioned transversely of the end of a pipe when operatively arranged, a cylindrical female member having a transverse slot in one end overlying the said cross bar and inwardly thereof, the said female member having an axially arranged conical bore and provided with radially positioned transverse guide openings and also with longitudinally arranged fluid passages, the said openings and passages communicating with the said bore, a conical male member slidably arranged within the said bore and having oppositely positioned dove-tail slots in the inclined sides thereof, and being provided further with a threaded central bore, engaging jaws slidably positioned through the side openings of the said female member and having flanges upon their inner ends slidably arranged within the said slots of the said male member, an operating screw for the said male member having threaded engagement with the bore thereof and journaled through the said cross bar, and an attaching ring upon the outer end of the said screw.

2. A flusher casing attaching means adapted for seating within the end of a pipe, comprising a cylindrical female member, the said female member having an axially arranged bore and longitudinally arranged fluid passages, a conical male member slidably arranged within said bore and having bearings in the inclined sides thereof and being further provided with a threaded central bore, engaging jaws slidably positioned through the sides of the said female member and having their inner ends slidably arranged within the said bearings, an operating screw for the said male member having threaded engagement with the bore thereof, and an attaching ring upon the said screw.

3. A flusher head anchoring means comprising in combination with a pipe end, a cross bar positioned transversely of the said pipe end, a cylindrical female member positioned within the said pipe and having a transverse slot in one end thereof overlying the said cross-bar, the said female member having a conical axially arranged bore communicating with the said slot and being further provided with radially arranged side guide openings communicating with the said bore, a conical male member shiftably arranged within the said bore and having oppositely positioned dove-tail grooves in its slanting sides positioned adjacent the said openings when the device is assembled, pipe-engaging jaws slidably positioned in the said openings and having inclined flanges on their inner ends slidably positioned within the said slots, the said male member having a threaded central bore, the said male and female members having alining longitudinal fluid passages therethrough, an operating screw for the said male member threaded in the said bore of the said male member and journaled through the said cross piece, and an attaching ring upon the outer end of the said screw.

In testimony whereof I affix my signature.

ROBERT H. PEARCH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."