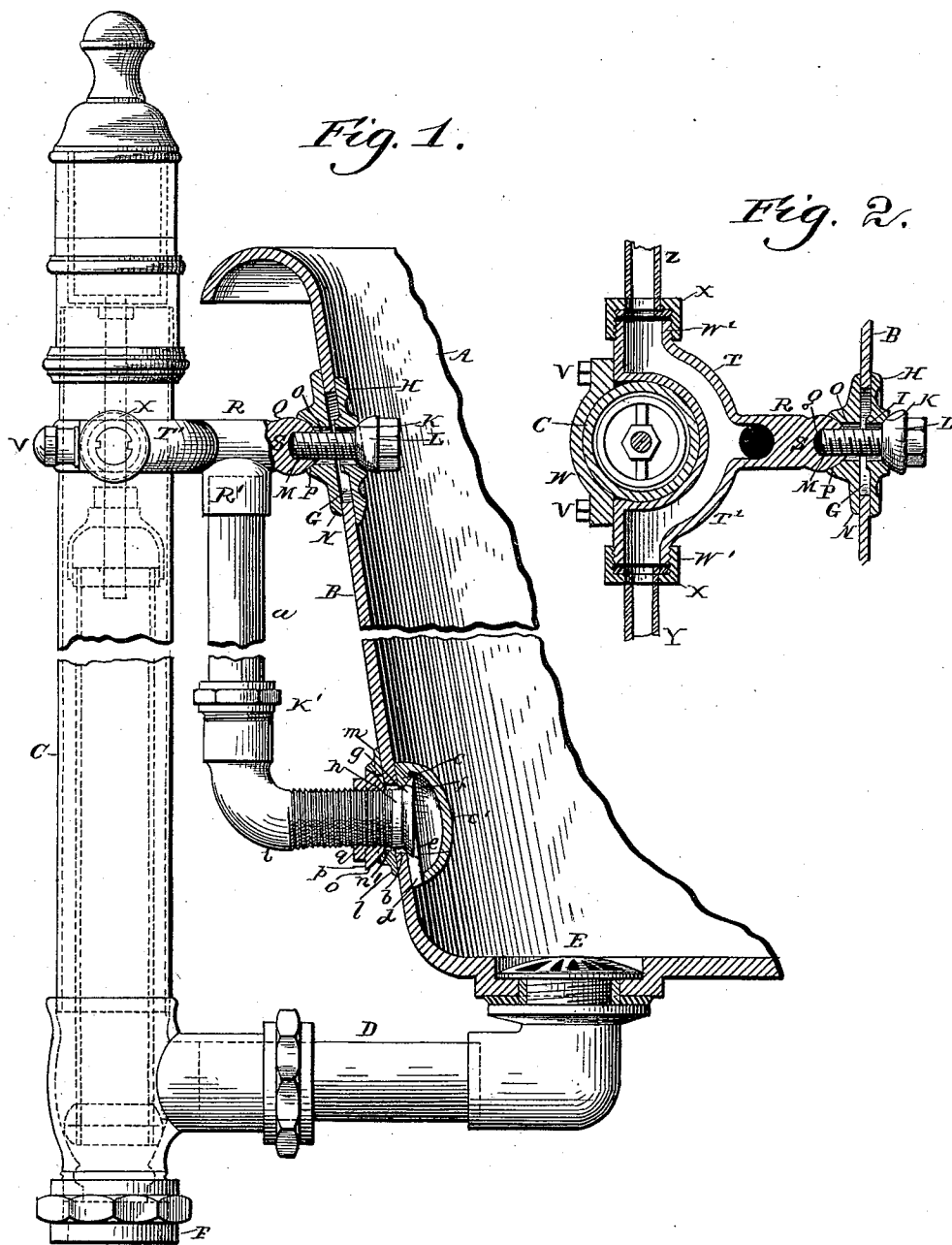


(No Model.)

F. M. MACKIN & C. R. SCHMIDT.
BATH WASTE AND SUPPLY COUPLING.

No. 518,154.

Patented Apr. 10, 1894.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRANCIS M. MACKIN AND CHARLES R. SCHMIDT, OF BALTIMORE, MARYLAND.

BATH WASTE AND SUPPLY COUPLING.

SPECIFICATION forming part of Letters Patent No. 518,154, dated April 10, 1894.

Application filed August 2, 1893. Serial No. 482,178. (No model.)

To all whom it may concern:

Be it known that we, FRANCIS M. MACKIN and CHARLES R. SCHMIDT, citizens of the United States, residing at Baltimore, Maryland, have invented certain new and useful Improvements in Bath Waste and Supply Couplings; and we 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.

