

[54] POOL SKIMMER NET

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[22] Filed: Nov. 12, 1973

[21] Appl. No.: 414,947

[52] U.S. Cl. 210/169, 15/1.7, 210/471,
210/541

[51] Int. Cl. E04h 3/20

[58] Field of Search 210/169, 237, 238, 354,
210/455, 465, 470, 471, 541; 15/1.7

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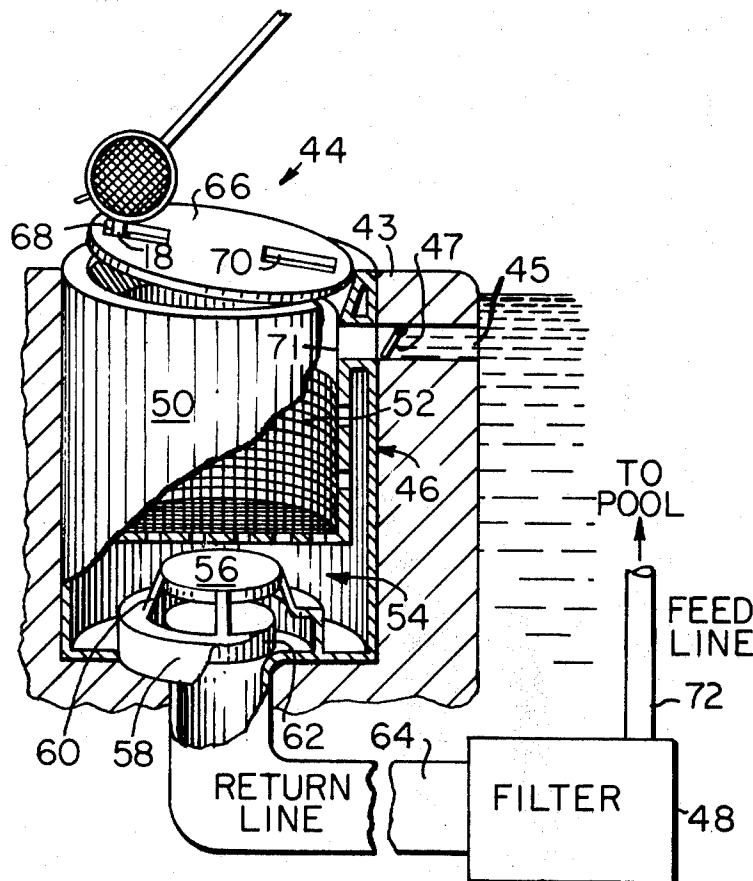
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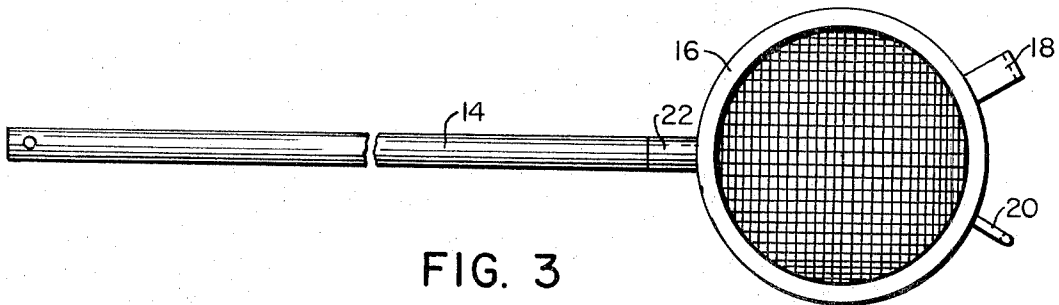
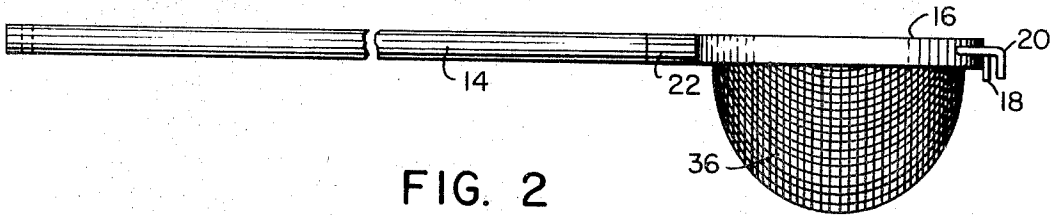
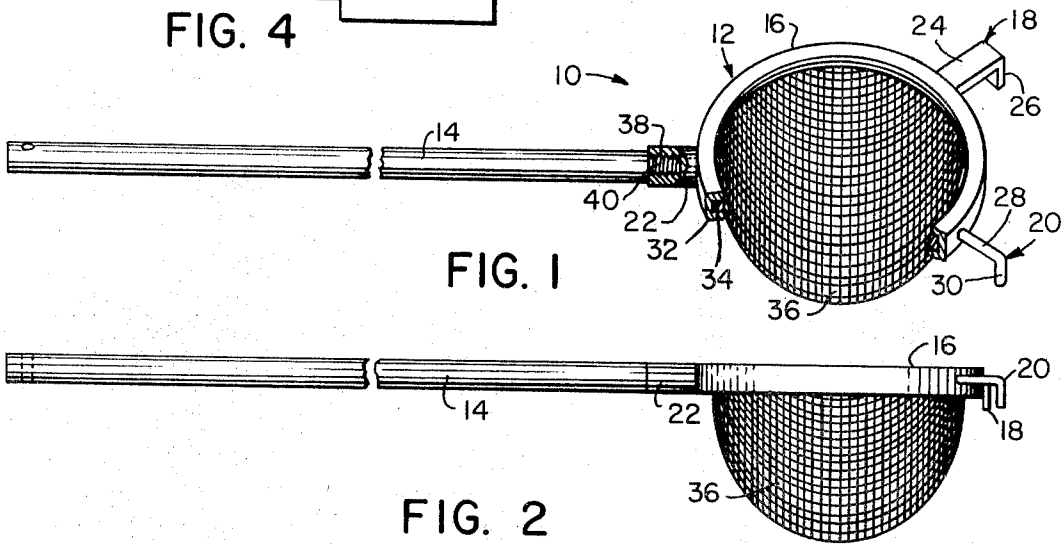
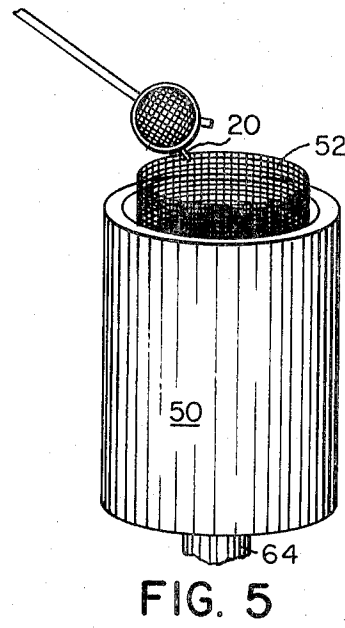
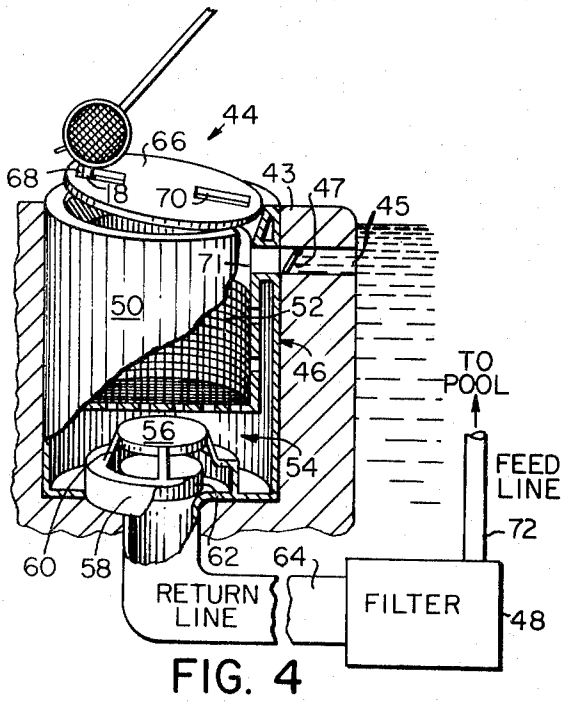
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ABSTRACT

A device in the form of a net having a pair of offset arms extending outwardly from a forward portion of a rim to which there is attached a mesh bag. In right cross section, one arm has a rectangular profile and the other arm has a circular profile, each arm defining a substantially L-shaped tool. The rectangular tool has a width dimension which is approximately one quarter the diametral dimension of the other tool. The wider tool is adapted to engage a pool skimmer cover for removal thereof and the other tool is adapted to engage a strainer mounted within the skimmer for removal thereof. A handle is mounted to a rearward portion of the device.

