May 31, 1927. 1,630,797

J. MARWICK

EXERCISING SWIMMING TANK

Filed Dec. 22, 1925 2 Sheets-Sheet 1

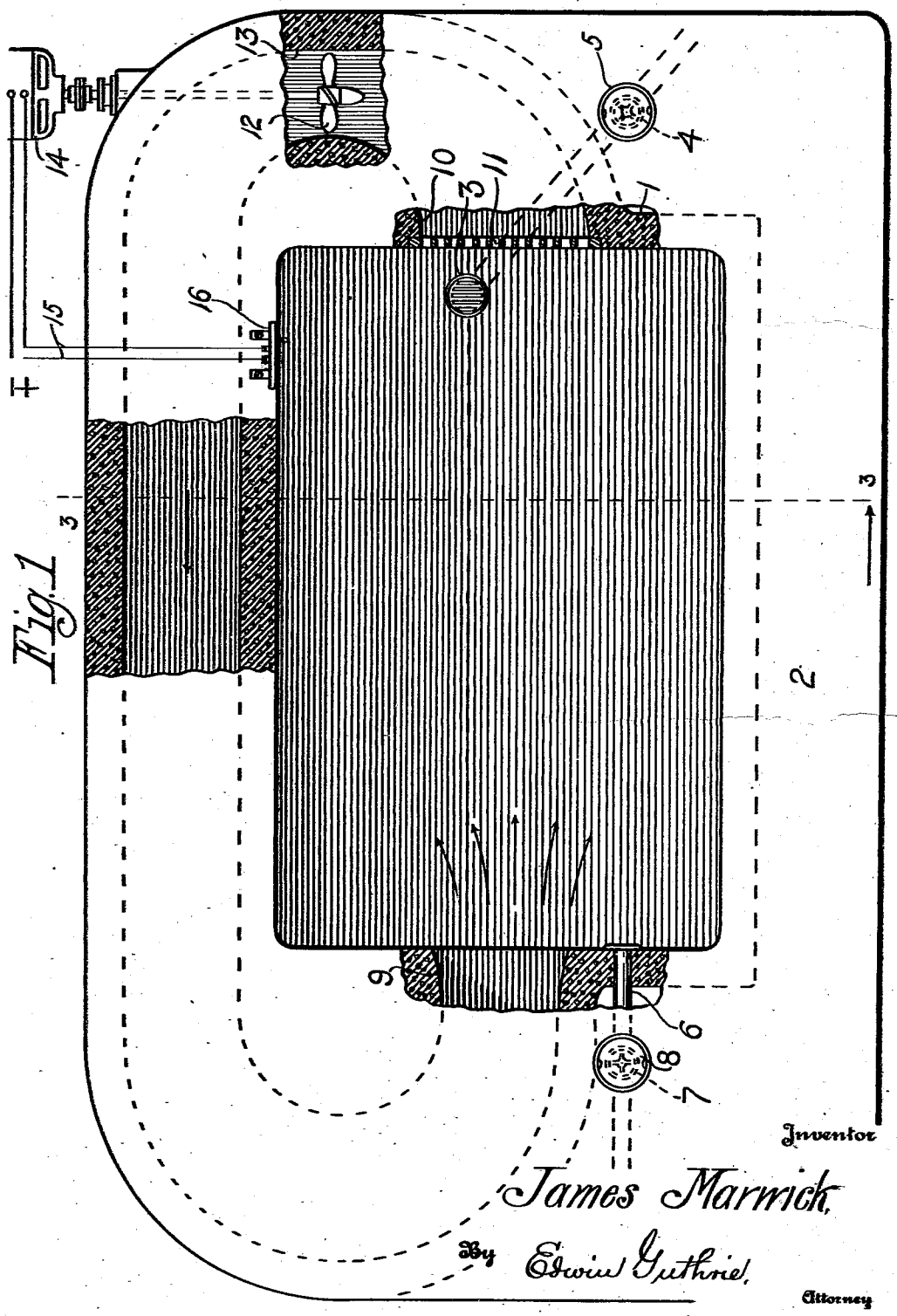

Fig. 1

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2 Sheets-Sheet 2

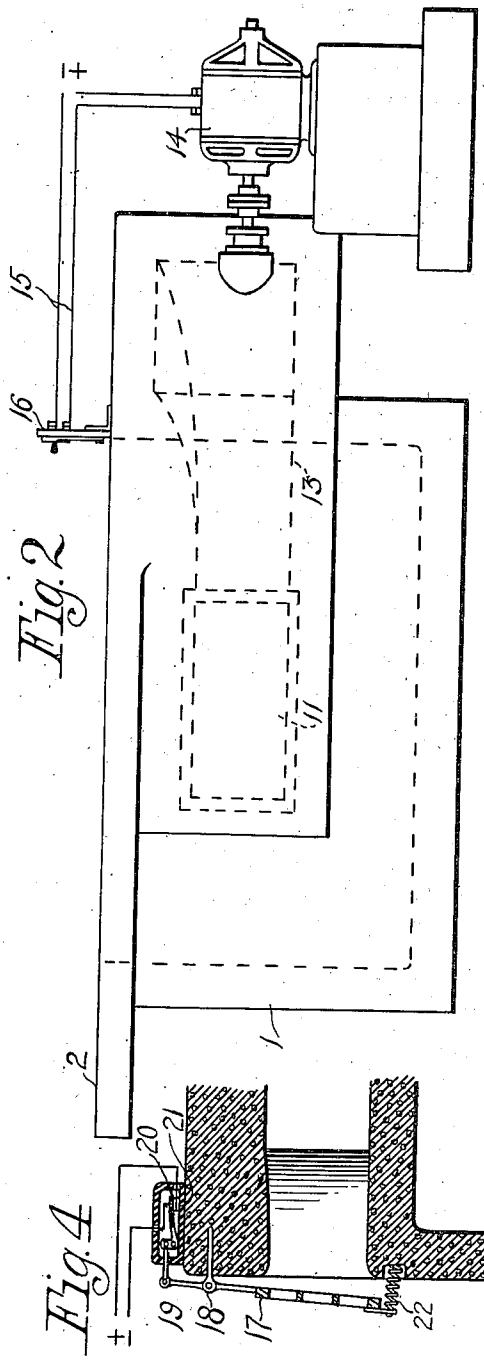

Fig. 2

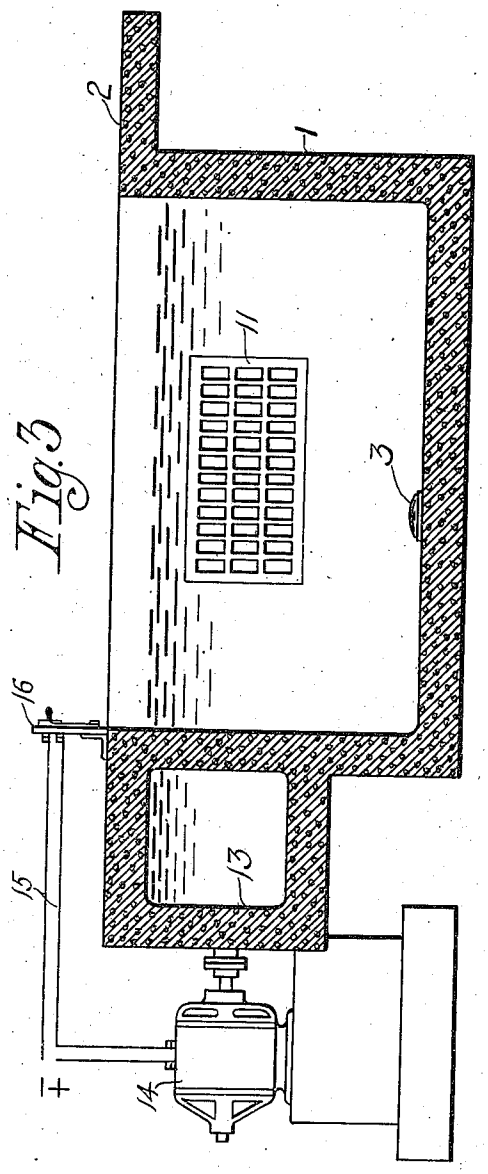

Fig. 3

Fig. 4

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UNITED STATES PATENT OFFICE.

JAMES MARWICK, OF SANTA BARBARA, CALIFORNIA.

EXERCISING SWIMMING TANK.

Application filed December 22, 1925. Serial No. 77,025.

This invention relates to exercising swimming tanks, more particularly it belongs in the class of relatively small bath pools wherein a current of water may be kept moving in a given direction, and the swimmer can gain the advantages of the bath and the benefit of the exertion of swimming by endeavoring to proceed contrary to the current. Means are provided for making the current of any strength desired, in order that the invention may be used by ladies or children, as well as men or stronger swimmers. It is the intention that the current may be of such strength that the swimmer making such effort as may be chosen or agreeable to him will remain practically in one position with respect to the length of the basin.

