Oct. 30, 1934. J. A. ROBINSON, SR 1,978,958

SPUD FOR TOILET BOWLS

Filed Dec. 2, 1933

Fig. 1

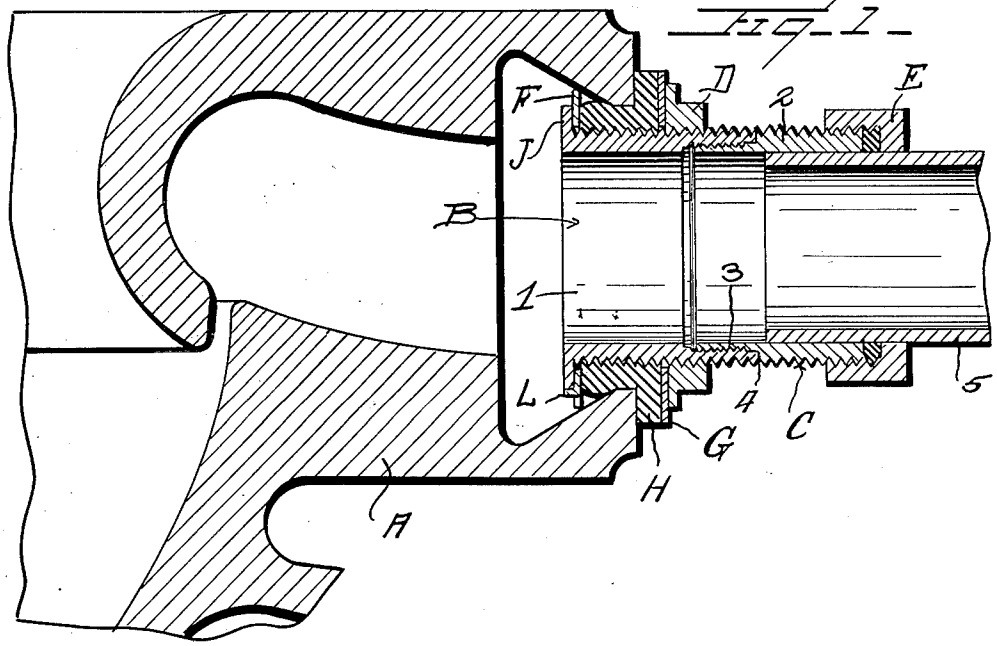


Fig. 4

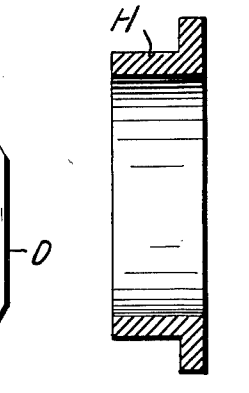


Fig. 2

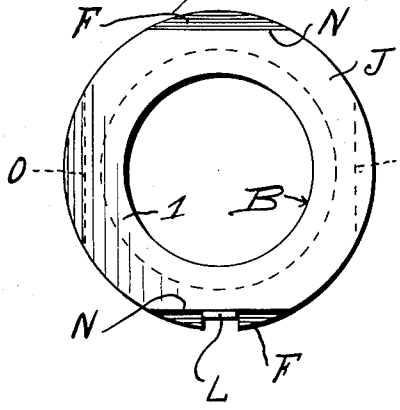
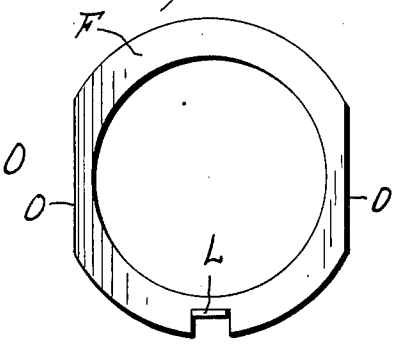


Fig. 3



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Patented Oct. 30, 1934 1,978,958

UNITED STATES PATENT OFFICE

1,978,958

SPUD FOR TOILET BOWLS

John A. Robinson, Sr., Galveston, Tex., assignor, by direct and mesne assignments, of forty-five per cent to L. A. Robinson and five per cent to J. A. Robinson, Jr., both of Galveston, Tex.

