

Dec. 3, 1929.

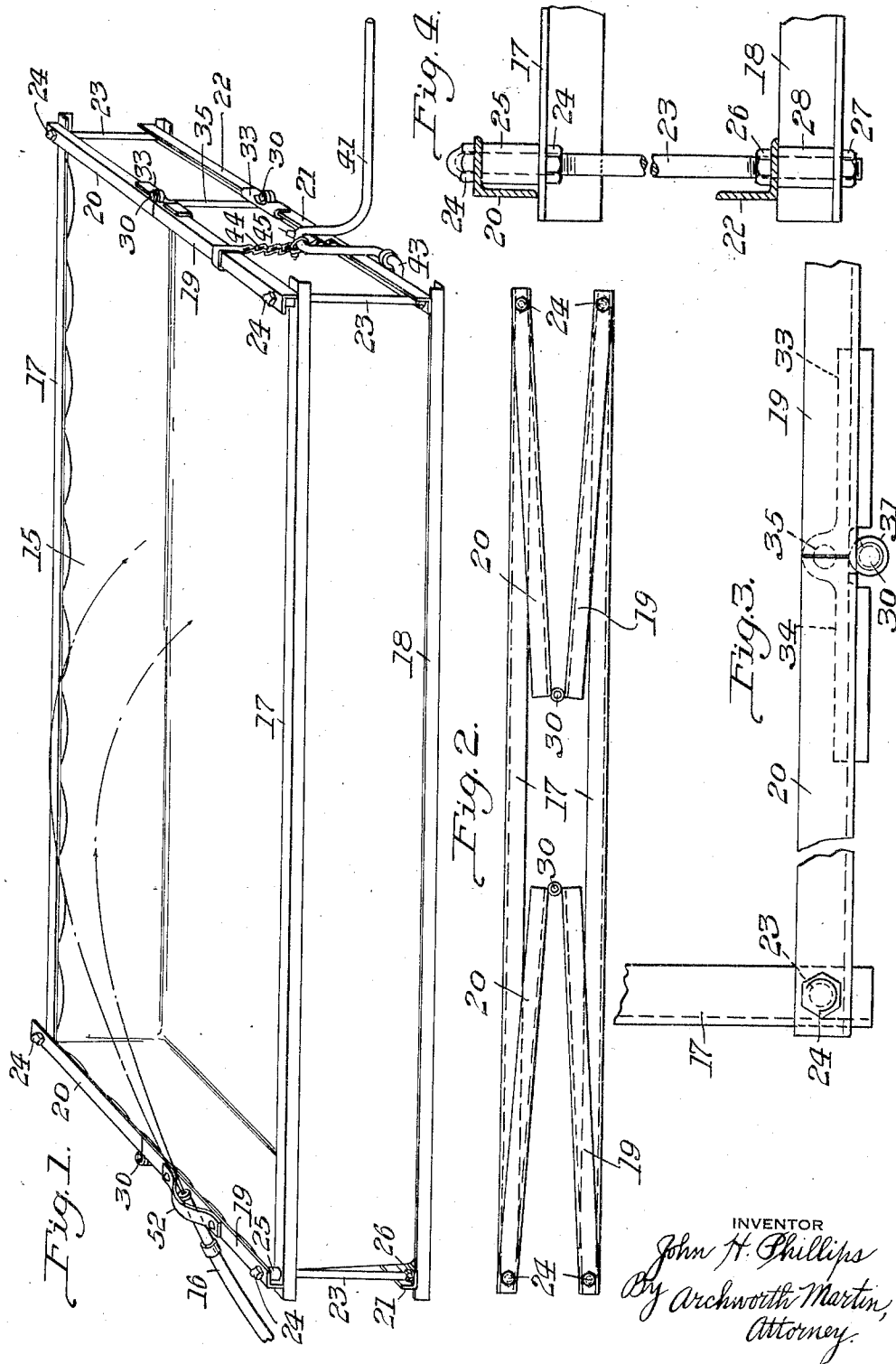
J. H. PHILLIPS

1,738,017

WADING TANK

Filed March 22, 1928

3 Sheets-Sheet 1



