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C. W. SIRCH

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MULTIPLE JET INLET

Filed May 14, 1927

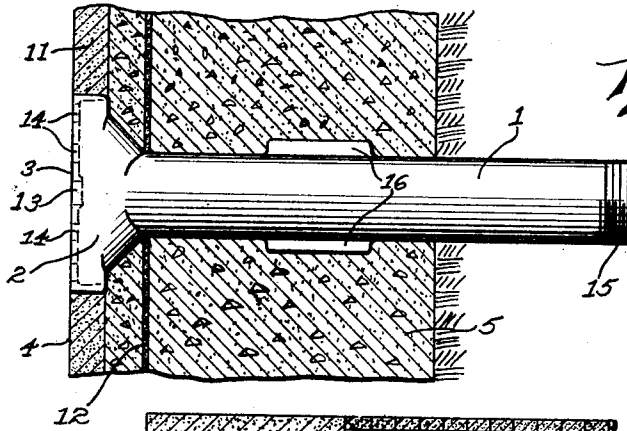


Fig. 2.

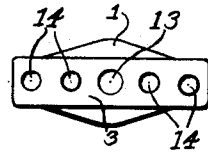


Fig. 3.

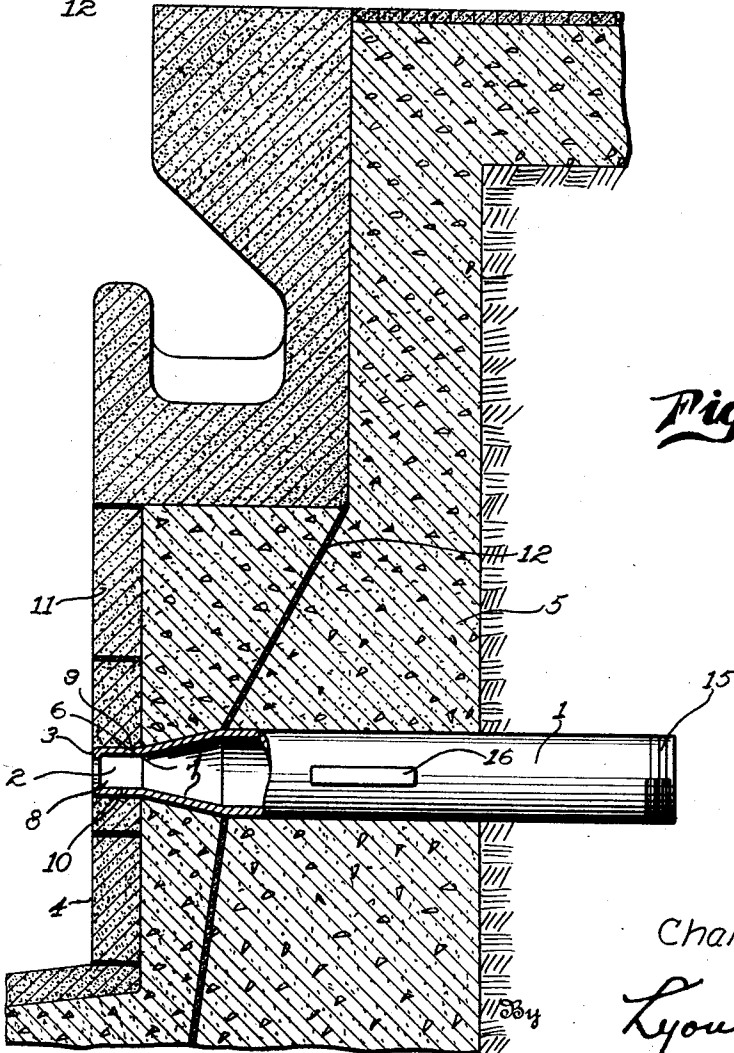


Fig. 1.

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MULTIPLE JET INLET

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This invention relates to an inlet to be used for tanks, swimming pools, or the like, or in any industrial apparatus where an inlet must be used for conducting a liquid into a reservoir or tank. In the use of such inlets it is frequently necessary to provide against electrolytic corrosion and it is also desirable to construct the inlet in such a way as to enable the area of the orifice, or orifices, through the inlet, to be controlled as desired; for example, in cases where the inlets must have a certain relation to each other.

The general object of this invention is to provide an inlet which will meet these requirements and which is constructed so as to avoid the use of screw threads at a point where the electrolytic corrosion might occur; also to provide an inlet having a special construction of head which will enable it to be provided with orifices as desired; in other words, to provide a head which can be readily adapted in molding it to give a relatively large area or relatively small area to the passages for the liquid; also, to provide a construction for the inlet which will facilitate its being set in a wall and held rigidly in the wall, thereby enabling connections to be made to the inlet without tending to loosen it in the wall and cause leakage through the wall at the inlet.

Further objects of the invention will appear hereinafter.