Application December 2, 1933, Serial No. 700,683

3 Claims. (Cl. 285—50)

The invention relates to an improvement in toilet bowl spuds or replacement spuds for toilet bowls for use in connection with lowdown, high, side outlet and top outlet toilet combinations.

The principal object of the invention is to carry forward in a new construction a more desirable toilet bowl spud that eliminates many objections of the one-piece toilet bowl spud now in general use. The most notable objection of the present type spud now in use lies in the fact that if for any reason the toilet bowl must be removed from the floor, it becomes necessary that all fittings connected to the bowl and flush tank must be removed before the bowl can be removed from the floor. In loosening or removing these fittings it often causes other complications that result in the removal of the flush tank from the wall. These cited objections are a source of constant annoyance to the plumber and causes much unnecessary expense to the general public.

The invention may be susceptible of structural changes and modifications without departing from the scope thereof, but a preferred and practical embodiment is shown in the accompanying drawing in which the above cited disadvantages and objections are eliminated.

In the drawing:—

Figure 1 is a fragmentary view in vertical section illustrating a spud constructed in accordance with an embodiment of my invention in applied position;

Figure 2 is a view in rear elevation of the spud as illustrated in Figure 1 unapplied and with certain of the parts omitted;

Figure 3 is an elevational view of the washer which coacts with the rear flange of the spud;

Figure 4 is a sectional view taken through the spud washer as herein disclosed.

Referring to the drawing by characters of reference, A designates a toilet bowl of modern type, B represents the invented spud and how it appears after its inception into the bowl, H is a rubber spud washer, F is a metal washer with a snap latch L, G is a plain metal friction ring or washer to prevent lock nut D from marring spud washer H, and J denotes a rear flange of spud B having flat sides N.

The spud itself is of sectional construction, part 1 and part 2, the sections screwing together by means of threads 3 on the inside of part 1 and on the outside of a portion of part 2. When these two parts are screwed together they completely form the spud B and make a continuous outer course thread C to receive spud lock nut D and flush L nut E.

At the point of contact 4 of the threads C of parts 1 and 2 or where parts 1 and 2 meet to form the continuous outer thread C, a fine machined joint is made not discernible to the naked eye, making a leakproof joint without the use of a washer or packing of any kind.

The application of part 1 of the spud B is accomplished by slipping washer F on part 1, then aligning the flat sides O of washer F with the flat sides N of flange J. The spud B and washer F will now slip into the inlet of bowl A. After spud and washer F are in the bowl inlet part 1 of spud B is turned around so as to disalign flat sides N and O and permit latch L to engage with a flat side N. When this is done, part 1 of spud B cannot be removed from the bowl inlet unless the flat sides N and O are again brought in alignment. When latch L of washer F is engaged with a flat side N the circle sides of washer F are also brought into alignment with the flat sides N thereby completing circle of flange J. The rubber spud washer H is now slipped on spud B until it butts firmly against washer F, then the friction ring G is slipped on until it butts against washer H. The spud lock nut D is now screwed on spud B and tightened causing spud washer H to bulge against the angle sides P of toilet bowl A inlet. The spud washer collar also butts against the flat sides Q of toilet bowl inlet making a dual leakproof connection. This completes the application of part 1 of spud B into the bowl A.

Before toilet bowl is fastened to the floor part 2 has been slipped over the flush L with the threads 3 facing outwardly or in the direction of the bowl A. When part 2 is slipped over flush L it is understood that the flush L with its fittings (flush L nut E with its rubber slip joint washer) is properly connected to the flush tank and the flush tank in its proper position on the wall. Bowl A with part 1 of spud B intact is now ready to fasten to the floor. When this is done part 1 will be brought in proper alignment with flush L on tank. It has been stated that part 2 has previously been slipped on the flush L and can now be slipped down on the flush L into position and screwed into part 1 thereby forming the complete spud B. The flush L nut E with its slip joint washer intact is now screwed on threads C of part 2 completing the installation.