6 Claims, 5 Drawing Figures





POOL SKIMMER NET

BACKGROUND OF THE INVENTION

1. Field of the Invention:

The present invention relates to swimming pool cleaning devices and, more particularly, is directed towards a swimming pool skimmer cleaning device for handicapped or disabled persons.

2. Description of the Prior Art:

Pool skimmers are used for removing debris and foreign objects from the surface of the swimming pool. The skimmer is positioned in such a way that water from the pool flows through a strainer in the skimmer. In order to clean the skimmer it is necessary to remove a top cover of the skimmer and the strainer located interior of the skimmer. A handicapped or disabled person would have difficulty in reaching down to remove the cover and strainer.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a device particularly adapted for use by handicapped or disabled persons in removing a skimmer cover, a skimmer strainer and any debris in the skimmer. The present invention is characterized by a device in the form of a net having a pair of offset arms extending outwardly from a forward portion of a rim, the rearward portion of the rim being formed with a socket adapted to receive a handle. A net bag for removing debris from the interior portions of the skimmer is mounted to the rim. In right cross section, one arm has a rectangular profile and the other arm has a circular profile, each arm defining a substantially L-shaped tool. The rectangular tool has a width dimension which is approximately one quarter the diametral dimension of the other tool. The wider tool is adapted to engage and remove the skimmer cover and the other arm is adapted to engage and remove the skimmer strainer. The device allows the skimmer cover to be removed and the strainer to be either cleaned or removed without requiring the person using the device to bend over and reach into the skimmer.

The invention accordingly comprises the device possessing the construction, combination of elements, and arrangement of parts that are exemplified in the following detailed disclosure, the scope of which will be indicated in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the nature and objects of the present invention, reference should be had to the following detailed description taken in conjunction with the accompanying drawings wherein:

FIG. 1 is a perspective view of a pool skimmer net embodying the present invention;

FIG. 2 is a side elevation of the pool skimmer net of FIG. 1;

FIG. 3 is a top plan of the pool skimmer net of FIG. 1;

FIG. 4 is a perspective of a skimmer system somewhat exaggerated, illustrating removal of the cover by the skimmer net of FIG. 1; and

FIG. 5 is a perspective of the skimmer of FIG. 4 illustrating removal of the net strainer therein.

Detailed Description of the Invention

Referring now to the drawings, particularly FIGS. 1-3, there is shown a pool skimmer cleaning implement 10 comprising a head 12 and a handle 14. Head 12 includes an annulus 16 having a pair of tools 18, 20 extending from a forward portion thereof and a socket 22 extending from a rearward portion thereof. In the preferred embodiment, head 12 is a unitized molded structure composed of a synthetic material for example a polymer such as polyethylene or methyl methacrylate. In alternative embodiment, head 12 is a unitized cast structure composed of a metal such as aluminum. In the illustrated embodiment, tool 18 is a substantially L-shaped member having a rectangular profile in right cross section and includes a leg 24 and a foot 26. Leg 24 is disposed in a substantially horizontal plane and foot 26 is disposed in a substantially vertical plane. A longitudinal axis of leg 24 is disposed at an angle in the range of 15 to 30 degrees with respect to a longitudinal axis of handle 14. Tool 20 is a substantially L-shaped member having a circular profile in right cross section and includes a leg 28 and a foot 30. Leg 28 is disposed in a substantially horizontal plane and foot 30 is disposed in a substantially vertical plane. A longitudinal axis of leg 28 is disposed at an angle in the range of 15 to 30 degrees with respect to the longitudinal axis of handle 14. The longitudinal axes of handle 14, legs 24 and 28 intersect approximately at the center of annulus 16, an angle in the range of 30 to 60 degrees is formed between the longitudinal axes of legs 24 and 28. In the illustrated embodiment, an angle of 22 1/2 degrees is formed between the longitudinal axis of leg 24 and the longitudinal axis of handle 14, and an angle of 22 1/2 degrees is formed between the longitudinal axis of leg 28 and the longitudinal axis of handle 14.

