

C. H. MOORE.
WATER CLOSET OUTLET CONNECTION.
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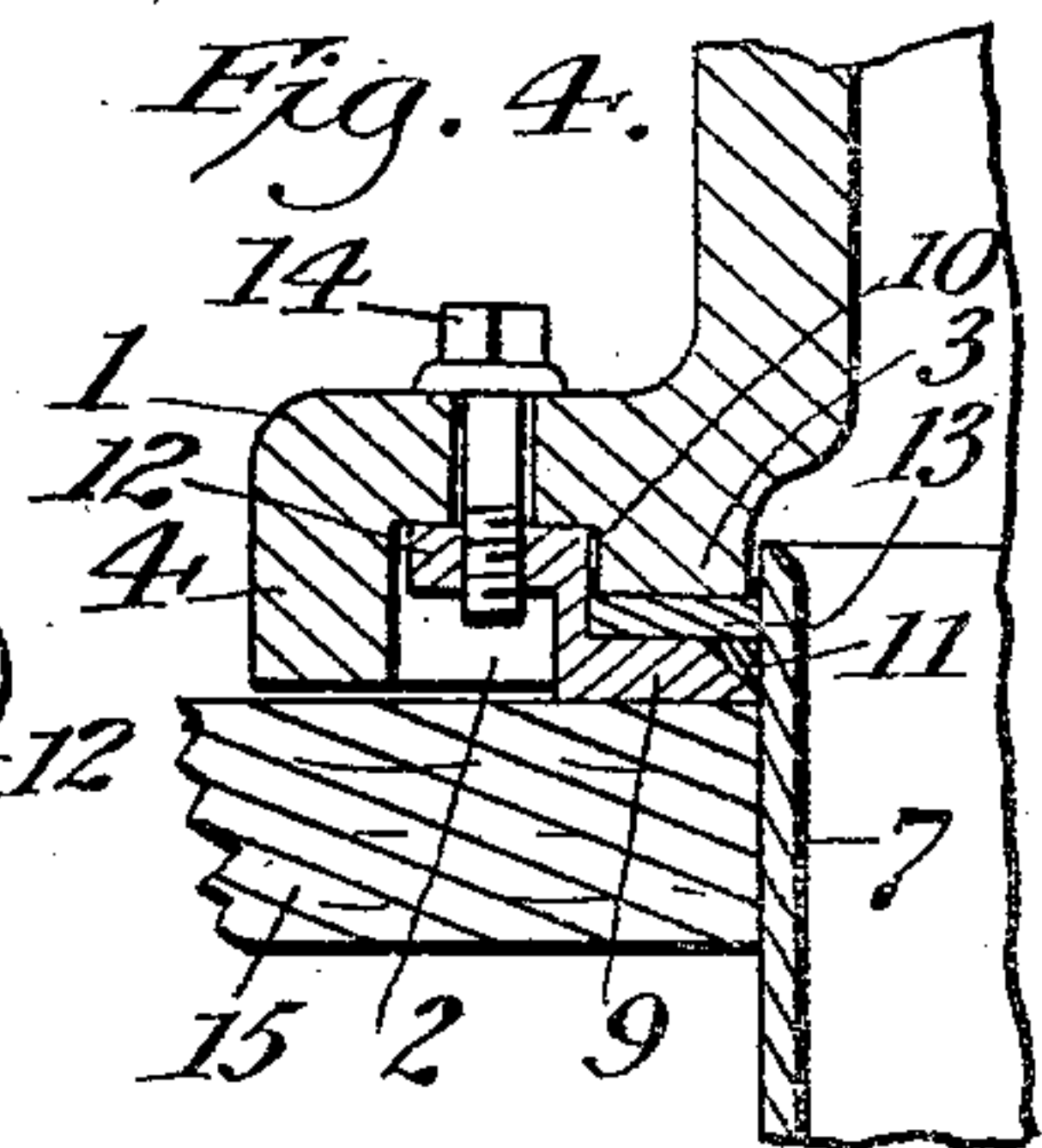
