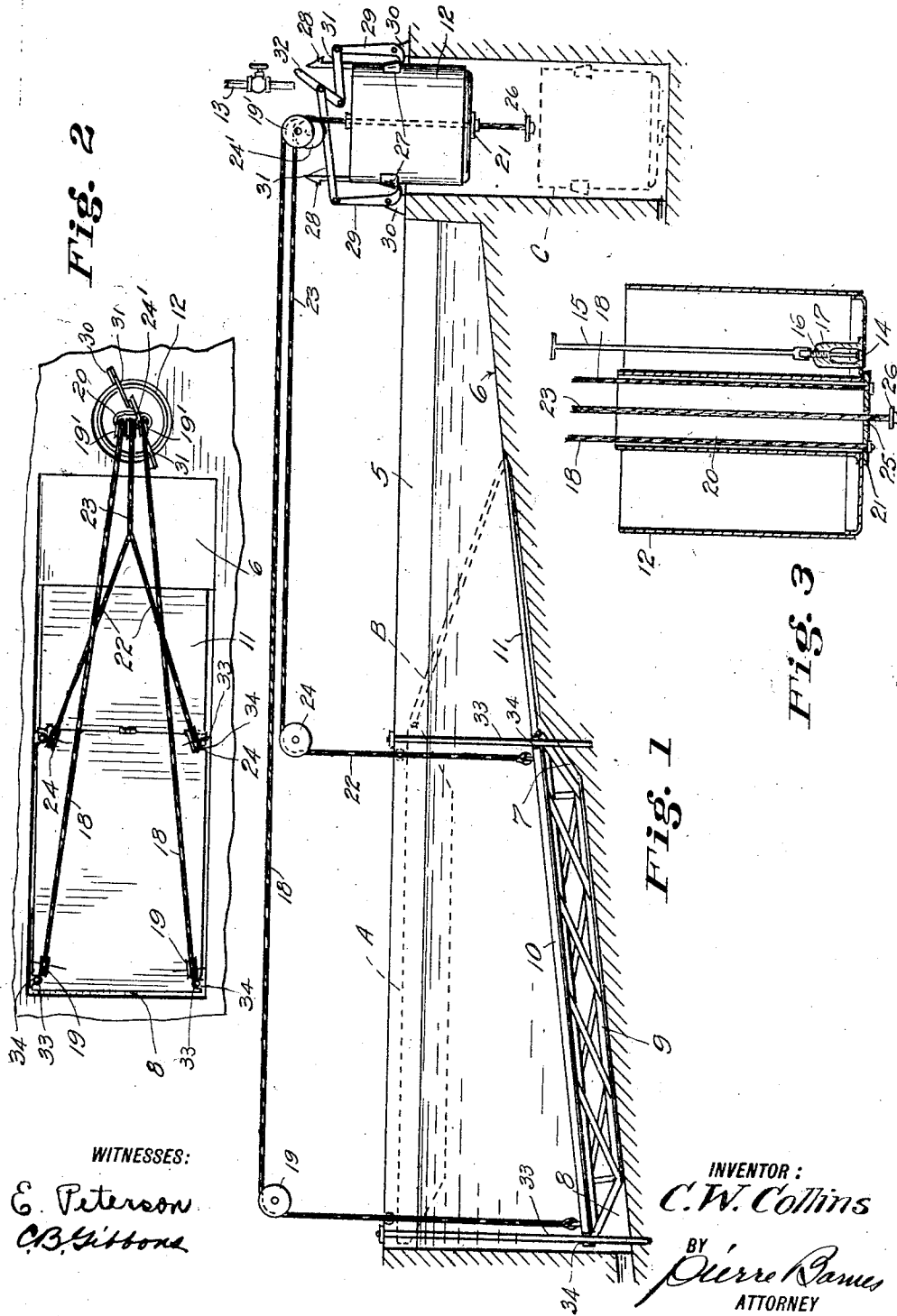


C. W. COLLINS.
MOVABLE FLOOR FOR BATHING POOLS.
APPLICATION FILED SEPT. 20, 1913.

1,101,166.

Patented June 23, 1914.



WITNESSES:

E. Peterson
C.B. Gibson

INVENTOR:

C.W. Collins

BY

Pierre Rames
ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES W. COLLINS, OF SEATTLE, WASHINGTON

MOVABLE FLOOR FOR BATHING-POOLS.

1,101,166.

Specification of Letters Patent.

Patented June 23, 1914.

Application filed September 20, 1913. Serial No. 790,832.

To all, whom it may concern:

Be it known that I, CHARLES W. COLLINS, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Movable Floors for Bathing-Pools, of which the following is a specification.

The object of this invention is to provide swimming-tanks, bath houses, or analogous places with safety appliances in the nature of a floor or platform which may be raised to elevate drowning persons above the water surface.

The invention consists in the novel construction and adaptation of devices, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevational view of an embodiment of my invention with the containing tank shown in section. Fig. 2 is a plan view of the same. Fig. 3 is a vertical transverse sectional view of the counterweight shown in the other views.

The reference numeral 5 designates a bathing pool having a floor 6 which slopes from a short distance below the water level at one end of the pool to about the midlength of the pool where the bottom is offset downwardly, as at 7, to afford a cavity 8. Provided for said cavity is a platform structure 9 having a deck 10 arranged to be normally in substantially the same plane with the pool floor 6 and constitutes part of the same. 11 represents an apron hingedly connected to one end of the platform and has its free end rest upon said floor.

12 represents a counterweight preferably in the form of a tank to receive, upon occasion, a load of water from a supply pipe 13 and having in its bottom a discharge valve 14 (Fig. 3) arranged to be opened or closed in any suitable manner as, for example, by means of a handle 15 connected with the screw threaded valve-stem 16 operating in a threaded socket provided in the valve frame 17.

