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F. JACKSON.
FLOOR JOINT FOR SOIL PIPES.

APPLICATION FILED APR. 12, 1907.

1917

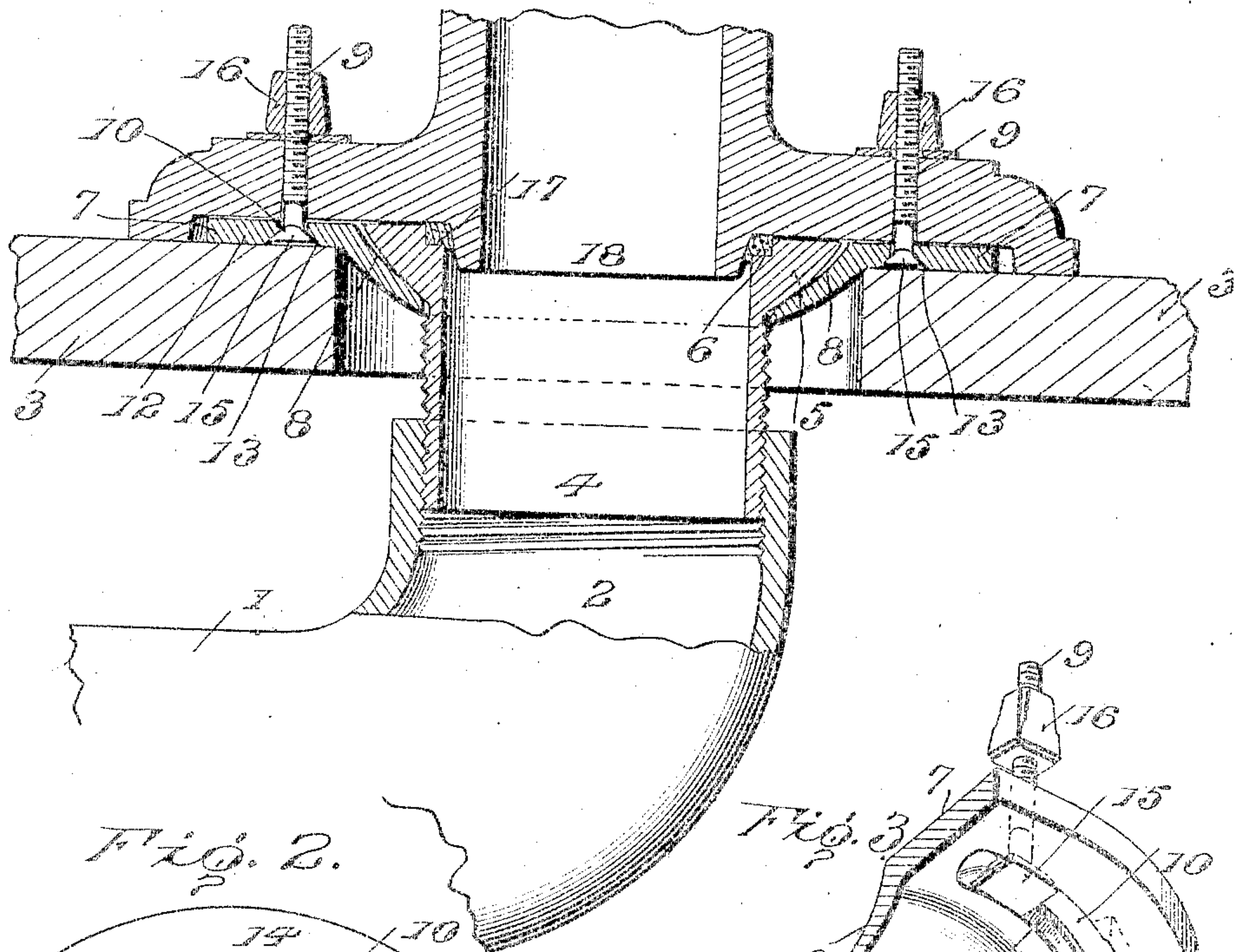


Fig. 2.

