

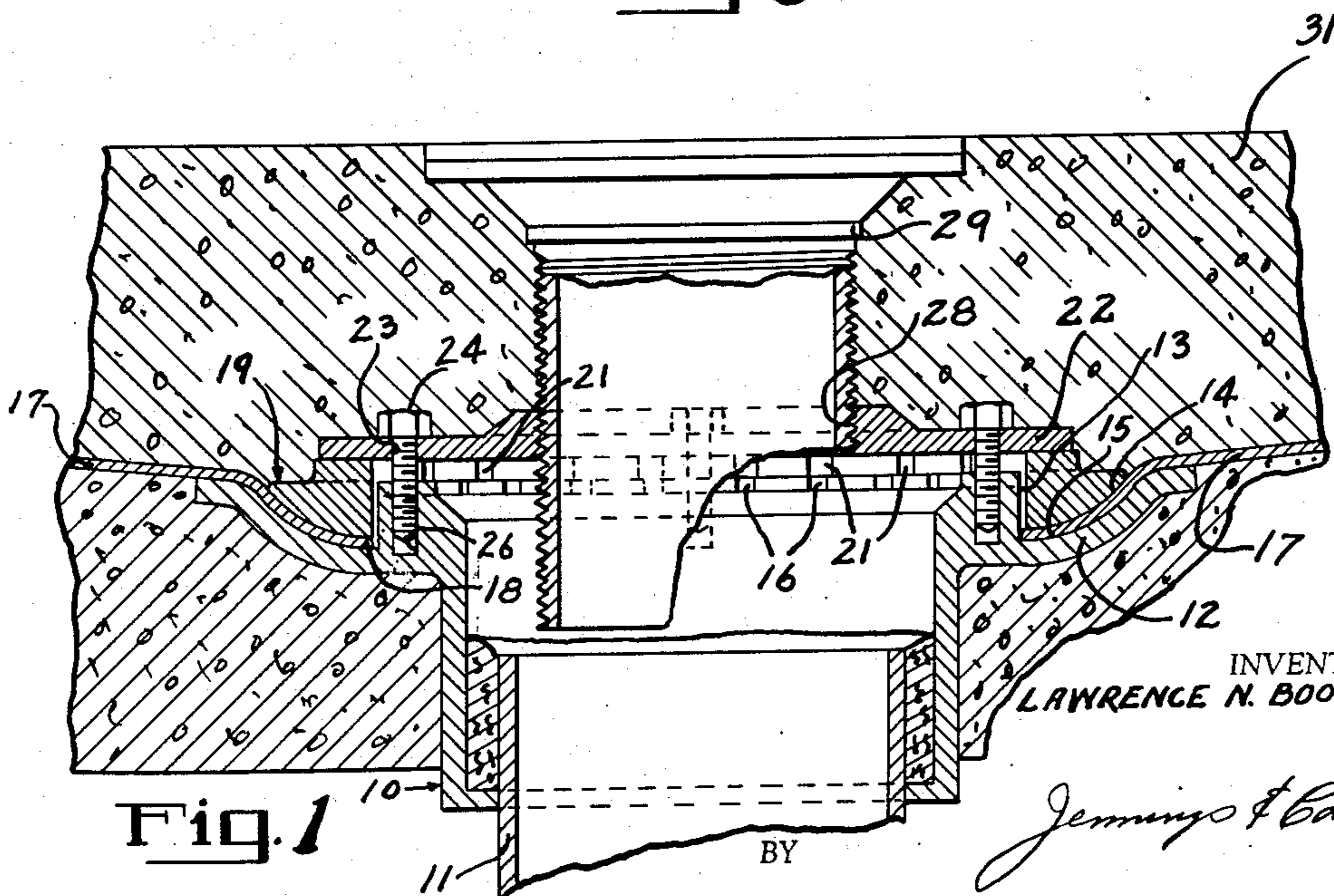
