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2,366,975

CLEANOUT PLUG MEANS

Filed Oct. 16, 1942

2 Sheets-Sheet 1

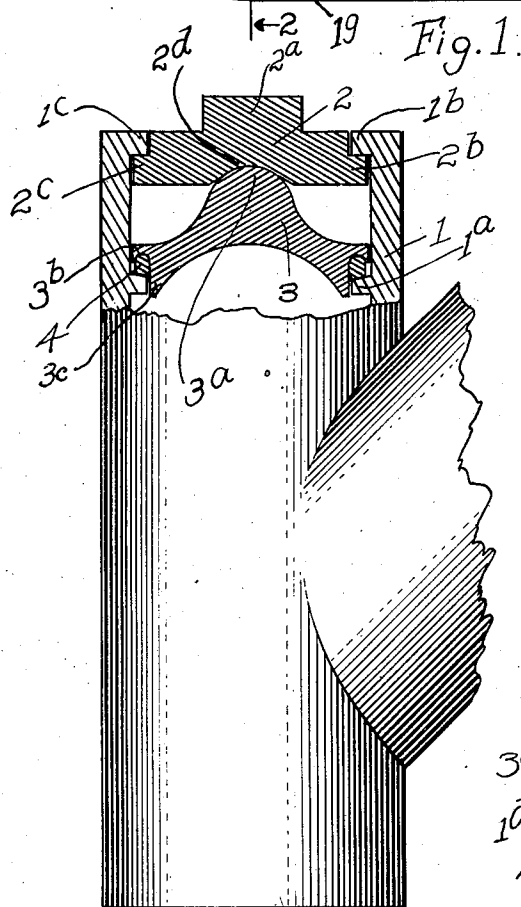
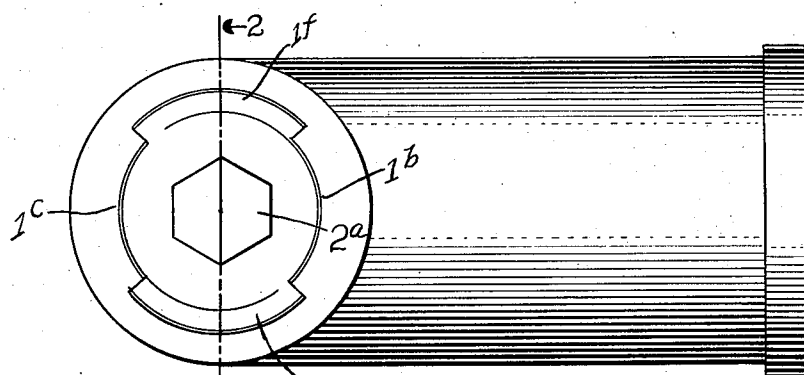


Fig. 2.

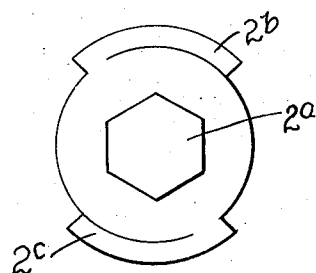


Fig. 3.

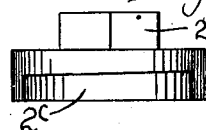


Fig. 4.

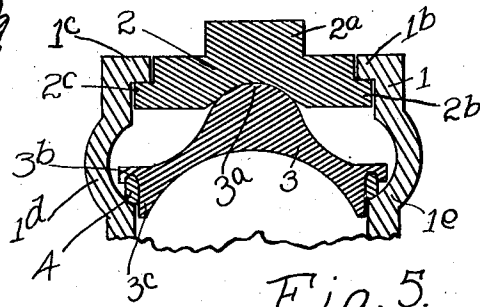


Fig. 5.

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2 Sheets-Sheet 2

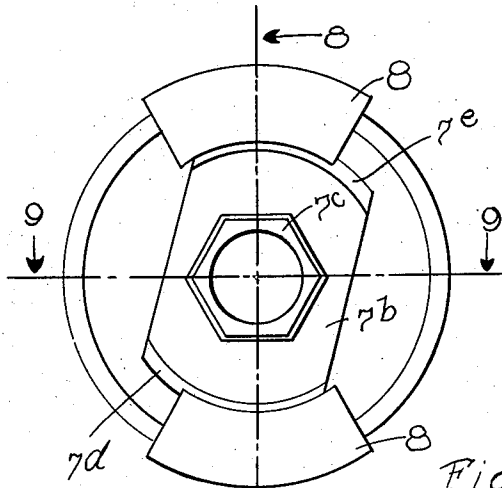


Fig. 6.

