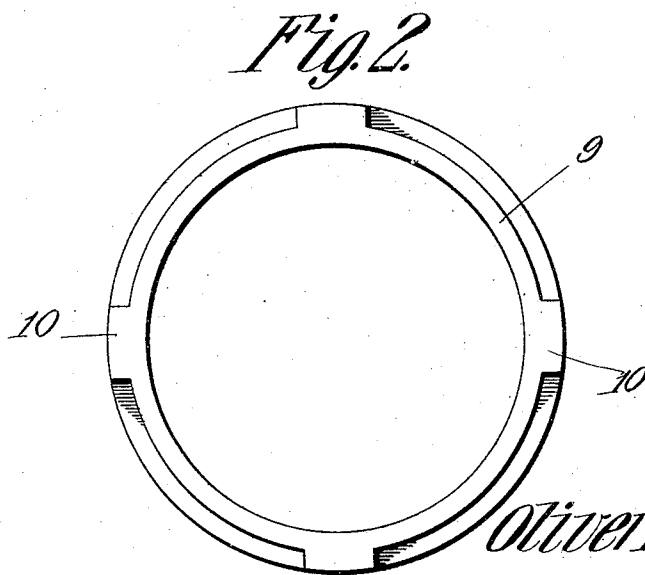
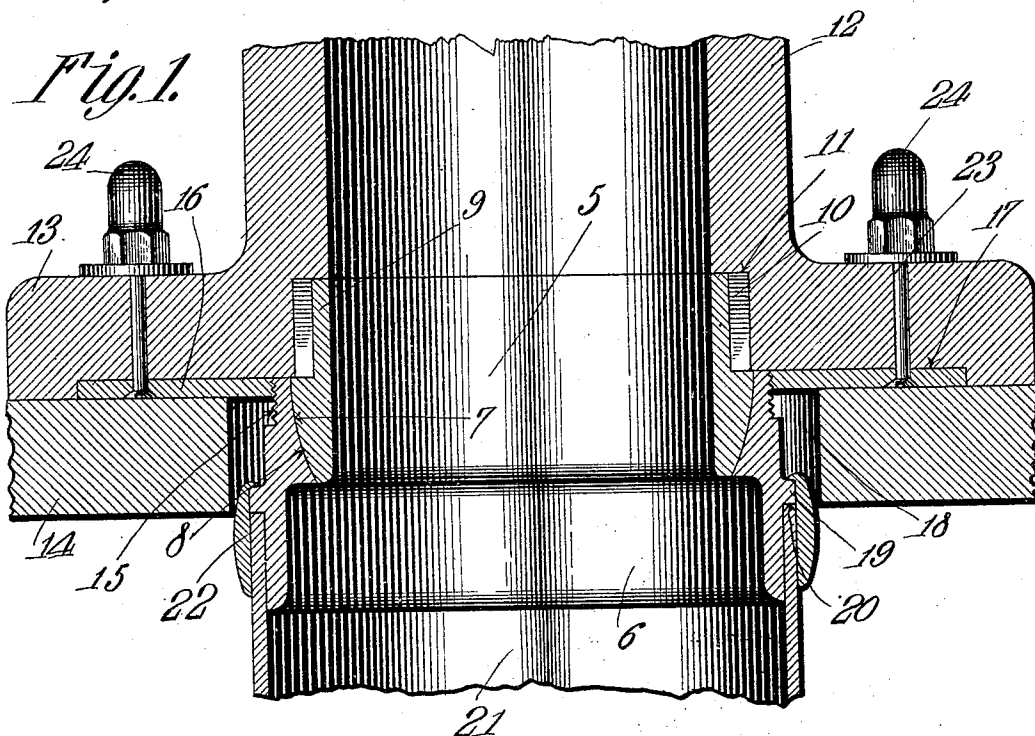


O. D. WHEELER.
WATER CLOSET FLOOR COUPLING.
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938,533.

Patented Nov. 2, 1909.



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UNITED STATES PATENT OFFICE.

OLIVER D. WHEELER, OF CHARLOTTE, NORTH CAROLINA.

WATER-CLOSET FLOOR-COUPLING.

938,533.

Specification of Letters Patent.

Patented Nov. 2, 1909.

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To all whom it may concern:

Be it known that I, OLIVER D. WHEELER, a citizen of the United States, residing at Charlotte, in the county of Mecklenburg and State of North Carolina, have invented a new and useful Water-Closet Floor-Coupling, of which the following is a specification.

This invention relates to couplings and more particularly to means for connecting the bowls of water closets and the like to the soil or drain pipe.

The object of the invention is to provide a floor coupling including mating members, one of which is designed for attachment to the bowl and the other to the floor, said members being provided with a ball and socket connection so that the flange of the bowl may be adjusted to conform to any unevenness in the surface of the floor, while at the same time insuring a tight joint between the parts.