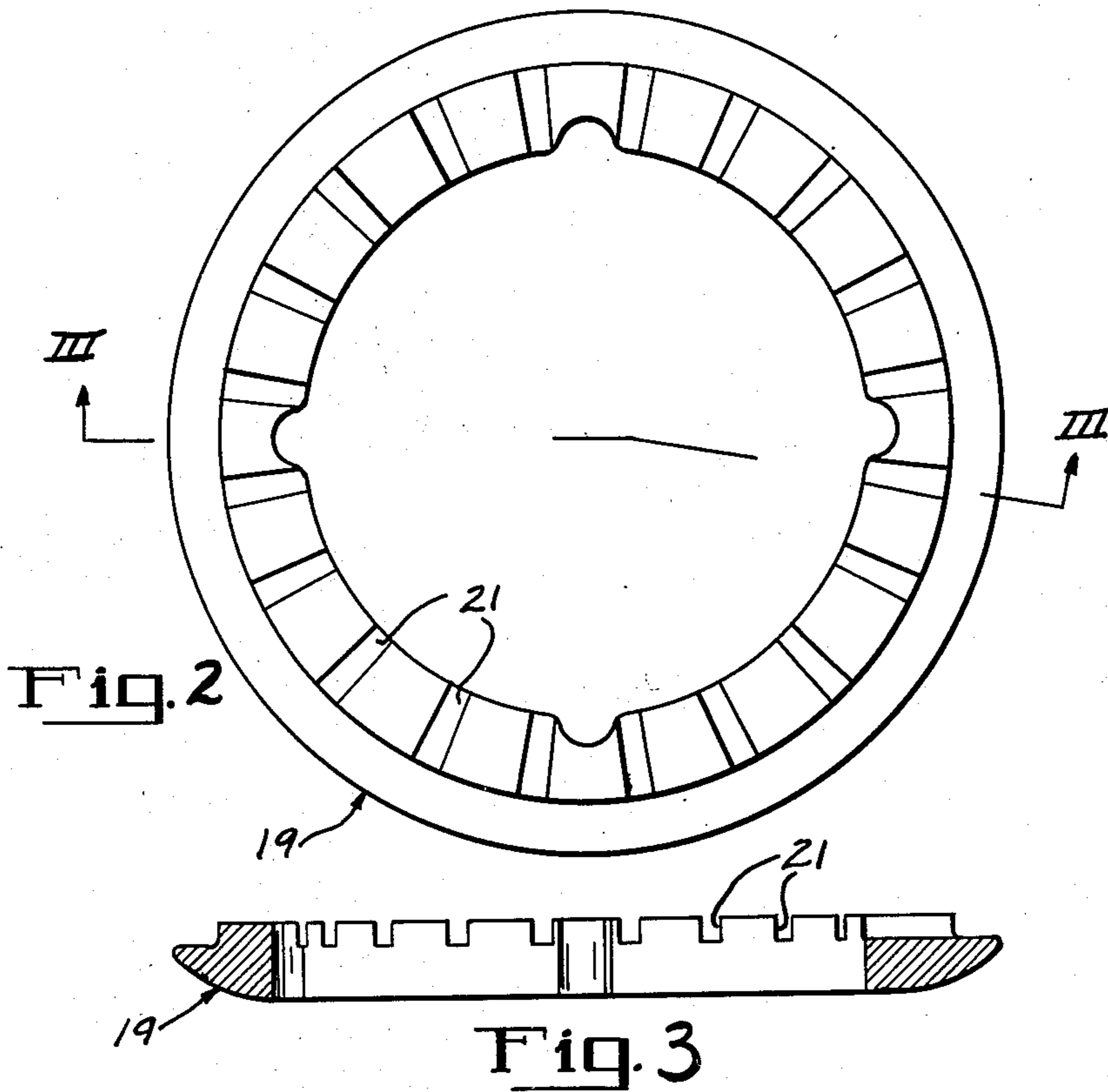
Jan. 27, 1953

