Aug. 12, 1958 F. COSTARELLA 2,846,693

PORTABLE WADING POOL

Filed Sept. 14, 1955 2 Sheets-Sheet 1

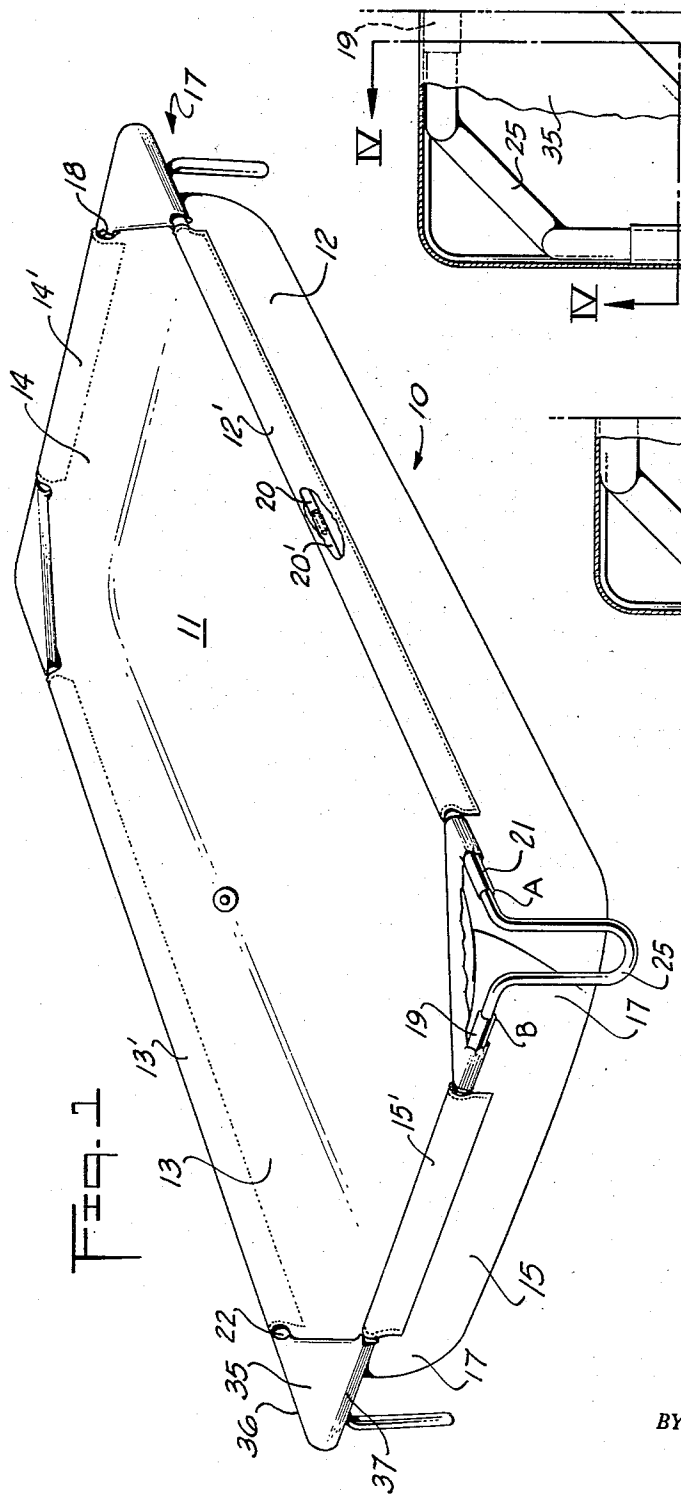


Fig. 1

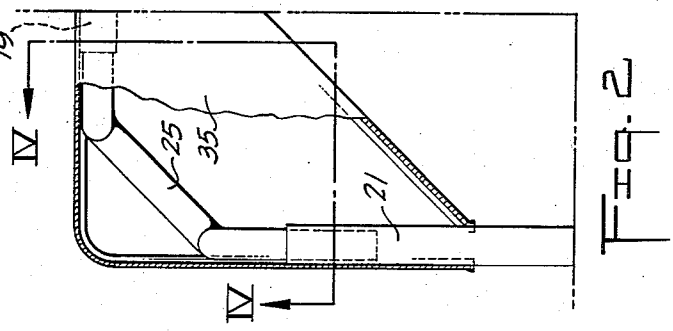


Fig. 2

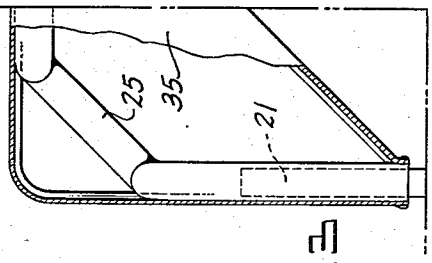


Fig. 3

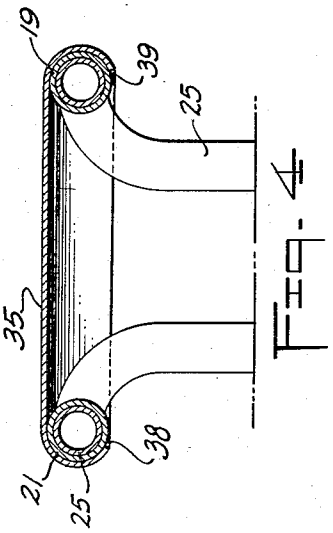


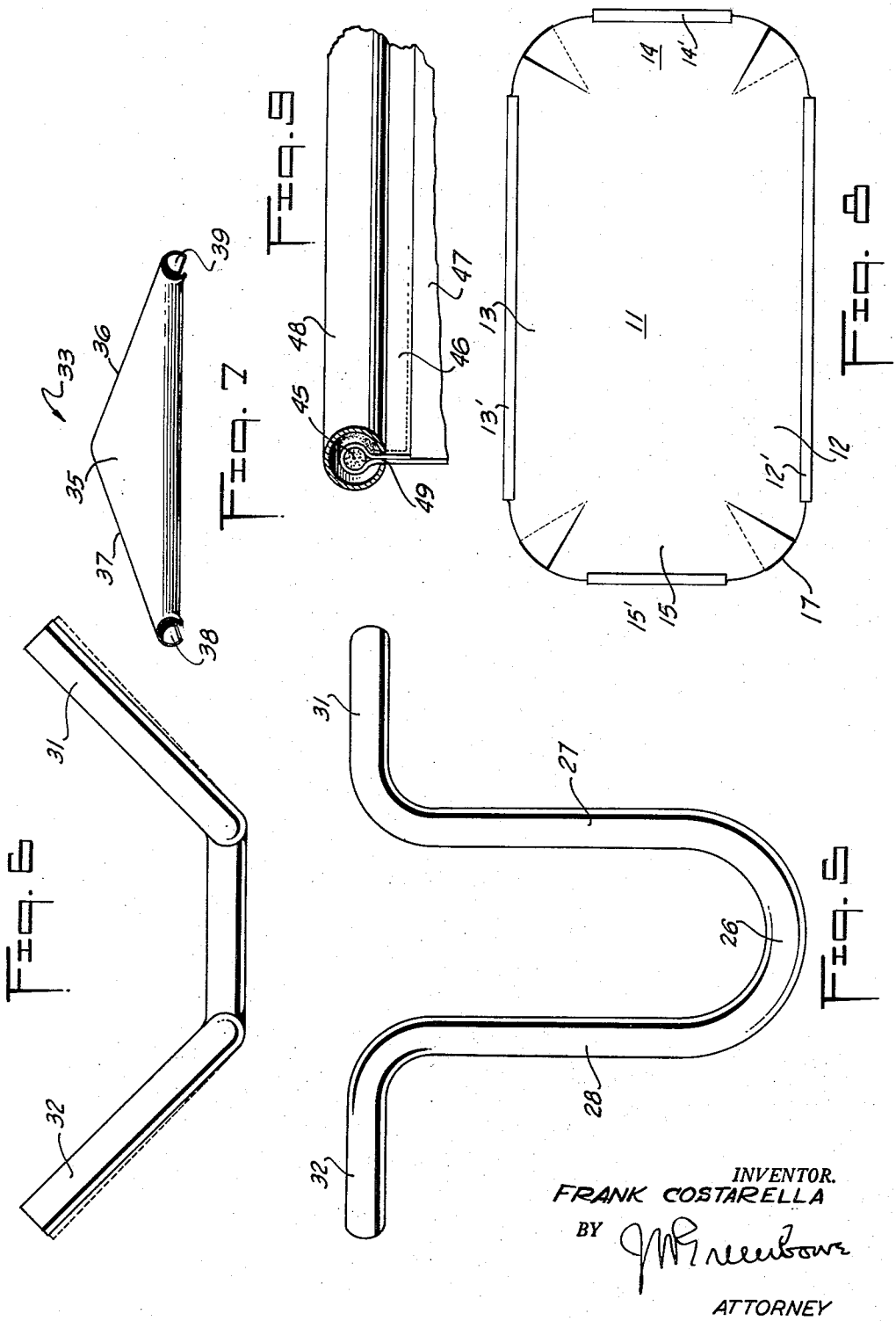
Fig. 4

INVENTOR.
FRANK COSTARELLA
BY
ATTORNEY

Aug. 12, 1958 F. COSTARELLA 2,846,693

PORTABLE WADING POOL

Filed Sept. 14, 1955 2 Sheets-Sheet 2



INVENTOR.
FRANK COSTARELLA
BY
ATTORNEY

United States Patent Office 2,846,693 Patented Aug. 12, 1958

2,846,693

PORTABLE WADING POOL

Frank Costarella, Corona, N. Y., assignor to Ernest Chandler, Inc., New York, N. Y., a corporation of New York

Application September 14, 1955, Serial No. 534,369

6 Claims. (Cl. 4—172)

The present invention relates to wading or swimming pools of the knock-down frame type for supporting a watertight container of flexible material.