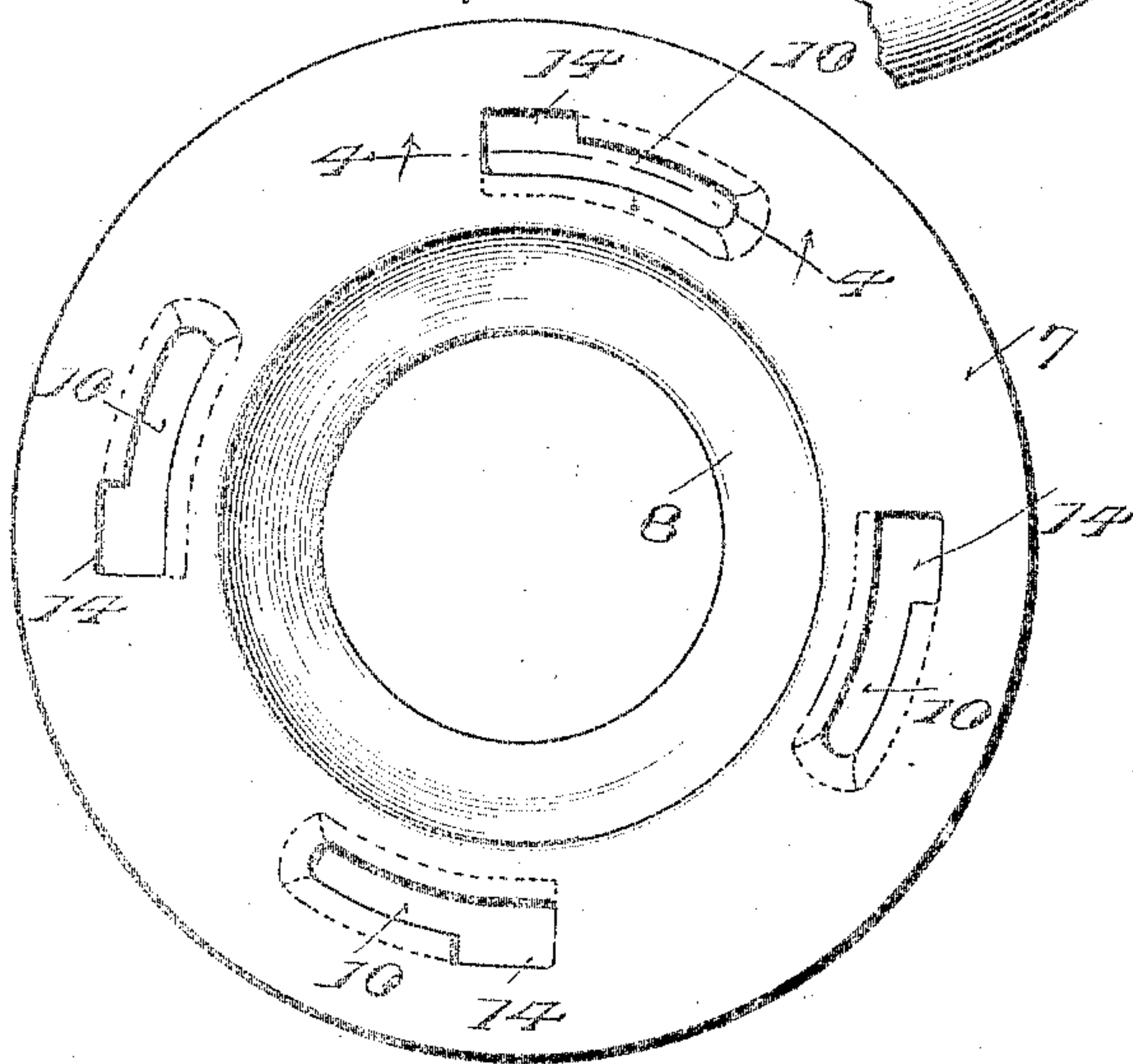