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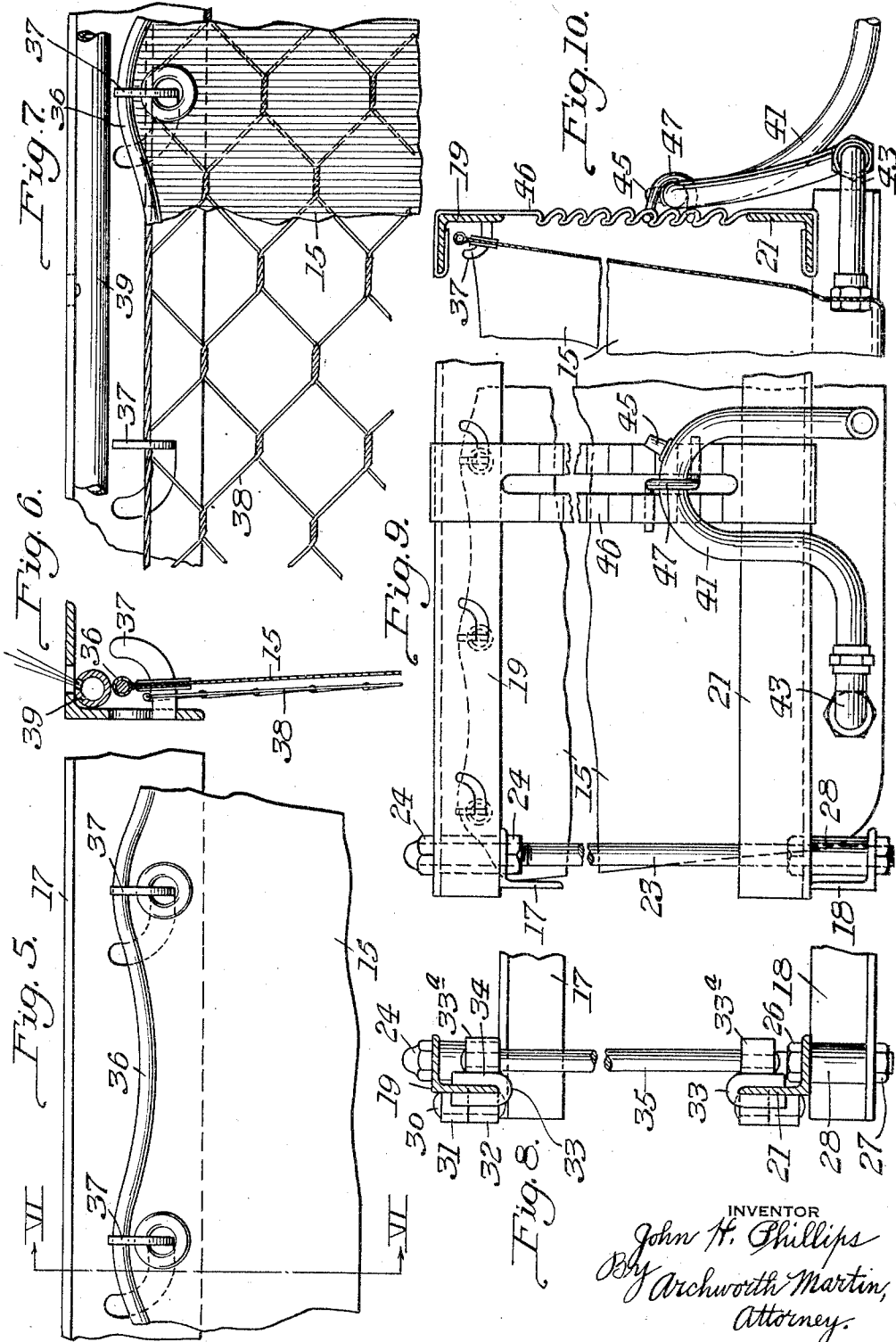
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3 Sheets-Sheet 2



