

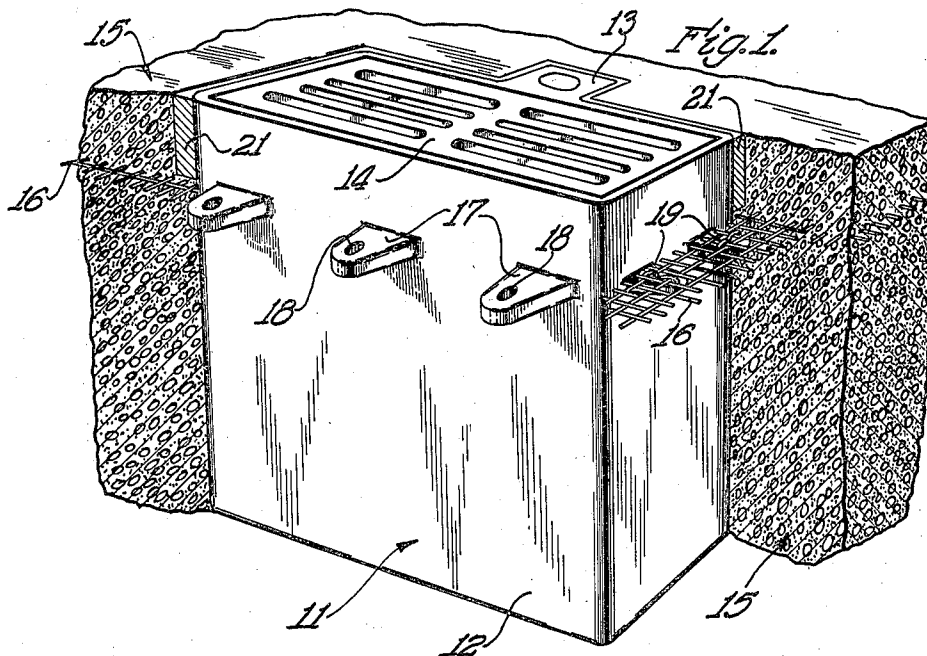
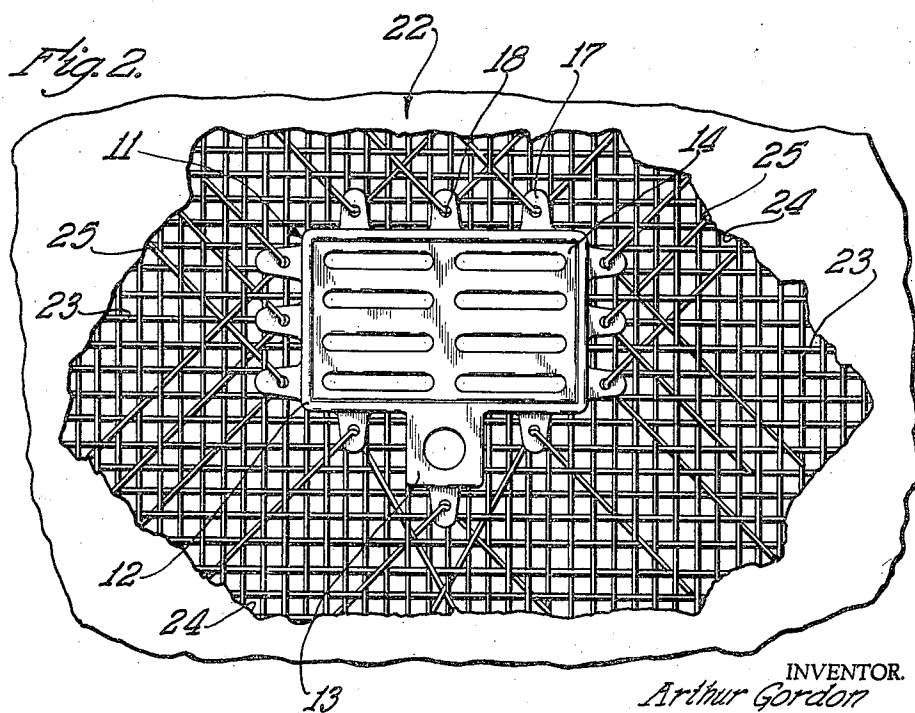
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WASTE TRAP

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WASTE TRAP

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4 Claims. (Cl. 182-1)

This invention relates in general to drain and waste traps, and more particularly to improved means for mounting the same in concrete, or the like.

