T. BARROW.

WALL CLOSET MOUNTING.

APPLICATION FILED MAY 31, 1912.

1,177,844.

Patented Apr. 4, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

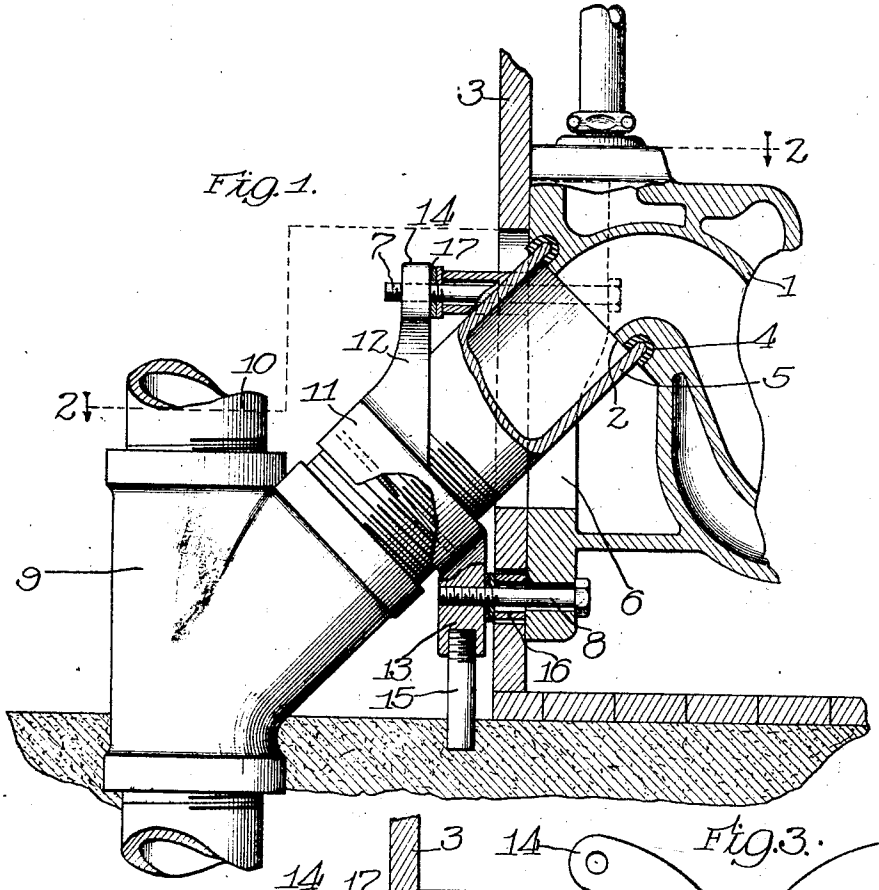


Fig. 2.

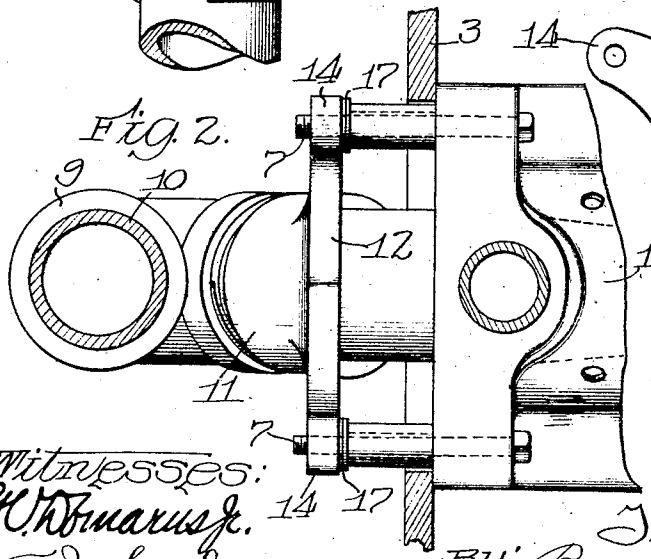
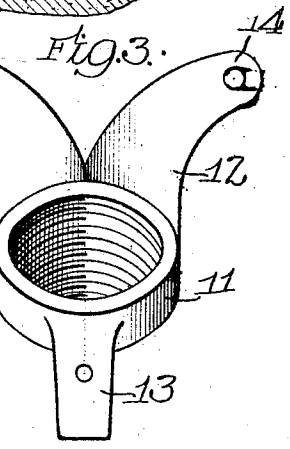