L. N. BOOSEY
DRAINAGE FITTING

2,626,674

Filed Jan. 23, 1950

2 SHEETS—SHEET 1



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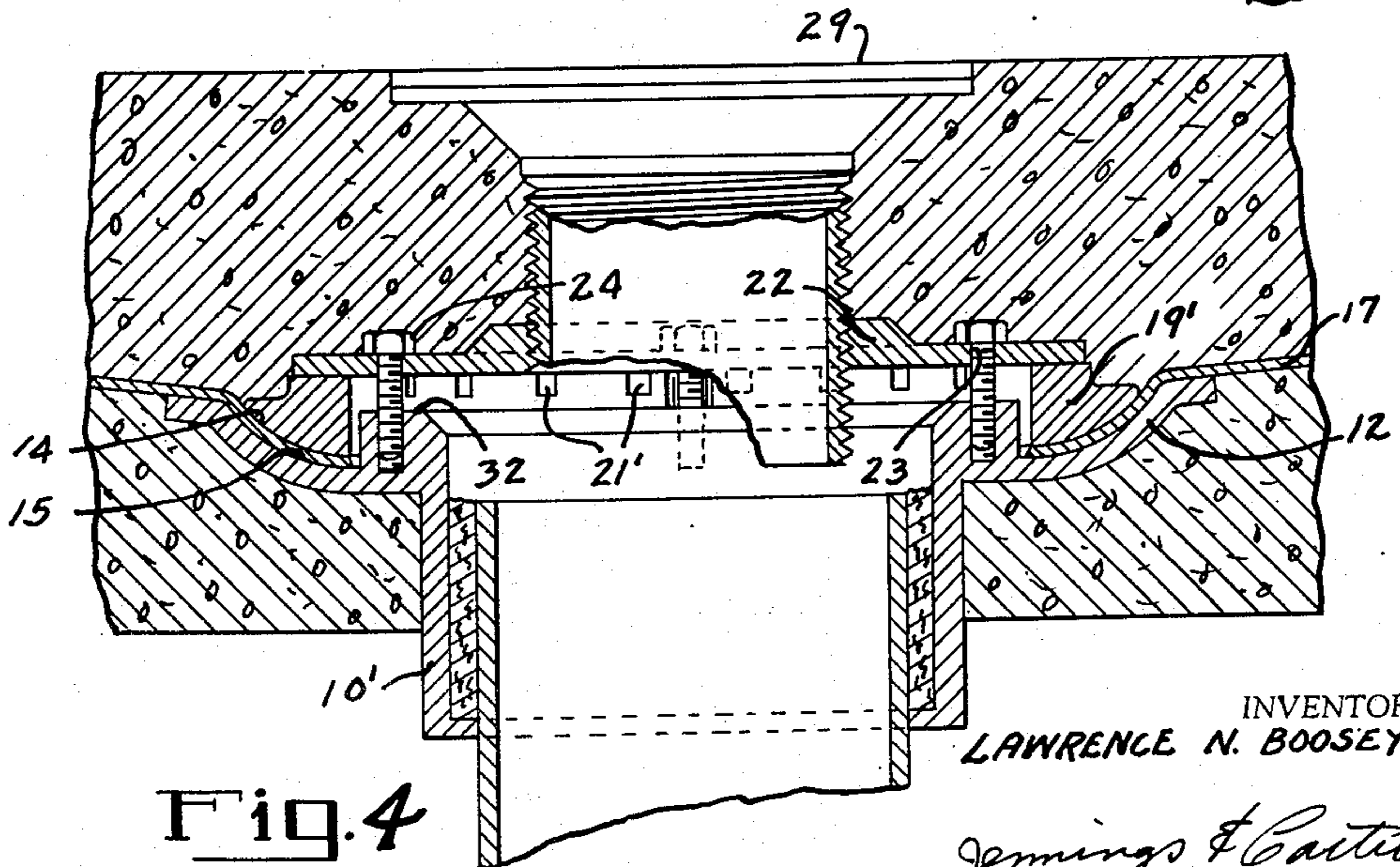
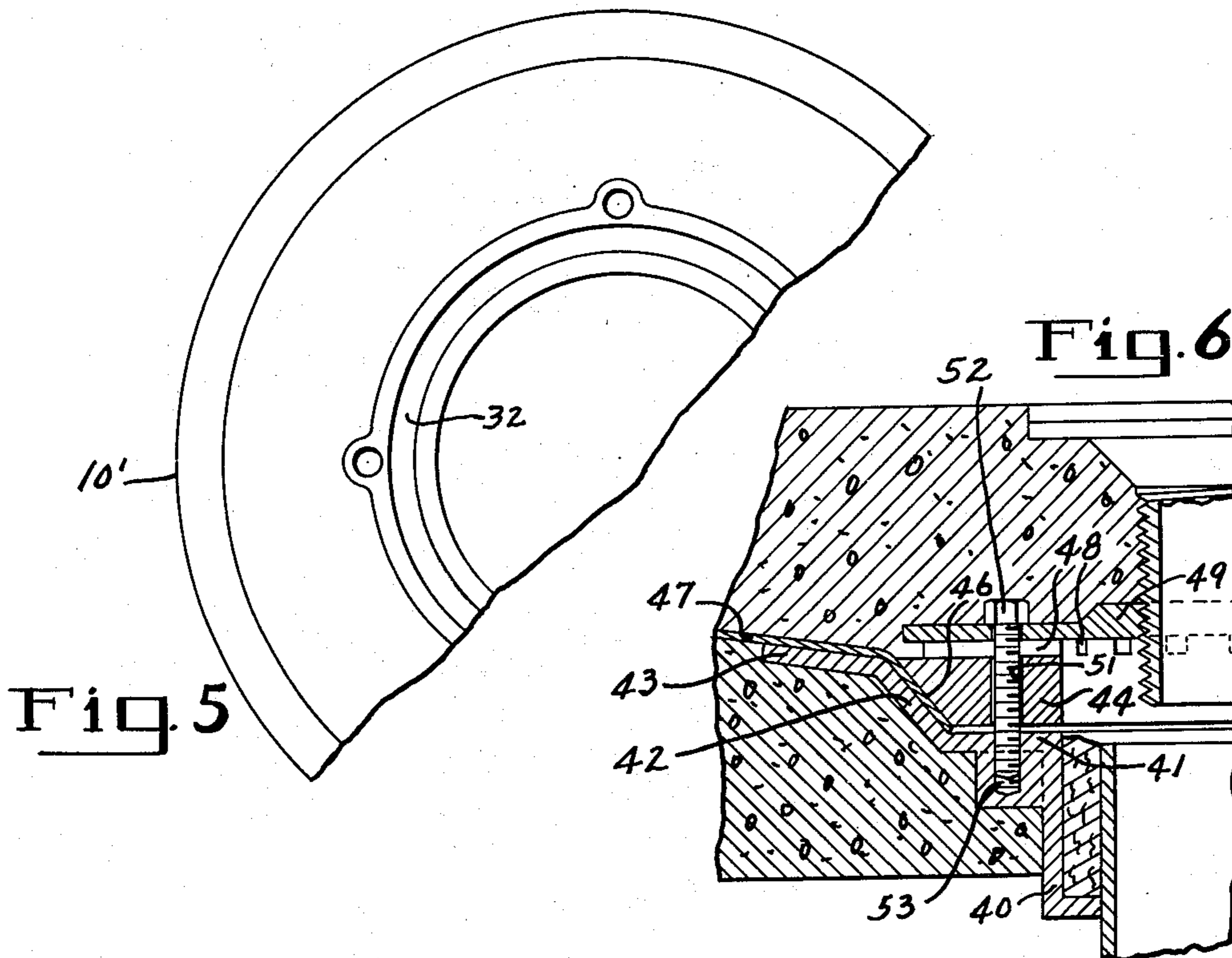
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DRAINAGE FITTING

