

J. P. BUTLER.
PIPE COUPLING.

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1,090,970.

Patented Mar. 24, 1914.

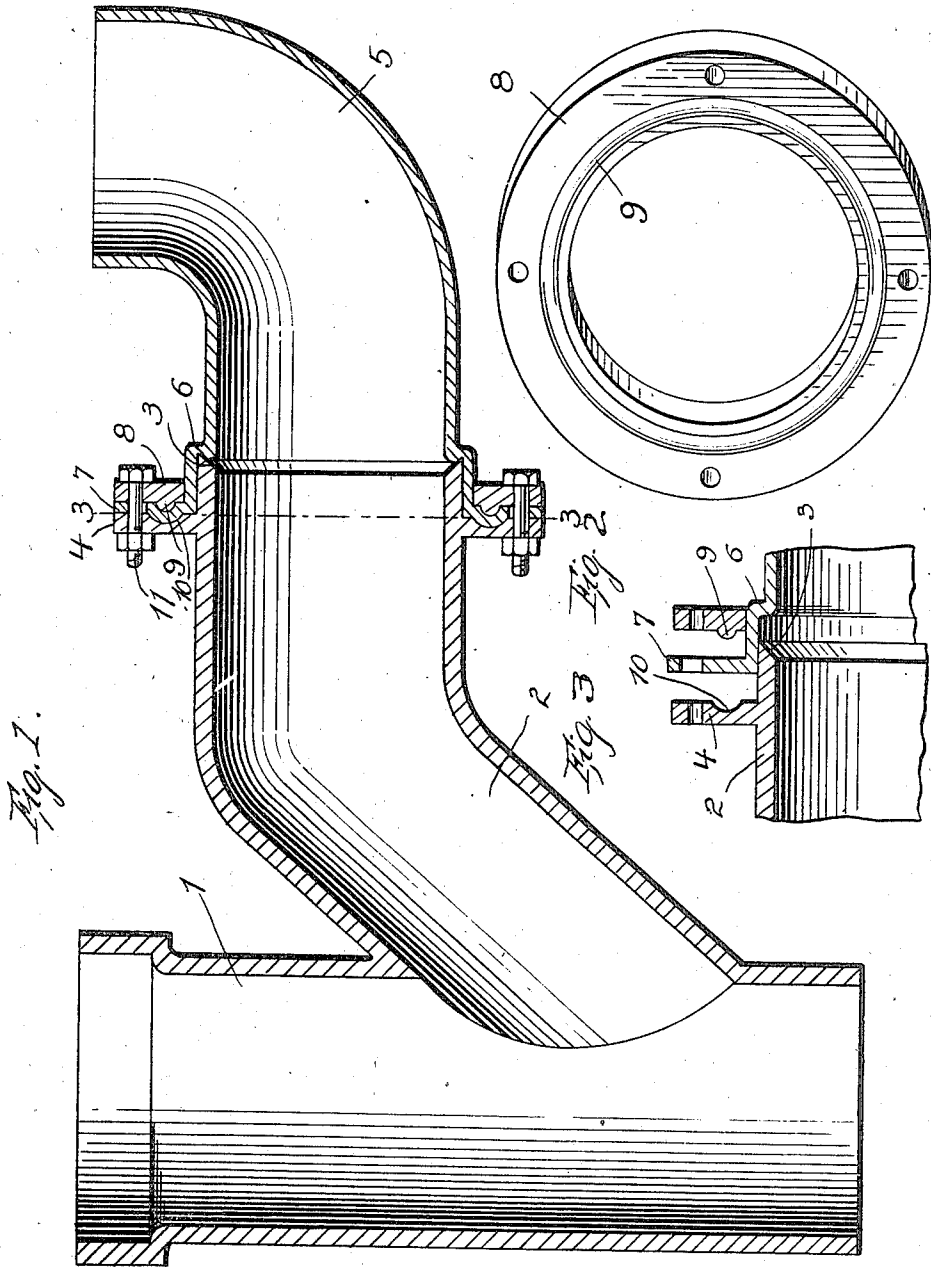


Fig. 1.

Fig. 2
Fig. 3

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Witnesses

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PIPE-COUPLING.

