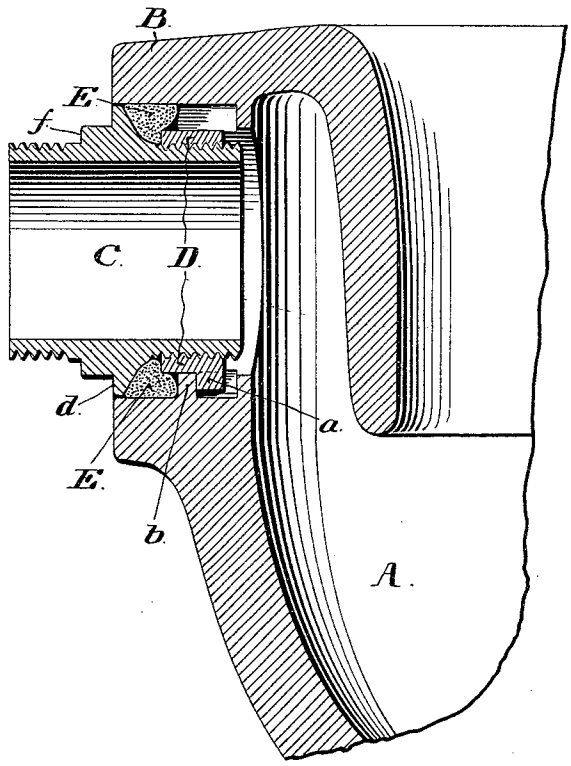
(No Model.) 2 Sheets—Sheet 1.

G. W. DAVIS.

CONDUIT COUPLING.

No. 546,953. Patented Sept. 24, 1895.

FIG. 1.



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(No Model.)

2 Sheets—Sheet 2.

G. W. DAVIS.

CONDUIT COUPLING.

No. 546,953. Patented Sept. 24, 1895.

FIG. 2.

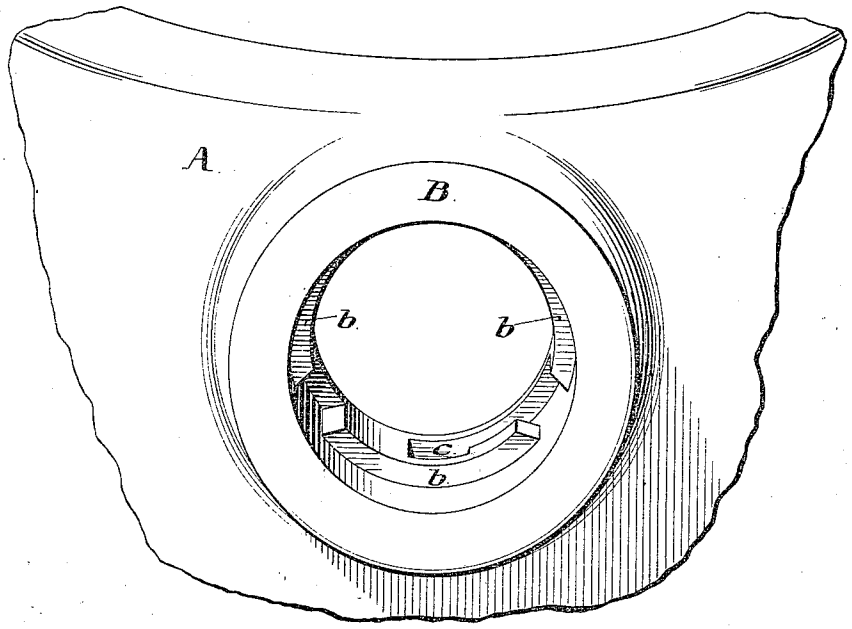


FIG. 3.

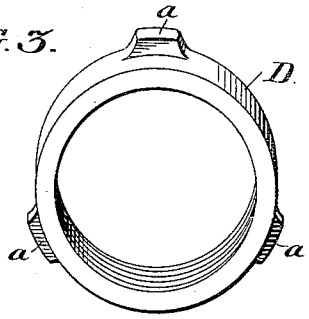


FIG. 4.

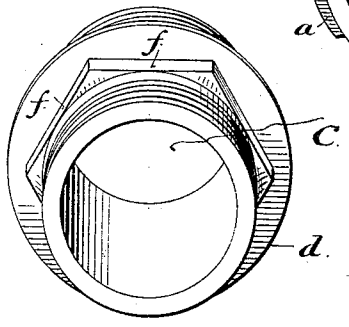
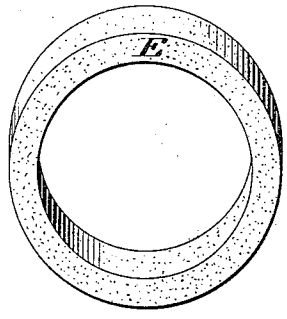


FIG. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. DAVIS, OF TRENTON, NEW JERSEY, ASSIGNOR TO ACME BRASS CO., OF SAME PLACE.