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

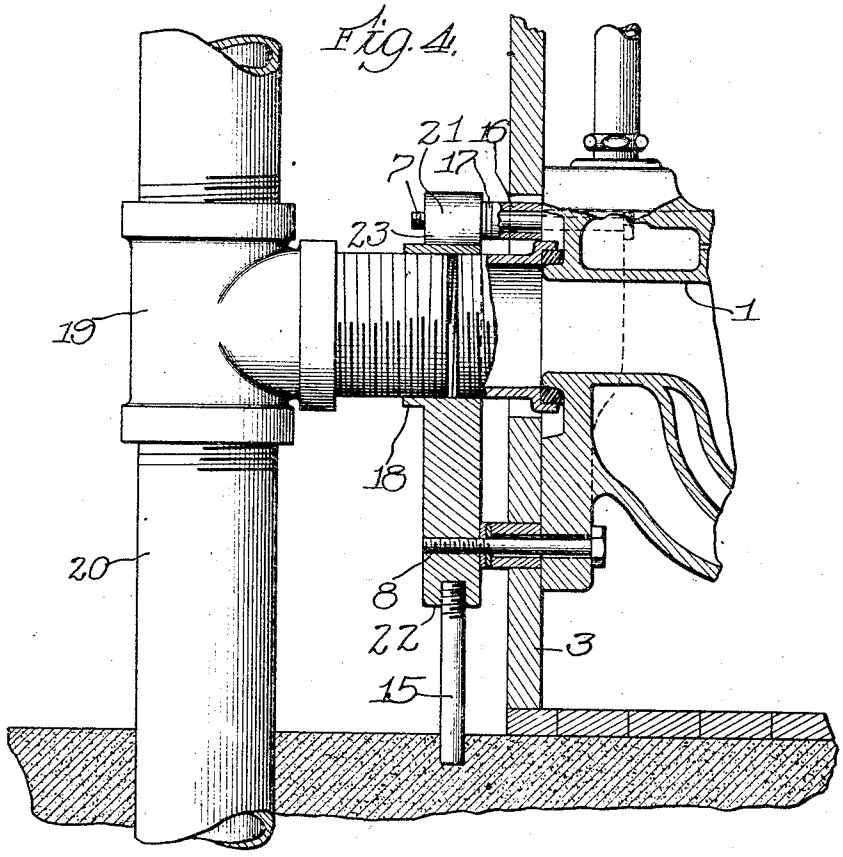
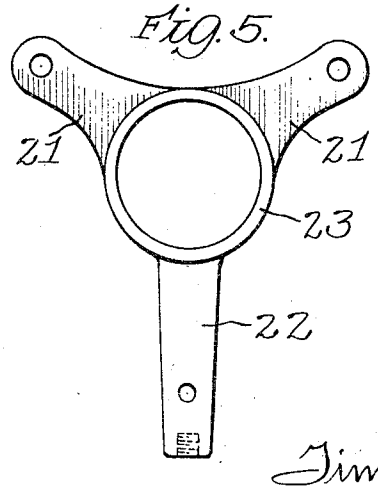


Fig. 5.



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UNITED STATES PATENT OFFICE.

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WALL-CLOSET MOUNTING.

1,177,844. Specification of Letters Patent. Patented Apr. 4, 1916.

Application filed May 31, 1912. Serial No. 700,826.