In practice when it is necessary to remove the toilet bowl from the floor or the flush tank itself from the wall and the old type spud now in general use is in the bowl, it would be necessary to

remove all flush L connections and the flush tank before the bowl can be removed from the floor. (In speaking of removal of the toilet bowl from the floor it is understood that closet bolts holding bowl to the floor have been removed). In removing said connections it often occurs that the toilet bowl spud is disturbed from its position, necessitating the renewal of the spud washer and the replacement of the spud into the bowl again. This is also true of the flush tank and its connections and requires many hours of unnecessary labor and expense. With my improved spud it is only necessary to saw the flush L 5 in half directly behind flush L nut E thereby shortening the flush L approximately one inch. The toilet bowl can now be removed from the floor thereby permitting the flush L and flush tank to remain intact on the wall, or if it is necessary either toilet bowl or flush tank can be removed separately as the case may be. If the toilet bowl is to be removed none of the fittings of the flush tank will be disturbed, but only the flush L nut E on the flush L 5. Before replacing toilet bowl the spud now in use would be removed and replaced with my improved spud and applied to the bowl and the flush L as heretofore explained. As stated the regular flush L has been shortened by approximately one inch and this difference is taken up by part 2 as my improved spud is approximately one inch longer than the old type spud now in use, thereby not necessitating the use of a new flush L as the old one can be used again. Part 2 can be explained as merely an extension to take up this one inch difference.

In the event the above bowl had been equipped with my improved spud all that would have been necessary to remove the bowl from the floor would be to disengage part 2 by unscrewing it from part 1. Part 2 would then slip up on flush L thereby separating the flush L from the spud. Either toilet bowl or flush tank can now be removed separately as the case may require, making a very simple job out of a difficult one as is the case with the type of spud now in general use.

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

1. Means for connecting a flush tank L to a bowl having an inlet opening in a wall thereof comprising a two-part fitting provided with a flange at one end having flat sides, a washer on said end portion adjacent to the flange and having flat sides to register with the flat sides of the flange, said end portion of the fitting being insertible within the opening of the bowl when said flat sides of the flange and washer are in register, relative turning movement of the fiting and flange to bring the flat sides of the flange and washer out of register holding the fitting against withdrawal from the opening, means for locking the washer against movement independently of the fitting after the flat sides of the washer and the flange have been moved out of register, and means at the other end of the fitting for coupling the L thereto.

2. Means for connecting a flush tank L to a bowl having an inlet opening in a wall thereof comprising a two-part fitting provided with a flange at one end having flat sides, a washer on said end portion adjacent to the flange and having flat sides to register with the flat sides of the flange, said end portion of the fitting being insertible within the opening of the bowl when said flat sides of the flange and washer are in register, relative turning movement of the fitting and flange to bring the flat sides of the flange and washer out of register holding the fitting against withdrawal from the opening, means for locking the washer against movement independently of the fitting after the flat sides of the washer and the flange have been moved out of register, means at the other end of the fitting for coupling the L thereto, a spud washer of distortible material mounted on the fitting inwardly of the first named washer, a spud lock nut threaded on the fitting for contact with the spud washer to butt the spud washer against the first named washer to cause the spud washer to bulge out against the wall of the opening of the bowl to assure a leakproof connection.

3. Means for connecting a flush tank L to a bowl having an inlet opening in a wall thereof comprising a two-part fitting provided with a flange at one end having flat sides, a washer on said end portion adjacent to the flange and having flat sides to register with the flat sides of the flange, said end portion of the fitting being insertible within the opening of the bowl when said flat sides of the flange and washer are in register, relative turning movement of the fitting and flange to bring the flat sides of the flange and washer out of register holding the fitting against withdrawal from the opening, and a part carried by the washer engaging with a flat side of the flange.

J. A. ROBINSON, SR.