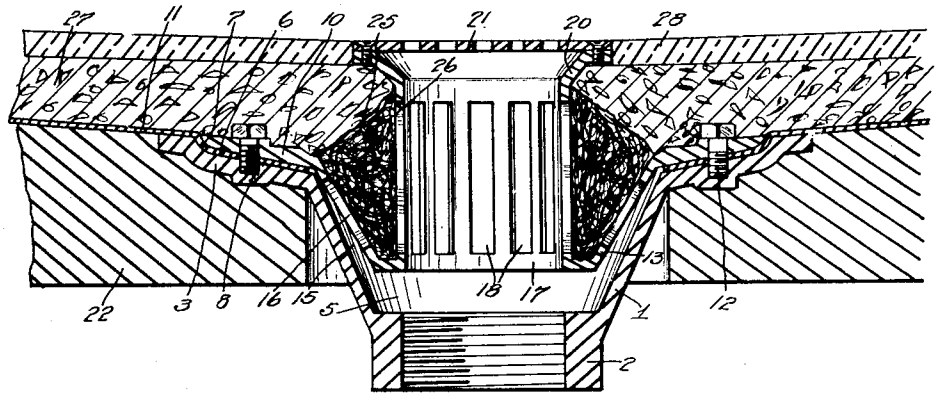
March 11, 1930. W. S. FLEMING 1,749,878

DRAIN FITTING

Original Filed Feb. 10, 1926

Fig. 1



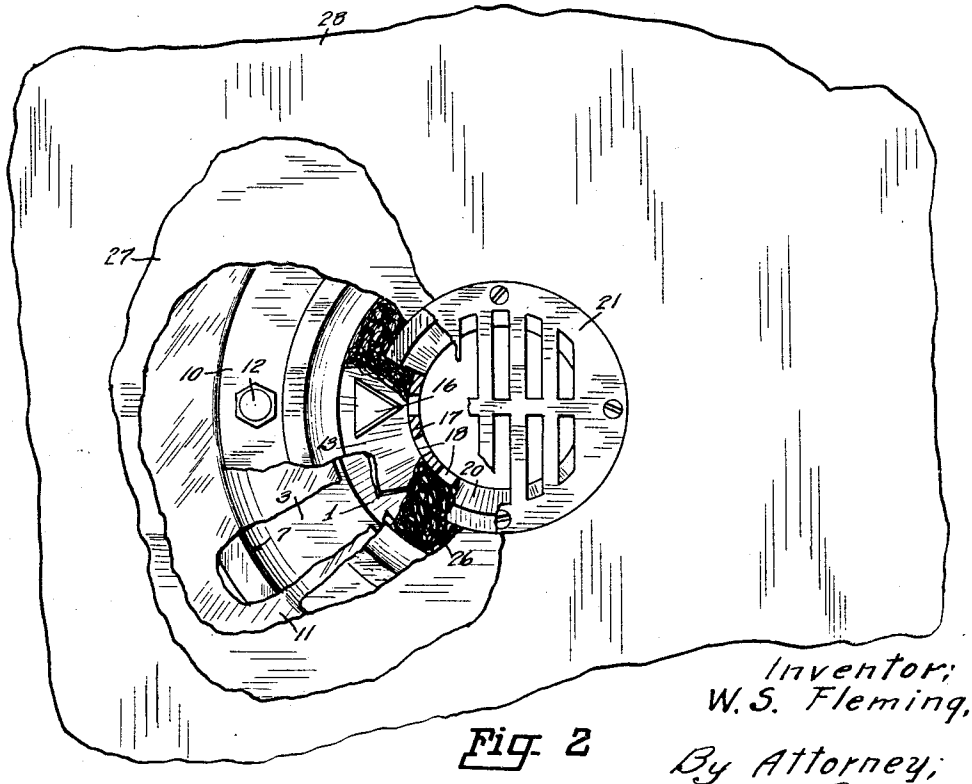




Fig. 2

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# UNITED STATES PATENT OFFICE

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## DRAIN FITTING

Original application filed February 10, 1926, Serial No. 87,281. Divided and this application filed May 17, 1926, Serial No. 109,492. Renewed October 11, 1928.

This invention relates to improvements in drain fittings for floors, shower baths, swimming pools, and the like, of the general type shown and described in my prior application filed February 10, 1926, Serial No. 87,281, of which this is a divisional application.