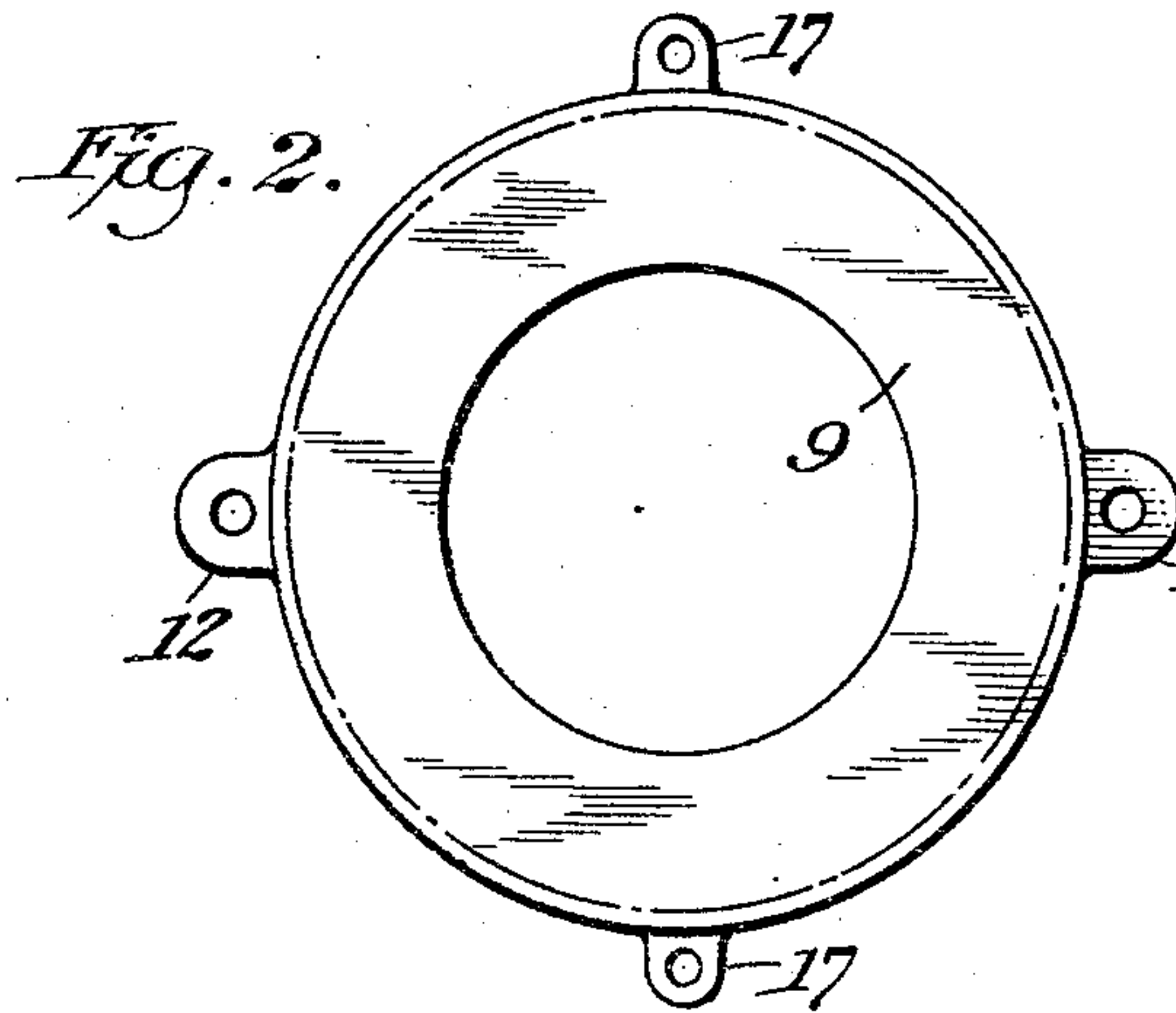