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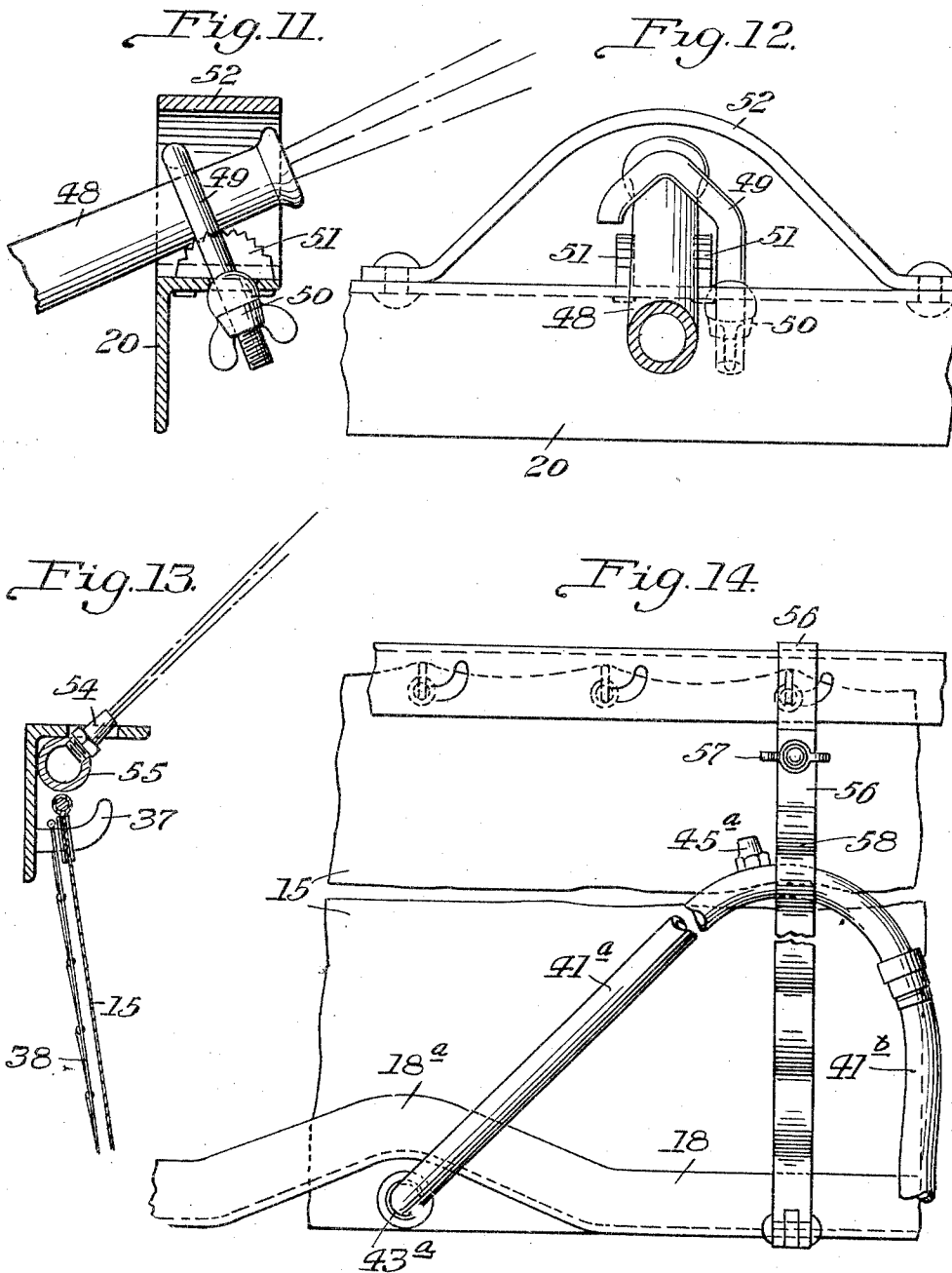
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INVENTOR

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UNITED STATES PATENT OFFICE

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WADING TANK

Application filed March 22, 1928. Serial No. 263,690.

My invention relates to tanks that are particularly suitable for use as wading and swimming pools.

One object of my invention is to provide a tank of the collapsible or knock-down type that is conveniently portable.

Another object of my invention is to provide a tank frame structure composed of commercial shapes, such as angle bars.

Another object of my invention is to provide an improved means for supplying water in the form of a spray or otherwise to the tank.

Another object of my invention is to provide an improved means for disposing of waste water, and for maintaining a desired level of water within the tank.

A further object of my invention is to provide an improved means for supporting a collapsible water-proof body.

Still another object of my invention is to simplify and improve generally the structure and arrangement of wading tanks and the like.