The object of my invention is the provision of a drain of the type described of simple and practical construction adapted to be permanently installed in a floor or wall to efficiently perform the functions of a drainhead and which may be made completely water-tight about the fitting and for a desired area thereabout to prevent leakage from the floor or tank to the surrounding walls of the building and likewise to avoid similar damage to property from the leakage of water by the backing up and overflow from the drain pipes.

Further objects and advantages of my invention, and objects residing in details of construction and arrangement of parts will be readily apparent in the course of the detailed description to follow.

The accompanying drawings illustrate by way of example a form in which my invention may be embodied, wherein:

Figure 1 is a view in vertical section of a drain fitting of my invention mounted in operative position.

Fig. 2 is a plan view of the same partly broken away.

Referring to said views the reference numeral 1 indicates an upwardly flaring conical body of my improved drain having a tubular, integral collar 2 at its lower end provided with an axial internally screw-threaded bore into which a drain pipe, not shown, may be threaded. The upper portion of said body extends in an annular flange 3 at a relatively slight upward angle to provide drainage toward the inverted conical chamber 5 of said body. The upper face of said flange is recessed, as at 6, to provide a wall 7 at its marginal edge. Threaded bolt recesses 8 are formed in said flange at space intervals medially about said recess.

A cover plate is provided formed with an annular portion 10 to overlie the flange 3 of the body and with its under side shaped to fit within the recess 6 with a sheet of water-proof material, as 11, therebetween. Both holes are provided in said cover plate in register with the recesses 8 whereby bolts 12 may be employed to draw said cover plate into rigid water-tight connection to said flange with the material 11 interposed therebetween.

Centrally of the annular portion of the cover plate an integral inwardly inclined skirt 13 is provided that is spaced from the inclined side walls of the body 1 and extends relatively deeply within the chamber 5 providing an annular inclined space 15 between the body 1 and the skirt 13. Said skirt is apertured, as at 16, about its perimeter, said apertures being of any suitable form affording an outlet through said skirt into the annular space 15.

Axially of the cover plate and integrally connected to the lower edge of the skirt 13 is a tubular sleeve 17 whose peripheral walls are perforated by vertically disposed slots 18 extending above the cover plate portion 10 and terminating in an upwardly flaring end 20 which is provided with a plane grille plate 21 perforated to admit drainage water into the fitting.

Exemplifying the use of my improved drain as a floor drain in the accompanying views I show the drain structure set within a floor frame 22 and clamping a sheet of water-proof material 23 in the manner set forth. In the annular depression 25 between the skirt 13 and the sleeve 17 I place a body of fibrous material 26 extending upwardly therein to cover the slots 18. A layer of plastic cement material 27 may then be laid over the floor upon which the tiling 28 may be set substantially flush with the grille plate 21 whereby the openings 18 will be protected from being filled by the cement material and its deposit in the drain pipe, and the said slots will be maintained at all times in open condition.

It will thus be seen that the drainage water from the floor may be evacuated at all times through the drain pipe without danger of clogging and that water backing up from

the drain pipe will be safeguarded from leakage around the flange 3 by the provision of the water-proof sheet 11 and its clamped engagement to said flange by the cover plate 10.

From the foregoing description taken in connection with the accompanying drawings the advantages of the construction and application of my improved drain fittings will be readily apparent, but, while I have described the principle of operation of the invention together with the devices which I now consider the best embodiment thereof, it will be understood that the structures shown are merely illustrative, and that such changes may be made therein as will lie within the scope of the following claims.

Having described my invention, what I claim, is:

1. In a drain fitting of the class described, in combination with a basin-body provided with a circumferential flange at the top and having a drain opening at the bottom adapted to be connected with a drain pipe, a cover for said basin-body having a flange adapted to be seated on said flange of the body and having an integral, central, tubular, perpendicular, longitudinally slotted member, extending to the predetermined floor level above the cover, the cross section of the interior of the tubular member corresponding to the opening of the drain body, and a flat grille plate closing the top of said member and substantially flush with the surface in which the drain is fitted.

2. In a drain fitting of the class described, in combination with a basin-body provided with a circumferential flange at the top and having a drain opening at the bottom adapted to be connected with a drain pipe, a cover for said basin-body having a flange adapted to be seated on said flange of the body and having an integral, central, tubular, perpendicular, longitudinally slotted member extending to the predetermined floor level above the cover, the cross section of the interior of the tubular member corresponding to the opening of the drain body, and a flat grille plate removably secured to and closing the top of said member, said grille plate being flush with the surface in which the drain is fitted.

WELLS S. FLEMING.