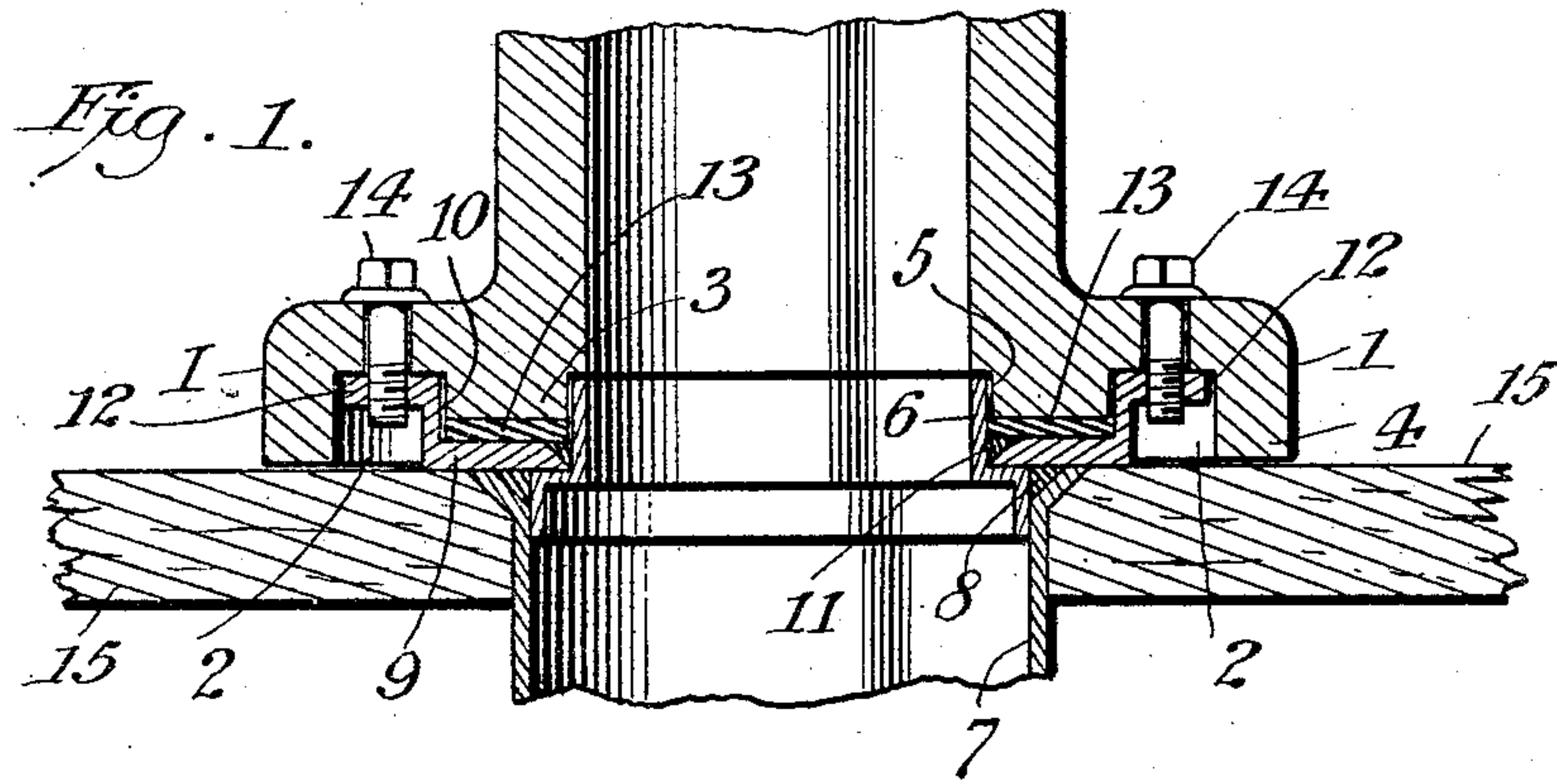
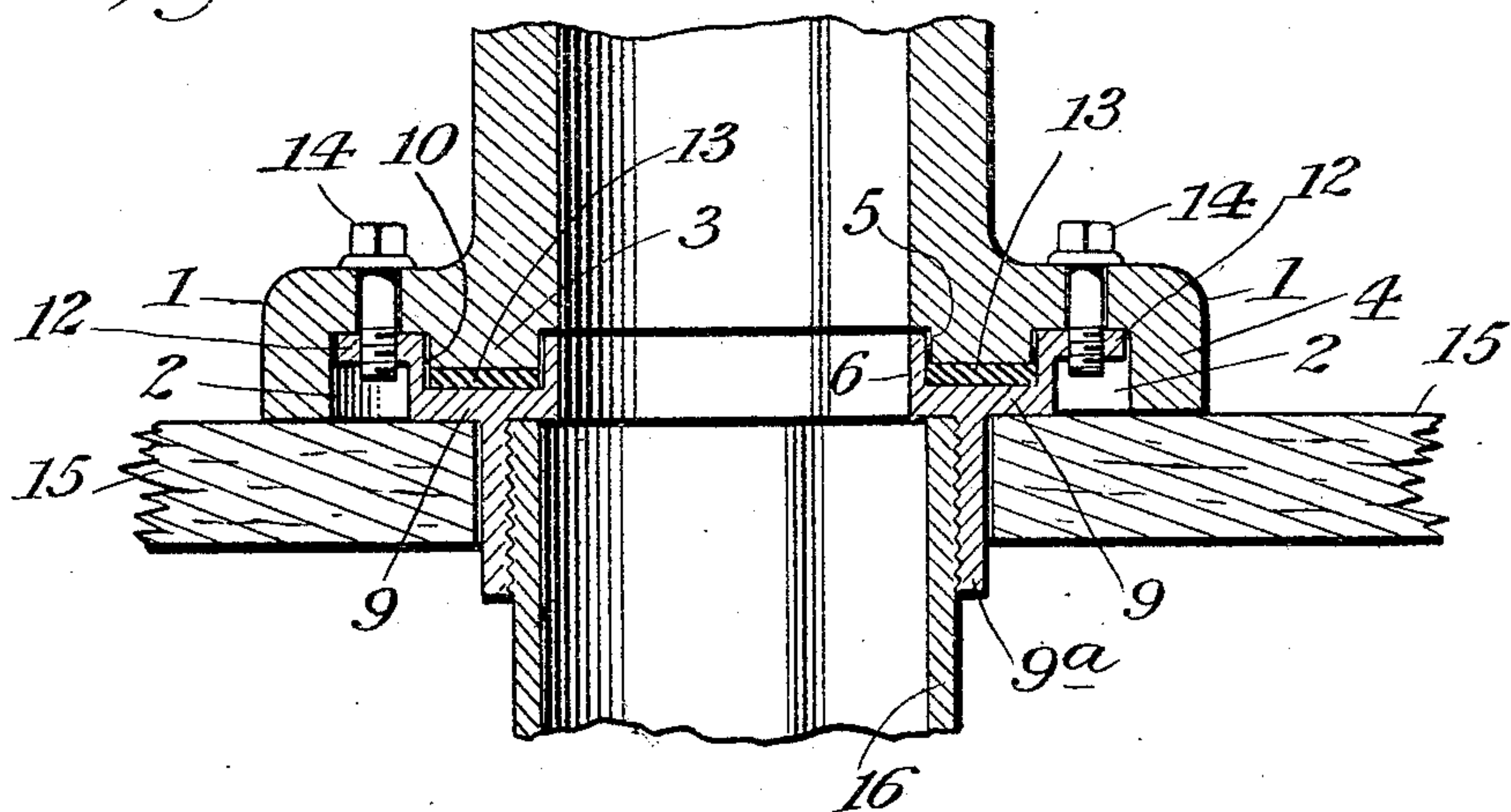


