J. F. BOORAEM & G. E. ROHMER.

GUTTER FOR SWIMMING TANKS.

APPLICATION FILED OCT. 6, 1913.

1,186,540.

Patented June 13, 1916.

2 SHEETS—SHEET 1.

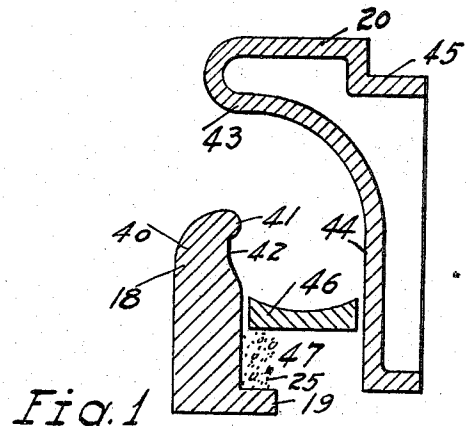


Fig. 1

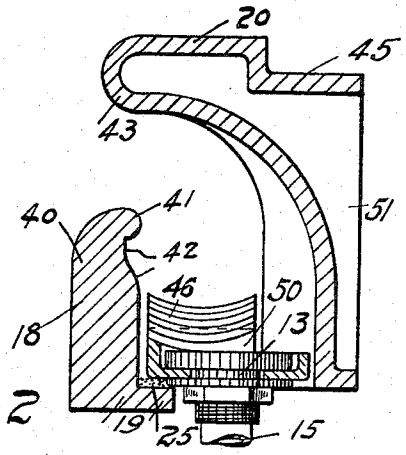


Fig. 2

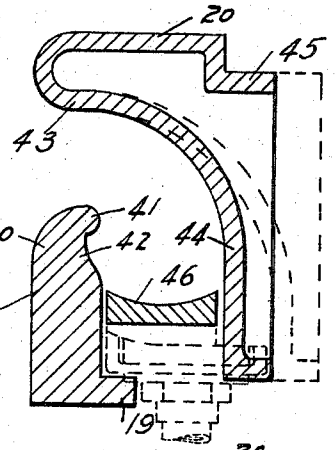


Fig. 4

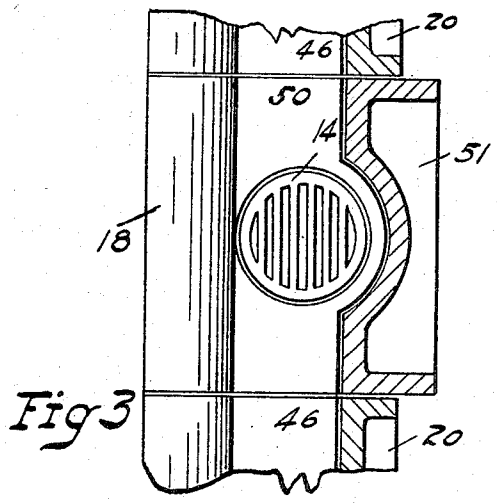


Fig 3

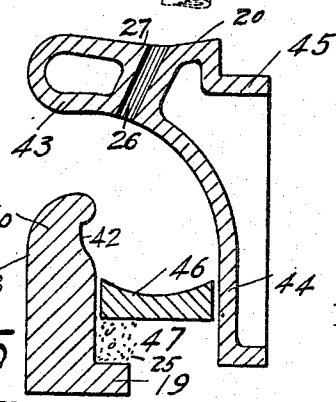


Fig. 5

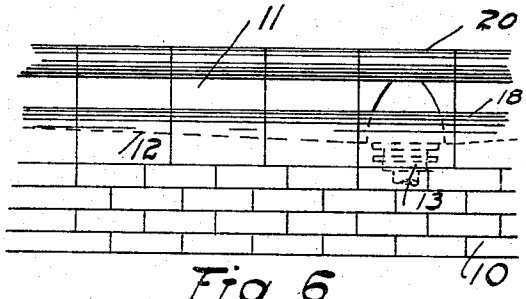


Fig. 6

WITNESSES:

F. Hogg

G. Lowe.

INVENTORS

J. Francis Booraem

Gabriel E. Rohmer

BY

Carl P. Goepel.

ATTORNEY

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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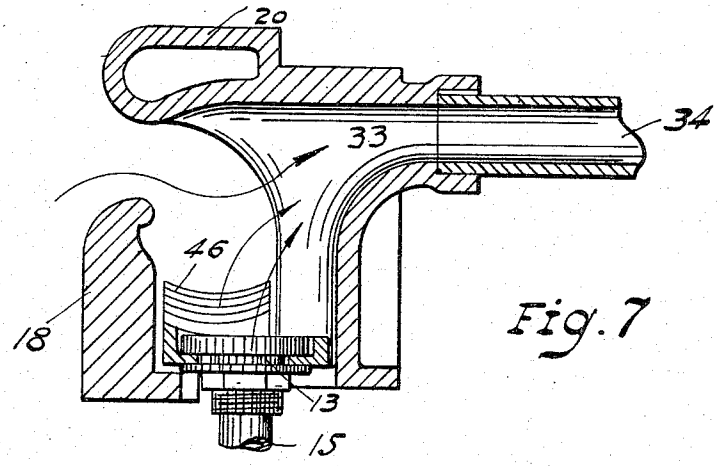