In the illustrated embodiment, legs 24 and 28 extend outwardly from annulus 16 1 inch and feet 26 and 30 extend downwardly one-half of an inch. Tool 18 is approximately one half of an inch in width and approximately three-thirty seconds of an inch in thickness. Tool 20 is approximately three-thirty seconds of an inch in width and in diameter.

Annulus 16 is formed with a substantially U-shaped channel 32 which is adapted to receive a resilient ring 34. A net 36 composed of a polymer such as polyamide resin is fastened to annulus 16 by means of ring 34. The margin of net 36 is positioned within channel 32 and ring 34 is inserted within channel 32, whereby net 36 is locked in channel 32. Ring 34 is sufficiently rigid to be securely held within channel 32 and sufficiently flexible to be easily removed from channel 32. The diameter of annulus 16 is in the approximate range of four to five inches and the depth of net 36 is approximately three inches. Socket 22 is formed with internal threads 38 which are adapted to receive a threaded portion 40 of handle 14 at one end thereof. The other end of handle 14 is formed with a hole 42 which is provided for storing pool skimmer cleaning implement 10 when not in use. In the preferred embodiment, handle 14 is approximately thirty-six inches in length and is composed of a synthetic material such as a polymer for example polyethylene or methyl methacrylate. In alternative embodiment, handle 14 is composed of a natural material, for example wood or a metal such as aluminum.

Referring now to FIG. 4 there is shown a skimming system 44 comprising a skimmer 46 and a filter 48.

Skimmer 46 is mounted in a well formed adjacent a pool wall 43 which is formed with an inlet 45. A spring loaded baffel plate 47 is mounted within inlet 45 in such a manner that the water can flow from the pool through inlet 45 into skimmer 46 but can not flow from skimmer 46 to the pool. Skimmer 46 comprises an open ended body 50 in which there is mounted a strainer 52 and a regulator 54. Strainer 52 is an open-ended cylindrical chamber, approximately eight inches in diameter in the form of a meshed structure having one eighth of an inch openings. Regulator 54 includes a head portion 56 and a body portion 58 which are interconnected by means of ribs 60. Mounted within body 58 is a reciprocable float 62 which operates to regulate the flow of water passing through skimmer 46 to a return line 64. A cover 66 formed with openings 68, 70 is removably seated on body 50. Openings 68, 70 are substantially rectangular openings having dimensions of two inches by one half of an inch. In operation of the skimming system 44, water from the pool flows through inlet 45 and a port 71 formed in body 50 into strainer 52 which is mounted below port 71, whereby any foreign material is captured in strainer 52. The water flowing through strainer 52 is fed to filter 48 via regulator 54 and return line 64. The water is filtered in filter 48 and is fed back into the pool via a feed line 72. When the flow of water through skimmer 46 is impeded by debris in strainer 52, it is necessary to clean strainer 52. Pool skimmer cleaning implement 10 facilitates cleaning of strainer 52.

In operation of the pool skimmer cleaning implement 10, particularly adapted for use by handicapped or disabled persons, tool 18 is inserted into opening 68 in cover 66 as shown in FIG. 4. It is to be noted that the dimensions hereinbefore given for tool 18 are such that it is readily received in either hole 68 or hole 70. Handle 14 is rotated slightly so that foot 26 engages the underside of cover 66. Cover 66 is then readily removed by pulling or raising handle 14. Pool skimmer cleaning implement 10 provides alternative methods for cleaning strainer 52 of debris. In one method, strainer 52 is cleaned by removing the debris by means of net 36 which is readily adapted to be received therein, the diameter of annulus 16 being approximately one half the diameter of strainer 52. In another method, strainer 52 is cleaned by removing it from body 50 as illustrated in FIG. 5.