Fig. 3

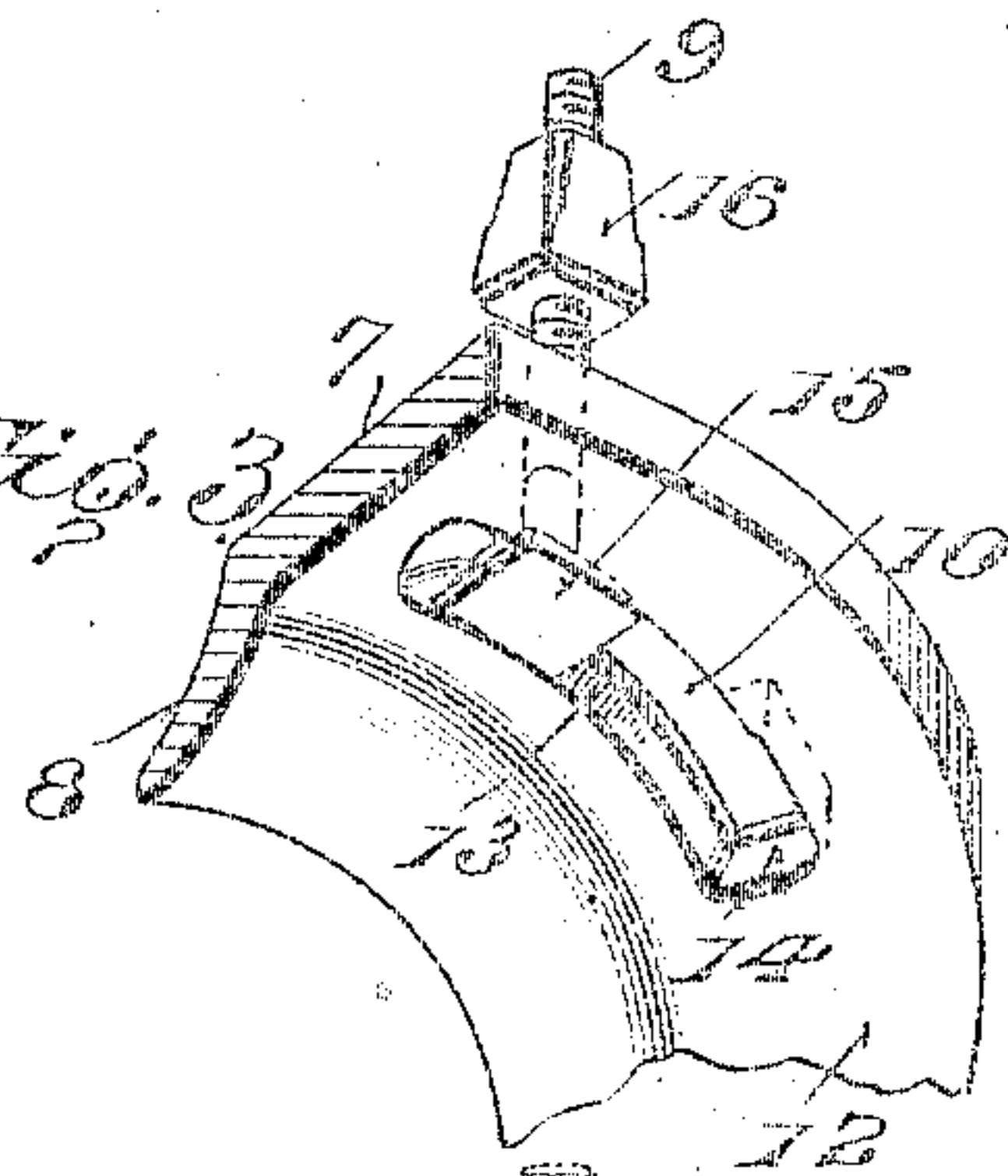