To all whom it may concern:

Be it known that I, TIMOTHY BARROW, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Wall-Closet Mountings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object to provide an improved means for securing closet bowls in place against a partition wall without placing any strain, stress or load upon the latter, and relates more particularly to means whereby the closet bowl is held in place by and at least partially supported upon the soil pipe into which it discharges.

In the accompanying drawings illustrating this invention: Figure 1 is a fragmentary detail sectional view partly in elevation showing the closet bowl mounting constructed in accordance with my invention. Fig. 2 is a fragmentary horizontal section on the line 2—2 of Fig. 1. Fig. 3 is a detail front elevation of a collar employed. Fig. 4 is a view similar to Fig. 1 showing a modified form of construction. Fig. 5 is a view in front elevation of the collar employed in the construction shown in Fig. 4.

One object of the invention is to provide readily adjustable and easily applied means whereby the position of a closet bowl relatively to a partition wall may be easily fixed and the mounting of the bowl readily effected with a minimum number of bolts or similar fastening means.

A further and very important object of the invention is to provide fastening means whereby the closet bowl is maintained rigid with its supporting part entirely independently of the partition wall and is rendered incapable of movement in any direction relatively to the latter so that strains or stresses thereon will be impossible.

A still further object of the invention is to provide means whereby the closet bowl may be mounted and supported upon a forty-five degree outlet or T-coupling of the soil pipe.

The invention resides more particularly in the details of construction and particular combinations of parts whereby the specific results hereinafter enumerated are produced.

The closet bowl employed in connection with my mounting means may be of any suitable pattern of what is known as the "wall type", that is, a closet which is entirely devoid of a floor support.

The invention resides more particularly in a mounting for closet bowls of the wall type in which the outlet or discharge opening is arranged to connect with a forty-five degree T or nipple secured to and connected with the soil pipe though the invention is equally adaptable to that type of closet in which the soil pipe connection is horizontally disposed.

In the construction shown in Figs. 1 to 3 inclusive, in which the mounting for the forty-five degree discharge connection is particularly illustrated, the discharge end of the closet bowl 1 presents a face 2 disposed at an angle of forty-five degrees to the horizontal plane of the floor and the vertical plane of the partition wall 3 against which the bowl is adapted to abut. In said face 2 surrounding the discharge opening of the bowl there is an annular groove to receive the packing 4 against which the end of a member 5 is adapted to bear to compress the same. The rear face of the bowl is vertically disposed and is provided with a relatively large elongated opening 6 through which said member 5 projects. The said bowl is provided at opposite sides and at its lower end contiguous to the rear end thereof with flanges through which are openings for the passage of bolts 7 and 8 respectively. From the coupling 9 of the soil pipe 10 there extends a member 10^a threaded at both ends to adapt the same to receive the internally threaded collar 11 which also receives one end of the member 5. The collar 11 is provided with diametrically oppositely disposed projections 12 and 13 respectively, the projection 12 having two diverging arms 14

each of which is provided with a threaded opening to receive one of the bolts 7. The projection 13 is similarly provided with a threaded opening to receive the threaded end of the bolt 8. The said projection 13 is further provided in its outer end preferably with a threaded opening to receive a threaded member 15 adapted to rest in or upon the floor, as shown; the threaded connection shown between member 15 and the projection 13 will permit adjustment according to the distance between the floor and the end of member 13, so that the relative position of member 11 will be maintained. The said projections 12 and 13 of said collar 11 become vertically disposed as said collar attains a given point in a revolution thereof and the openings for the reception of the bolts 7 and 8 are then horizontally disposed and flush with the respective openings in the flanges of the closet bowl 1 through which said bolts are adapted to pass. The bolts 7 and 8 when engaged in the openings in said arms 14 of the projection 12 and in the projection 13 will obviously serve to draw the closet bowl toward said respective arms and projections. The collar 11, it will be noted, serves as a coupling for the member 5 and member 10^a.