Wading pools employed for general use on lawns or hard surfaces are well known and in popular demand. Pools of this type, however, must be sturdy when erected so as to resist severe and rough usage. It is also important to provide a frame structure capable of being readily and conveniently set up or taken down, by the average user. It is also desirable to provide a supporting structure having relatively large surface areas for contact with the ground to avoid damage as, for example, to a lawn on which the pool may be erected. In addition to the above, it is desirable to provide a structure that is of pleasing appearance.

An object of the invention is therefore to provide a practical and ornamental wading pool which may be quickly and conveniently erected for use or taken down for storage or transportation.

Another object of the invention is to provide a wading pool having a minimum number of parts and which, when knocked down may be readily shipped in a relatively small container.

Another object of the invention is to provide a wading pool structure which, although capable of being quickly erected by the average user, will, when set up, have the required strength to withstand rough usage.

Other objects and advantages of the invention will be more fully understood by reference to the following description together with the accompanying drawing in which:

Fig. 1 is a perspective view of a wading pool constructed in accordance with the present invention, with a portion broken away;

Fig. 2 is a plan view partly in cross section showing a corner of the pool including a leg member;

Fig. 3 is a view similar to Fig. 2, showing a modification of the leg member;

Fig. 4 is a view taken in line IV—IV in Fig. 2;

Fig. 5 is an end view of a leg member;

Fig. 6 is a top view of a leg member showing the normal position of the arms;

Fig. 7 is a perspective view of a retainer plate for engaging the corners of the frame;

Fig. 8 is a plan view of a container of flexible material of the type which may be supported by a knock-down frame constructed in accordance with the present invention; and,

Fig. 9 is a perspective fragmentary view of a modified form of rail for supporting a container wall.

