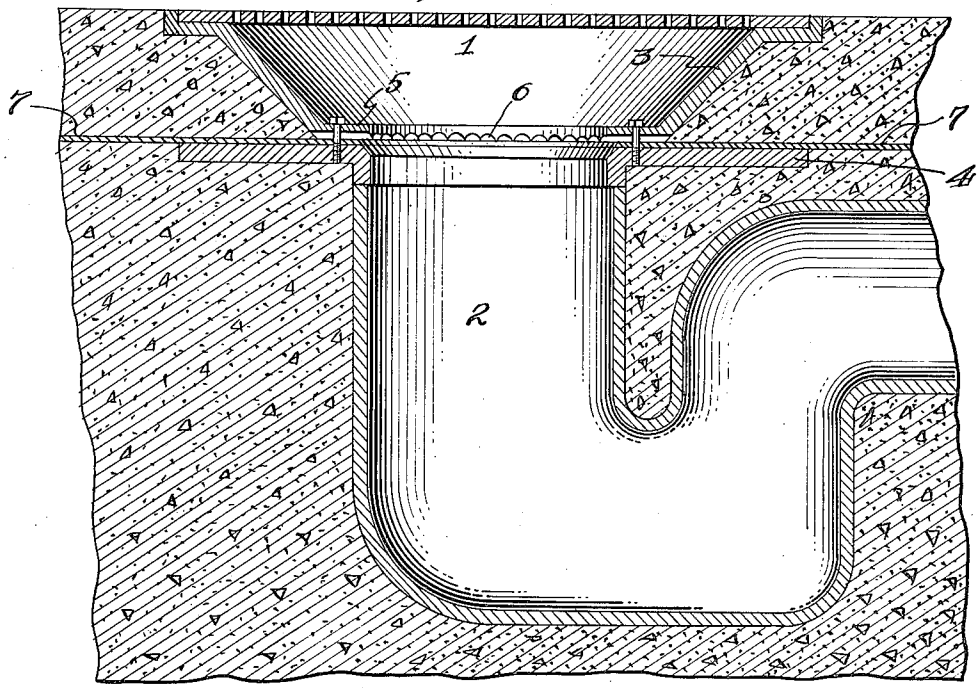
Jan. 29, 1924. 1,482,216

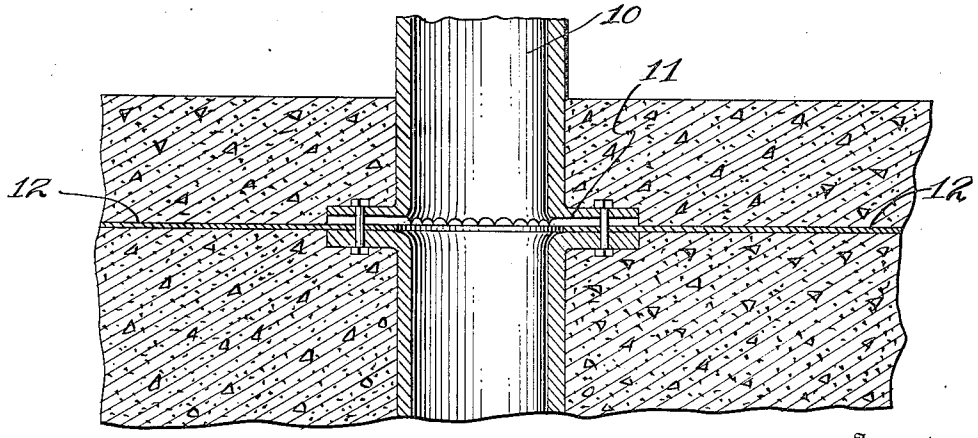
E. W. N. BOOSEY

SEEPAGE JOINT

Filed April 6, 1920

Fig. 1





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Fig. 2

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UNITED STATES PATENT OFFICE.

EDWARD W. N. BOOSEY, OF DETROIT, MICHIGAN.

SEEPAGE JOINT.

Application filed April 6, 1920. Serial No. 371,618.

To all whom it may concern:

Be it known that I, EDWARD W. N. BOOSEY, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Seepage Joints, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to seepage joints for plumbing set in concrete, cement or other porous material, and an object of the invention is to provide a joint of a character to prevent moisture from flowing through the porous material or along the surface of plumbing set therein and to discharge such moisture into the plumbing fixture. A further object is to provide a joint for the purpose stated that requires no machining or expensive operations of any character in the formation thereof subsequent to the casting of the parts. These objects and the several novel features of the invention are hereinafter more fully described and claimed, and the preferred form of construction of the invention is shown in the accompanying drawings in which—

Fig. 1 is a cross section of a floor drain showing my improved joint,

Fig. 2 is a cross section of a pipe line showing my joint as applied to abutting end sections thereof embedded in concrete or the like.

