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PATENTED MAR. 12, 1907.

H. J. LUFF.

WASTE PIPE CONNECTION FOR CLOSET BOWLS.

APPLICATION FILED MAR. 31, 1905. RENEWED AUG. 6, 1906.

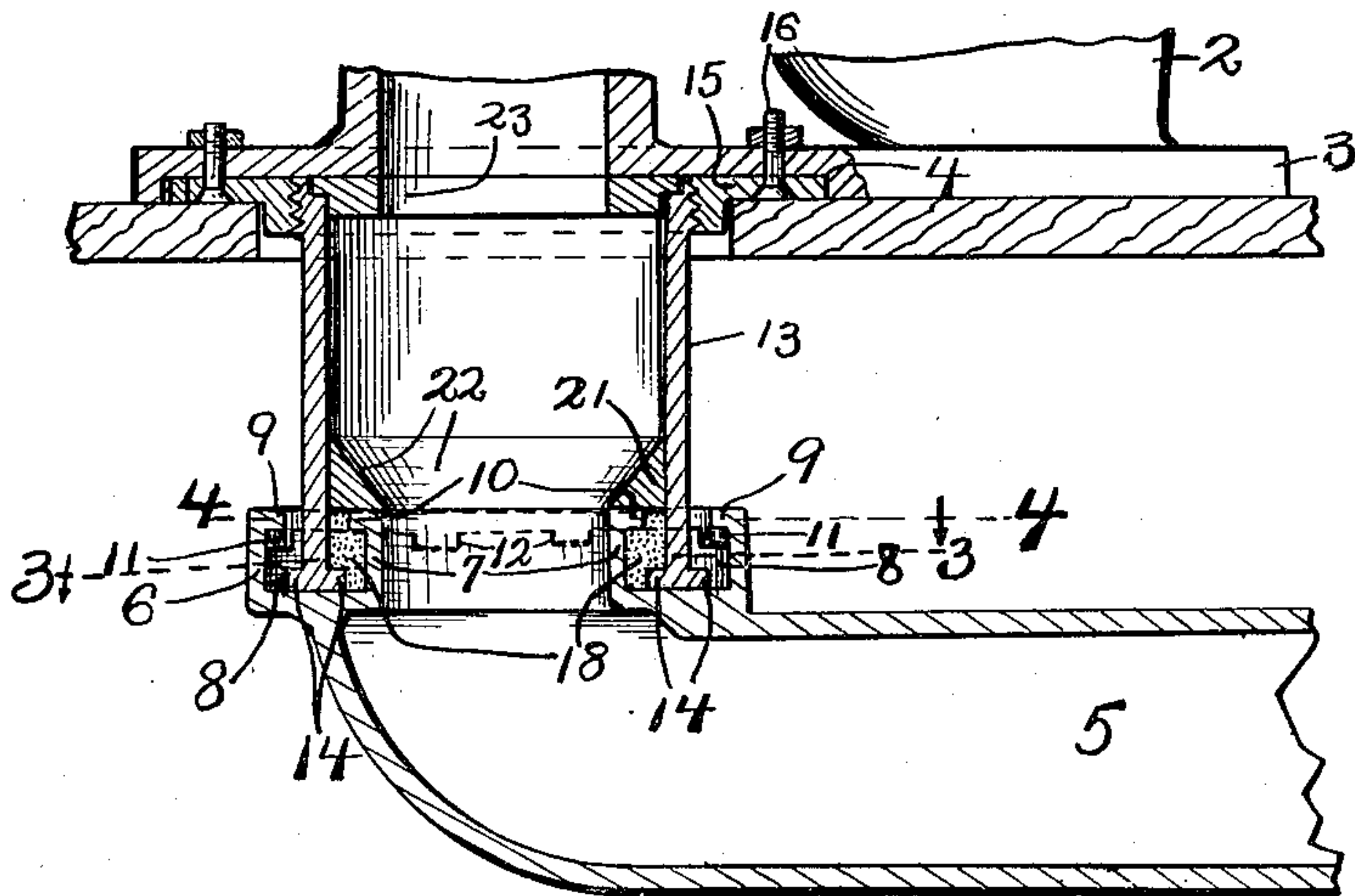


Fig. 1.