It is desirable that no strain, stress or load should be borne by the partition wall 3 which usually consists of a relatively thin slab of marble or similar material. To relieve the latter of strain it is obviously necessary to throw all strains or stresses upon the collar 11 and its integral parts and thereby upon said member 5 and soil pipe 10, and to this end separator sleeves 16 are introduced between the flanges of the closet bowl through which the bolts 7 and 8 pass and the opposing faces of the projections 12 and 13 of the collar 11. Said separator sleeves may consist of sections of pipe or other similar material and in order that the same may be properly adjusted in length so as to throw the rear face of the closet bowl into contact but without bearing upon the partition wall 3, the said separator sleeves are rendered shorter than the distance between the opposing faces between which they are interposed and the remainder of the space taken up by washers 17 interposed between one or both ends of said sleeves and one or both of the opposing surfaces between which said sleeves are interposed. After said sleeves and said washers, together of proper length, have been interposed, the bolts may be drawn up tight so as to very firmly secure the closet bowl in position so that the latter lies in direct contact with the partition wall 3 but, as before stated, without bearing upon or imposing any strain or stress thereon. The collar 11 may be suitably secured against rotation relative to the member 5 by means of the member 15, as will be obvious or the same may be held against such relative rotation in any suitable manner.

Ordinarily a tension strain is imparted to the bolts 7 and compression strain upon the separator sleeve 16 and the washers interposed between one end of the same and one or both of the opposing surfaces, but in sweeping underneath the bowl or making repairs in the flooring and the like it is possible that the closet bowl may be moved so as to throw a strain upon the partition wall 3. In the construction illustrated such movement of the closet bowl in any direction relative to the partition wall 3 and the member 5 would be rendered impossible, as will be obvious, as is also any movement in the joint effected between the member 5 and the closet bowl whereby leakage might result.

In closets of this type the bowl is somewhat removed from the stack or soil pipe and under ordinary conditions exerts a relatively great strain on the latter, such strain being about a horizontal axis and constituting a pressure on the stack below and tension above said axis. The stacks employed are usually very heavy and stiff and therefore will not yield to such strains.

In Figs. 4 and 5 I have illustrated the invention as applied to closet bowl adapted to be connected with a horizontally disposed member or portion connected with the T-coupling 19 of the soil pipe 20. In this construction the projections 21 and 22 of the collar 23, corresponding to the arms 14 and projection 13 of the collar 11, shown in Figs. 1, 2 and 3, extend radially and outwardly from said collar 23 and are adapted to receive similar bolts 7 and 8 connecting the closet bowl therewith. The separator sleeves 16 and washers 17 are similarly introduced and effect the same purpose in this construction as in the construction shown in Figs. 1, 2 and 3.

In both constructions the member 15 serves to prevent any rotary movement of the closet securing means relative to the soil-pipe and may also serve to transmit the pressure or weight of the bowl to the floor, as will be obvious. It is also obvious that a firmer support for the closet bowl is provided than would otherwise be afforded besides relieving the soil pipe of a part of the strain to which it would otherwise be subjected.

The invention is very simple and efficient.

I claim as my invention:

1. The combination with a wall closet and a soil pipe, of a branch from the latter adapted to connect with the closet, a collar on said branch having a plurality of arms, bolts for effecting connection between said arms and the closet, and separator sleeves on said bolts between said arms and the closet.

2. The combination with a wall closet and

a soil pipe, of a branch from the latter adapted to connect with the closet, a collar on said branch having a plurality of arms, bolts for effecting connection between said arms and the closet, separator sleeves on said bolts between said arms and the closet, and a foot secured to one of said arms for affording a floor support so as to prevent rotative movement of said collar.

3. The combination with a wall closet and a soil pipe, of a coupling in the latter, a member having threaded connection therewith and adapted to connect with the discharge end of the bowl, a threaded collar on said member having a plurality of arms, bolts for effecting connection between said arms and said bowl, and separator sleeves for said bolts interposed between the opposing faces of said arms and said bowl.