In Fig. 1 is shown a floor sump or drain having an upper end or mouth 1 covered by the usual grating and set in the concrete. This portion 1 at the bottom is provided with an inwardly extending flange 5. The lower portion 2 of the sump is provided with a flange 4 and between the flanges 5 and 4 is provided an apertured lead plate or apron 7 which extends for a considerable distance about the drain. The lower side of the flange 5 is corrugated as indicated at 6 which engages the upper surface of the plate 7 so that the corrugations are open to the concrete or porous body above the plate 7. Any water or fluid seeping into the concrete or between the concrete and the wall 3 of the member 1 on reaching the lead plates 7, may seep through the corrugations 6 into the interior of the drain. By this arrangement the fluid that would ordinarily pass on through the concrete is stopped at the lead plate and discharged through the discharge line of the fixture.

This same type of joint may be provided in various plumbing structures where water may tend to seep through the concrete or between the concrete and the fixture. An instance of this is shown in Fig. 2 in which the pipe section 10 has an outwardly extending flange for bolting to the end of an adjacent pipe section. This end is corrugated as indicated at 11, which corrugations rest upon a lead plate 12 centrally apertured to permit flow of fluid through the pipe line and any seepage through the concrete from the upper surface or seeping between the concrete and the pipe section finds its way to the lead plate and then passes through the corrugations or channels 11 into the pipe line.

By this arrangement water from the upper surface of the floor is prevented from seeping through to a ceiling below and the concrete below the plate at least is maintained in its normal dry state.

I have shown the corrugations 6 and 11 in the respective views as being fairly large. It is evident, however, that these need not be very deep as the amount of seepage is small and a surface that is roughened sufficient to permit a flow of fluid between the corrugated or roughened flange and lead plate will be all that is required. By making these corrugations comparatively small, even less than one-sixteenth of an inch in depth, the concrete does not flow into the corrugations on placing of the concrete about the joint.

Having thus briefly described my invention, what I claim is—

1. In plumbing, a seepage joint between attached parts of plumbing elements comprising a flanged portion on the upper of said elements adapted to be attached to another element, an apron or plate provided between the said elements and extending outwardly therefrom, the flange of the upper element being roughened or corrugated on the lower face substantially as and for the purpose described.

2. A seepage joint for use in plumbing set in porous material comprising the combination with an upper and a lower element, of an apron or plate secured therebetween apertured to permit flow of fluid through

said elements, the upper element at the point of contact with the plate being provided with a passageway to the interior of the fixture for fluid seeping through the porous material onto the plate.

3. A seepage joint for floor sumps and the like adapted to be set in cement or concrete, comprising the combination with the upper receiving end of the sump and lower discharge end thereof adapted to be attached together, of an apron or plate lying in the concrete between the two members centrally apertured to permit a passage of fluid through the members, the lower face of the upper member contacting the apron being roughened or corrugated providing channels from the concrete above the plate to the interior of the sump.

4. A seepage joint for floor sumps and the like adapted to be set in porous cementitious material comprising the combination with the upper receiving end of the sump having an internal flange at the lower end, and the lower discharge end of the sump having an external flange of a diameter greater than the diameter of the lower end of the first part, of an apron or plate lying in the concrete between the two said ends and extending outwardly thereabout, the apron being centrally apertured to permit passage of fluid through the said members, the said internal flange of the upper member being roughened or corrugated on the surface contacting the apron providing a plurality of passageways to the interior of the sump for fluid flowing through the porous material onto the plate.

5. A seepage joint for use in plumbing set in porous material comprising the combination with an upper and a lower element connected together each provided with a lateral flange positioned in the porous material below the upper surface, of an apron or plate secured between the said flanges and centrally apertured to permit flow of fluid through the connected elements, the flange of the upper element lying in contact with the upper surface of the apron having substantially radial grooves provided in the contacting face permitting a seepage of fluid from the apron into the interior of the said plumbing elements.

6. A seepage joint for use in plumbing set in porous material comprising the combination with an upper and a lower element united together, the said elements having lateral flanges at the united ends below the upper surface of the porous material, of an apron secured between the said flanges having an aperture registering with the openings in the ends of the elements, the upper element being formed to provide openings into the interior thereof permitting seepage accumulating on the apron to pass into the interior of the plumbing element.

In testimony whereof I sign this specification.

EDWARD W. N. BOOSEY.