CONDUIT-COUPLING.

SPECIFICATION forming part of Letters Patent No. 546,953, dated September 24, 1895.

Application filed October 26, 1894. Serial No. 526,973. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DAVIS, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Conduit-Couplings, of which the following is a specification.

My invention relates to that class of conduit-couplings in which a flexible packing is used to seal the joint, and is of that class which is commonly in use in sanitary connections, and more particularly in the connections formed between the bowls of water-closets and the pipes which supply the water to flush the same; and the object of my invention is to provide a construction of joint which will secure a more certain, lasting, and efficient fitting and compression of the packing in the joint, and means for readily removing or adjusting the same.

In the drawings forming a part of this specification I have shown my device as applied to the connection of a water-closet bowl with its supply-pipe.

Figure 1 shows a vertical longitudinal sectional view of the joint as the same appears when the coupling-pipe is attached and adjusted to the bowl. Fig. 2 is a perspective view of the horn of the bowl, showing the notched flanges within the socket in the horn with which the lugs on the securing-ring engage. Fig. 3 is a perspective view of the securing-ring adjustable upon the coupling-pipe. Fig. 4 is a perspective view of the coupling-pipe, and Fig. 5 is a similar view of the packing-ring.

In the drawings, A indicates the earthenware bowl of the closet.

B indicates the horn or socket projection of the bowl.

C indicates the coupling-pipe.

D indicates the securing-ring, and E is the packing-ring.

My device is applicable to water-closet bowls having the usual horn or socket projection B, provided internally with slots to receive the lugs on the coupling-pipe and afford bearings therefor, and in Fig. 2 appears such a horn provided internally with a broken flange containing seats for such lugs. The securing-ring D is provided with several lugs (preferably three) *a a a*. This securing-ring is internally threaded to screw upon the external thread on the inner end of the coupling-pipe C. The lugs *a a a* on the securing-ring are adapted to pass under the notched portions *b* of the broken flange on the inside of the horn and to find their seats in the depressed portions *c* in said broken flange. The coupling-pipe C is externally threaded at each of its ends and has formed upon it an external flange *d* and faucets *f*, giving the form of a polygonal nut. The thread on the pipe C farthest from the horn B in Fig. 1 is for the purpose of taking on a coupling-nut to connect the pipe C with the supply-pipe of the closet, while, as above mentioned, the thread on the inner end of the pipe C is to take on the securing-ring D, and the polygonal nut formed on the outside of the pipe is, of course, for facilitating the adjustment of the coupling by means of a wrench. The packing-ring is formed as shown in Fig. 5, and is preferably made of vulcanized india-rubber. In assembling the joint the securing-ring, which is made of metal, is entered to the socket within the horn and its lugs *a* are passed through the breaks in the flange within the socket and brought to the seats *c* therein. The packing-ring E is then passed upon the coupling-pipe between the flange *d* and the threaded portion of the pipe which takes into the securing-ring, and the inner end of the coupling-pipe is entered to the securing-ring, and by the aid of a wrench or otherwise is screwed into the same as far as may be. The coupling-pipe being turned to the right hand the lugs *a* of the securing-ring are held against the walls at the ends of the slots beneath the broken flange within the horn, and are finally drawn closely down upon their seats *c*, when, as will be readily seen, they will be prevented from turning in either direction until the coupling-pipe is again unscrewed. The flange *d* upon the exterior of the coupling-pipe C crowds the gasket or packing-ring against the securing-ring and so compresses it as to cause it to expand laterally and tightly close every part of the space between the exterior of the coupling-pipe and the inner side of the horn or socket projection. The diameters of the interiors of these socket projections or horns

vary slightly in different closets because of the impossibility of retaining an absolutely regular formation thereof during the process of firing, and the india-rubber gasket or packing-ring, owing to its elasticity, adapts itself to these varying forms or inequalities, so that it is only necessary to screw the coupling-pipe into the securing-ring as far as the elastic packing will permit it to enter, the flange *d* being made of a sufficient diameter to permit of its entering the horn, if necessary, to secure a sufficient compression of the packing-ring. The joint thus secured is absolutely watertight and very efficient and it may be readily unscrewed or readjusted for any purpose.

Having thus described my invention, what I claim is—

1. In a conduit coupling, a coupling pipe externally threaded and flanged, a securing ring having external lugs and internally threaded to screw upon said coupling pipe, and an elastic gasket or washer located upon said coupling pipe between said flange thereon and said securing ring, in combination with a conduit having internal bearings with which the lugs on said securing ring engage; substantially as shown and described.

2. In a conduit coupling, a coupling pipe having an external flange and threaded at one end, a threaded securing ring having lugs and adapted to screw upon said coupling pipe, and an elastic gasket or washer located upon said coupling pipe between said flange thereon and said securing ring, in combination with a conduit having internal bearings with which the lugs on said securing ring engage; substantially as shown and described.

GEORGE W. DAVIS.

Witnesses:
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B. THOMPSON.