The invention consists in the novel parts and combination of parts to be described hereinafter, all of which contribute to produce an efficient multiple jet inlet.

A preferred embodiment of the invention is described in the following specification, while the broad scope of the invention is pointed out in the appended claims.

In the drawings:

Figure 1 is a vertical section taken through the side wall of a swimming pool provided with one of my inlets, the same being shown partially in elevation and partially in section.

Figure 2 is a horizontal section through the wall taken on about the line 2—2 of Figure 1 and showing the inlet in plan.

Figure 3 is a view showing the plan of the face plate of the nozzle.

In practicing the invention, I prefer to construct the inlet with a tubular neck 1. The inlet is preferably a bronze casting. At the delivery end of the inlet I provide it with a delivery head 2 which is cast integral with the tubular neck 1. This head is preferably fan-shaped in plan; that is to say, it is elongated in a transverse and horizontal plane and has a face plate 3 which is adapted to be set flush with the inner face 4 of the wall 5 of the tank or swimming pool in which the inlet is used. Within the head 2 a chamber 6 is formed, and while this chamber is enlarged in a horizontal direction, its upper and lower walls 7 converge toward each other (see Figure 1). In this way, as the vertical cross-section through the head increases in one direction, it decreases in the other direction and this tends to equalize the area of cross-section. The outer end of the head forms a substantially rectangular "box" 8; that is to say, this portion of the inlet immediately back of the face plate 3 has a substantially rectangular cross-section in a vertical plane (see Figure 2) and has a substantially horizontal upper wall 9 and a substantially horizontal lower wall 10. This portion of the head should correspond in width to the thickness of tiles 11 which may form a facing for the wall of the tank or pool. The remainder of the head, and a considerable portion of the neck 1 is embedded in the concrete which forms the wall 5.

At the point where the head 2 joins the neck 1 the wall may be provided with a waterproof membrane 12 (see Figure 2).

The face plate 3 of the head may be provided with a central, main orifice 13, and on each side of this main orifice smaller orifices 14 may be provided. The orifice 13 may be used without the orifices 14 and would then correspond to the minimum area that could be used with the inlet.

If it is desired to provide for an increased area of flow through the nozzle, this is accomplished by providing any number of the smaller orifices 14. It is not contemplated that these smaller orifices 14 would be cut in the

face plate but they would be produced by cores when the inlet is cast. It will therefore be seen that this form of head enables the area of the orifices through it to be readily adapted to the special purposes of the inlet.

In order to enable the inlet to be connected to the pipe which supplies it with liquid, for example, a water pipe, where the inlet is used in a swimming pool, the end of the neck 1 is provided with pipe threads 15.

In order to increase the security of the inlet in the wall 5, prevent its rotation on the longitudinal axis of the neck and also to resist any longitudinal movement of the neck in either direction, through the wall, I prefer to provide the wall of the neck 1 with two diametrically opposite fins 16. These fins project horizontally and are embedded in the concrete of the wall 5. It is evident that they will operate to resist any tendency of the neck 1 to rotate when the supply pipe is being connected at the threads 15; and these ribs will also operate to prevent longitudinal shifting of the neck in the wall.

It is understood that the embodiment of the invention described herein is only one of the many embodiments this invention may take, and I do not wish to be limited in the practice of the invention, nor in the claims, to the particular embodiment set forth.

What I claim is:

1. In a multiple jet inlet construction for swimming pools, and the like, the combination of a tubular neck having a fan-shaped delivery head at one end integral with the said neck, a wall for the pool having a facing of tiles, said head having an elongated transverse end wall flush with the face of the tiles and having a plurality of ports therethrough for the passage of liquid or water.

2. In an inlet construction for swimming pools and the like, the combination of a cast metal tubular neck having a fan-shaped delivery head at one end integral with the said neck, a wall embedding the said neck and head and having a facing of tiles on its inner face, said head having an elongated transverse end wall substantially flush with the face of the tiles and having a plurality of ports therethrough for the passage of water, said tubular neck having a pair of diametrically opposite fins projecting from its side and embedded in the wall, said tubular neck having threads at its end remote from the delivery head, said fins operating to prevent rotation of the inlet when a pipe is connected to the said threads and operating to prevent longitudinal movement of the neck in the wall.

3. In an inlet construction for swimming pools and the like, the combination of a cast metal tubular neck having a fan-shaped delivery head at one end integral with the said neck and having threads at its other end, a

wall embedding the said neck and having tiles on its inner face, said delivery head being of substantially rectangular vertical cross section, and having an elongated transverse end wall substantially flush with the face of the tiles with a plurality of ports therethrough for the passage of water, said tubular neck having a laterally projecting fin on its side embedded in the wall operating to prevent rotation of the neck when a pipe is screwed onto the said threads and relieving the tiles of strains developed at the said head.

Signed at Los Angeles, California, this 6th day of May, 1927.

CHARLES W. SIRCH.