

No. 879,399.

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C. H. MOORE.
WATER CLOSET OUTLET CONNECTION.
APPLICATION FILED DEC. 20, 1905.

Fig. 1.

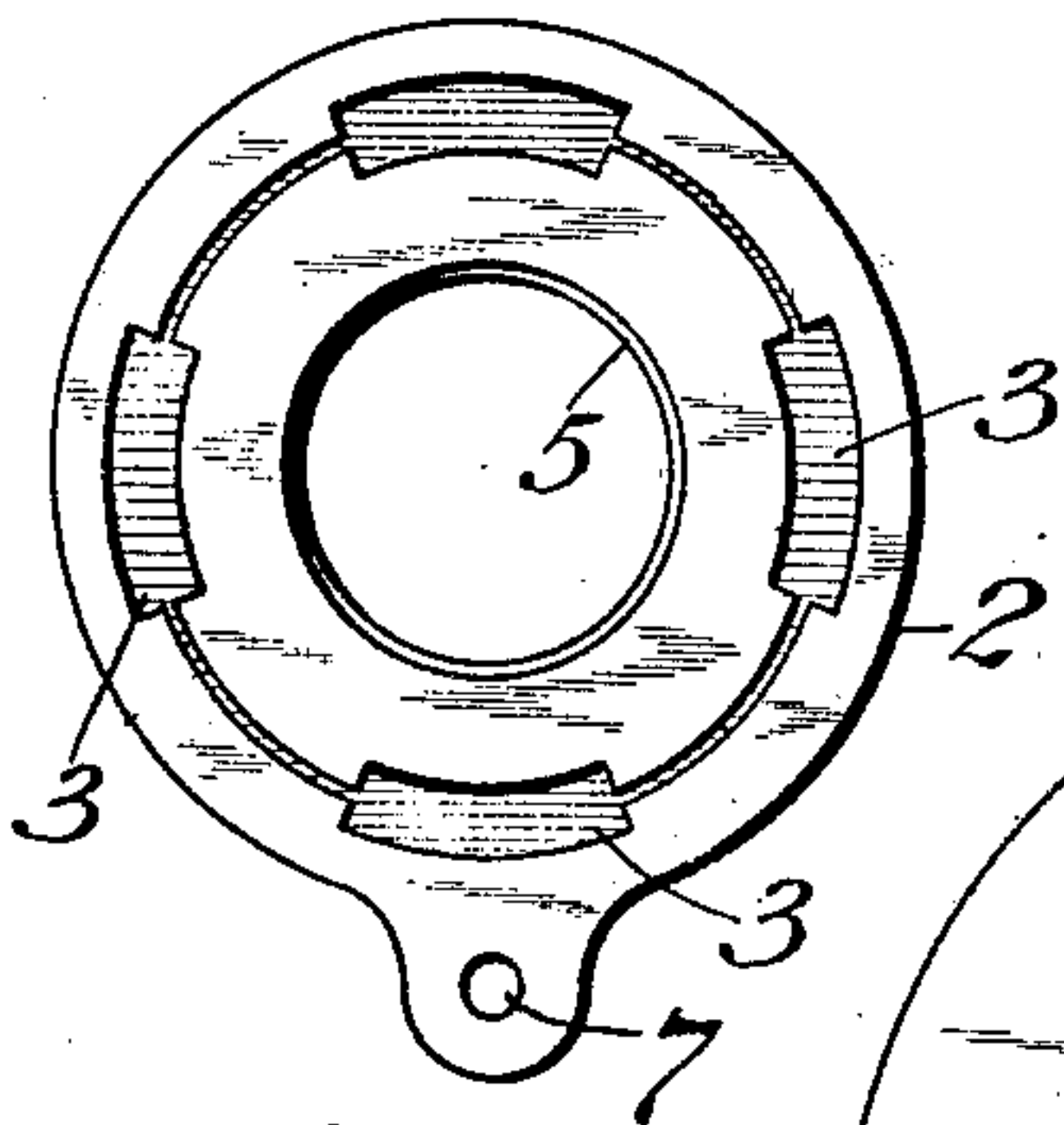
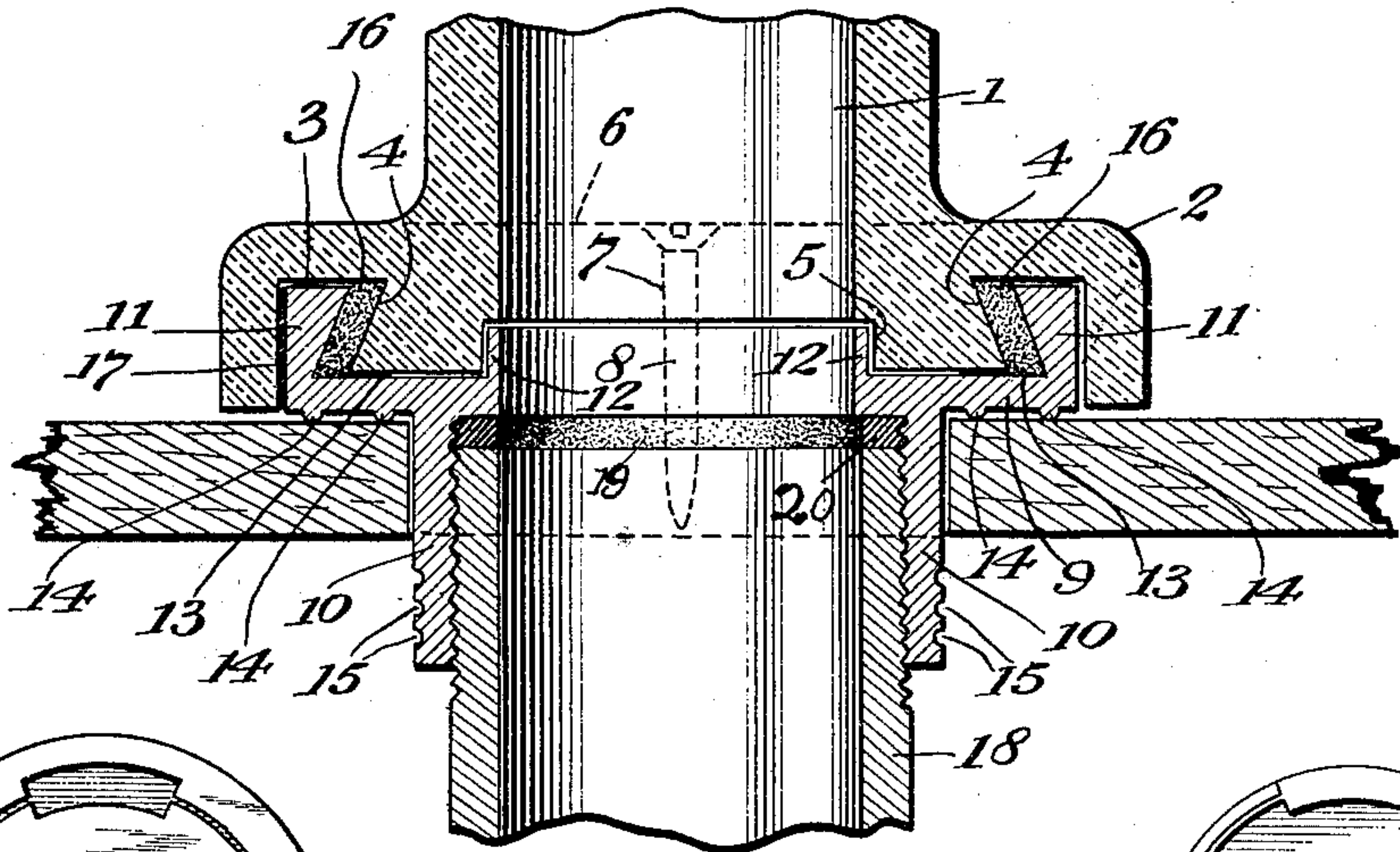