4. The combination with a wall closet and a soil pipe, of a coupling in the latter, a member having threaded connection therewith and adapted to connect with the discharge end of the bowl, a threaded collar on said member having a plurality of arms, bolts for effecting connection between said arms and said bowl, separator sleeves for said bolts interposed between the opposing faces of said arms and said bowl, and a foot secured to one of said arms for affording a support to prevent rotative movement of said collar.

5. The combination with a wall closet and a soil pipe, of an exteriorly threaded branch from the latter, a collar thereon having a plurality of arms, a threaded member connecting with said collar and at its other end with the discharge end of the closet, said collar serving as a coupling for said branch and said member, and bolts for effecting supporting connection between the closet and the arms of said collar.

6. The combination with a wall closet and a soil pipe, of an exteriorly threaded branch from the latter, a collar thereon having a plurality of arms, a threaded member connecting with said collar and at its other end with the discharge end of the closet, said collar serving as a coupling for said branch and said member, bolts for effecting supporting connection between the closet and the arms of said collar, and means for supporting the said collar against rotative movement on said branch.

7. The combination of a closet-bowl having a vertical rear face adapted to fit up flush against a side wall or partition, and a soil-pipe, with means located on the soil-pipe side of the wall or partition and adjustably secured to the soil-pipe whereby the bowl is maintained at an elevation above the floor against the wall or partition without transmitting strains thereto, a portion of said means being adapted to extend to the floor and maintain the proper relative position of said means to the soil-pipe.

8. A mounting for a wall closet comprising in combination the soil pipe, an angular branch adapted to connect with the discharge end of the closet, a threaded collar on said branch having arms angularly disposed relatively to the plane thereof and adapted at a given point in the revolution of said collar to be disposed in a vertical plane, and bolts for effecting connection between said arms and the closet.

9. A mounting for a wall closet comprising, in combination, the soil pipe, an angular branch adapted to connect with the discharge end of the closet, a threaded collar on said branch having arms angularly disposed relatively to the plane thereof and adapted at a given point in the revolution of said collar to be disposed in a vertical plane, bolts for effecting connection between said arms and the closet, and separator sleeves on said bolts between said arms and said bowl.

10. The combination of a bowl having a vertical rear face adapted to fit up flush against a side wall or partition, and a soil-pipe arranged on the opposite side of the wall or partition, with a member adapted to be secured to the soil-pipe and provided with a plurality of upwardly diverging arms and a depending arm, means whereby connection between said diverging arms and the bowl is effected, and means adapted to extend intermediate of said depending arm and the floor and having adjustable relation with said depending arm whereby the relative position of said member is maintained.

11. The combination with a closet bowl having a vertical rear face adapted to fit up flush against a side wall or partition, and a soil-pipe, of means located on the soil-pipe side of the wall or partition and adjustably secured to the soil-pipe whereby the bowl is supported and maintained at an elevation above the floor and strains on the bowl taken up by said means, said means being provided with a depending portion whereby the proper relative position of said means to the soil-pipe is maintained.

12. A wall closet bowl support, comprising means located on the soil-pipe side of a wall or partition and surrounding the soil-pipe branch or lateral connection which communicates with the discharge opening of a bowl whereby the bowl is maintained against the opposite side of the wall or partition and at an elevation above the floor, a portion of said means being adjustable so that strains on the bowl will be taken up by said means, and a floor support having adjustable relation with said means.

13. A water closet bowl support, comprising a member having an opening there-

hrough for receiving the lateral connection intermediate of the bowl and the soil-pipe, means for securing the bowl to said member and for adjusting the horizontal level of the bowl, and means intermediate of said member and the floor whereby the member may be vertically adjusted and supported by the floor.

In testimony whereof I have signed my name in presence of two subscribing witnesses.

TIMOTHY BARROW.

Witnesses:
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