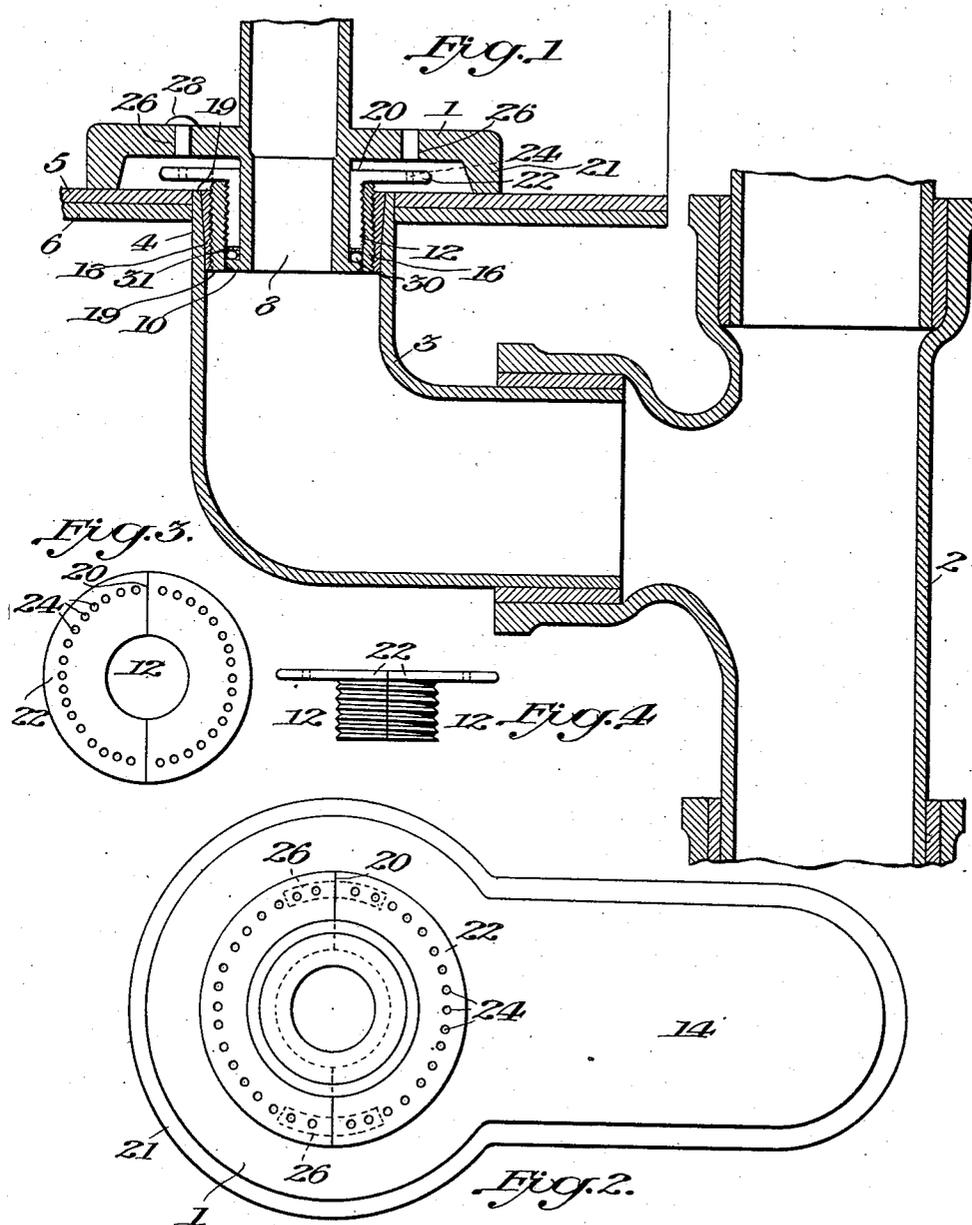


H. J. McNAMARA.
 FLOOR CONNECTION FOR CLOSETS.
 APPLICATION FILED SEPT. 29, 1911.

1,084,583.

Patented Jan. 13, 1914.



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UNITED STATES PATENT OFFICE.

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FLOOR CONNECTION FOR CLOSETS.

1,084,583.

Specification of Letters Patent.

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Application filed September 29, 1911. Serial No. 651,991.

To all whom it may concern:

Be it known that I, HARRY J. McNAMARA, of Brooklyn, New York, have invented certain Improvements in Floor Connections for Closets, of which the following description, in connection with the accompanying drawings, is a specification, like numerals on the drawings designating like parts.

This invention relates to plumbing fixtures, and is of special utility when embodied in a water-closet of the "screw-down" type, although I contemplate the utilization of my improvements in any field for which they are adapted by their nature.