As shown in the drawings, one practical embodiment of the invention may include a tank or container **10** of suitable flexible material such as waterproofed canvas or plastic sheeting. This container, as shown, is of rectangular form, having bottom wall **11**, and side walls **12**, **13**, and end walls **14** and **15**. Each of the said walls of the container is provided with a tubular portion formed in any suitable manner. In the case of a tank or container of waterproofed canvas, each edge is formed with a lap which is sewed or otherwise secured along the wall to provide a tubular portion.

In accordance with the present invention the end walls **14** and **15** are formed with tubular portions or sections **14'** and **15'** spaced from the tubular sections **12'** and **13'** of side walls **12** and **13**. Thus, adjacent ends of the tubular sections are disposed in relatively wide spaced relation so that what may be termed the corners **17** of the container are disposed intermediate each pair of the spaced apart adjacent ends of the tubular sections.

The container **10** to hold water and serve as a wading pool requires not only a strong and rigid supporting structure or frame, but one which may quickly and conveniently be set up or taken down. Furthermore, it is important in a pool of this type to provide the supporting structure with legs having relatively large surface areas for contact with the ground, as when used on lawns or soft ground.

The present frame includes what may be termed tank supporting rails or rods for insertion into the tubular portions or sections **12'**, **13'**, **14'**, and **15'** of the container walls. For the end walls **14** and **15**, rails **18** and **19** are provided and for side walls, rails **21** and **22** are provided. The rails **21** and **22** may each include a section **20** and **20'** to be separated when the pool is to be stored or transported. Each side rail may, however, be considered as a single unit insofar as the frame structure is concerned. The rails are of metal tubing of a diameter to provide the required strength. The lengths of the end rails and the lengths of the side rails are such that when the end rails **18** and **19** are inserted into tubular sections **14'** and **15'** and the side rails **21** and **22** are inserted in tubular sections **12'** and **13'** adjacent ends A and B of rails **19** and **21** will, for example, be disposed in given spaced relation as will the adjacent ends of remaining rails. When so spaced, the adjacent ends of the rails are connected by leg members **25**. These leg members are of like construction and a description of one and its application will answer for all.

As shown in Figs. 5 and 6, each leg member **25** consists of a reversely bent metal rod or tubing so formed as to provide a bend or elbow **26** having arms **27** and **28** extending therefrom, and disposed in a common normal vertical plane. The elbow or bend **26** serves as a footpiece and provides a relatively large surface area for contact with the ground when the pool is erected. The arms **27** and **28** terminate in what may be termed extended portions **31** and **32** disposed in a common normal horizontal plane. The extensions or portions **31** and **32** are disposed in opposite angular relation at an angle of ninety degrees of forty-five degrees to a center plane, indicated in Fig. 6 by dotted line X—X, when in use as part of the frame. It has been found that good results are obtained insofar as the rigidity and supporting strength of the frame is concerned if the portions **31** and **32** have an initial spread as indicated in Fig. 6, of slightly greater than the ninety degrees mentioned above. By reason of the novel construction of leg **25** the arms **27** and **28** thereof in conjunction with the elbow **26** provide what may be termed a tension member so that when the portions **31** and **32** are initially at a slightly greater angle than a right angle and are forced into or otherwise made integral with adjacent ends of the supporting rails, the tensional force exerted maintains the adjusted parts of the frame structure in firm fixed relation.

As stated, a pool provided in accordance with the present invention includes a flexible container **10** having tubular portions **12'**, **13'**, **14'**, and **15'**; side rails **21** and **22**, each of which may include two sections **20** and **20'**. These rails being of metal tubing may be formed with an end of one section of less outside diameter than the inside

diameter of the other section, whereby the smaller end portion may be inserted and frictionally connected to the other section. The side rails may, however, as mentioned, be in a single piece, but for convenience in storing and shipping are made in two sections. The end rails may also be in two sections, but in small pools as shown, it is practical and desirable to make them as a single piece.