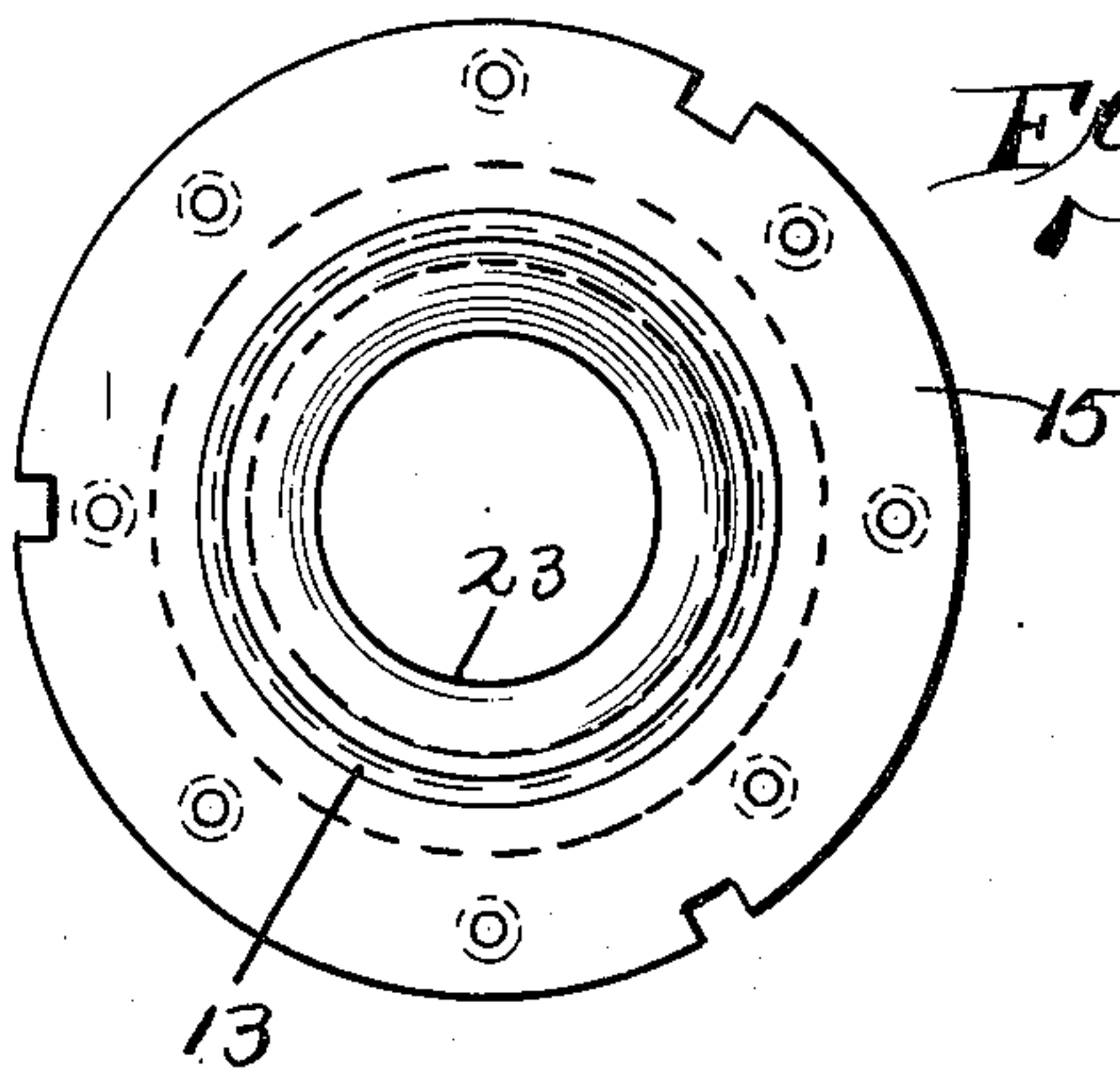


Fig. 2.