1,090,970.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN P. BUTLER, a citizen of the United States, residing at Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Pipe-Couplings, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to new and useful improvements in pipe couplings and more particularly to a coupling used in connection with a lead bend on a closet fitting and my object is to provide a simple and inexpensive joint which will effectively secure the lead bend to the fitting and thereby eliminate the necessity of using the brass and expensive fittings which are usually used in connection with devices of this character.

A further object of the invention resides in providing an annular flange or a casting and a removable annulus on the lead pipe, said members being adapted to be secured together to securely retain the pipe sections together and a still further object resides in so designing the end of the lead pipe section as to provide an annular flange thereon adapted to be disposed between the annulus and the aforesaid annular flange.

With these and other objects in view, the invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and claim.

In the accompanying drawing forming a part of this application, Figure 1 is a vertical longitudinal section therethrough. Fig. 2 is a perspective view of the annulus removed, and Fig. 3 is an enlarged fragmentary section through the coupling showing the parts separated.

In describing my invention, I shall refer to the drawing in which similar reference characters designate corresponding parts throughout the several views and in which—

1 indicates a waste pipe adapted for use in connection with closets having the angular extension 2 formed thereon and communicating therewith, said pipe 1, with its extension being preferably formed of cast-iron. The extreme free ends of the extension 2 has the peripheral edge thereof beveled as shown at 3, the purpose of which will be hereinafter more particularly described, and

formed on the outer periphery of this pipe extension 2, adjacent its free end is a collar or annular flange 4, the same being cast thereon with the formation of the pipe 1 and said extension 2. The lead pipe section 5 to which this section 2 is adapted to be secured, and which is sometimes termed, for convenience, a "lead bend" has a portion thereof, adjacent its outer end offset outwardly, as shown at 6 to readily receive therein the end of the section 2. The extreme outer end of this offset portion is bent outwardly to provide an annular flange 7 on the end of the lead bend and encircling this offset portion in the rear of the flange 7, is an annulus 8, said annulus having a diametrical measurement equal to a similar measurement on the collar or flange 4 of the section 2. The outer face of the annulus 8 is provided with an annular rib 9, while the outer face of the flange 4 is provided with a similar annular groove 10 adapted to receive the rib therein and adapted to be disposed through the annulus 8, the flange 7 and the flange or collar 4, are the tie bolts 11. Nuts 12 are adapted to be engaged with the threaded ends of the bolts 11 and when turned home thereon, the lead pipe section 5 will be drawn toward the section 2 and the annular rib 9 which is received in the annular groove 10 will bind in said groove a portion of the flange 7 of said lead pipe section. This will form a secure water-tight joint between the pipe sections and to also aid in the formation of such a water-tight connection, the beveled edge 3 of the section 2. will be tightly received in the shoulder formed by the offsetting of the end of the lead pipe section.

From the above description of the construction of my improved pipe coupling, the manner of applying the same to use will be readily understood and it will be seen that I have provided a simple, but positively water-tight joint between the pipe sections. It will further be seen that while simple in construction, the joint is inexpensive to manufacture and will eliminate the necessity of the more expensive brass joints which are constantly used in connection with closet fittings.

While I have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in form, proportion and in the minor details of construction may be resorted to

without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described this invention, what I claim is:—

5 In a pipe coupling, the combination with a pipe section having an annular flange formed on the outer periphery thereof, at a point rearward of the free end of the same, the peripheral edge of said pipe section being
10 ing beveled inwardly to form a sharpened edge and the outer face of said flange being provided with an annular groove therein; of a second pipe section formed of pliable material having one end thereof offset out-
15 wardly to receive the free end of the afore-said section therein, the beveled peripheral edge of the first named section being embedded in the shoulder at the offset end of the second mentioned section, when said
20 sections are brought together, whereby to form a water tight joint therebetween, the

extreme free end of the second mentioned pipe section being bent to form an annular flange thereon, and adapted to contact with the outer face of the flange on the first men- 25 tioned section, an annulus applied to the second pipe section to contact with the annular flange formed thereon, said annulus and flanges on said sections being provided with alining openings, an annular rib formed on 30 the inner face of the annulus in registration with the groove of the first mentioned flange, and fastening means extending through the openings in the annulus and through said flanges to secure said pipe sections together. 35

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOHN P. BUTLER.

Witnesses:

CHARLES F. FLANAGAN,
CHARLES S. GOODWIN.