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4 Claims. (Cl. 182—31)

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This invention relates to a drainage fitting and especially to one such as is employed with a lead seepage pan in shower stalls to convey waste to a drainage system, and has for its principal object the provision of an improved fitting of the character designated which shall be effective to intercept and carry away any seepage which may occur in the floor of such a stall.

A further object of my invention is to provide a drainage fitting which shall include a body member, a seepage pan, a clamping ring bearing against the seepage pan, and a pressure plate, together with improved means for exerting an even pressure on the clamping ring.

A more specific object of my invention is to provide improved means for conveying seepage which may accumulate in the lead seepage pan of a shower stall to a waste conduit.

As is well known in the art to which my invention relates, difficulties have been encountered, especially in public buildings such as hotels and the like, where shower stalls are installed, to take care of seepage occurring in the cement, or tile floors of such stalls, and prevent it from passing through and damaging ceilings below the rooms in which such stalls are located. It is the usual practice to employ a drainage fitting and a lead seepage pan which are installed in the floor, the pan necessarily having one edge surrounding the drainage fitting. The principal difficulty with such an arrangement has been found to exist at the place where the pan is joined to the drainage fitting. It has been found extremely difficult to prevent seepage passing between the abutting edge of the pan and the fitting and thence on through the floor. One of the principal features of my invention is the provision of means for exerting a uniform pressure on the edge of the seepage pan whereby to clamp it securely to the body of the drainage fitting.

Drainage fittings embodying features of my invention are illustrated in the accompanying drawings, forming a part of this application, in which:

Fig. 1 is a sectional view of a fitting installed in the floor of a shower stall;

Fig. 2 is a plan view of the clamping ring removed from the fitting;

Fig. 3 is a sectional view of the clamping ring taken along line III—III of Fig. 2;

Fig. 4 is a sectional view of a modified form of fitting;

Fig. 5 is a plan view of the body of the fitting shown in Fig. 4, with other parts removed; and,

Fig. 6 is a partial sectional view similar to Fig.

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4 and showing a further modification of my invention.

Referring now to the drawings for a better understanding of my invention, my improved fitting comprises a body portion 10 open at both ends and adapted to receive a drainage conduit 11 at its lower end. The body portion is provided, near its upper end, with an upwardly inclined flange member 12 which defines an annular groove 15 around the body portion with its inner wall 13 vertical and its outer wall 14 upwardly inclined. The upper end of the body 10 is also provided with a plurality of uniformly spaced radial seepage channels 16 at intervals around its entire upper surface.

It is contemplated that the drainage fitting will be installed in a floor such as a concrete floor with the flange 12 resting on the concrete. Surrounding the fitting is a lead seepage pan 17 having an edge 18 extending down into the recess around the body portion and abutting the vertical wall 13 of the recess.

Fitting over the edge of the seepage pan is a clamping ring 19 which is shaped on its under side to fit snugly into the recess and bear against the seepage pan. The flat upper surface of the clamping ring projects above the level of the body portion 10 and is provided with uniformly spaced radial seepage channels 21 which align radially with the seepage channels 16 in the body portion 10.

Fitting over the clamping ring is a pressure plate 22 having a substantially flat bottom surface and a plurality of spaced holes 23 around its periphery for the reception of cap screws 24 which extend down through the holes 23 into threaded holes 26 in the body portion 10 for the purpose of exerting pressure on the clamping ring 19 and to the edge 18 of the seepage pan. The pressure plate 22 is also provided with an internally threaded opening 28 for the reception of a drainage head 29 which is threaded to screw into the opening 28 to a depth corresponding with the depth of the usual terrazzo or other finish flooring 31.

With the form of my invention just described, it will be seen that any seepage which may pass through the finish flooring 31 will be intercepted by the seepage pan 17 and drain toward the fitting where it is engaged by the clamping ring 19. Due to the multiple point engagement of the pressure plate 22 with the clamping ring, an even pressure is applied to it through the cap screws 24 so that seepage cannot pass between the ring and the seepage pan, but flows

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over it through the radial passages 21 in the clamping ring and the passages 16 in the upper end of the body portion to the drainage conduit 11. It will also be seen that the radial passages 21 are so positioned that if grout is poured around the fitting in laying the finish flooring 31, it is not likely to flow into and obstruct a sufficient number of passages to prevent the proper operation of the fitting.

