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LEAF RECEIVER FOR SWIMMING POOLS

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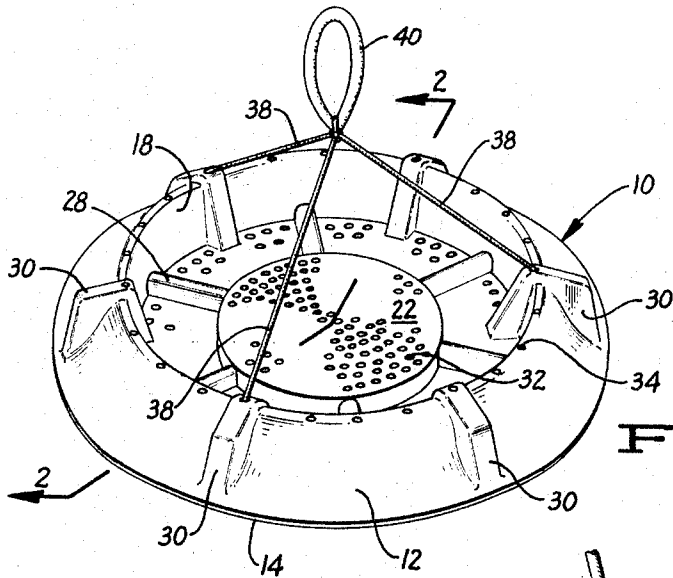


FIG. 1.

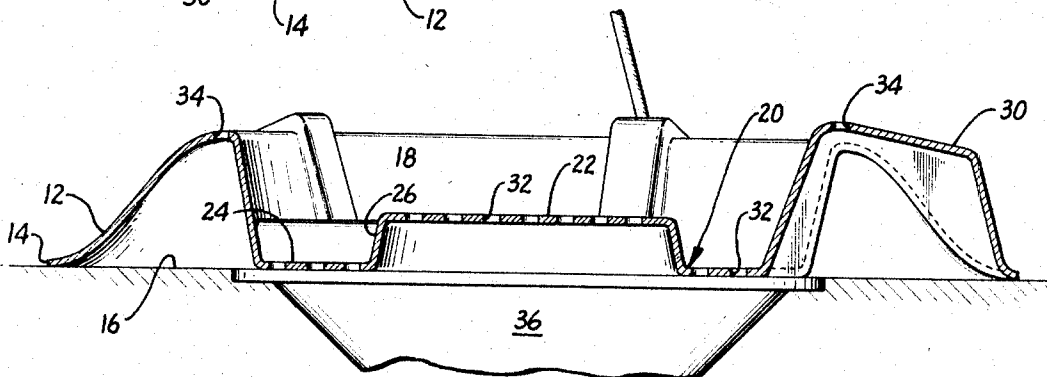


FIG. 2.

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LEAF RECEIVER FOR SWIMMING POOLS

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 2 Claims. (Cl. 210-163)

This invention relates to the swimming pool art, more particularly to auxiliary equipment for swimming pools, and still more particularly to a new and improved leaf receiver for swimming pools whereby leaves which have gathered on the bottom of such pools may be readily removed from the pools.

The leaf receiver or device, of the subject invention, is especially adapted for use with an automatic pool cleaner of the type shown, for example, in United States Letters Patent No. 3,032,044, i.e., a cleaner comprising one or more hoses adapted to reactively move in response to the stream of water issuing therefrom and to thereby scour the dirt from the walls and the bottom of the pool and to, in the process, work the pool bottom leaves toward the deep end of the pool and the main drain opening.

An object of the invention is to provide a leaf receiver device which is compatible with an automatic pool cleaner of the type described in the sense that it is physically adapted to receive leaves which are stirred up in its immediate vicinity by such a pool cleaner and which will retain the received leaves against the subsequent disturbance action of the cleaner.

A further object of the invention is to provide a leaf receiver of the type described with means adapted to enhance the chance that leaves stirred into movement by the cleaner, or other source of water disturbance, in the immediate vicinity of the receiver will be directed into the receiver.

Still a further object of the invention is to provide a leaf receiver of the type described which is portable and which may be readily removed and replaced by a person standing at poolside.

It is still a further object of the invention to provide a leaf receiver of the type described which is small, compact, relatively inexpensive, and simple in the sense that it requires no moving parts and may be made of a one-piece plastic moulding.

Other objects and advantages of the invention will be apparent from the following description taken in conjunction with the drawings forming part of this specification, in which:

FIG. 1 is a view in perspective of a preferred embodiment of the leaf receiver of the invention; and

FIG. 2 is an enlarged scale view in section, as taken along the lines 1-1 of FIG. 1.