An important object of my invention is to provide a closet with means of attachment by which the solidity and other advantages of the screw-down type can be secured without requiring the complete rotation of the earthenware, for the bulk, and particularly the length, of the earthenware has frequently prevented the use of the existing forms of screw-down attachments in confined situations where space was lacking for the necessary rotation of the earthenware around the vertical axis of its joint with the bend of the soil-pipe. Accordingly, in carrying my invention into effect, I prefer to provide an attachment including a connecting member, rotatable independently of both the earthenware and the bend, or as an alternative I may provide an attachment with which a limited degree of rotation of the earthenware will suffice to effect a true screw-down connection uniting the closet solidly to that portion of the soil-pipe selected for the point of attachment, whether this be the usual bend or another soil-pipe member.

Among other important objects of my invention is the construction and arrangement of the connecting parts to eliminate the necessity for a high degree of accuracy in such preliminary operations as adjusting into the bend the earthenware to cooperate with the connecting member, and to effect this object I prefer to provide the earthenware with a downwardly projecting horn, preferably integral with the earthenware of the closet, and having a lateral flange to be engaged with the connecting member, the width of this flange being sufficient to per-

mit some lateral adjustment between the earthenware and connecting member without danger of a leak.

Still another object of my invention is to reduce the number of movable parts in the joint and to simplify their construction, reducing to a negligible quantity the opportunity for maladjustments, displacement of adjustments and failure of individual parts by breakage, and also to improve the character and situation of the packing, eliminating the necessity for putty, paraffin and other plastic materials, and also of lead and solder.

I prefer to accomplish the above objects by extending the horn of earthenware already mentioned so that it enters the bend, and to interpose the packing between the horn and bend, under compression between a horn flange and the connecting member, so that the packing is set in an operation unitary with the screwing down of the closet, and when set is not in position to be subjected to residual fluid containing corrosive uric acid, since the flushing fluid will all drip back into the bend, and not lie on the packing, except in the event of a leaky packing, which will permit the flushing fluid to pass up and escape over the mouth of the bend and out from beneath the base of the earthenware, giving notice of the leak.

Still other objects of my invention comprise the provision of a connection which can be used equally well with iron or lead bends, can be adjusted quickly, is free from parts of brass and other expensive material, insures an even pressure all around the joint, and permits the hub of the bend or other soil-pipe member to be brought flush with the floor, economizing space.

The various features of my invention will be illustrated and described fully in the accompanying drawings and specification and pointed out in the claims.

In the drawings, Figure 1 is a view in vertical section of the connecting portions of a water-closet installation in the construction of which my improvements have been embodied. Fig. 2 is a plan view, looking upwardly, of the base of the closet, taken separately from the soil-pipe, but showing

the connecting member in place; and Figs. 3 and 4 show, separately,—in side elevation and plan, respectively, the connecting member.

5 In the embodiment of my invention selected for illustration and description to enable ready and complete understanding of my improvements, the parts designated by the reference numerals 1, 2 and 3 respectively are the base of a water-closet, the upright Y of a soil-pipe, and a bend intervening between the vertical riser of the soil-pipe and the closet, and with which the closet is to be connected in the instance selected for illustration by way of example.

15 The parts above described may be of any suitable construction and material, and may conveniently comprise an iron soil-pipe, an iron or lead bend, and an earthenware closet, as is common in such installations.

20 As one convenient form of construction I have shown the mouth 4 of the bend 3 as brought up substantially flush with the surface 5 of the floor 6, which may be of tiles, cement or any other material usual or suitable for floor surfaces, my improvements being applicable with notable ease to installations upon tile flooring, owing to the absence of parts, such as bolts, requiring special holes in the floor surface, since my improved connection is preferably accomplished directly between the closet 1 and the soil-pipe member 3 selected, as will now be described. This connection may be accomplished by any suitable means, and as one convenient form of connection, I have shown the closet 1 as having a part 8, preferably constituting an integral horn or extension of the earthenware part of the closet, projecting downward into the mouth 4 of the bend 3, so that the effluent from the closet is delivered directly from the earthenware 8 to the metallic bend 3 without passing any cracks or crevices within which particles of organic matter may find lodgment and there decompose. This horn will preferably be provided with an exterior flange 10 which may conveniently be situated around its bottom, this flange serving as an abutment to cooperate with a connecting member 12 which I prefer to provide, in accordance with an especially important object of my invention, for the purpose of avoiding the complete rotation of the closet 1, such rotation being impossible when, as shown at 14 in Fig. 2, the earthenware is so extended laterally as to be longer than the space between the axis of rotation and the line of the wall (see Fig. 1). The member 60 12 may be of any suitable material, such as malleable iron. I prefer also to form the flange 10 continuous around the entire periphery of the horn 8, and in order to permit the connector 12 to embrace the neck 65 of the horn closely and fit into position to