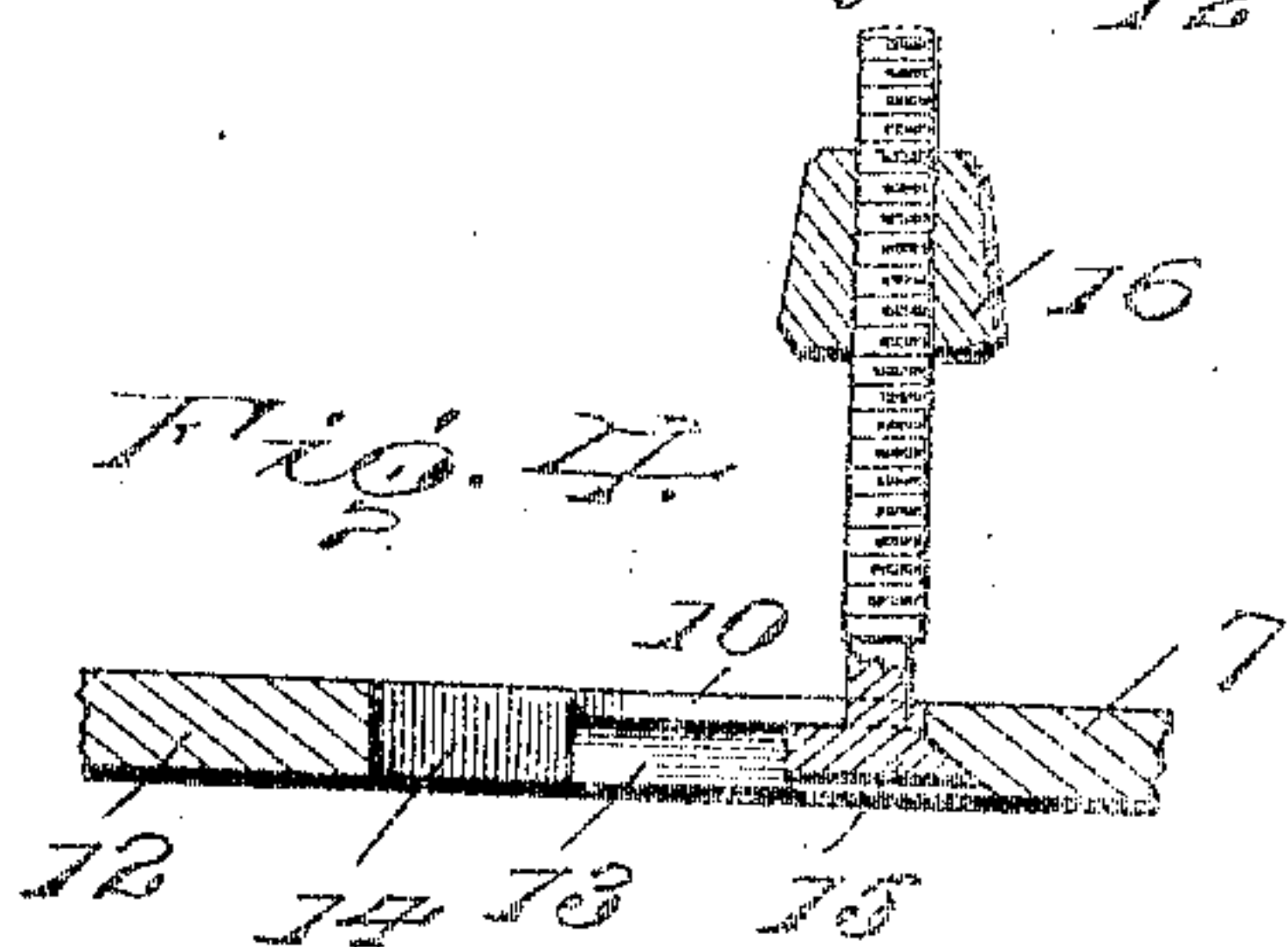