A further object of the invention is to provide a coupling, the construction and relative disposition of the several parts of which is such as positively to insure a water and gas tight joint at the connection of the bowl with the soil pipe and thus prevent the escape of sewer gas into the house.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification:—Figure 1 is a vertical sectional view of a floor coupling or connection constructed in accordance with my invention. Fig. 2 is a top plan view of the upper section of the coupling detached.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved coupling forming the subject matter of the present invention is principally designed for connecting the bowls of water closets to the soil or waste pipe and in its preferred embodiment comprises mating sections 5 and 6, one of which is provided with an exterior spherical bearing surface 7 for engagement with a correspond-

ingly shaped socket 8 formed in the mating member, thereby forming in effect a ball and socket joint at the juncture of said members.

The upper section 5 is provided with a reduced extension 9 adapted to fit within an annular seating groove formed in the interior wall of the bowl 12, said extension being provided with one or more laterally extending lugs 10 which enter correspondingly shaped sockets 11 formed in the wall of the bowl and intersecting the seating groove. The wall 12 is preferably provided with an annular flange 13, adapted to bear against the upper surface of the floor, indicated at 14. The lower section 6 is provided at its upper end with exterior threads 15 for engagement with the interior threads of a stationary collar or floor plate 16.

The floor plate 16 is seated in a recess formed in the base of the flange 13 and is arranged with its inner edge projecting over the opening 18 in the floor so that the lower section 6 may be readily attached thereto.

The section 6 is provided with a circumferential rib 19 defining an annular shoulder 20 which bears against the soil pipe 21, the latter being arranged in contact with the exterior walls of the section 6 beneath the shoulder 20 and is combined therewith in any suitable manner as by a wipe joint 22.

Extending through suitable perforations in the flange 13 are clamping bolts 23 the heads of which bear against the upper surface of the floor 14, while the shanks of said bolts pass through the plate 16 and perforations in the flange 13 for engagement with suitable clamping nuts 24, by means of which the bowl is held rigidly combined with the lower section 6. Thus it will be seen that by rotating the lower section 6, the mating sections may be brought into close contact with each other, thereby to form a good joint between the parts and thus positively prevent the escape of sewer gas to the interior of the house. It will also be noted that by reason of the ball and socket connection between the members 5 and 6, said members may be adjusted relatively with respect to each other so as to adapt the flange of the bowl to any unevenness in the surface of the floor, while at the same time insuring a water and gas tight connection between the sections of the coupling. Such a device is particularly useful where the upper surface of the floor is arranged at a slight angle or inclination, the ball and socket

connection permitting the flange to be tilted laterally so that the bowl will be firmly supported on the floor and parallel therewith.

From the foregoing description it will be seen that there is provided an extremely simple, inexpensive and efficient device admirably adapted for the attainment of the ends in view.

Having thus described the invention what is claimed is:—

1. The combination with a bowl having its interior wall provided with an annular seating groove intersected by spaced sockets, of a coupling including mating sections, one of which is provided with a spherical head and a reduced upper portion fitted within the seating groove and having a series of lugs entering said sockets, the other section being provided with exterior threads and having an interior socket for the reception of the head of the mating section, a clamping plate seated in a recess in the bowl and provided with interior threads for engagement with the exterior threads on the adjacent section, a shoulder formed on the socket carrying section for engagement with a soil pipe, and means connecting the soil pipe to the adjacent section of the coupling.

2. The combination with a bowl having a laterally extending flange, the lower face of which is provided with a recess, there being an annular seating groove formed in the interior wall of said bowl and intersected by spaced sockets, of a coupling including mating sections, one of which is provided at its lower end with a curved exterior bearing surface and having its upper end seated in the groove in the bowl and provided with a series of lugs entering said sockets, the other section being formed with an interior curved bearing surface engaging the exterior bearing surface of the mating section and having its upper portion provided with exterior threads and its lower portion formed with

an annular reinforcing rib defining a stop shoulder, a plate seated in the recess in the flange of the bowl and provided with a central opening, the walls of which are threaded for engagement with the exterior threads on the lower section, there being perforations formed in the plate, clamping bolts seated in said perforations and extended through openings in the flange of the bowl engaging with clamping nuts, a soil pipe bearing against the shoulder on the lower section, and means for securing the soil pipe in engagement with said lower section.

3. The combination with a bowl having a laterally extending flange, the lower face of which is provided with a recess, there being an annular seating groove formed in the interior wall of said bowl and intersected by spaced sockets, of a coupling including mating sections, one of which is formed with a spherical head and a reduced upper portion defining a shoulder, there being spaced lugs formed on the reduced portion of the upper coupling section and fitting within the socket in the bowl, the lower coupling being provided with a socket for the reception of said spherical head and having means for attachment to a soil pipe, a ring seated in the recess in the flange in the bowl and provided with interior threads engaging threads formed on the exterior wall of the lower coupling section, fastening devices piercing the plate and flange respectively, the shoulder on the upper coupling, and the top of the lower coupling section being disposed in horizontal alinement with the upper surface of the said plate.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

OLIVER D. WHEELER.

Witnesses:

C. F. GALLIHER,
MARVIN W. HELM.