coöperate with the flange 10, I have shown the connector 12 as split vertically, as at 20, and for the purpose of providing means for its rotation to effect the "screwing-down" movement, I have shown flanges 22 on the parts 12, these flanges preferably being of suitable construction for engagement by a spanner or other tool to rotate the connector about its vertical axis. For this purpose, I have shown the flanges as having a series of holes 24, and as these apertured flanges will preferably lie beneath the earthenware base 1 of the closet, for their concealment and protection, I prefer to provide the base 1 with suitable means of access to the connector 12, as for example the slots 26, through which the spanner or other tool may pass to the holes 24, and these slots may be closed, ordinarily, as by stoppers 28.

At 30 I have shown a packing, which may be of any suitable material, such as lamp-wick and graphite, and if desired, I may provide a wear-ring or washer 31, to protect the packing 30 when the connector 12 is forced against it, rotatively.

I prefer to arrange for the rotation of the segmental parts of the member 12 in assembled relation as a unitary structure independently of both the closet 1 and bend 3, so as to permit a true "screw-down" relative movement of the connector and closet co-axially with respect to the bend, and as a convenient expedient to this end I have threaded the periphery of the connector 12 and provided a correspondingly threaded annular retaining member or collar 16 to surround the parts 12 and cooperate with them to hold in place the packing ring 30, the whole being screwed down against the flange 10 within the mouth 4 of bend 3, the latter being provided preferably with a threaded seat 18, which seat may be integral with the material of the bend, or may, as illustrated, comprise a spud, bushing or nipple 18 of cast iron, secured suitably within the mouth 4, as by a calking 19 of lead.

The above arrangement is of particular utility where the bend 3 is of lead, since it permits the provision of a durable seat 18 within which the connector parts 12 and 16 can be screwed in and out for adjustment and removal without damage to the bend when the latter is of lead.

In operation of my improved device, after installation of the plumbing parts to which the attachment is to be effected, as for example, the soil-pipe members 2 and 3, relatively to the floor 6, the nipple, spud or seat-member 18 is emplaced, if such a separately formed seat is required for the protection of the mouth 4 of the bend 3, being preferably calked as at 19, and the halves 12 of the split connector are assembled upon the neck of the horn 8, above the flange 10, with the

packing 30 lying upon the flange, the collar 16 is screwed home surrounding the parts 12 and packing 30, and the closet is lowered until the horn 8 passes into the mouth 4, and the threaded periphery of the collar 16 can be engaged with its threaded seat in spud 18. A spanner or other tool may then be inserted, through the slots 26 of the base 1, into the holes 24 in flanges 22 of connector 12, and the connector screwed home, its action upon flange 10 through ring 31 and packing 30 serving to draw the rim of the earthenware base 1 firmly down into engagement at all points with the surface 5 of floor 6, the packing 30 insuring a fluid-tight and gas-tight joint between the horn 8, collar 16 and connector 12, while the usual lead calking 19 between spud 18 and bend-mouth 4 insures a similarly tight joint at that region.

By a reversal of the above operation, the closet may be removed, at any time, without impairing the integrity of the attaching means, inasmuch as no putty or other plastic material need be employed, nor any lead, between the movable connecting parts, with the exception, if desired, of the usual white lead between surfaces having a relative movement.

Having illustrated and described my invention thus fully, and suitable means by which the same may be put into practice, I wish it understood that I do not limit myself to the specific construction and materials selected for illustration and description by way of example, nor in general do I limit myself otherwise than as set forth in

the claims read in connection with this specification.

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

1. The combination with a water-closet having a base to be engaged with a floor, of a tubular connecting device mounted rotatably upon said base and presented in position for rotatable telescopic engagement within a soil-pipe member, having means acting, upon said rotation of said connecting device, when assembled with said closet and soil-pipe member, to draw said closet into contact with said floor regardless of the relative axial positions of said base and soil-pipe member, and of the position of said soil-pipe member relatively to the floor.

2. The combination with an interiorly threaded soil-pipe member, of an earthenware water-closet having an integral flanged horn to enter said member and a metallic connector split for assemblage in annular relation upon the neck of and a retaining collar threaded interiorly to receive said horn and threaded peripherally, connector parts and to screw down as a unitary structure therewith between said horn and member, into engagement with said flange to cause telescopic movement of said horn and soil-pipe without relative rotation thereof.

Signed at Brooklyn, in the county of Kings and State of New York, this 24th day of August 1911.

HARRY J. McNAMARA.

Witnesses:

STEPHEN MURPHY,
G. R. HOLLAND.