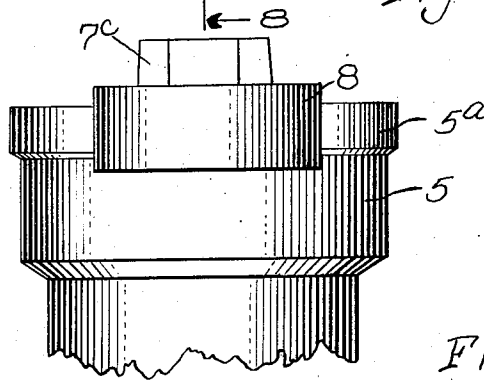


Fig. 7.

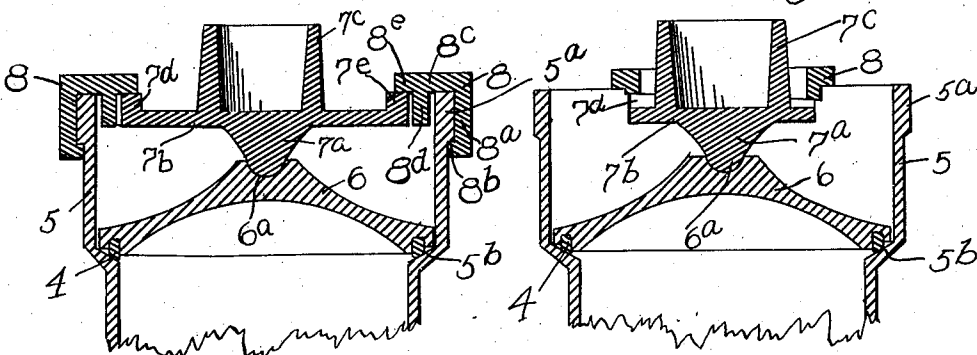


Fig. 8.

Fig. 9.

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## UNITED STATES PATENT OFFICE

2,366,975

## CLEANOUT PLUG MEANS

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Application October 16, 1942, Serial No. 462,246

9 Claims. (Cl. 138—89)

My invention relates to a cleanout plug means to be used in connection with plumbing apparatus and the objects of my invention are:

First, to provide a cleanout plug means which eliminates the necessity for the conventional bronze screw plug;

Second, to provide a cleanout plug means of this class which may be used in connection with a cleanout fitting member or with a Y-fitting or with any other plumbing fittings where it might be required with slight change in the fitting;

Third, to provide a cleanout plug means of this class which may be readily and easily released after it has stood over a long period of time;

Fourth, to provide a cleanout plug means of this class in which the ceiling of the plug is quickly and easily effected;

Fifth, to provide a cleanout plug means of this class which is very simple and economical of construction, easy to operate, efficient in its action and which will not readily deteriorate or get out of order.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon which form a part of this application in which:

Figure 1 is a top or plan view of a Y-fitting with my cleanout plug means in connection therewith; Fig. 2 is a partial elevational and sectional view of the fitting shown fragmentarily; Fig. 3 is a top view of the clamping member alone; Fig. 4 is a side elevational view thereof; Fig. 5 is a sectional view of a fragmentary portion of the fitting as shown in Fig. 2 in a slightly modified form; Fig. 6 is a top or plan view of a conventional fitting hub showing my cleanout plug means in modified form from that of Figs. 1 to 5 inclusive; Fig. 7 is a fragmentary side elevational view thereof; Fig. 8 is a sectional view thereof taken from the line 8—8 of Fig. 6 and Fig. 9 is a sectional view at right angles thereto taken from the line 9—9 of Fig. 6.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawings.

In the preferred form of construction shown in Figs. 1 to 4 inclusive, the fitting member 1 is preferably a Y-fitting but the same structure is applicable to a cleanout fitting. This fitting is provided with a ledge 1a on its interior some dis-

tance from its open end and is provided with two inwardly extending flange portions 1b and 1c, the lower sides of which are provided with inclined surfaces so that when turning the clamping member 2 therein, the clamping member 2 is forced downwardly when turned in one direction and upwardly when turned in the opposite direction.