Four leg members **25** are provided to connect the supporting rails, and four corner retainer members **33** are provided which also serve as seats when the pool is in use. All the parts, being relatively small, may be readily packed for shipment or storage.

When the pool is to be erected, the sections **20** and **20'** are connected to form side rails **21** and **22**. The rails may then be inserted in the respective tubular portions **12'**, **13'**, **14'**, and **15'** of the tank or container **10**.

The leg members **25** are then connected to the rail members. These leg members may be of solid rod or may be tubular having an outside diameter slightly less than the inside diameter of the rail members to give a tight fit when a leg member end portion is inserted into an end of a rail member. Thus, one end portion **31** of a leg member **25** may be inserted into a side rail member and the other end portion **32** of the leg member may be inserted into an end rail member to form one corner of the pool supporting frame. The remaining three corners may be connected in a similar manner, each leg member having portions thereof disposed in telescopical relation to end portions of the rail members.

As stated above, the portions **31** and **32** of the leg members may have an initial spread slightly greater than the right angle relation of the rails when secured to all the leg members. Thus, by reason of the novel form of the leg members, the parts are subjected to a tensional force which holds them in rigid fixed relation.

When the legs and rails have been connected, retainer members **33** are applied to each corner of the frame. These retainer members each consist of a flat plate **35** preferably of sheet metal in the form of a right angle triangle, the sides or edges **36** and **37** of which are inturned to form troughs **38** and **39** semicircular in transverse cross section and of a diameter slightly greater than the outside diameter of the rails to which they are applied. Each retainer member is so dimensioned as to tightly fit the corners of the frame so that when in position the retainer members give added rigidity and strength to the frame.

The actual shape of the retainer member may be varied so long as the trough shaped portions are in proper angular relation to engage the rails. It has been found that the shape shown may be used as a seat as an added advantage.

As shown and described, the leg members **25** have an outside diameter to be inserted into the ends of the rails. It is to be understood that if desirable the leg members as shown in Fig. 3 may be tubing of larger inside diameter to receive and tightly fit the ends of the rails.

Furthermore, as shown in Fig. 9, the tubular sections on the side walls of the flexible tank may be dispensed with and the edges of the walls may be provided with an enlarged edge or ridge **45**. This ridge may be in the form of a rope secured to the edges of the walls **46** of the container **47**. The rails **48** may be provided with longitudinal slots **49**. Thus, when the ridges **45** are disposed within the tubular rails, the container will be supported as shown and described above by the legs **25** as in the structure in which the edge of the container are provided with tubular sections to receive the rails.

Although the present embodiment of the invention includes a rectangular frame, it will be obvious that the pool may be formed with side rails of curved or arcuate form connected by the present novel form of leg members.

By reason of the present invention, a frame for a pool is provided whereby the length of the rail members is appreciably reduced, thus reducing cost. Furthermore, the novel arrangement of the leg members and their application to the rails provide a simple and practical frame structure that may be set up or knocked down in a relatively short time period by the average user and when set up provides a strong and durable structure capable of resisting the rough usage to which pools of this type are subjected.

Although a preferred embodiment of the invention is shown and described herein, it is to be understood that modifications may be made therein without departing from the spirit and scope of the invention as set forth in the appended claims.

What is claimed is:

1. A knock-down wading pool frame for supporting a flexible container, comprising a plurality of rails having adjacent ends disposed in spaced relation, leg members for connecting adjacent rail ends and for supporting said rails, each of said leg members consisting of a reversely bent rod to provide an elbow for contact with the ground and having upwardly extending parallel upright arms spaced from each other in pairs for each leg member and each pair in a plane diagonal to the corner of said container to which the respective leg is adjacent, each of said arms terminating in an upper laterally extended portion, said portions being disposed in opposite angular relation to and spaced from each other and telescopically attached to said adjacent ends of said rails.

