March 31, 1936. H. RÄBER 2,035,835

SWIMMING BATH

Filed Nov. 1, 1934

Fig. 1

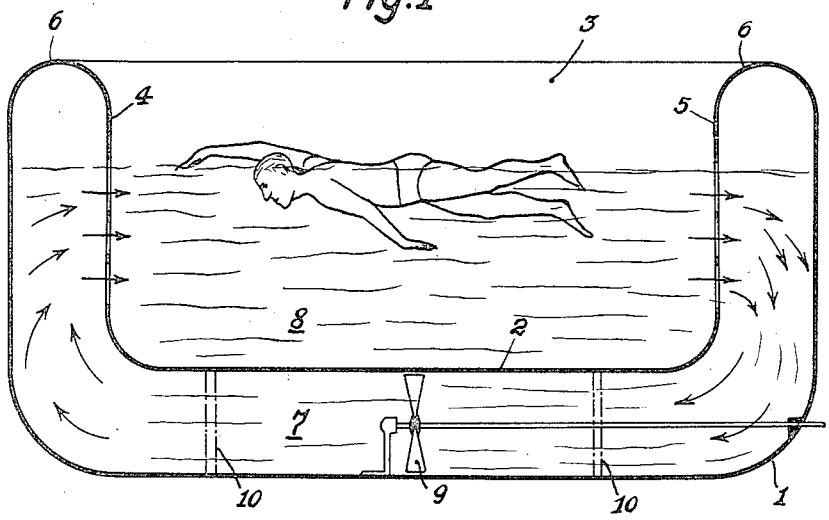
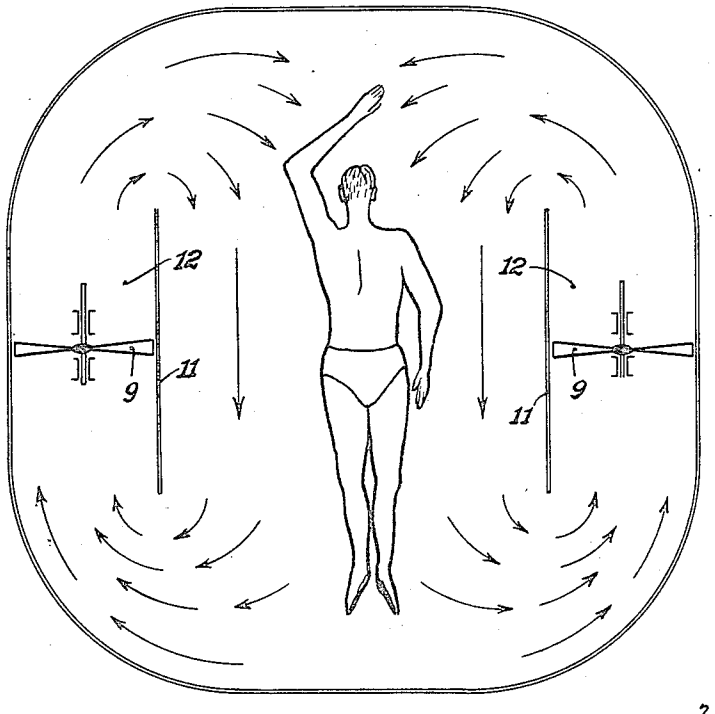


Fig. 2



Inventor
Heinrich Räber
by

Patented Mar. 31, 1936 2,035,835

UNITED STATES PATENT OFFICE

2,035,835

SWIMMING BATH

Heinrich Räber, Zurich, Switzerland

Application November 1, 1934, Serial No. 750,952
In Switzerland September 29, 1934

1 Claim. (Cl. 4—172)

Swimming baths are known, wherein the water is caused to circulate. The known baths of this type are, however, only suitable for large public baths but not for the domestic use. The known baths are composed of a plurality of constructional parts which considerably add to the cost of production and moreover they require a large quantity of water. The requirements for a public swimming bath are very different from those of a domestic bath. In the case of a domestic bath it must be capable of being set up in a bathroom and be similar to an ordinary bath, its cost of production must be low, and it must only require a small quantity of water to enable it to be used by persons who do not wish to swim. None of the known constructions fulfil these cardinal conditions for domestic use.

The swimming bath according to the invention in which the water is maintained in circulation is characterized in that it consists of two receptacles one within the other at distances apart and united in the form of an ordinary domestic bath. The space between the receptacles allows the water circulation and accommodates the water propelling means.

Two embodiments of the invention are illustrated by way of example in the accompanying drawing in which:—

Fig. 1 is a section through a swimming bath.

Fig. 2 is a top plan view of a modified form of construction.

According to the first form of construction illustrated in Fig. 1 the swimming bath 1 has a false bottom 2 extending parallel to the bottom of the bath and secured to the side walls 3 of the bath. On the false bottom 2, which is slightly shorter than the bath bottom, two partitions 4 and 5 extend from the front and rear side respectively parallel to the front and rear walls of the bath 1 and are fixed to the side walls 3. At their upper ends the partitions are united with the front and rear walls of the bath and each forms a curved parapet 6 facilitating entering the bath. The partitions 4, 5 divide the bath into an outer compartment 7 and an inner compartment 8. The partitions 4, 5 are provided with numerous apertures or may be composed of a wire netting so that the compartments 7 and 8 intercommunicate. The inner compartment 8 serves for accommodating the swimmer whereas in the outer compartment 7 between the bath and the false bottom 2 one or more propellers 9 are arranged, the shafts of which extend through the wall of the bath and are driven by a common motor. The bath shown in Fig. 1 is so wide that a single swimmer has sufficient room to swim in any desired style. Baths of this size are particularly suitable for private persons. For watering place hotels and communities these baths can be made in any desired width so that several swimmers can train side by side.

By driving the propellers 9 the water will circulate around the false bottom 2 and the swimmer can commence his training. The speed at which the propellers 9 rotate can be regulated by driving for example by a variable speed motor, so that the speed of flow can be increased at will and the swimmer is capable of ascertaining the speed at which he swims. Ship propellers, worm conveyors or any other blade drive may be employed as driving means for producing the circulation. It is evident that heating elements and filtering devices can be fitted in the bath. The filtering device is preferably arranged in the outer compartment at the place designated by 10 in Fig. 1. It is evident that shower baths, foot baths and the like are necessary in connection with a large installation bath to enable swimmers to wash before entering the bath.

The form of construction illustrated in Fig. 2 is particularly suitable as a bath device for one person. The bath is of quadrangular shape with rounded corners. Two partitions 11 are arranged parallel to the side walls on the bottom of the bath, the partitions being arranged far enough apart to allow a swimmer sufficient space for training. In the circulating compartments 12 formed between the partitions 11 and the side walls of the bath, driving propellers 9 are installed which are driven at a variable speed by a motor not shown in the drawing. By the rotation of the propellers 9 the water is caused to circulate in uniflow direction through the compartments 12 in such a manner that a common rearward movement utilizable by the swimmer is produced in the middle compartment of the bath. In this instance heating elements and filtering devices may likewise be fitted in the circulation chambers 12. The short length of the bath and the projection of a longitudinal flow of the water therein enable a great saving of space and water, and a low cost of production. At the same time a small bath is sufficient for relatively high requirements.

I claim:—

A swimming bath with circulating water, comprising in combination two baths similar to ordinary domestic baths arranged one within the other with clearance to allow circulation of the water, the inner bath having apertures at its two ends communicating with the space between the two baths, and means for circulating the water arranged in the space between the two baths.

HEINRICH RÄBER.