With reference to the drawing, the leaf receiver 10 is shown as being unitary in form. The receiver 10 has a ramp-like wall, or surface, 12 terminating in an outer edge 14 which is either adapted to rest on the bottom 16 of the pool or to be disposed so closely thereto as to not permit the passage beneath said edge of a leaf. The receiver is further characterized by an inner upstanding side wall 18 and a bottom wall, indicated generally at 20. The bottom wall may consist of a raised central part 22, a lower annular part 24, and a substantially vertical part 26 which interconnects parts 22 and 24. The bottom wall part 24 has formed therein a plurality of radially extending inner ribs 28 which serve to reinforce and thereby strengthen the receiver. Radially extending outer ribs 30 also serve to strengthen the receiver, but those portions of the ribs 30 which extend above and outwardly of the inner side wall 18 serve a further function which is hereinafter described.

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The bottom wall 20 and the upper end of the ramp-like periphery 12, as well as the ribs 30, are provided with apertures which are, respectively, designated by the reference numerals 32 and 34.

A normal location for the receiver is over a pool's main drain opening 36 which is located at the deepest part of the pool. So located, the main drain opening is normally the place of maximum leaf-accumulating potential.

The receiver 10 is provided with means comprising, for example, cords or wires 38 which are jointly interconnected at one end to a loop, or hook eye, member 40 and which are connected at their other ends to the receiver 10. In the event that the elements 38 are cords, a convenient way to attach their lower ends to the receiver is to tie knots in these ends after they have been passed through apertures 34 of ribs 30. The loop 40 is preferably made of material, such as a tube of rubber or plastic, which will float in water, thereby serving to maintain the elements 38 in the distended position shown in FIG. 1 where they do not interfere with the entry of leaves into the receiver and serving to enable the loop member to be conveniently engaged and disengaged with the hooked end of a pole for removal of the receiver from the pool to empty its leaf content and for the repositioning of the receiver at the desired location within the pool.

The central part 22 of the bottom wall 20 is raised so that it will fit over the vortex type of main drain covers which are used in some swimming pools. The bottom wall 20 may be made uni-planar for use in pools where such drain covers are not employed.

The jet-emitting nozzle end of the hose of the automatic pool cleaner above-described moves in haphazard fashion over the pool floor, and in the process of doing this the water jet causes leaves adjacent the receiver to move over the inclined, or ramp-like, surface 12 into the receiver's receptacle portion defined by the side wall 18 and bottom wall 20. The surface 12 serves to deflect the water jet upwardly so that it cannot move the leaves out of the receptacle portion once they have been deposited there.

Leaves which tend to be moved somewhat tangentially of the surface 12 by the water jet are intercepted by the outwardly extending parts of the ribs 30, and such leaves thereby tend to be retained for eventual movement into the receptacle portion of the receiver under the influence of either the suction force of the pool's circulating pump which draws water from the main drain opening 36 or the subsequent and appropriately oriented force of the water jet, or by the combined effect of these forces.

The apertures 32 and 34 enable pool water to pass through the receiver 10 under the action of the pool pump and they also enable the suction effect of the pump to be applied to the leaves which are at the threshold of the receptacle portion of the receiver.

The receiver need not be disposed over the main drain to serve its function of receiving leaves. When located elsewhere in the deep end of the pool, an automatic pool cleaner of the type described is effective to move leaves into the receiver. When the receiver is located elsewhere than at the main drain opening, the apertures 32 and 34 still serve a useful purpose in that they decrease the resistance to movement of the receiver with respect to the pool water during removal of the receiver from the pool and its replacement therein.

We claim:

1. A leaf receiver for use in swimming pools comprising a receptacle portion defined by a bottom wall and an upstanding side wall, a feed portion for said receptacle portion defined by a substantially imperforate ramp-like peripheral wall extending outwardly and downwardly from the top of said side wall to at least about the level of the lowest portion of said bottom wall, said receptacle

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portion being provided with a plurality of apertures adapted to permit the passage therethrough of swimming pool water and to prevent the passage therethrough of leaves and other swimming pool debris of relatively large size, and means connected to said device whereby the same may be positioned on the bottom of a swimming pool, said means comprising a bail-like element, and means on said bail-like element for maintaining the same in an upstanding position whereby said device may be removed from the bottom of a swimming pool without a spilling of its contents.

2. The device of claim 1, said last-mentioned means comprising a buoyant hook-eye centrally disposed on said bail-like element.

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