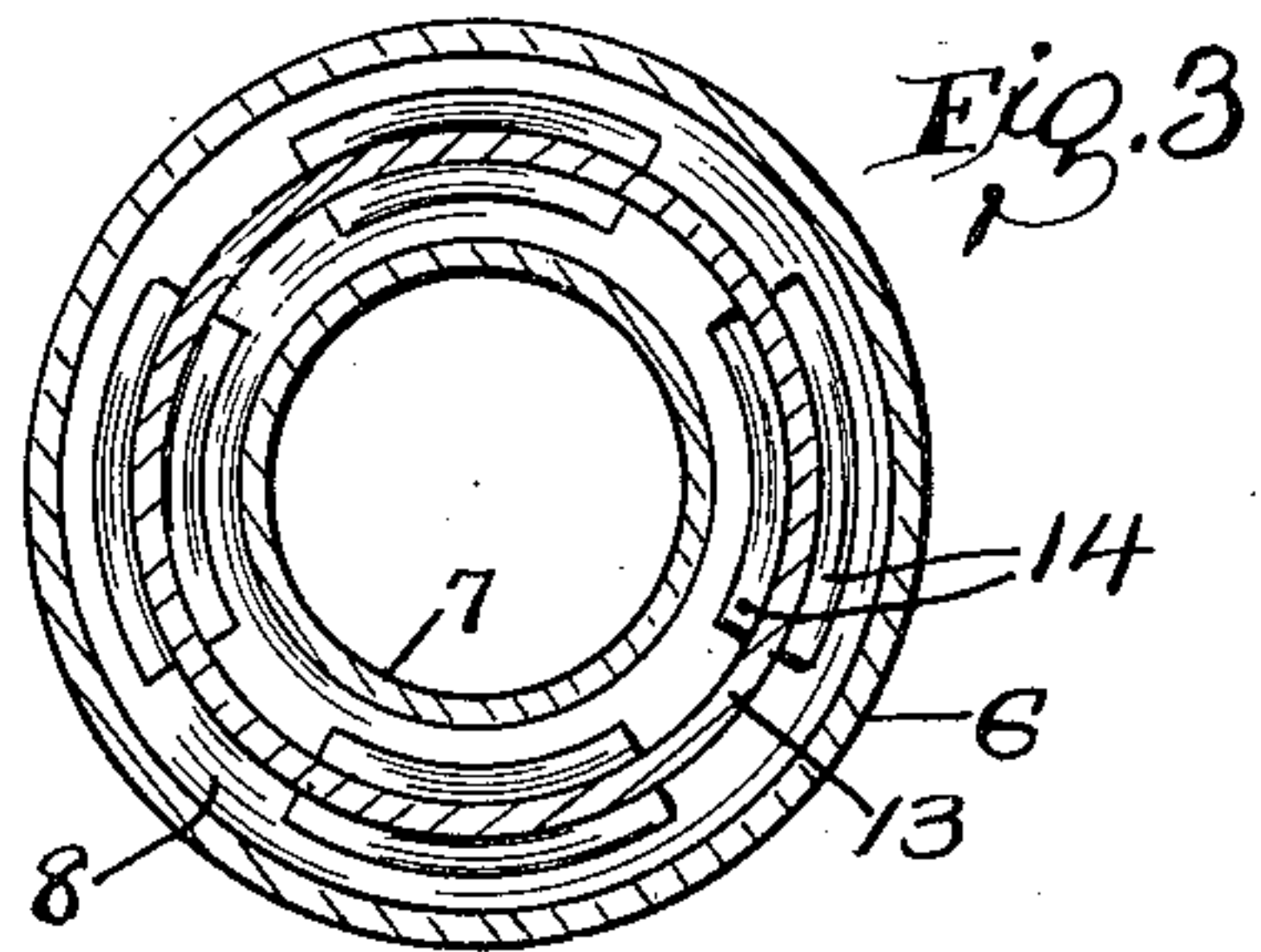


Fig. 3.