Fig. 3.

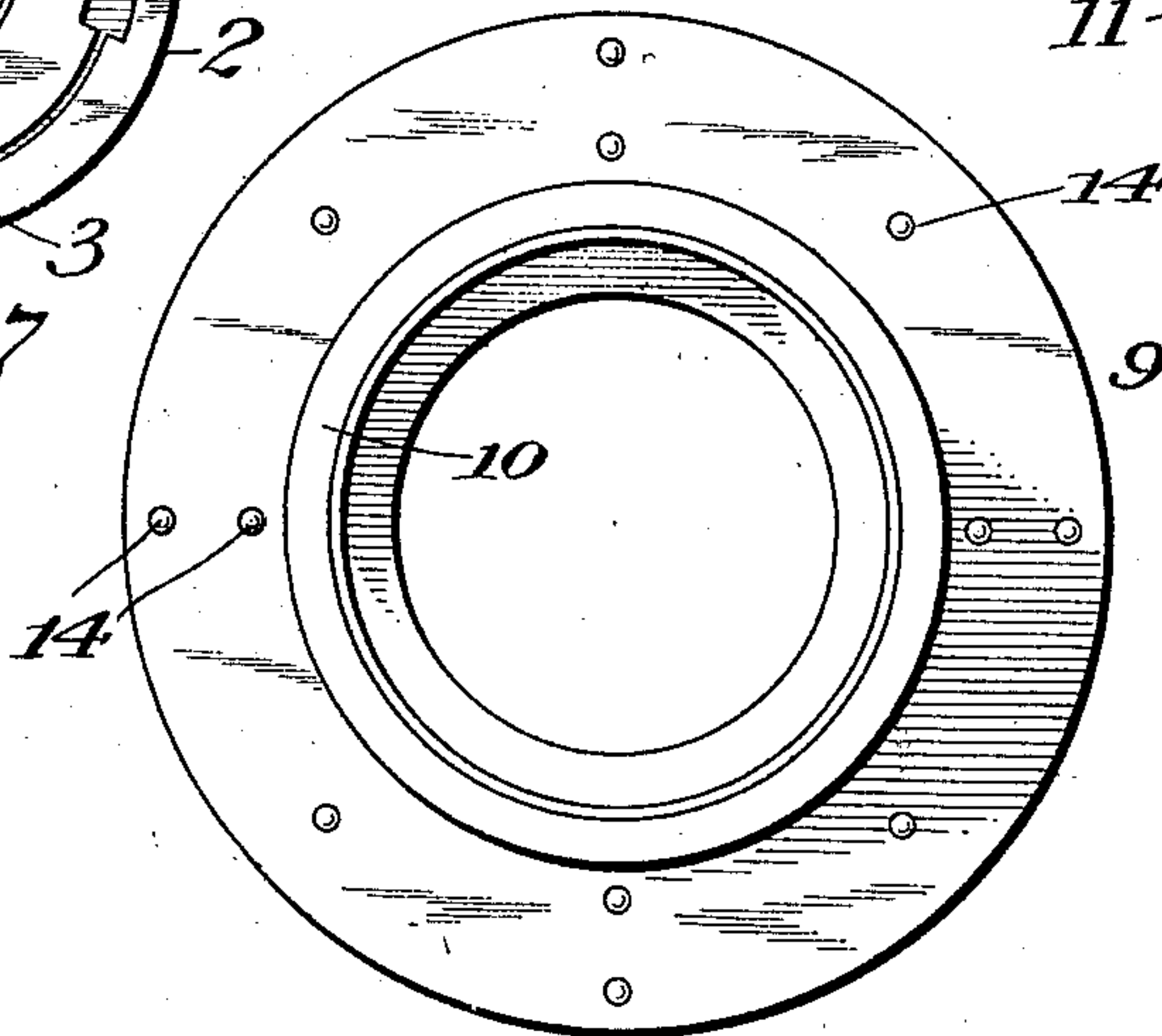


Fig. 2.