Our invention has relation to bath wastes and supplies, and has for its object the provision of means for attaching bath waste and supply pipes to bath-tubs; whatever may be the angle of the side or end of the tub, without special fitting of the parts, and our invention consists in the novel construction, combination and arrangement of parts hereinafter described.

Referring to the accompanying drawings, Figure 1 is a side elevation partially in section of a portion of a bath-tub with our improvements applied; and Fig. 2, is a horizontal sectional view of the same.

A, designates the tub and B, the end thereof, the latter being inclined slightly from the perpendicular as shown.

C, designates the stand-pipe of the waste fixture, communicating by a horizontal waste pipe D, with the waste opening E in the bottom of the bath-tub A, and by a pipe F, with the sewer or escape pipe.

Near the upper edge of the end wall B, of the tub is an opening G, upon the inner side of which is placed a flat plate H, of a size sufficient to slightly overlap the edges of the opening G. The plate H, is formed with a central opening I, the inner edge of which is concaved at K, to form a seat or socket for the convexed end L of a screw-bolt M. Upon the outside of the end wall B and over the opening G is placed a second plate N, similar to the plate H, and formed with a central opening O having its outer edge concaved at P to receive the spherical head Q on a coupling piece R, which has a screw-threaded hole S in its center that receives the screw-bolt M. The coupling piece R, is hollow and its outer end is bifurcated, forming hollow arms T, T', embracing the waste pipe C, which is held in position between the arms T, T', by a

curved clamping plate W, secured to the arms T, T', by screws V, V. The arms T, T' are formed with bosses W, W, which are exteriorly screw-threaded and upon which are screwed coupling unions X, X, by means of which the hot water pipe Y, and the cold water pipe Z, are attached.

Upon the bottom and near the inner end of the coupling piece R, is formed a boss R' that is screw-threaded interiorly and receives the screw-threaded end of a vertical supply pipe a, that serves to convey both the hot and cold water to the bath-tub from the pipes Y, and Z.

Near the bottom of the end wall B, of the bath-tub is formed an opening b, upon the inner side of which is placed the plate c, formed with a shield c', the plate being of such size that it will overlap the edges of the opening b, and the shield being formed with a notch or cavity d, in its lower side through which the water is admitted into the tub. The plate c, is formed with a central opening e, the inner edge of which is curved or convexed at f, so as to form a seat or socket for the rounded surface g of a collar h, which is screwed on the end of a screw-threaded section of pipe i, which is connected by a union joint K', with the supply pipe a. Upon the outside of the opening b, is placed a plate l, formed with a central opening m, the outer edge of which is curved or concaved at n, to serve as a seat or socket for the rounded surface o, of a collar p, that is screwed upon the pipe i, and is formed with a nut q by means of which the collar may be turned.

The parts are shown in their proper relative positions, and it will be readily seen that by reason of the double socketed connections at the upper and lower openings in the end wall of the bath-tub, the device may be secured in position on any tub, whatever may be the angle of the end wall, and without any special fitting of the parts, as the plates H, and N, on each side of the upper opening G, and the plates c, and l, on each side of the lower opening b in the end wall of the tub, can, by reason of the formation of their bearing surfaces where they contact with the coupling and screw at the upper opening and with the nut and collar at the lower opening; can be adjusted through a considerable area

so as to fit snugly against the flat surface of the end wall of the tub and yet afford secure and water tight joints, which are in effect double ball and socket joints.

5 Having described our invention, we claim—

1. In an attaching device for bath tub fixtures, the combination with coupling piece R, and screw bolt M, of the plates H, and N, arranged between the end of the coupling piece
10 and the head of the bolt and universally movable on said coupling piece and bolt and having bearing surfaces curved to conform to correspondingly curved bearing surfaces on the coupling piece and bolt, substantially as
15 described.

2. The combination with a bath tub having one of its walls pierced or perforated for the attachment of the waste and supply couplings of clamping plates, which clamp the
20 walls of the tub adjacent to the perforations, and coupling devices for securing the waste and supply couplings to the tub, the said clamping plates and the said coupling de-

vices being correspondingly curved on their abutting or contacting faces so that the waste
25 and supply couplings are rendered universally movable with reference to the tub, substantially as described.

3. In an attaching device for bath-tub fixtures, the combination with supply-pipe *i* and
30 collar *h*, adapted to be attached to the end of said pipe inside the tub, the plate *c*, adapted to abut against the inner surface of the tub, of the plate *l*, adapted to abut against the outer surface of the tub and the collar *p*
35 screwing on pipe *i* and against the plate *l*, the contacting surfaces of the collars and plates being curved or rounded, substantially as described.

In testimony whereof we affix our signatures 40 in presence of two witnesses.

FRANCIS M. MACKIN.
C. R. SCHMIDT.

Witnesses:

GEO. MCCAFFRAY,
J. B. CONNOLLY.