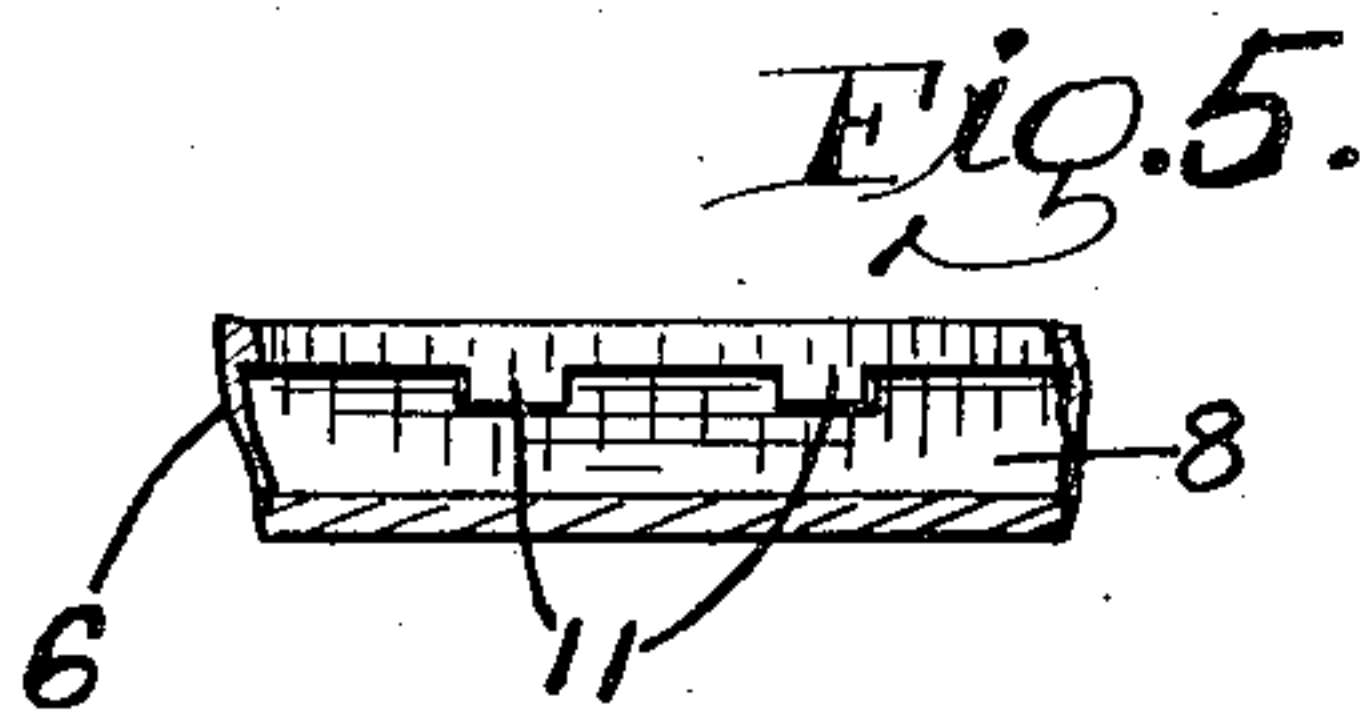


Fig. 5.