The clamping member 2 is provided with a wrench receiving portion 2a which extends upwardly from the main portion thereof and it is provided with two extended flange portions 2b and 2c which are inclined surfaces and arranged to engage the lower surfaces of the portions 1b and 1c of the fitting 1. This plug member is provided with a central recessed portion 2d which is adapted to engage a central upwardly extending lug portion 3a of the plug member 3. This plug member 3 is circular and arranged to fit loosely in the interior of the fitting 1 above the ledge 1a and is provided with an annular groove 3b near its periphery in which is mounted an annular lead sealing member 4 which is adapted to rest on the upper side of the ledge 1a of the fitting 1, as shown best in Fig. 2 of the drawings. This member 3 is provided with a downwardly extending annular flange 3c which extends down on the inner side of the ledge 1a when in sealing position.

In the modified form of construction, shown in Fig. 5, the structure is the same throughout except that instead of the ledge 1a, the fitting is provided with a bulged portion 1d providing on its inner side a recessed portion 1e and the sealing member 4 rests on the lower side of the recess 1e in the bulged portion, as shown in Fig. 5 of the drawings.

In the modification shown in Figs. 6 to 9 inclusive, there is provided the conventional fitting with a conventional female hub portion 5 which is provided with a conventional flange portion 5a and with the conventional annular side wall portion 5b upon which the sealing ring 4 rests. In this case the plug member, which is designated 6, is of this form. It is provided centrally with a recess 6a in which a lug 7a is adapted to rest, as shown in Figs. 8 and 9 of the drawings. The clamping member in this case consists of a flat plate-like member 7b which is provided with a central hollow wrench receiving portion 7c and with opposed inclined portions 7d and 7e at its opposite sides which are adapted to engage clip members 8 which are provided with annular vertical portions 8a with inwardly turned flange portions 8b with horizontal portions 8c and with

downwardly extending annular portions 8d, the portions 8a and 8d extending on opposite sides of the hub portion and with the horizontal portion 8c resting on the upper edge thereof when in operating position and provided with an inwardly extending portion 8e against the lower side of which the members 7d and 7e rest.

The operation of my cleanout plug means is substantially as follows:

The sealing member 4 is molded or otherwise secured in position in the member 3. The member 3 together with the sealing member 4 is then positioned within the open end of the fitting, one side positioned in first and the other side following and placed down in position, as shown best in Fig. 2 of the drawings. Then the clamp member 2 is positioned so that the portions 2b and 2c are in open sides 1f and 1g and pressed down until the recess 2d engages the lug portion 3a and the member 2 turned so that the members 2b and 2c extend over the portions 1b and 1c which tightens the member 3 and compresses the sealing members against the ledge 1a. There is the same operation in the modified form shown in Fig. 5 except that the sealing member 4 engages the bulged side wall of the fitting 1.

In the modified structure shown in Figs. 6 to 9, the members 8 are positioned over the upper edge of the fitting 5 in the position shown best in Fig. 8 of the drawings until the ledge portion 8b passes the upper flange portion 5a of the fitting, which locks the member 8 in position on the fitting. Then the member 6 with the sealing member 4 is positioned to rest against the inclined portions 5b of the fitting 5 and the member 7 is inserted so that its long way is in the space between the members 8 and then turned with the lugs 7a positioned in the recess 6a, which tightens the member 6 and seals the sealing member 4 on the hub portion 5b.

Though I have shown and described a particular construction, combination and arrangement of parts and portions and certain modifications thereof, I do not wish to be limited to this particular construction, combination and arrangement nor to the modifications thereof, but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

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

1. In a plumbing fitting cleanout plug means of the class described, the combination of a plumbing fitting cleanout member provided with an open end and provided with circumferentially opposed inwardly extending flange portions with inclined under surfaces and provided with an inwardly extending ledge some distance from the open end, a plug member arranged to seat on said inwardly extending ledge and provided with an outwardly extending central lug portion and a clamp member provided with opposed arcuate flange portions with upper inclined surfaces arranged to engage the inclined under surfaces on said inwardly extending flange portions of said fitting member.