A principal object of the invention is the provision of simplified means for forming a rigid connection between a drain or waste trap, or the like, and concrete, or the like, in which it is embedded.

Another important object of the invention is the provision of such connecting means which comprise lateral extensions forming a part of the casing of the trap and flexible members interconnecting the extensions and the usual reinforcing means employed in the concrete within which the trap is embedded.

A further important object is the provision of such connecting means which enable a trap to be satisfactorily embedded either in an aperture in preformed concrete or in concrete which is laid subsequent to the positioning of the trap, and which will rigidly secure the trap to the concrete to effectively prevent breaking away of the concrete therefrom.

Another important object of the invention is the provision of simplified means for effecting a leak-proof connection or joint between a drain or waste trap, or the like, and concrete, or the like, in which it is embedded.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, when taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

In the drawing,

Figure 1 is a perspective view of a device embodying the features of the invention, with parts broken away and parts in section; and

Figure 2 is a top plan view of the device of Fig. 1, with part of the concrete broken away, showing a slight modification in the connecting means.

Referring more particularly to the drawing, reference numeral 11 indicates in general a drain or waste trap which comprises a unitary casing 12, having an outlet connection 13 formed integrally therewith, and a removable grating or open cover member 14 for the casing. The trap 11 is similar to those disclosed in my prior Patents No. 1,959,623, issued May 24, 1934, and No. 2,099,061, issued November 16, 1937. Since the interior construction of such a trap does not form a part of the subject matter of this inven-

tion, reference is made to these patents for the details thereof.

A drain or waste trap of this type is adapted to be mounted in a suitable recess in a floor for the purpose of receiving water, grease and oils which may accumulate on the floor, such as in a garage, or the like. In prior installations of such traps, great difficulty has been encountered in providing a leak-proof joint between the floor and the trap and in preventing those portions of the floor, especially if the latter is of concrete construction, adjacent to the trap from cracking and breaking away. The instant invention is adapted to simply and readily overcome these difficulties.

In Fig. 1, reference numeral 15 indicates in general a concrete floor of any suitable construction within which it is desired to embed the trap 11. The concrete floor 15 is provided with the usual wire mesh reinforcing 16. The casing 12 of the trap 11 is provided exteriorly thereof with a plurality of outwardly extending lugs or flanges 17 which are preferably formed integrally therewith. In the preferred embodiment, these lugs 17 are spaced around the periphery of the casing 12, but the invention is not intended to be limited to any particular form, shape or construction of these members. Each of the lugs 17 is provided with a vertically disposed aperture 18 extending therethrough.

In Fig. 1, the trap 11 is shown as being mounted or embedded in a new concrete floor. That is, the trap 11 is first suitably positioned, and then the concrete is poured to form the floor 15. In this particular installation, it is a relatively simple matter to cut away a portion of the floor reinforcing 16 or so lay the latter as to provide an aperture therein, the dimensions of which will substantially coincide with those of the casing 12. The trap 11 is then positioned in this aperture in the reinforcing 16, or the reinforcing is disposed around the trap after it has been suitably mounted in desired position. The lugs 17 are then rigidly secured to the flooring reinforcing 16 by means of flexible wires or the like 19 (Fig. 1). The apertures 18 in the lug 17 will facilitate such tying of the reinforcing 16 thereto.