Fig. 3.



WITNESSES
H. P. Moor.
Geo. H. Taylor.

INVENTOR
Charles H. Moore

UNITED STATES PATENT OFFICE.

CHARLES H. MOORE, OF NEW YORK, N. Y.

WATER-CLOSET OUTLET CONNECTION.

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Specification of Letters Patent.

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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 provide an earthenware water closet constructed at the base and outlet end, so that in conjunction with a grooved metal floor plate that connects to the soil pipe and a grease soaked gasket, a trap is formed that will provide a perfect seal against the inflow of sewer gas notwithstanding any slight movement of the closet after it is installed. To accomplish this, I form a groove in the floor-plate by two imperforate flanges, one of them extending up from the outer edge of the floor-plate and one of them extending up from the inner edge of the floor-plate, and in this groove I place an oil or grease soaked compressible gasket; that grease enough is pressed from when the closet is bolted to the floor-plate to surround and submerge the lower end of the depending ring and form an independent grease seal at each side of the said ring and between it and the flanges of the floor-plate, and a communication is made from the space between the inner flange of the floor-plate and the ring 3, to the discharge pipe of the closet so that whenever the closet is flushed the space referred to between the inner flange of the floor plate and the ring 3 if not filled with grease will at once be filled with water, thereby assuring a trapped and sewer gas tight joint at the end of the discharge limb under all conditions.

In the accompanying drawings forming a part of this specification, Figure 1 represents a central vertical section of the invention connected to a leaden soil pipe. Fig. 2 is a plan view of the under side of the device. Fig. 3 represents a modification of the device connected to an iron soil pipe. Fig. 4 shows the flange soldered to a pipe projecting above the floor line.

1 represents the discharge end of an earthenware water closet having one or more holes through the base at each side for bolts to enter and engage with a metal floor plate to secure the closet to the soil pipe.

2 is a circumferential groove formed in the

under side of the base by the depending ring 3 and the outer flange 4 of the base.

5 is a recess in the discharge limb.

6 shows a thimble that enters the upper end of a leaden or other suitable metal soil pipe 7 and is soldered thereto at 8. The thimble 6 is offset and is made large enough at the lower end to fit snugly into the bore of a leaden soil pipe or bend and be secured thereto preferably by a solder joint. The upper end of the thimble is made the size to fit in the recess 5 and forms the inner flange of the floor-plate 9 and the inner wall of the groove 10.

9 shows a floor-plate that fits on the thimble 6 and is soldered thereto, and in conjunction with the upper end of the said thimble that extends into the closet, forms a groove 10 for the depending ring 3 to enter and form a trap. This floor-plate 9 rests upon the offset in the thimble 6 and covers the solder joint that connects it to the thimble, therefore the said solder joint is not exposed to any gases from the sewer pipe. The groove 10 is made deep enough to admit the depending ring 3 to enter it some distance in compressing the gasket, so there is quite a space between the two flanges of the floor-plate that forms the groove and the sides of the depending ring 3 that is filled with grease pressed from the gasket when the closet is made rigid to the floor-plate.

12 represents two or more lugs that are made on the outside of the flange of the floor-plate 9. The reason for putting the lugs on the outside of the rim, is, the flange 9 is thus curtailed in size, and the groove 10 is a more practical shape for a soft gasket and is not perforated.

13 represents a soft gasket saturated with grease oil or some suitable liquid substance that is pressed from the gasket when the closet is screwed in place, and will flow into the space between the flanges of the groove 10 and the depending ring 3 and make a liquid seal independent of the compressed gasket joint.

14 represents the bolts and 15 is the floor.

In place of the gasket, any suitable substance that will yield to slight pressure and not get hard can be used.

9^a represents a depending threaded end of the floor-plate 9 and is intended to be used when iron or threaded metal soil pipe is

used up to the floor line. In Fig. 4 the leaden or other metal section of soil pipe is extended through the floor 15 and floor-plate 9 and forms the inner flange of the said floor plate 9.