2. In a plumbing fitting cleanout plug means of the class described, the combination of a plumbing fitting cleanout member provided with an open end and provided with circumferentially opposed inwardly extending flange portions with inclined under surfaces and provided with an inwardly extending ledge some distance from the open end, a plug member arranged to seat on said

inwardly extending ledge and provided with an outwardly extending central lug portion and a clamp member provided with opposed arcuate flange portions with upper inclined surfaces arranged to engage the inclined under surfaces on said inwardly extending flange portions of said fitting member and sealing means at the lower peripheral side of said plug member.

3. In a plumbing fitting cleanout plug means of the class described, the combination of a plumbing fitting cleanout member provided with an open end provided with circumferentially opposed inwardly extending flange portions with inclined under surfaces and provided with an inwardly extending ledge some distance from the open end, a plug member arranged to seat on said inwardly extending ledge and provided with an outwardly extending central lug portion and a clamp member provided with opposed arcuate flange portions with upper inclined surfaces arranged to engage the inclined under surfaces on said inwardly extending flange portions of said fitting member, the flange portions on said clamp member being arranged to pass through the spaces between the inwardly extending ledge portions of said fitting member.

4. In a plumbing fitting cleanout plug means of the class described, the combination of a plumbing fitting cleanout member provided with an open end and provided with circumferentially opposed inwardly extending flange portions with inclined under surfaces and provided with an inwardly extending ledge some distance from the open end, a plug member arranged to seat on said inwardly extending ledge and provided with an outwardly extending central lug portion, a clamp member provided with opposed arcuate flange portions with upper inclined surfaces arranged to engage the inclined under surfaces on said inwardly extending flange portions of said fitting member, and a wrench receiving lug portion on the outer side of said clamp member.

5. In a plumbing fitting cleanout plug means of the class described, the combination of a plumbing fitting cleanout member provided with an open end and provided with circumferentially opposed inwardly extending flange portions with inclined under surfaces and provided with an inwardly extending ledge some distance from the open end, a plug member arranged to seat on said inwardly extending ledge and provided with an outwardly extending central lug portion, a clamp member provided with opposed arcuate flange portions with upper inclined surfaces arranged to engage the inclined under surfaces on said inwardly extending flange portions of said fitting member and sealing means at the lower peripheral side of said plug member, and a wrench receiving lug portion on the outer side of said clamp member.

6. In a plumbing fitting cleanout plug means of the class described, the combination of a plumbing fitting cleanout member provided with an open end and provided with circumferentially opposed inwardly extending flange portions with inclined under surfaces and provided with an inwardly extending ledge some distance from the open end, a plug member arranged to seat on said inwardly extending ledge and provided with an outwardly extending central lug portion and a clamp member provided with opposed arcuate flange portions with upper inclined surfaces arranged to engage the inclined under surfaces on said inwardly extending flange portions of said

fitting member, said fitting member provided with a bulged portion above said ledge.

7. In a plumbing fitting cleanout plug means of the class described, the combination of a plumbing fitting cleanout member provided with an open end and provided with circumferentially opposed inwardly extending flange portions with inclined under surfaces and provided with an inwardly extending ledge some distance from the open end, a plug member arranged to seat on said inwardly extending ledge and provided with an outwardly extending central lug portion and a clamp member provided with opposed arcuate flange portions with upper inclined surfaces arranged to engage the inclined under surface on said inwardly extending flange portions of said fitting member, said opposed inwardly extending lug portions on said fitting being separate members from said fitting and arranged to clip over the upper edge of said fitting and readily removable therefrom.

8. In a plumbing fitting cleanout plug means of the class described, the combination of a plumbing fitting member provided with an open outer end provided with inwardly extending spaced ledge portions and with an inwardly extending ledge spaced some distance from the open

end, a revoluble clamp member provided with opposed inwardly extending ledge portions and with upper inclined surfaces provided with a central engaging portion, a plug member provided with a central engaging portion adapted to engage the engaging portion of said clamp member and with sealing means near its periphery arranged to engage said ledge in said fitting member.

9. In a plumbing fitting cleanout plug means of the class described, the combination of a plumbing fitting member provided with an open outer end provided with inwardly extending spaced ledge portions and with an inwardly extending ledge spaced some distance from the open end of said plumbing fitting, a revoluble clamp member provided with opposed extending ledge portions provided with upper inclined surfaces and provided with opposed central engaging portions and a plug member provided with a central engaging portion adapted to engage one of said central engaging portions of said clamp member and provided with a sealing means on its opposed side from said central engaging portion and near its periphery and arranged to engage the outer side of said ledge in said fitting member.

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