After the trap 11 has been thus rigidly secured to the flooring reinforcing 16, the concrete is poured in the usual manner to form the floor 15. In this way, the concrete floor 15 will be effectively prevented from cracking or breaking away adjacent the trap 11, and the latter will be rigidly secured to the floor to provide what is in substance a unitary structure.

Since it may well be that a relatively narrow space will be left between the casing 12 of the trap 11 and the adjacent portions of the concrete floor 15 after the latter has hardened, due to the usual shrinkage attendant therewith, it may become necessary to so fill this space as to provide a leakproof joint between the trap and the adjacent upper portions of the floor. The invention contemplates the filling of this space with any suitable material, as indicated by reference numeral 21, that will function to attain the desired purpose. For example, the material 21 may comprise lead, solder, or other suitable material which has been poured into this intervening space. Likewise, oakum, tar, or any other suitable filling or calking material may be used for this purpose.

It will be seen that the resulting structure attains the desired functions of rigidly securing the trap 11 to the floor 15, effectively preventing cracking and breaking away of those portions of the floor directly adjacent to the trap, and providing a leakproof joint between the trap and the floor at the upper surface thereof.

In Fig. 2, the trap 11 is shown as being mounted or embedded in a pre-formed concrete floor, indicated generally by reference numeral 22. The floor 22 is substantially similar in all respects to the floor 15 above described, except that it is one which has been constructed prior to the installation of the trap 11. In order to embed the trap 11 in this pre-formed concrete floor 22, which includes the usual reinforcing material 23 which is similar to the reinforcing 16, an aperture of suitable dimensions is provided by breaking away the concrete and reinforcing in any desired manner. In Fig. 2, this aperture is indicated by reference numeral 24, and is shown as being much larger than is necessary, for the purpose of illustrating the manner of securing the trap to the floor which is slightly different than that above described relative to the modification of Fig. 1.

After the aperture 24 has been formed in the concrete floor 22, that portion of the reinforcing 23 which remains extending into the aperture is straightened as much as possible and is cut away, if necessary, to provide sufficient clearance to permit the trap 11 being properly positioned therein. The trap 11 is then secured to the reinforcing 23 by means of flexible members 25, preferably in the form of metal wire or the like, which are threaded through the apertures 18 in the lugs 17 and woven through the reinforcing 23. In Fig. 2, one member 24 is shown associated with each of the lugs 17, but it is quite apparent that any desired number of these members may be employed and that the weaving or

interconnecting thereof with the reinforcing 23 may be accomplished in any suitable manner.

After the lugs 17 have thus been secured to the reinforcing 23, additional concrete is poured to fill the aperture 24 around the trap 11. Calking material may be employed to fill any resulting space between the newly poured concrete and the walls of the casing 12 in the same manner as that above described relative to the modification of Fig. 1.

The invention is readily adapted for use with any desired type of trap, or the like, and is not intended to be limited to the particular trap shown in the drawing. Similarly, it may well be employed in securing a trap in a different type of floor than that herein illustrated, or in any other desired type of supporting structure.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. The combination of a trap, a supporting structure surrounding said trap and having reinforcing means forming a part thereof, means secured to said trap and extending into said supporting structure, and means securing said last means to said reinforcing means.

2. In combination with a waste trap, or the like, a supporting structure surrounding said trap and having reinforcing means disposed interiorly thereof, and means rigidly securing said trap to said supporting structure, comprising means secured to said trap, and means securing said last means to said reinforcing means.

3. The combination of a concrete floor structure having reinforcing means therein, with a trap embedded in said floor structure, extensions formed on said trap and extending exteriorly therefrom, and means securing said extensions to said reinforcing means.

4. In combination with a waste trap, or the like, a supporting structure surrounding said trap and having reinforcing means disposed interiorly thereof, and means for rigidly securing said trap to said supporting structure, comprising outwardly extending lugs formed integrally with said trap, and flexible members securing said lugs to said reinforcing means.

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