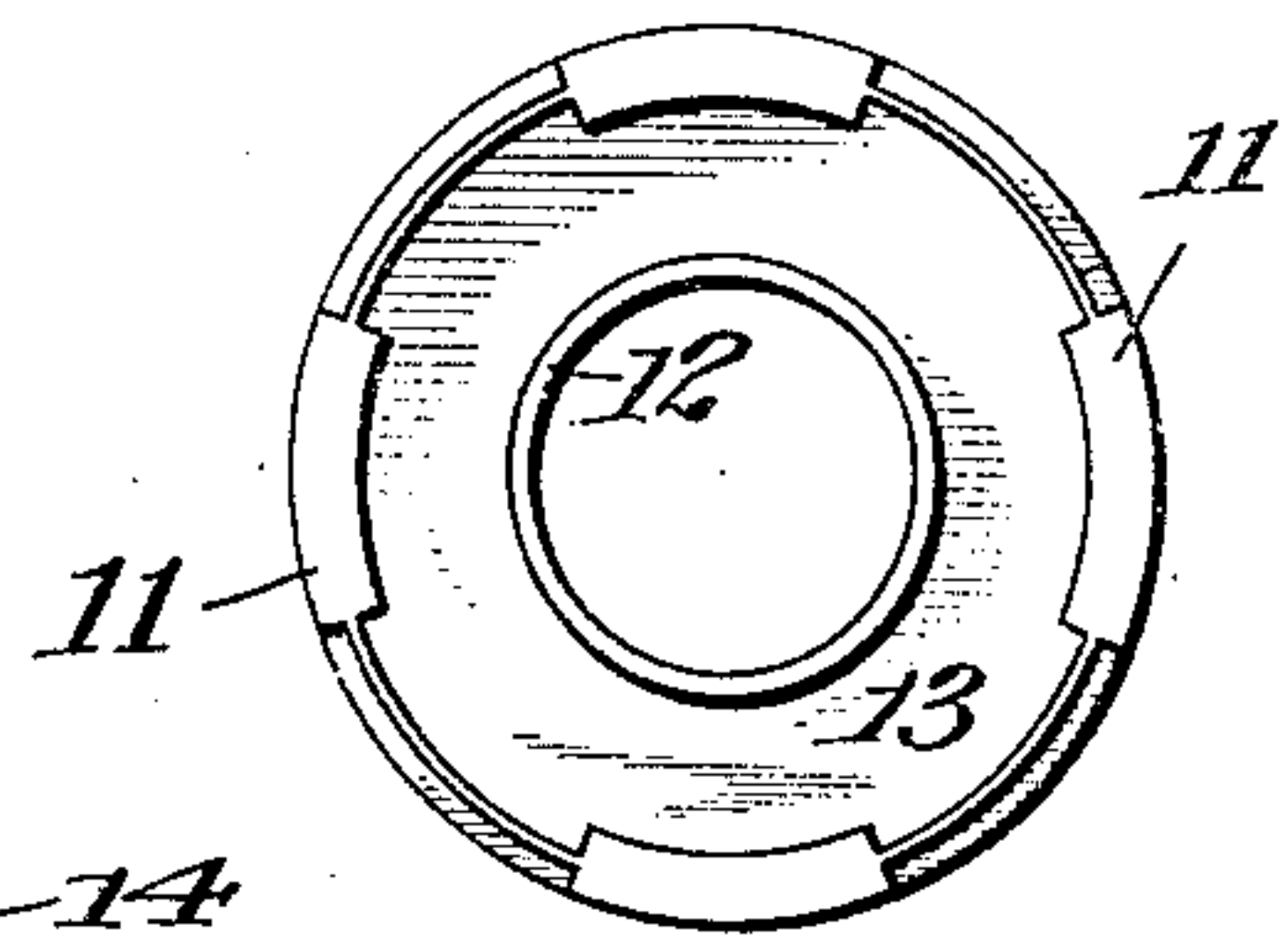


Fig. 4.

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WATER-CLOSET-OUTLET CONNECTION.

No. 879,399.

Specification of Letters Patent.

Patented Feb. 18, 1908.

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To all whom it may concern:

Be it known that I, CHARLES H. MOORE, a citizen of the United States, residing in New York city, in the county of New York and State of New York, have invented a new and useful Improvement in Water-Closet-Outlet Connections, of which the following is a specification.