Fig. 4.



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Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK JACKSON, OF NEW YORK, N. Y.

FLOOR-JOINT FOR SOIL-PIPES.

No. 879,176.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed April 12, 1907. Serial No. 367,759.

To all whom it may concern:

Be it known that I, FREDERICK JACKSON, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Floor-Joints for Soil-Pipes; 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 contemplates the provision of an improved floor joint or coupling between a closet bowl and the soil pipes.

The object of the invention is to avoid the necessity of soldering the soil pipe to the flange which surrounds the opening in the floor and to which the base of the bowl is secured. In the couplings heretofore in use such soldered connection has been necessary in order to effectively seal the pipe. These soldered joints are liable to be readily broken and especially if the flange be not evenly seated on the floor. The pipe is frequently weakened by expanding its extremity to form a recess for the solder, and it is necessary to provide soil pipes having vertical portions of uniform height in order to bring them into the proper relation to the flange. By my invention these difficulties are effectively overcome, and a reliable, tightly-sealed joint is provided.

In the accompanying drawing, Figure 1 shows the coupling in vertical section. Fig. 2 shows a plan view of the flange. Figs. 3 and 4 are fragmentary details of the flange and bolts.

Referring to the drawing, 1 designates the soil pipe having a vertical portion 2 of any preferred length, that is, it may be short, terminating near the horizontal portion of the pipe, or it may be extended to near the plane of the floor 3. Into this vertical portion of the soil pipe is tapped a pipe section 4 having its upper or free end enlarged to form a contacting surface and externally flared as at 5, its inner surface being uniform and formed with an annular gasket seat 6. This pipe section may be of such length that whatever the height of the vertical portion 2 of the soil pipe, it will project sufficiently above the latter to bring its flared portion into alinement with the flange 7 and its top into contact with the base of a bowl. The flange has the wall surrounding its central aperture beveled as at 8 to correspond to the flared portion of

the pipe section 4. In other respects the flange is, or may be, of the usual or any preferred construction adapted to be seated upon the floor 3 and secured to the base of the bowl, as by bolts 9. I have shown the flange formed with a series of arc-shaped slots whose walls are beveled on the under face of the flange, as at 13. At one end each slot is slightly enlarged as at 14 by cutting its end and outer walls truly vertically to the plane of the face of the flange. The bolts 9 are formed with rectangular heads 15 beveled at three of their sides to conform to the slots. By this means when the flange is seated on the floor and the pipe section 4 is in place the bolts may be inserted in the flange by passing them through the enlarged portions 14 of the slots and moving them lengthwise of the slot, after which the nuts 16 may be tightened.

A gasket ring 17 is shown in seat 6 to form a tight connection between the pipe section 4 and the spud of the bowl, indicated at 18.

In assembling the parts the flange 7 is placed in position with its central aperture in alinement with that in the floor and the pipe section 4 is passed through the flange and screwed into the soil pipe until its flared portion contacts with the beveled wall 8 of the flange, after which the bowl is placed in position by inserting the spud thereof in the pipe section and securing the base to the flange by tightening the bolts.

From the foregoing it will be seen that there is no immediate connection whatever between the soil pipe and the flange and in consequence there is no danger of breakage from sudden shock or by reason of the flange being unevenly seated, since the beveled contact surfaces between the flange and the pipe section will compensate for any inequality of surface without strain upon the soil pipe. Only one gasket is required, that indicated at 17. The heights of the vertical portions of the soil pipes may vary, the pipe sections obviating the necessity of bringing the extremity of the soil pipe into alinement with the flange.

I claim as my invention:—

1. In a floor joint or coupling, a soil pipe having a vertical portion, a pipe section extending vertically from said soil pipe and threaded therein, said pipe section having the outer face of its upper extremity flared and its inner surface uniform, and a floor flange having an aperture to receive said

pipe section and a wall surrounding said aperture beveled to correspond to the flared face of said pipe section.

2. In a floor joint or coupling, a soil pipe 5 having a vertical portion, a pipe section extending vertically from said soil pipe and having its upper extremity flared, and a gasket seat on its inner face, a floor flange designed to receive said pipe section and beveled to correspond to the extremity of said 10 pipe section, said pipe section and said flange having their upper surfaces in alinement to provide a uniform supporting surface for the base of a bowl, and means for securing the base to said flange.

3. In a floor joint or coupling, a bowl having a base, a soil pipe having a vertical portion, a pipe section vertically adjustable

therein and having an enlarged upper extremity in contact with said base and outwardly flared beneath said contacting surface, a floor flange having an aperture to receive said pipe section and having the walls surrounding said aperture beveled to accommodate the flared portion of said pipe section, and bolts passed through said base and 25 said flange for binding said base to said flange and said pipe section.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses. 30

FREDERICK JACKSON.

Witnesses:

CHAS. JACKSON,
CHAS. McCLELLAN, Jr.