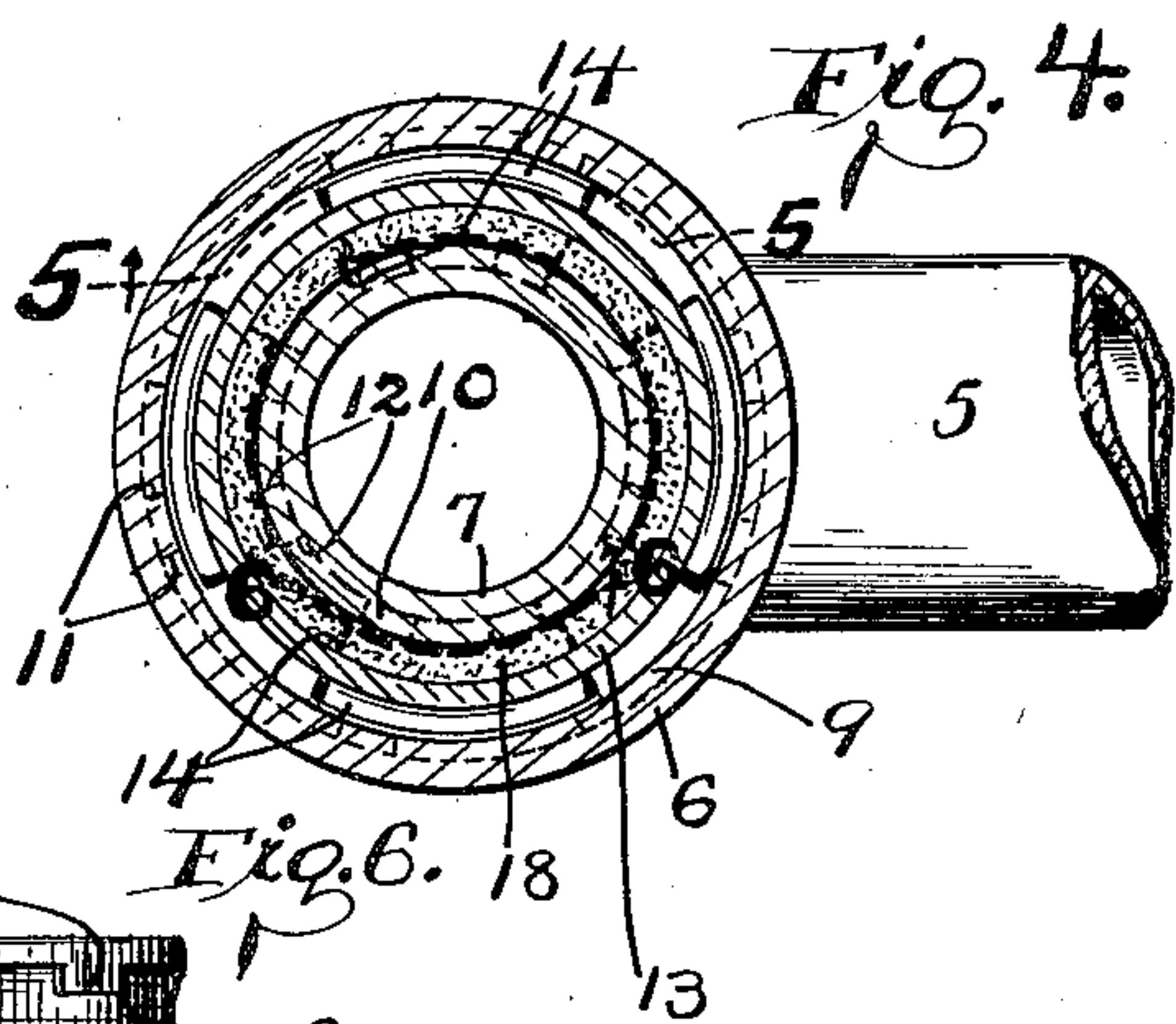


Fig. 4.