The advantages are first: four seals are provided within the groove of the floor-plate against the inflow of sewer gas so that perfect security is maintained under all conditions. Second: the solder joint is protected so that sewer gas will not affect it. Third: the gasket is preserved by the grease that covers it and cannot become brittle or rotten, and will keep the gasket saturated.

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

1. The combination with an earthenware water closet and the soil pipe associated therewith, said closet having a base and a groove formed in the under side of it, of a metal floor-plate composed of two parts, one of the parts being soldered to the soil pipe and having the upper end extended up into the discharge limb of the closet, and the other part fitted over the first named part and secured thereto and having a flange extended up into the groove in the earthen base and in conjunction with a part of the base, form a trap, a compressible substance that will yield with slight pressure and not become hard in the groove in the floor-plate, and bolts for securing the closet to the floor-plate and soil pipe substantially as described.

2. The combination with an earthenware water closet and the soil pipe associated therewith, said closet having an earthen base and a groove made in the under side of it, of a metal floor-plate composed of two distinct parts, one of the parts being secured to the soil pipe and having the upper end extend up into the discharge end of the closet and the other part fitted over the first named part and secured thereto and having a flange extended up into the groove in the earthen base and in conjunction with a part of the base, form a trap, means provided for water to enter the trap in discharging through the closet, and bolts for securing the closet to the floor-plate and soil pipe.

3. The combination with a water closet and a soil pipe associated therewith, said closet having a grooved base and a depending ring within the grooved base and integral with the discharge end of the closet, a floor plate, a flange extending up from the outer edge of the floor plate, a flange extending up from the inner edge of the floor plate and having a connection with the soil pipe, a groove formed in the floor plate by the two flanges, a compressible substance within the groove under the depending ring, that will not become hard, a space in the floor plate between the inner flange and the depending ring, a liquid seal in the said

space between the inner and outer flanges and the depending ring, and means to secure the closet to the floor plate.

4. In combination with a water closet and a soil pipe associated therewith, of the base of the closet prepared on the under surface to act in conjunction with a portion of the floor plate in forming a space to receive and retain a liquid that will submerge a portion of the closet base and form a trap, a floor plate, a compressible substance between the base and floor plate, a quantity of liquid retained in the space formed by a portion of the base and a portion of the floor plate independent of any water that may be forced into it while the closet is discharging, the floor plate secured to the soil pipe, and a means provided to secure the closet to the floor plate.

5. The combination with a water closet and a soil pipe associated therewith, of a closet base prepared on the under side to receive the flange of a floor plate, a floor plate having a flange extending up into said prepared place in the base and having a connection with the soil pipe, a compressible substance between the under side of the base of the closet and the floor plate, a space between the wall of the place that is prepared for the flange of the floor plate and the flange of the floor plate, to receive and retain a liquid above the compressible substance, a liquid in the said space submerging a portion of the base of the closet and forming a liquid seal between the base of the closet and the floor plate independent of any water that may be forced into it while discharging through the closet, and a means provided to secure the closet to the floor plate.

6. In a connection between a water closet and soil pipe, the combination with the base of a closet having a downwardly opening groove formed by a flange on the outer edge of the base, and a rectangular shaped ring depending from the under side of said base, a floor-plate adapted to be connected to the upper end of the soil pipe and having an annular flange on its outer edge, and an annular flange on its inner edge, both flanges forming a rectangular shaped groove for the ring to enter, a liquid soaked gasket within the groove and fitting close enough to the flanges of the said groove whereby the liquid is accumulated by the pressure of the under side of the ring on the gasket when the closet is being bolted to the floor-plate and forms a liquid seal at each side of the ring, means for securing the closet to the floor-plate, means for filling the space between the ring and the inner flange with water when the closet is flushed, and the soil pipe, substantially as described.