Fig. 7

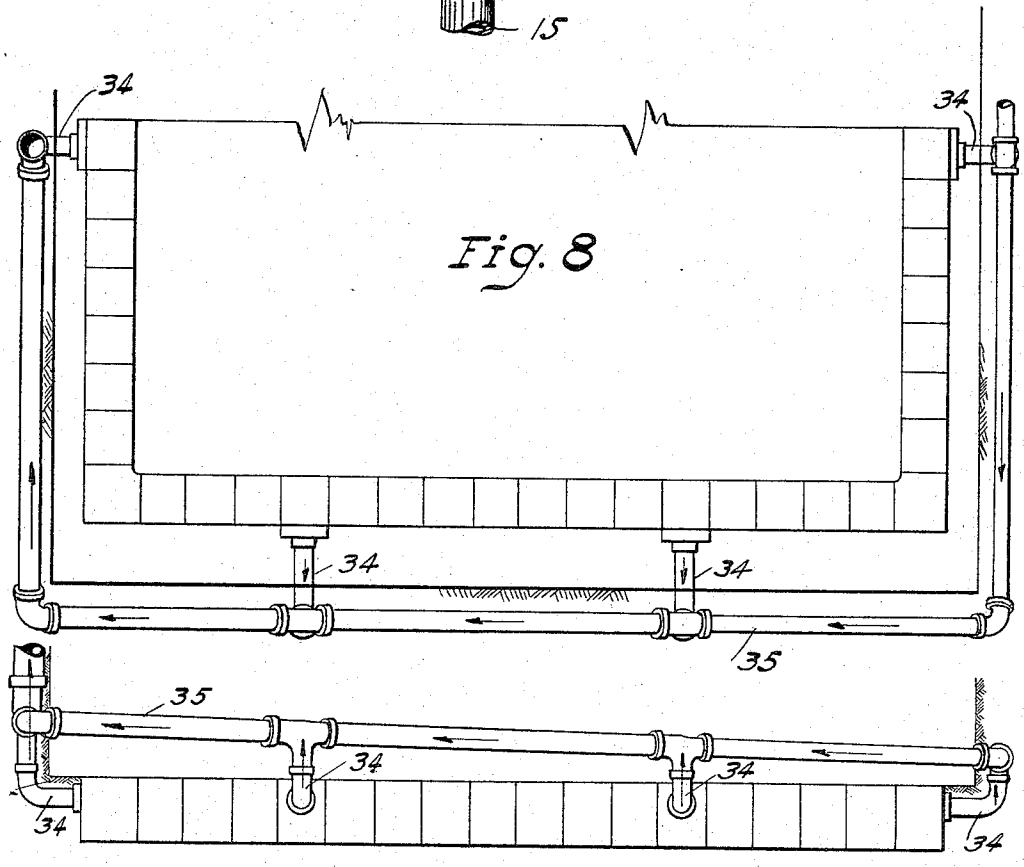


Fig. 8

Fig. 9

WITNESSES:

F. Hogg.

G. Lowe

INVENTORS

J. Francis Booraem

Gabriel E. Rohmer

BY

Carl P. Goepel

ATTORNEY

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN FRANCIS BOORAEM, OF GREENWICH, CONNECTICUT, AND GABRIEL E. ROHMER, OF PELHAM, NEW YORK.

GUTTER FOR SWIMMING-TANKS.

1,186,540. Specification of Letters Patent. Patented June 13, 1916.

Application filed October 6, 1913. Serial No. 793,627.

To all whom it may concern:

Be it known that we, JOHN FRANCIS BOORAEM, a citizen of the United States of America, and resident of Greenwich, in the county of Fairfield and State of Connecticut, and GABRIEL E. ROHMER, a citizen of the United States of America, and resident of Pelham, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Gutters for Swimming-Tanks, of which the following is a specification.

This invention relates to gutters for tanks and has for its object to provide a gutter of an improved construction.

For this purpose our invention consists of certain new and useful improvements to be described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 shows a vertical transverse section of our improved gutter, Fig. 2 shows a vertical transverse section of the outlet-portion thereof, Fig. 3 is a plan-view of Fig. 2, Fig. 4 is a transverse section of the improved gutter, Fig. 5 is a section with a drain-opening therein, Fig. 6 shows the general arrangement of the gutter as applied to a tank, Fig. 7 is a vertical transverse section of the outlet-portion thereof combined with an improved ventilating exit, Fig. 8 shows a plan-view showing the ventilating and piping arrangement for exit connections, and Fig. 9 is a vertical view, also showing the piping arrangement and exit connections.

Similar reference characters indicate corresponding parts throughout the different figures of the drawings.