After cover 66 has been removed and set aside, tool 20 is positioned within skimmer 46 as shown in FIG. 5. Handle 14 is rotated slightly so that foot 30 is inserted through one of the openings in strainer 52. It is to be noted that the dimensions hereinbefore given for tool 20 are such that it is readily received in any opening of strainer 52. Strainer 52 is readily removed by pulling or raising handle 14. The position of tools 18 and 20 is such that net 36 is adapted to readily remove any foreign materials collected in body 50.

After skimmer 46 and strainer 52 have been cleaned, strainer 52 and cover 66 are replaced in skimmer 46. It will be readily appreciated that replacement of strainer 52 and cover 66 is facilitated by use of pool skimmer cleaning implement 10 in a reverse manner to that described in connection with removal of same. It will be noted that pool skimmer cleaning implement 10 is adapted also to readily remove any foreign matter in the swimming pool.

Since certain changes may be made in the foregoing disclosure without departing from the scope of the invention herein involved, it is intended that all matter contained herein be construed in an illustrative and not in a limiting sense.

What is claimed is:

1. A tool and net combination for cleaning a swimming pool skimmer, the skimmer including an open ended body in which there is mounted a strainer, a cover formed with an opening is removably seated on the skimmer body about the open end thereof, said combination tool and net comprising:

- a. a head in the form of a substantially annular member;
- b. a handle mounted to said head at a rearward portion thereof, a longitudinal axis of said handle extending through a center of said head;
- c. a first hook projecting from a forward portion of said head, said first hook being a substantially L-shaped member having a leg and a foot, said leg of said first hook extending outwardly from said head in a plane that is in substantially parallel relationship with a plane in which said handle lies, said foot of said first hook extending downwardly from said leg of said first hook in a plane that is in substantially perpendicular relationship with the plane in which said handle lies;
- d. a second hook projecting from a forward portion of said head, said second hook being a substantially L-shaped member having a leg and a foot, said leg of said second hook extending outwardly from said head in a plane that is in substantially parallel relationship with the plane in which said handle lies, said foot of said second hook extending downwardly from said leg of said second hook in a plane that is in substantially perpendicular relationship with the plane in which said handle lies;
- e. a net mounted to said head, said net having an open end and a closed end, said open end coinciding with and secured to said head;
- f. said first hook disposed at one side of the longitudinal axis of said handle and said second hook disposed at the other side of the longitudinal axis of said handle, a longitudinal axis of said foot of said first hook and a longitudinal axis of said foot of said second hook diverging toward the center of said head, the width of said first hook being substantially wider than the width of said second hook, said first hook operative to engage the opening formed in the cover for removing and replacing the cover, said second hook operative to engage the strainer for removing and replacing the strainer, said net operative to be received in the strainer for removing debris therefrom.

2. The tool and net combination as claimed in claim 1 wherein said first hook has a substantially rectangular profile in right cross section, said leg of said first hook extending outwardly from said head approximately one inch and said foot of said first hook extending downwardly approximately one half of an inch, said first hook being approximately one half of an inch in width, and wherein said second hook has a substantially circular profile in right cross section, said leg of said second hook extending outwardly from said head approximately one inch and said foot of said second hook extending downwardly approximately one half of an inch,

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said second hook being approximately three-thirty seconds of an inch in diameter.

3. The tool and net combination as claimed in claim 2 wherein said first hook extends outwardly from said head at an angle in the range of 15 to 30 degrees with respect to the longitudinal axis of said handle and wherein said second hook extends outwardly from said head at an angle in the range of 15 to 30 degrees with respect to the longitudinal axis of said handle.

4. The tool and net combination as claimed in claim 3 wherein said first hook is disposed at an angle of 22 1/2 degrees with respect to the longitudinal axis of said handle and wherein said second hook is disposed at an angle of 22 1/2 degrees with respect to the longitudinal

axis of said handle, an angle of 45 degrees being formed between said first and second hooks.

5. The tool and net combination as claimed in claim 4 wherein the diameter of said head is in the approximate range of 4 to 5 inches and the length of said handle is approximately 36 inches, said head adapted to be received within the skimmer body.

6. The tool and net combination as claimed in claim 2 wherein said head includes an annulus and a resilient ring, said annulus formed with a channel that is operative to receive the margin of said net at the open end thereof, said resilient ring operative to lockingly engage said margin of said net within said channel.

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