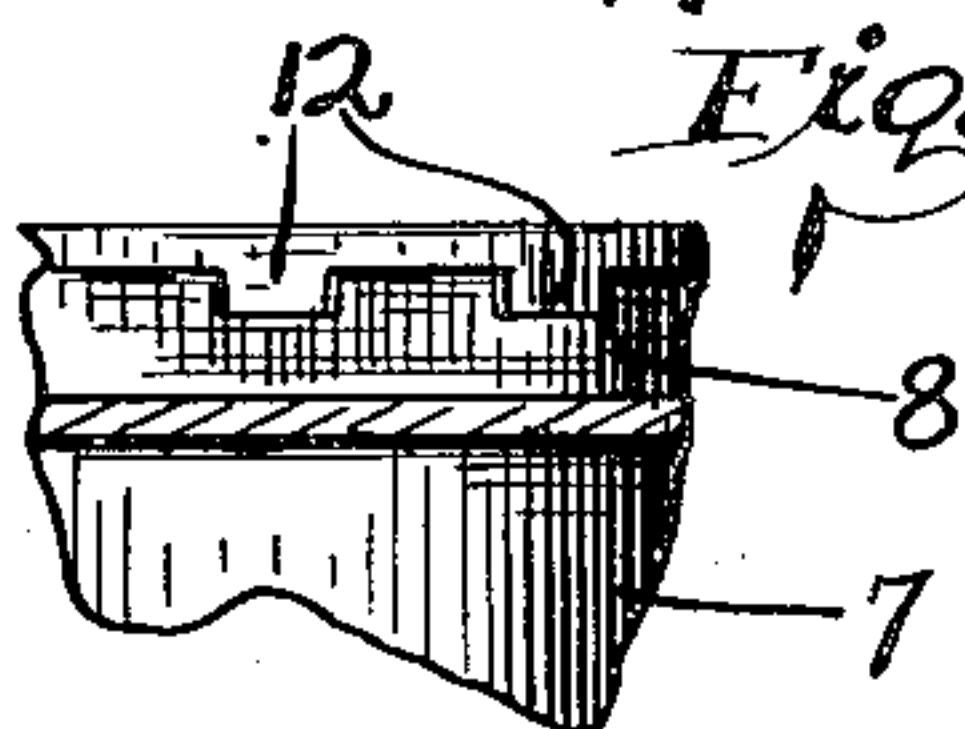


Fig. 6.

WITNESSES:

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WASTE-PIPE CONNECTION FOR CLOSET-BOWLS.

No. 846,929.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY J. LUFF, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Waste-Pipe Connections for Closet-Bowls; and I 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 pertains to make and use the same.

This invention relates to improvements in a waste-pipe connection for water-closets and the like.

The object of this invention is to provide a gas-tight connection between the closet-bowl and the waste-pipe which can be easily assembled and adjusted and which will also serve as a rigid support for the closet-bowl independently of the floor.

With this object in view my invention consists of the features of construction and combination of parts as described in the specification, pointed out in the claims, and illustrated in the accompanying drawings.

In the accompanying drawings, Figure 1 shows a portion of a closet-bowl connected with a waste-pipe by my improved connection, the waste-pipe and connection being shown in central section. Fig. 2 is a top plan of the connection with the bowl removed. Fig. 3 is a section on line 3 3, Fig. 1. Fig. 4 is a section on line 4 4, Fig. 1. Fig. 5 is a section on line 5 5, Fig. 4. Fig. 6 is a section on line 6 6, Fig. 4.

Again referring to the drawings, 1 represents a section of a floor on which is mounted a closet-bowl 2 of the usual construction having a base-plate 3. In the bottom of the base-plate 3 is formed a recess 4.

5 represents a metallic or earthenware pipe, which is arranged beneath the floor 1 a greater or less distance, according to the height of the floor above the ceiling next below. Between the waste-pipe 5 and the closet-bowl is arranged my improved coupling or connection, the female member of which comprises two annular flanges 6 and 7, which are formed integral with the rim of the waste-pipe and constitute the sides of the seal chamber or cup 8. At the top of each of the sides of the seal-cup are arranged flanges 9 and 10, which project inwardly, and below these flanges on the sides of the cup