The platform is connected from one of its ends by hoisting lines 18 which extend over guide sheaves 19 and 19' and thence downwardly through a well compartment 20 provided in the counterweight tank and have their ends connected to a bar 21 extending across the lower end of the compartment 20. The other end of the platform is connected by branch lines 22 with a main line 23 re-

spectively passing over sheaves 24 and 24'. The line 23 extends downwardly through said compartment and a hole 25 provided in the bar 21 and carries at its extremity an attachment 26 of sufficient size to prevent same from being drawn through the bar hole 25.

When the platform is in the position in which it is illustrated by full lines in Fig. 1 and the tank is in its uppermost position, the line 23 protrudes a distance below the bottom of the tank, as shown in the view.

For the purpose of securing the tank in elevated positions, lugs 27 and hooked arms 28 are rigidly secured to the tank for selective engagement by hooked levers 29 which are fulcrumed to supports 30 and connected, as shown, by links 31 with an operating lever 32.

Upright stationary rods designated by 33 extend through slots 34 provided in the platform to serve as guides to prevent any longitudinal movement to the platform when the same is raised or lowered.

The operation of the aforescribed devices is as follows: Assuming the weight or tank 12 to be in the position in which it is illustrated by full lines in Fig. 1, the lines 18 and 22 are unconstrained with respect to the platform 10 and the latter rests in its lowermost position, as indicated by full lines upon the bottom of the pool, and with the apron 11 extended, as shown. The tank is releasably held in such elevated position through the engagement of the lugs 27 by the hooked levers 29. Water is then supplied from pipe 13 to the tank to afford weight thereto so that, upon an emergency, by releasing the tank through the instrumentality of the operating lever 32 which controls the hooked levers 29, the power of the weighted tank asserts itself to raise the platform into the position indicated by broken lines A, Fig. 1, when the tank falls to the position indicated by broken lines C, whereupon the apron 11 will occupy the B position. More particularly, as the tank falls, the lower end of the platform is first raised until the platform is brought into a horizontal position by reason of the line 23 being primarily inoperatively drawn through the hole 25 of the bar 21 until the bar encounters the attachment 26 whereupon all the lines become operative and the platform is thereafter raised in a horizontal position.

When it is desired to restore the platform to its original position, the valve 14 is opened for the discharge of the water from the tank 12, the weight of the platform then overcomes that of the tank and the platform sinks with a corresponding rise of the tank. The tank lugs 27 are engaged by the hooked levers 29 and the tank refilled with water in preparation for future use. Should it be desired to employ the platform at a depth less than that in which it is shown by full lines (Fig. 1) the hooked levers 29 are withdrawn from the lugs 27 and after the tank falls sufficiently to present the hooks of arms 28 to the hooked levers, the same are engaged. The platform may advantageously be used at its lesser depth when the pool is being used by juveniles or beginners in the practice of swimming. From either of the platform's submerged positions, however, the weight or tank is capable upon being released to elevate the platform above the water so that a sunken person may be raised clear of the water. By means of the present invention, the platform may be quickly raised from the water.

I desire not to be restricted to the particular arrangement of tank and line connections here shown, as it is evident that changes may be made in the appliances without departing from the spirit of the invention as set forth in the following claims.

What I claim, is—

1. In apparatus of the class described, the combination with a vertically movable platform, a water receptacle, hoisting connections between the platform and said receptacle, means to supply water to the receptacle, a valve for the discharge of water from the receptacle, and means for releasably securing said receptacle in predetermined elevated positions.

2. In apparatus of the class described, a platform, a weight, means to releasably secure said weight in elevated position, and connections between said weight and the platform whereby the falling of the weight will cause one end of the platform to be primarily raised and subsequently raise the entire platform so that the same will project above the surface of the water.

3. In apparatus of the class described, the combination of a vertically movable platform, a weight, hoisting lines for the platform and connected with the weight, means for releasably securing said weight at various heights whereby the platform may be supported at various depths within the water, and when the weight is released the latter will serve to raise the platform above the water.

4. The combination with a swimming pool, of a movable floor section therefor normally inclined downwardly, and weighted connections between the two ends of the floor section and weight whereby when the weight is released and allowed to drop, the floor section will be primarily elevated to a horizontal position and then moved bodily upward.

5. A swimming pool comprising an inclined bottom provided for a portion of its length with a movable floor section resting thereon, a weight disposed at one end of the pool, hoisting ropes connected at one end to the lower end of the floor section and having the opposite ends passing through said weight and secured at the bottom thereof, a second set of hoisting ropes connected at one end to the upper end of the floor section and terminating in a single line which freely passes through said weight and normally extends a distance below the same, said weight when lowered a predetermined distance adapted to elevate the lower end of the floor section to horizontal position and upon further downward movement to engage the end of the second-named rope and bodily elevate the floor section.

6. An apparatus of the class described comprising an inclined movable platform, a weight, and means connecting the weight and platform acting when said weight is partially lowered to cause the platform to assume a horizontal position and when completely lowered to elevate the platform above the water level.

7. The combination with a swimming pool having a movable floor section, of means for controlling the movement thereof comprising a vertically movable weight, spaced lugs carried by said weight, and hook levers mounted on stationary supports adapted to selectively engage said lugs whereby the elevation of the movable floor section is controlled.

8. An apparatus of the class described comprising a movable platform, a weight having a rope connection therewith, said weight consisting of a tank having a centrally-disposed well compartment through which the rope connection passes, and means carried by one end of the rope to engage the lower end of the weight to cause the platform to be elevated when said weight is lowered.

Signed at Seattle, Wash., this 10th day of September, 1913.

CHARLES W. COLLINS.

Witnesses:

PIERRE BARNES,
E. PETERSON.