2. A knock-down wading pool frame for supporting a flexible container of rectangular form having side walls, comprising a tubular rail attached to each of said side walls, adjacent ends of said rails being disposed in spaced relation, leg members for connecting adjacent rail ends and for supporting said rails, each of said leg members consisting of a reversely bent rod to provide an elbow for contact with the ground and having upwardly extending parallel upright arms spaced from each other in pairs for each leg member and each pair in a plane diagonal to the corner of said container to which the respective leg is adjacent, each arm terminating in an upper laterally extended portion, said portions being disposed in approximate right angular relation to and spaced from each other and inserted into said adjacent ends of said rails.

3. A knock-down wading pool frame for supporting a flexible container, comprising four tubular rails disposed in rectangular relation with adjacent ends disposed in spaced relation, leg members for connecting adjacent ends of said rails, each of said leg members consisting of a reversely bent rod to provide an elbow for contact with the ground and having upwardly extending parallel upright arms spaced from each other in pairs for each leg member and each pair in a plane diagonal to the corner of said container to which the respective leg is adjacent, each of said arms terminating in an upper laterally extended portion, said portions being disposed in opposite angular relation to and spaced from each other and inserted into adjacent ends of said tubular rails.

4. A knock-down wading pool frame for supporting a flexible container, comprising four tubular rails disposed in rectangular relation with adjacent ends disposed in spaced relation, leg members for connecting adjacent ends of said rails, each of said leg members consisting of a reversely bent rod to provide an elbow for contact with the ground and having upwardly extending parallel upright arms spaced from each other in pairs for each leg member and each pair in a plane diagonal to the corner of said container to which the respective leg is adjacent, each of said arms terminating in an upper laterally extended portion, said portions being disposed in opposite angular relation to and spaced from each other and inserted into adjacent ends of said tubular rails, said por-

tions having an initial angular relation greater than forty-five degrees to said plane and an angular relation of about forty-five degrees to said plane when said portions are inserted into adjacent ends of said tubular rails to tensionally retain the rails in rectangular relation to support said container.

5. A knock-down wading pool frame for supporting a flexible rectangular container having side walls, a tubular rail attached to each of said side walls, said rails being disposed with adjacent ends in spaced relation, leg members for connecting adjacent rail ends and for supporting said rails, each of said leg members consisting of a reversely bent rod to provide an elbow for contact with the ground and having upwardly extending parallel upright arms spaced from each other in pairs for each leg member and each pair in a plane diagonal to the corner of said container to which the respective leg is adjacent, each of said arms terminating in an upper laterally extended portion, said portions being initially at different angular relation to each other than the right angular relation of said rails to tensionally hold said rails in fixed rectangular relation when said extended portions of said arms are inserted into the adjacent ends of said tubular rails.

6. A knock-down wading pool frame for supporting a flexible rectangular container having side walls, a tubular rail attached to each of said side walls, said rails being disposed with adjacent ends in spaced relation, leg members for connecting adjacent rail ends and for supporting said rails, each of said leg members consisting of a reversely bent rod to provide an elbow for contact with the ground and having upwardly extending parallel upright arms spaced from each other in pairs for each leg member and each pair in a plane diagonal to the corner of said container to which the respective leg is adjacent, each of said arms terminating in an upper laterally extended portion, said portions being initially at greater angular relation to each other than the right angular relation of said rails to tensionally hold said rails in fixed rectangular relation when said extended portions of said arms are inserted into the adjacent ends of said tubular rails, and a retainer plate, said retainer plate having inturned edges for engaging said spaced apart ends of said rails.

References Cited in the file of this patent

UNITED STATES PATENTS

2,580,942	Murad et al.	Jan. 1, 1952

FOREIGN PATENTS

273,910	Switzerland	June 1, 1951
332,315	France	Oct. 26, 1903