A preferred construction of this invention is illustrated in the accompanying drawings, of which Fig. 1 represents a top plan view of all parts assembled. Fig. 2 is an end view from the right hand side of Fig. 1. Fig. 3 is a cross-section on the broken line 3—3 of Fig. 1. Fig. 4 is a fragmentary section of the rim and outflow end of the basin, and shows a side view of the movable grating adjacent to the outflow opening, provided with an electric switch for cutting out the motor as hereinafter explained.

Throughout the drawings and description the same number is used to refer to the same part.

Considering the drawings, the basin 1 has a rim platform or footway usually extending entirely around the basin. The platform is marked 2, and may be of any width or extent. In the drawings the basin and platform are shown as constructed together of concrete, but it is not intended to confine this invention to any material or to the specific structure stated.

The basin is provided with a drain pipe 3 closed or opened by a valve 4 accessible by way of a handhole 5 in the platform 2. The basin 1 is also provided with a water supply pipe 6, controlled by a valve 7 which may be reached through the handhole 8 in the platform 2.

As illustrated in Fig. 1 the basin has an inflow opening 9 and an outflow opening 10, the latter covered by a suitable grating 11 to prevent the arm or leg of a swimmer who may lose control of himself from being drawn into the outflow opening.

The water is moved by means of the propeller wheel 12 located in the conduit 13 which connects the inflow and the outflow openings of the basin as shown in Fig. 1. The propeller is operated by a motor 14 placed at any suitable point outside the basin, and conductors 15 connect the motor with a control board 16 usually placed at the side of the basin and within reach of an occupant of the basin. The electric current may be taken from any available source not shown and constituting no part of this invention.

Considering Fig. 4 it will be noted that the grating 17 is pivoted upon the hangers 18 on the edge 19 of the basin, and that it is arranged adjacent to the outflow opening. An electric switch device comprising the contacts 20 and 21 is provided adjoining the pivoted portion of the grating and above the water therein, in order that excess pressure upon the grating 17 may move it and open the contacts 20 and 21 against the force of the spring 22 thus breaking the motor current. The introduction of the movable grating and switch is sometimes advantageous as explained in the following statement of the mode of operation of this invention.

Assuming that the motor has been started and the water with which the basin and conduit have been previously filled is moving through the basin. It will be diffused in the basin by the natural movements of the swimmer. But, the current may be found too strong to be pleasant, and the control board 16 has been arranged at the edge of the tank in order that the occupant may vary the current to suit himself without leaving the basin.

In using an apparatus of this nature, there is always one or more venturesome persons who will try to stem a current of considerable velocity in the tank, and it is only a matter of time until some one of such swimmers is overcome by the current strength and drawn to and possibly held at the outflow opening. The provision of the movable grating with the contacts for breaking the motor current will halt the water current if the swimmer is forced or falls against the movable grating, and he will have no difficulty in rising from the water which is ordinarily about four feet deep in the basin. It will thus be noted that means are afforded by the use of this invention to enable the person to gain all the pleasure of the bath

with the benefit of the swimming exercise, and the construction and arrangement herein is particularly useful in teaching swimming as the novice is continuously directly under the eye of the instructor.

Having now described this invention, and explained the mode of its operation, what I claim is:—

1. In a swimming tank of the character described, the combination with means for circulating the water horizontally in the tank, of controlling devices for the said circulating means carried by the tank above the water and arranged within reach of a bather in the tank, and mechanism carried by the tank and extending into the tank and adapted to act upon the said water circulating means independent of the said controlling devices.

2. In a swimming bath of the character described, the combination with means for circulating the water horizontally and for varying the rapidity of the flow, of means located in the bath tank and adapted to be operated by pressure exerted by the bather thereby controlling the said circulating means.

3. In a swimming bath of the character described, the combination with means for circulating the water horizontally and for varying the rapidity of the flow, of means located in the bath tank and adapted to be operated by pressure exerted by the bather thereby controlling the said circulating means, the said pressure-operated means having a spring arranged to return the parts to their original positions after pressure is removed.

4. In an exercising swimming tank, the combination with a basin having an inflow opening and an outflow opening, the said basin having also a water supply pipe and a drain pipe, of means including a device for moving the water through the basin, and a movable grating arranged adjacent to the said outflow opening and provided with attachments constructed and arranged to stop the said device for moving the water when the grating is moved.

5. In an exercising swimming tank, the combination with a basin having an inflow opening and an outflow opening, the said basin having also a water supply pipe and a drain pipe, of means including an electric motor for moving the water through the basin, means for controlling the said motor, and a movable grating arranged adjacent to the said outflow opening and provided with a switch device for breaking the motor current on excess pressure against the said grating.

In testimony whereof I affix my signature.

JAMES MARWICK.