The object of this invention is to produce an earthenware water closet with a metal flange or fitting secured rigidly and permanently to the base of the closet in such a manner that any expansion of the metal or of the cement that the metal flange is fastened to the base of the closet with, will not affect the earthenware.

Another object of the invention is to construct the metal flange so that in conjunction with that portion of the earthen base that forms the inner wall of the depression or channel, it will form a basin or trap into which discharging water will be forced and remain.

Another object of the invention is to construct the metal flange so that there will be no difficulty in bringing the front of the closet to the right position in screwing it in place and securing it to the base of the closet so that any pressure from the weight of the soil pipe will weigh on the said metal flange and not on the earthenware. To accomplish this, I construct the projecting rim of the flange miter shape on the inner wall and of such thick proportions that any hard setting cement will not expand it, and I form the depression or channel in the ware into which the rim of the flange fits, miter shape at the inner wall with the largest proportioned space for the cement between the inner wall of the metal projection and the inner wall of the channel. I make the depressions in one complete circumferential channel, or several depressions can be made in the ware and a corresponding number of projections can be made on the flange to enter the said depressions and be secured therein, and always shaped so that the pressure of the hard setting cement will not affect the outer rim of the base, and I extend a circumferential projection from the flange up into the discharge limb of the closet.

In the accompanying drawings forming a part of this specification, Figure 1 represents a central vertical section of the invention. Fig. 2 represents the under side of the metal flange that is secured to the base of the closet.

Fig. 3 represents the under side of the base of the closet. Fig. 4 represents a top view of the metal flange.

1 represents an earthenware water closet.

2 is an integral base of the closet having a channel or depression 3 made in it, 4 is an inclined inner wall of the depression.

5 is an offset in the end of the discharge limb, but this offset can be omitted and the result will be the same. The dotted lines 6 represents the rear of the closet base, 7 is a hole through it for the screw 8 to enter and be screwed to the floor to keep the closet from turning out of position.

9 shows a metal flange or fitting having a depending threaded sleeve 10 to engage with a corresponding threaded pipe nipple or fitting connected to the soil pipe and form a tight joint.

11 represents a projection on the flange extending up into the channel or depression 3, or several of these projections can be made to enter and be secured within corresponding depressions made in the earthen base. The one or the several of these projections and the inner wall of the depression or depressions 3 are made to incline toward the discharge limb 1 so that in conjunction with a hard setting cement an inseparable mitered joint is made that will not affect the outer wall of the depression 3 and will hold the metal flange rigidly in place.

12 shows the inner rim of the flange 9 projecting up into the discharge limb 1. A space is left between this projection 12 and the earthenware, into which water is forced and retained and it therefore forms a seal or barrier against any inflow of gases from the sewer pipe independent of the cement joint in the depression 3 and on the surface of the flange between the two metal projections 11 and 12 and is especially serviceable in the event of an imperfection in the cement joint 16.

16 shows a cement joint, and 17 shows a pliable cement filling in the narrow space between the outer rim of the flange 9 and the outer wall of the depression 3, and while it is not an essential element it may be filled in the space for the better appearance.

14 represents feet on the bottom of the flange that are intended for the flange to get a firm bearing on the floor, and are made deep enough to allow the closet to be turned completely around and have a bearing on the floor at every angle, so that in the event of

the closet in being screwed in place coming to a firm bearing on the feet when the front of it is a few degrees past the center line, the feet can be filed off enough to let the closet
5 turn around until the front gets to the right position and still have a solid bearing on the feet.

15 represents grooves made in the sleeve 10, $1/4$ of an inch apart, so that in case a threaded nipple may be too long to allow
10 the closet to screw down to a bearing, the grooves will be a guide to cut the sleeve off by.

18 shows a threaded nipple or coupling that the closet is screwed to, and in some cases has a smooth top surface that will come in contact with a suitable washer 20 in the space 19 and form a tight joint. This plan is used when it is preferable to have the
20 threaded connections screw completely up to a shoulder. The drawing shows a female sleeve on the flange, but the flange is also made with a threaded male sleeve.

