

No. 679,459.

Patented July 30, 1901.

R. C. JOHNSON & J. B. MARTIN.
WATER CLOSET.

(Application filed Nov. 28, 1900.)

(No Model.)

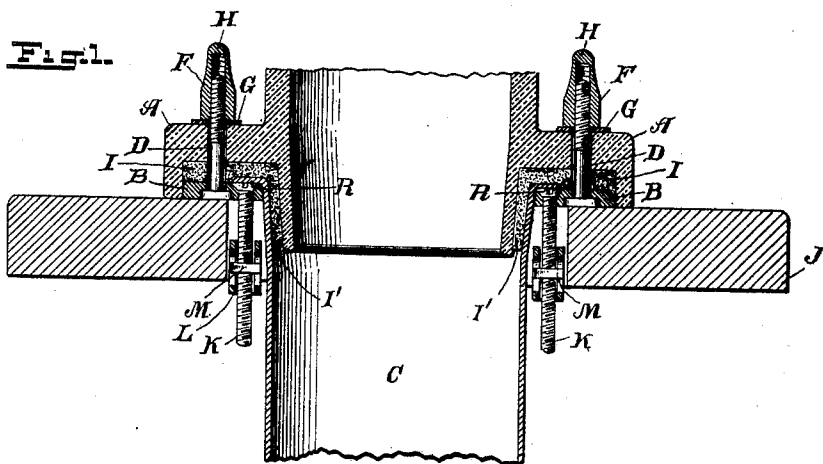
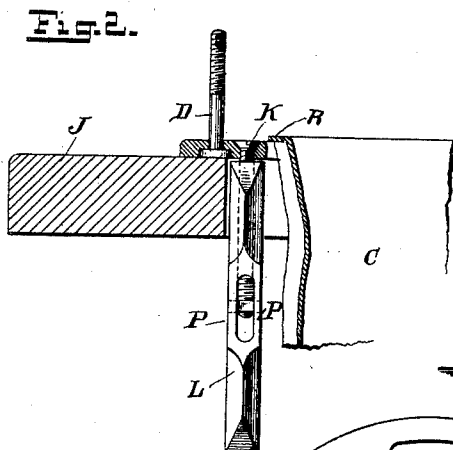
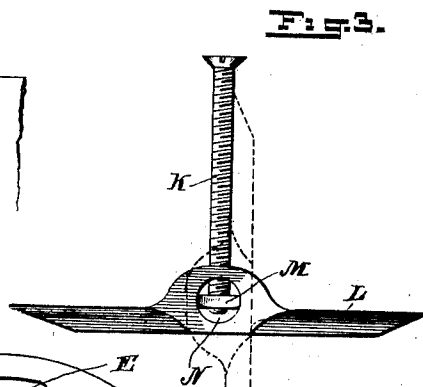
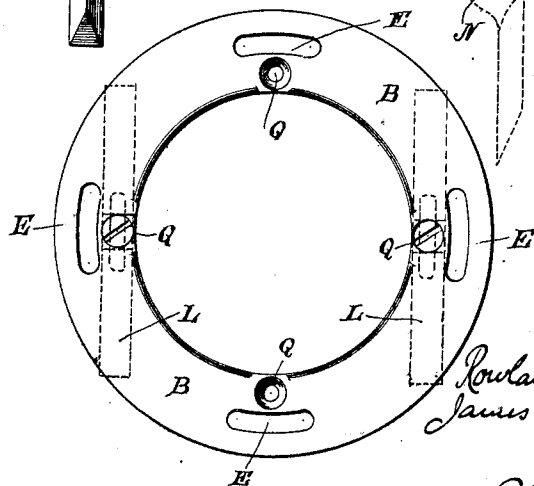


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 679,459, dated July 30, 1901.

Application filed November 23, 1900. Serial No. 37,423. (No model.)

To all whom it may concern:

Be it known that we, ROWLAND C. JOHNSON (having post-office address at No. 942 Gates avenue, Brooklyn) and JAMES B. MARTIN, (having post-office address at No. 221 Monroe street, Brooklyn,) citizens of the United States, and residents of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Water-Closets, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 illustrates a vertical sectional view of the invention. Fig. 2 illustrates a vertical sectional view of a detail of the invention, showing one of our clamps in process of introduction. Fig. 3 illustrates a detail of the clamp shown in two positions, one in full lines and the other dotted. Fig. 4 illustrates a plan of the clamping-ring, showing the clamps likewise in position.

Our invention relates to the devices whereby the bowl and closet are connected with the sewer-pipe. Heretofore considerable difficulty has been experienced in making the joint referred to, first, because of its insecurity, due to settling of the building, and, second, because of insufficient means for sealing the joint.

A indicates the base of the bowl.

B is a metallic ring, which we prefer to make of brass.

C represents the sewer-pipe.

D D are threaded bolts which pass through slots E in the ring B, (see Fig. 4,) by which the base of the bowl is clamped rigidly to the ring by nuts F.

We prefer to put the rubber or equivalent washer G under the nuts to cushion their squeeze on the base of the bowl, and the nuts are preferably in the form of the well-known "acorn" nuts, as shown at H, in Fig. 1.

I is a peculiarly-constructed gasket which forms an important part of our invention. It will be described shortly.

J is a slab upon which the closet-bowl and other parts usually rest. It may, however, be the flooring.

K is a threaded bolt which engages with a clamping-bar L (see Figs. 2 and 3) by means of a nut M, threaded to it, the nut being of such size as to be received movably within an

opening N, made between the two side flanges P P of the clamp, so that the threaded bolt may be swung parallel to the axis of the clamp and lie flat against it, as shown in dotted lines in Fig. 3, or at right angles to it, as shown in full lines in that figure, or at any other intermediate angle. The shank of the threaded bolt K is adapted to pass through holes Q, made in the ring B.