In Figs. 4 and 5 of the drawing, I show a modified form of my invention which is similar in all respects to that shown in Figs. 1 to 3 inclusive except with respect to the construction of the body portion 10'. In accordance with this modification, the upper end 32 of the body portion does not extend as far upwards in relation to the clamping ring 19' as it does in the fitting shown in Figs. 1 to 3, and is made smooth on top. By doing away with a part of the metal at the upper end of the body portion, I am enabled to omit the radial drainage passages in the body portion and provide a wider opening to receive seepage from the drainage passages 21' in the clamping ring 19'.

Referring to Fig. 6, I show a further modification of my invention in which the body portion 40 is provided, at its upper end, with a horizontal flange 41 which extends outwardly and then is inclined upwardly at 42 and 43. Mounted over the horizontal portion 41 is a clamping ring 44 having an upwardly inclined outer wall 46 which bears against the inner edge of the seepage pan 47. The upper surface of the clamping ring 44 is provided with a plurality of drainage channels 48. Mounted over the clamping ring 44 and bearing against it is a pressure plate 49. Extending down through the pressure plate and through holes 51 provided in the clamping ring, are fastening elements in the form of cap screws 52, as previously described, which are screwed into threaded holes 53 in the fitting body 40. Otherwise this modification of my invention is similar to those already described.

From the foregoing it will be apparent that I have devised an improved drainage fitting which is simple and sturdy of construction and one which provides improved means for clamping the inner edge 18 of the seepage pan 17, and improved means for conveying seepage from the pan into the drain conduit 11.

While I have shown my invention in but three forms, it will be obvious to those skilled in the art that is not so limited, but is susceptible of various other changes and modifications, without departing from the spirit thereof, and I desire, therefore, that only such limitations shall be placed thereupon as are specifically set forth in the appended claims.

What I claim is:

1. In a drainage fitting embodying a body portion with an annular recess around the upper end thereof and a lead seepage pan fitting about the body portion with one edge seated in the recess, a clamping ring fitting about the body portion in the recess over the seepage pan and bearing against the pan, said clamping ring having a substantially flat upper surface with a multiplicity of radially disposed drainage channels in the upper surface thereof, said body portion extending upwardly adjacent the clamping ring with at least a portion of its upper surface spaced substantially below the upper surface of

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the clamping ring to permit drainage from said drainage channels, a pressure plate having a substantially flat bottom surface fitting over and bearing against the clamping ring, and clamping means cooperating with the pressure plate and the body portion for exerting pressure on the clamping ring.

2. In a drainage fitting embodying a body portion with an annular recess around the upper end thereof and a lead seepage pan fitting about the body portion with one edge seated in the recess, a clamping ring fitting about the body portion in the recess over the seepage pan and bearing against the pan, said clamping ring having a substantially flat upper surface with a multiplicity of radially extending drainage channels in the upper surface thereof, said body having corresponding radially extending drainage channels in the upper end thereof, a pressure plate fitting over the clamping ring having a substantially flat bottom surface, and clamping means cooperating with the pressure plate and the body portion for exerting pressure on the clamping ring.

3. In a drainage fitting embodying a body portion with an annular recess around the upper end thereof and a lead seepage pan fitting about the body portion with one edge seated in the recess, a clamping ring fitting about the body portion in the recess over the seepage pan and bearing against the pan, said clamping ring having a substantially flat upper surface with a multiplicity of radial drainage passages in the upper surface thereof, said body portion extending upwardly adjacent the clamping ring and having radial drainage channels in alignment with the channels in the clamping ring, a pressure plate having a substantially flat bottom surface fitting over and bearing against the clamping ring, and a plurality of pressure exerting members extending through the pressure plate into the body portion to exert pressure on the clamping ring.

4. In a drainage fitting embodying a body portion with an annular recess around the upper end thereof and a lead seepage pan fitting about the body portion with one edge seated in the recess, a clamping ring fitting about the body portion in the recess over the seepage pan and bearing against the pan, said clamping ring having a substantially flat upper surface with a multiplicity of radial drainage passages in the upper surface thereof and extending substantially above the upper end of the body portion, a pressure plate having a substantially flat bottom surface fitting over and bearing against the clamping ring, and clamping means coacting between the pressure plate and the body portion to exert pressure on the clamping ring.

LAWRENCE N. BOOSEY.

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