Some of the forms which my invention may take are shown in the accompanying drawing, wherein Figure 1 is a perspective view of one form of tank structure embodying my invention; Fig. 2 is a view showing the framework of Fig. 1 collapsed or folded; Fig. 3 is a plan view, on an enlarged scale, of a portion of the apparatus of Fig. 1; Fig. 4 is a sectional elevational view through one corner of the structure of Fig. 1, on an enlarged scale; Fig. 5 is an inner elevational view showing the manner in which the canvas or water-proof body is supported; Fig. 6 is a view taken on the line VI—VI of Fig. 5, and showing another manner in which water may be supplied to the tank; Fig. 7 is a fragmentary front elevational view of the structure of Fig. 6; Fig. 8 is a vertical sectional view showing the manner in which the jointed end sections of the structure of Figs. 1 to 3 are connected; Fig. 9 is a view showing one manner in which a drain pipe may be connected to the tank structure; Fig. 10 is a cross sectional view of the structure of Fig. 9; Fig. 11 shows still another manner in which water may be supplied to the tank; Fig. 12 is a view

looking from the left hand side of Fig. 11; Fig. 13 shows still another manner in which water may be supplied to the tank, while Fig. 14 shows a modification of the drain hose support of Figs. 1, 9 and 10.

Referring more particularly to Figs. 1 to 4, I show a water-proof body 15 of canvas or other suitable material for containing the water that may be supplied in the form of a spray or otherwise through a hose 16. The canvas body is supported by a framework that is composed of longitudinally-extending angle bars 17 and 18 at each side of the canvas body and angle bars 19—20 and 21—22 at each end of the canvas body.

At each corner, the end bars 19—21, 20—22 are pivotally connected to the longitudinal bars 17—18 by means of bolts 23 that carry nuts 24 for maintaining the upper bars in proper vertical position as shown in Fig. 4, a spacing sleeve 25 being provided to more firmly support the angle bars against tilting and to reduce tendency of the parts to bind, therefore permitting greater freedom of pivotal movement when the members are folded as shown in Fig. 2. The bars 22—18 are held in place upon the bolts 23 by nuts 26 and 27, a spacing sleeve 28 being provided for facilitating pivotal movement of the parts. The end bars 19—20 are pivotally connected by means of bolts or rivets 30. The bar 19 (Fig. 8) has a portion of its vertical flange bent to form an eye 31 for the bolt 30, while the bar 20 has a portion of its vertical flange bent to form an eye 32, the bolt 30 passing through these eyes. The jointed connections of the bars 21 and 22 are formed in the same manner.

In order to releasably lock the joints against collapsing, I provide a U shaped clip 23 at each joint. The inner vertical flange 34 of each clip (Fig. 3) extends completely across the joint at the pin 30, while the outer vertical flange of the clip is cut away to accommodate the hinge, as shown more clearly in Fig. 1. When the clips 33 are lifted out of position, the ends may be pushed to the position shown in Fig. 2, thereby collapsing the structure and permitting convenient transportation thereof. The clips 33 have bosses

33^a that are perforated for the reception of the reduced ends of a spacing bar 35 which holds the clips in place, and particularly the upper clip 33, and which can be removed by simply lifting the upper joint slightly.

No detailed form of fastening means for the canvas is shown in Fig. 1. In Fig. 5, I show a canvas body 15 as being provided with a reinforced edge 36 and with eyelets that may be placed over hooks 37 that are struck from the vertical flanges of the angle bars, so that the canvas may be readily applied and removed. In tanks of larger sizes, I provide a wire mesh 38 that is hung on the hooks 37 previous to the placing of the canvas body, so that the canvas body will be supported or braced against bulging at points where it does not lie against the framework.

Instead of simply supplying water through a hose nozzle as in Fig. 1, I have shown in Fig. 6 a spray pipe 39 which has openings registering with openings in one of the horizontal flanges of the upper framework, and directed at an angle, so that the water will be sprayed into the tank.

These spray pipes may extend along only one side of one end of the upper framework, or extend completely around the same, if desired.

It is important, particularly where the tank is placed on a lawn or indoors, that means be provided for directing the waste or overflow water to a drain or other point removed from the vicinity of the tank. The lawn in the vicinity of the tank would quickly become ruined by the feet of the bathers if the water were simply permitted to flow over the edges of the tank. For this reason, I provide a drain hose 41 (Fig. 1) that is connected to an outlet 43 which leads from the bottom of the tank. The hose 41 is supported at any desired height by a chain 44 which, with suitable hooks, can be caused to hold the hose bent at any desired height, thus controlling the water level in the tank. A nipple or air inlet 45 is provided in the hose bend to prevent siphoning of the water from the tank, but if the hose is of sufficiently great diameter, particularly beyond the bend, the inlet 45 may be dispensed with.