7. In a connection between water closets and soil pipes, the combination between the

base of the closet having a downwardly opening groove, and a ring 3 having vertical sides depending from the under side of said base, a floor-plate adapted to be connected to the upper end of the soil pipe, and having an annular flange on its outer edge, and an annular flange on its inner edge, both flanges forming a rectangular shaped imperforate groove for the ring 3 to enter, the said ring fitting loosely in the groove and leaving an open space each side to contain liquid, a liquid soaked compressible gasket within the groove and under the ring 3, the end of the said ring 3 submerged in liquid pressed from the gasket by the act of bolting the closet to the floor-plate, means for securing the closet to the floor-plate, the soil pipe, and a passage for water to enter the space between the ring and the inner flange of the floor-plate and form a water seal on top of the gasket and liquid seal substantially as described.

8. The combination with a water closet having a base projecting out from the discharge limb, a downwardly opening groove formed in the base by a flange on the outer edge of the base and a ring 3 depending from the said base, a floor-plate adapted to be secured to the upper end of the soil pipe and having an annular flange on its outer edge and an annular flange secured on its inner edge, a groove in the floor-plate formed by the two flanges, a compressible gasket within the groove, and three distinct seals within the groove against the inflow of sewer gas, one of the seals being the compressed gasket under the ring 3 and two of the seals being of grease, one each side of the ring 3, and between the said ring 3 and the flanges, a passage for water to flow into the space between the inner flange of the floor-plate and the side of the ring 3, and the soil pipe substantially as described.

9. In a connection between a water closet and soil pipe, the combination with the base of the closet having a downwardly opening groove formed by a flange on the outer edge of the base and a ring 3 depending from the said base, an imperforate floor-plate secured to the upper end of the soil pipe and having an imperforate annular flange on its outer edge and an imperforate annular flange secured on its inner edge, a groove formed by the two flanges, a grease soaked compressible gasket within the groove, a grease seal at each side of and surrounding the lower part of the ring 3, said grease seals being formed by pressing the grease from the gasket in bolting the closet to the floor-plate, a passage for water to flow into the space between the inner flange of the floor-plate and the side of the ring 3 and form a trap above the gasket and grease seal, and the soil pipe se-

cured to the floor-plate substantially as described.

10. The combination with a water closet or the like having a grooved base, of a depending ring within the grooved base and integral with the discharge end of the closet, a floor-plate, a flange extending up from the outer edge of the floor plate, a flange extending up from the inner edge of the floor plate, and having a connection with the soil pipe, a groove formed in the floor plate by two flanges, a compressible substance in the said groove between the two flanges, bolts to secure the closet to the floor-plate, and two liquid seals in the groove formed by the pressure on the depending ring forcing the liquid up when the closet is bolted to the floor-plate, and means for water to flow into the space between the inner flange that is secured to the floor-plate and the ring 3, and form a water seal.

11. In a connection between a water closet and soil pipe, the combination with the base of the closet having a downwardly opening groove formed by a flange on the outer edge of the base and a ring 3 depending from the said base, an imperforate floor-plate adapted to be secured to the upper end of the soil pipe and having an annular flange on its outer edge and an annular flange secured on its inner edge, a groove formed by the two flanges, a grease soaked compressible gasket within the groove, a grease seal at each side of and submerging the lower part of the ring 3, said grease seal being formed by the pressure of the end of the ring 3 on the gasket when the closet is bolted to the floor-plate, a passage for water to flow into the space between the inner flange of the floor-plate and the side of the ring 3 and form a trap on top of the gasket and grease seal, and the soil pipe substantially as described.

12. In a connection between a water closet and soil pipe, the combination with the base of the closet having a downwardly opening groove formed by a flange on the outer edge of the base and a ring 3 depending from the said base, an imperforate floor-plate adapted to be secured to the upper end of the soil pipe and having an annular flange on its outer edge and an annular flange secured on its inner edge, the two flanges forming a groove, a compressible gasket within the groove, a liquid seal at each side of and submerging the lower part of the ring 3, said liquid seal being formed by the pressure of the end of the ring 3 on the gasket when the closet is bolted to the floor-plate, and the soil pipe substantially as described.

CHARLES H. MOORE.

Witnesses:

HARRY C. HENDERSON,
JNO. B. HORNE.