The gasket or packing-ring I, heretofore referred to, is of peculiar construction—that is to say, it has a body part (which is the horizontal portion shown in Fig. 1) which is preferably somewhat thicker than the flange or practically vertical part, likewise shown in Fig. 1. The entire structure is made of fibrous asbestos mixed with such material as may be necessary to cause it to adhere together, and its surfaces are thickly covered with plumbago or equivalent lubricant, so that when the parts are put together and pressure applied by means of the bolts D the lubricant will cause them to slide smoothly and with power into their several places, so as to secure a gas-tight joint in a most perfect manner.

It will be particularly observed that the flange I', which extends downwardly into the sewer-pipe, resting between it and the lower extremity of the base of the bowl, tapers somewhat. This is so that the adjustment between the several parts may be more easily effected and the corners made tight where the gasket fits over the upper or outwardly-turned flange of the sewer-pipe, as seen at R. Indeed, under the pressure exerted we find that the gasket, owing to the presence of the plumbago, readily conforms to all the inequalities, interstices, and irregularities of the parts, so that the bent-over or horizontal flange R of the sewer-pipe becomes embedded in this gasket, and it is squeezed with great pressure into any and all inequalities, resulting in perfect tightness to prevent the passage of gas.

The clamp L is operated as follows: If the plumbing be new, then after the ring is properly located the threaded bolts K are passed down through the hole Q, made for them in the ring. Then the clamps are arranged so as to take a bearing against the under side of the slab or flooring J, so that the ring will be

properly clamped to it and separation prevented. If the plumbing has already been set and it is desired to introduce our invention in old plumbing, then the upper end of the sewer-pipe is knocked over inwardly at two opposite points, the threaded bolts K are adjusted in the ring, and the clamp-bars L are located at the extreme ends of the bolts K, as shown in Fig. 3. When thus arranged, the clamps can be folded back against the bolts, as shown in Fig. 3, and then passed downwardly through the hole in the slab at the bent-in sides of the sewer-pipe. Then by a little manipulation with a wire or equivalent implement the clamp-bar L will drop down horizontally, as shown in full lines in Fig. 3. Thereupon turning of the threaded bolt will draw the clamp up against the under side of the slab or flooring into the desired clamping position. To secure its proper location after it has once attained a horizontal position, the inwardly-bent sides of the lead sewer-pipe may be bent outwardly again, so as to press the clamp and the bolt into the desired lateral position.

In Fig. 4 we show four bolt-holes Q and four slots E, placed, respectively, opposite each other. This is so that if it shall be impossible or inconvenient to use any two of these openings, because of any obstruction beneath the slab or flooring, then the others may be conveniently used.

As the structures here under consideration have heretofore usually, or at least frequently, been arranged the closet-bowl has not had secure or firm support, and it sometimes happens that a blow, such as results from moving trunks, hampers, or the like, or any sudden shock, such as the sudden sitting of a heavy person on the closet-seat, is apt to break the cement or putty joint heretofore usually used and relied upon to seal the connection between the base of the bowl and the sewer-pipe without the fact of the fracture or its disarrangement being known, since there is nothing to make it apparent. Consequently danger from sewer-gas arises, the house inmates being ignorant of the fact.

By our invention the ring and the slab or flooring, as the case may be, are rigidly and permanently connected, and these difficulties cannot arise. Also under our invention a lubricated or what may be called a "self-adjusting" gasket or sealing-ring is provided, and since it is made of asbestos it is indestructible, not corrodible by any gases known in sewers, and being compressible and highly lubricated, as stated, under the pressure of the bolts it easily conforms to any and all irregularities in the surfaces between which

it is squeezed. It automatically adjusts itself and becomes a permanent and efficient and indestructible sealing device, yet totally different from putty, cement, or plaster-of-paris, all of which have heretofore been used, because being fibrous it cannot crack, it is not influenced by heat or cold and it does not crystallize. The parts can be readily separated without danger of fracture, because the plumbago or equivalent material remains permanently as a lubricant. Therefore the separation of the parts is as easy as their assembling in the first instance.

It will be obvious to those who are familiar with this art that modifications may be made in the details of construction without departing from the essentials of the invention. We therefore do not limit ourselves to the details.

We claim—

1. The combination, with the bowl of a closet, of a ring, clamps which engage with the ring and with the support for it, a gasket made essentially of asbestos and having a horizontal and a vertical position, a dry lubricant, such as plumbago, on the surface of the gasket, and bolts extending between said ring and the base of the closet, for the purposes set forth.

2. The combination, with the bowl of a closet, of a ring, clamps which engage with the ring and with the support for it, a gasket made essentially of asbestos and having a horizontal and a vertical portion, the horizontal portion being thicker than the vertical portion, a dry lubricant such as plumbago on the surface of the gasket, and bolts extending between the ring and the base of the closet, for the purposes set forth.

3. A clamp for the purposes stated, embodying a threaded spindle, a nut for the spindle, and a clamping-bar having a recess adapted to receive the nut in such manner as that the clamping-bar and threaded spindle may lie parallel with each other, substantially as described.

4. The combination of a gasket made essentially of asbestos, the surface of which is covered with a dry lubricant such as plumbago, a ring over which the edge of the sewer-pipe is bent, means to clamp the bowl upon the ring, and means to clamp the ring to the slab or flooring upon which it rests, for the purposes set forth.

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