Referring to the drawings, and more particularly to Fig. 6, the upper portion of a tank is shown by bricks 10 suitably arranged one on the other, above which the gutter-rail 11 is arranged. This gutter-rail, also used as a life-rail by the swimmers, forms a peripheral brim all around the tank, so that by mere flushing or even by mere agitation of the water by the swimmers, all floating substance and impurities are readily carried into the gutter. The gutter itself is indicated by 12 and is of a sloping character, whereby the fluid is drained into the outlet-opening 13. This outlet-opening 13 is clearly shown in Figs. 2 and 3, and is provided with a sieve-plate 14 to prevent any materials from entering and clogging the pipe 15. This outlet-pipe 15 receives its water from a gutter formed of three parts; a life-rail member 18, a coping member 20 and a gutter-tile 46 arranged in a sloping manner, as indicated by 12 in Fig. 6.

The life-rail member is composed of a vertical portion 40 acting as peripheral brim all around the tank, this portion being shaped so that it can be easily gripped by the swimmers using it as a life-rail; for that purpose an inside edge or extension 41 is provided for the fingers' grip, while an adjacent depression 42 makes room for the end of the fingers and permits a tight and secure grasping of the life-rail.

The horizontal portion 19 of the life-rail lies in the masonry, a fast and secure anchoring of that member being thus obtained.

It will be noted that the inside of the vertical portion 40 of the life-rail formed by 40 and 42 is one of the longitudinal sides of the gutter 12.

The coping member 20 is hollow as usual in standard terra cotta construction. From the cope upper portion 43 it curves to a lateral extension 44 parallel to the vertical portion 40 of the life-rail 18, thus constituting the other longitudinal side of the gutter. At the back of the cope upper portion 43 a depression or heel 45 is provided. It serves as a retaining heel over which cement, floor, tiles, or any other flooring material can be laid for the double purpose of making the floor flush with the cope and of securely locking the cope member 20 into the masonry. The cope member 20 is arranged as shown in Figs. 1, 4 and 5 in convenient position relative to each other and spaced apart a suitable distance from the life-rail member 18, making thus a suitable canalization 47 for the laying of the gutter-tile.

The life-rail member 18 is arranged horizontally along the tank on top of the last course of brick, and the cope member 20 is set horizontally also but with the cope upper face flush with the floor all along the periphery of the tank, while the gutter-tile members 46 are arranged in a sloping manner in the canalization 47 formed by the life-rail and coping members. In order to bring about the sloping character of the gutter-tiles, it is only necessary to arrange

the cement layer 25 thinner or thicker and inclined to a greater or less degree, depending upon the inclination to be given the gutter-tiles. At the lowermost part of the gutter-tiles the outlet-opening 13 and pipe 15 already referred to are arranged. This opening and waste-pipe serve to drain off the liquid matter. Of course in the case of the outlet-opening and pipe a special gutter-tile 50 and specially shaped cope member 51 for the outlet, as shown in Fig. 3, must be arranged.

It is obvious that it being necessary to have several outlets to properly drain a plunge bath of its impurities, the tile members can be arranged in a series of sloping sections, each leading to an outlet and waste-pipe.

It has been found that the water splashed by the swimmers on the cope member upper enameled face flush with the floor, makes such a portion of the tank extremely slippery, so that users of the plunge or even onlookers are liable to lose their hold, slip and fall. To obviate this accumulation of water, the coping member is provided with outlet-openings 26 which permit the water splashed in the groove or channel 27 to pass through the coping member and drip into the gutter. It has also been remarked that the water drained or flushed out of the tank leaves in the gutter, the outlet and the waste-pipe, a certain coating of scum and other impurities which after very little time imparts an unhealthy and disagreeable odor to the swimming tank. To remedy this condition, the coping member 20 is provided with a ventilating opening 33 immediately above the outlet-opening 13 and pipe 15. This ventilating opening 33 is connected with a pipe 34, which in turn is arranged with a collecting pipe 35 suitably connected with a chimney or other means of outlet-opening, not shown. Each of the ventilating openings shown—four in number in Fig. 8—has a pipe 34 connected with the collecting pipe 35.

We have described several embodiments of our invention, but changes may be made therein without departing from the scope of the invention.

We claim:

1. A swimming tank gutter comprising a life rail member constituting one side of the gutter, a coping member constituting the opposite side of the gutter and provided with a coping overhanging the space between said members, said members being independent of each other, and a water conveying shallow trough constituting the bottom only of the gutter and structurally independent of said life rail and coping members and adjustable at an incline between the inner walls of said life rails and coping members.

2. A gutter, comprising a life-rail member, a coping member, both of these members being level, an inclined gutter-tile therebetween, a channel in the coping member, and drip-channels from the main channel passing through the coping member and leading to the gutter-tile.

In testimony that we claim the foregoing as our invention, we have signed our names in presence of two subscribing witnesses.

J. FRANCIS BOORAEM.
GABRIEL E. ROHMER.

Witnesses:
F. HOGG,
J. H. NILES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."