In Figs. 9 and 10, I show still another form of device for supporting the bend of the hose 41 at various heights, such means consisting of a rack 46 whose ends are bent around the upper and lower angle bars, which is provided with teeth for supporting the arms of a yoke 47 that extends around the hose. It will be seen that the yoke 47 may be placed at any desired height, according to the depth of water desired in the tank.

In Figs. 11 and 12, I show means for supporting a hose nozzle 48 at various angles, so that the stream or spray of water will be so directed as to engage the bodies of users at any desired height. Such adjustment is ef-

fectuated by means of a clamping yoke 49 that is connected to the horizontal flange of the angle bar 20 by a wing nut 50. Toothed plates 51 of segmental form are secured to the flange, and the yoke caused to clamp the hose nozzle 48 against such segments at any desired angle.

A shield 52 is provided for the hose nozzle and clamping members, such shield consisting of a strap-like member whose ends are riveted to the angle bar.

In Fig. 13 is shown a modification of the device of Fig. 6, wherein nozzles 54 are provided for the spray openings of the pipes 55 that are disposed in the upper angle bars.

In Fig. 14, I show a modification of the hose-supporting structures of Figs. 1 and 9. In this arrangement, an overflow pipe 41^a is supported between clamping plates 56 which are pivotally connected at their lower ends, one of the plates being adapted to hook over the top rail of the framework. The other plate is held in place by a wing nut 57. The plates 56 are provided with a plurality of semi-circular recesses 58 in which the hose will lie and be supported at various vertical positions when the upper end of the clamping plate is in closed position, as shown in Fig. 14.

The overflow pipe 41^a is pivotally connected to an outlet pipe 43^a, so that by raising and lowering the outer end of the pipe, the height of water in the tank can be controlled, a hose 41^b being connected to the outer end of the pipe. An air inlet or nipple 45^a is provided in the bend of the pipe, to prevent siphoning of the water, or the pipe bend may be of large enough diameter relative to the inlet end of the pipe, to prevent siphoning.

In this figure, I have shown the outlet 43^a as leading from the side of the tank instead of from the end thereof as in Fig. 1. Since the longitudinal frame members 18 lie next to the ground, I have provided a bend 18^a in the framework which will allow the conduit 43^a to extend past the framework without interference. Such deflection of the end bars 21 is not necessary, because they are held in spaced relation to the ground by reason of the fact that they rest upon the ends of the side frames 18.

I claim as my invention:—

1. Tank structure comprising a flexible body portion, an upper framework of longitudinally and laterally-extending angle bars whose ends overlap, a lower framework of longitudinally and laterally extending angle bars whose ends overlap, bolts extending through the said overlapping ends of the upper and lower frame members, at the corners of the structure, for holding said members in assembled relation, and means on the bolts for supporting the framework in elevated position relative to the lower framework.

2. The combination with a tank, of a flexible drain pipe connected to the bottom of said tank, means for adjustably supporting said drain pipe in elevated position at a point intermediate its ends, and means for preventing siphoning of the water through said drain pipe.

3. Tank structure comprising an open-work frame, a flexible body portion supported by said frame, and a wire or expanded mesh supported by the frame and disposed exteriorly of the body portion.

4. Tank structure comprising a flexible body portion, an upper framework composed of bars whose ends overlap at the corners of the structure, a lower framework composed of bars whose ends overlap at the corners of the structure, bolts extending through the upper and lower bars at the corners of the structure to afford a pivotal connection therefor, and means on the bolts for supporting the upper framework in elevated position relative to the lower framework.

5. Tank structure comprising a flexible body member, a framework having a portion disposed in the bottom plane of and exteriorly of the body member and supporting the same, a drain pipe connected to the body member and extending beneath a portion of the framework, and means for supporting said portion of the framework in elevated position relative to adjacent portions of said framework.

6. Tank structure comprising a flexible body portion, an upper framework composed of bars whose ends overlap at the corners of the structure, a lower framework composed of bars whose ends overlap at the corners of the structure, bolts extending through the upper and lower bars at the corners of the structure to afford a pivotal connection therefor, and means for supporting the upper framework in elevated position relative to the lower framework.

In testimony whereof I, the said JOHN H. PHILLIPS, have hereunto set my hand.

JOHN H. PHILLIPS.