are formed lugs 11 and 12 on the respective sides 6 and 7. The male member of the connection comprises a short section of pipe 13, which is arranged to fit into the cup 8. On the lower rim of the pipe 13 are formed lugs 14, which preferably project beyond both the interior and exterior surface thereof. The upper end of the pipe-section 13 is screw-threaded, and thereon is arranged a similarly-screw-threaded circular plate 15, which fits into the recess in the bottom of the base-plate 3 of the closet-bowl and is secured thereto by bolts 16. Within the cup 6 is arranged a seal 18, of lead or other suitable material, and, as shown in the drawing, this seal is arranged between the interior surface of the pipe 13 and the inner side 7 of the seal-cup, so as to completely fill the space between the pipe and said inner side. The lugs 14 on the interior of the pipe 13 and the lugs 12 on the side of the cup will be embedded in the seal, and the seal will abut against the flange 10. Therefore after the seal has been placed in the cup the pipe 13 will be securely locked in the cup, so that it cannot be withdrawn therefrom and also so that it cannot turn therein. A ring 21, having an exterior diameter equal to the interior diameter of the pipe 13, is arranged within the pipe 13, so as to rest on said cup 8. The inner face of this ring 21 is beveled, as at 22, so that the ring forms a deflector which prevents any waste material lodging on the cup 8. A reducing-ring 23 is preferably arranged at the upper end of the pipe 13, so as to make the mouth of the pipe 13 correspond in size to the opening in the bowl 2.

It will readily be seen that my connection can be easily adjusted, according to the distance of the floor above the waste-pipe, by simply allowing the end of the pipe 13 to enter a greater or less distance into the cup 8 and then filling the cup with lead or other seal-forming material. When the seal has been placed in position, the male and female members of the coupling are securely locked together, so that they will not pull apart and also so that the pipe 13 or the male member will be held against turning while the circular plate 15 is being screwed thereon. My connection also simplifies the installation of the plumbing system, as the same care will not have to be exercised to secure perfect alinement of the waste-pipe with the floor,

which is necessary when a screw-threaded connection is used between the waste-pipe and the closet-bowl, for with my construction the pipe 13 can enter the cup 8 at an angle, if necessary.

With my coupling it is possible to form the seal either on the inside or the outside of the pipe 13, and this is quite an advantage, as in some cases, owing to the arrangement of the timbers of the floor, it is impossible to form the seal on the outside of the pipe.

What I claim is—

1. The combination with a waste-pipe and a closet-bowl of a connection comprising an annular cup formed integral with the rim of the waste-pipe, a pipe-section having one end arranged to extend into said cup and provided at its other end with means for supporting the closet-bowl, a seal arranged in said cup around the end of the pipe-section and a ring arranged within said pipe-section and adapted to rest on the inner wall of said cup, said ring having a beveled inner face to serve as a deflector for material passing through the pipe-section, substantially as described and for the purpose set forth.

2. The combination with a waste-pipe and a closet-bowl of a connection comprising an annular cup formed integral with the rim of the waste-pipe, a pipe-section arranged to extend into said cup, means for locking the pipe-section in the cup so as to prevent the withdrawal of the pipe-section from the cup or the turning of the pipe-section in the cup and a deflector arranged within the pipe-section

so as to rest on the rim of said cup for the purpose set forth.

3. The combination with a waste-pipe and a closet-bowl of an annular cup formed integral with the rim of the waste-pipe, a straight pipe-section provided at one end with means for securing it to the closet-bowl and having its lower end extending into the said cup so as to divide the cup into two chambers, one of said chambers being accessible from the exterior of said pipe-section and the other, chamber being accessible from the interior of said pipe-section, and a seal arranged in said cup around the end of said pipe-section, substantially as described and for the purpose set forth.

4. The combination with a waste-pipe and a closet-bowl of a connection comprising an annular cup formed integral with the rim of the waste-pipe, a pipe-section provided at one end with means for securing it to the closet-bowl and having its other end extending down into said cup, projections arranged on the interior surface of said cup and on the lower end of said pipe-section, and a seal arranged in said cup and forming a locking medium between said projections so as to prevent the said pipe-section turning in the said cup.

In testimony whereof I sign the foregoing specification in the presence of two witnesses.

HENRY J. LUFF.

Witnesses:

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