To set the metal flange 9 in the base 2, turn the closet bottom side up and put enough of the prepared cement in the depression 3, particularly against the inclined inner wall 4, to fill the space between the projection 11 and the inclined inner wall 4.
30 Then set the flange 9 in the depression 3, and the cement will conform to the shape of the space between the inclined wall 4 and the inclined wall of the projection 11 and fill it, and any of the cement that is forced the
35 the narrow space between the outer rim of the flange 9 and the outer wall of the depression 3 is to be removed by the employment of a thin tool. The cement in the space 4 represented by numeral 16 becomes
40 hard and forms a wedge that holds the flange 9 rigidly in the depression 3 without having any expansive effect on the outer rim of the base 2. In setting the metal flange 9, care is taken that the feet 14 project below the
45 bottom of the outer rim of the base 2, so that in setting the closet in place these feet rest upon the floor and keep the weight of the soil pipe off from the earthen base.

The advantages are

50 1st. The impossibility of any gases escaping between the brass flange and earthen closet.

2nd. Perfect security against the metal flange getting loose from the earthen base.

55 3rd. Perfect security against the closet getting broke from the weight of the soil pipe.

4th. In the event of the base of a closet having an unnoticeable dunt, the hard setting cement surrounding the depending inner
60 wall of the depression 3 and end of the discharge limb, will reinforce it and prevent the dunt spreading.

What I claim as new and desire to secure by Letters Patent is

65 1. The combination with an earthenware

water closet bowl having an earthen base extending out from the discharge limb, said base provided with a depression or channel 3, of a metal flange provided with a projection extending into said depression and fixed
70 thereinto with a layer of hard setting cement between the inner face of the projection and the earthenware, thereby leaving a space between the outer face of the projection and the corresponding opposite face of the depression,
75 said flange also having a depending sleeve to engage with the soil pipe.

2. The combination with an earthenware water closet bowl having an earthen base extending out from the discharge limb, said
80 base provided with a depression or channel 3, of a metal flange provided with a projection extending into said depression and fixed thereinto with a layer of hard setting cement between the inner face of the projection and
85 the earthenware, thereby leaving a space between the outer face of the projection and the corresponding opposite face of the depression that may be filled with a non-expansive cement, said flange also having a threaded
90 depending sleeve to engage with a threaded fitting connected to the said pipe.

3. The combination with an earthenware water closet having a base extending out from the discharge limb, said base provided
95 with a depression or channel 3, of a metal flange provided with two projections, one of the projections extending into the said depression or channel 3 and secured thereinto by a layer of hard setting cement, and the
100 other projection extending up into the discharge limb of the closet and forming a receptacle into which that portion of the base that forms the inner wall of the depression 3 extends, and in conjunction with the two
105 above named projections forms a trap into which water will be forced in discharging from the closet (if the space is left unfilled) and form a water seal that will prevent any escape of gases from the drain, independent
110 of or in addition to the cement joint that is made in the depression or channel 3.

4. The combination with an earthenware water closet having a base extending out from the discharge limb, said base provided
115 with a depression or channel, of a metal flange provided with two projections, one of the projections extending into said depression or channel, and the other projection extending up into the discharge limb of the closet
120 and forming a receptacle into which that portion of the base that forms the inner wall of the depression extends, and in conjunction with the two above named projections forms a trap into which water will be forced in dis-
125 charging from the closet (if the space is left unfilled) and forms a water seal that will prevent any escape of gases from the drain, a means provided to secure the above named flange rigidly to the base of the closet, and a
130

portion of the flange prepared to engage with the soil pipe.

5 5. The combination with an earthenware water closet having a base extending out from the discharge limb, said base provided with a depression or channel 3, of a metal flange provided with two projections, one of the projections extending into the said depression or channel, and the other projection
10 extending up into a recessed place in the base of the closet and forming a receptacle into which that portion of the base that forms the inner wall of the depression extends, and forms a trap, said receptacle communicating

with the discharge limb in such a manner 15 that discharging water from the closet will be forced into any part of it that is left unfilled and form a water seal that will prevent escape of gases from the sewer, a means provided to secure the above named flange rigidly to the base of the closet, and a portion of the flange prepared to engage with the soil pipe. 20

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Witnesses:

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