The present invention relates to an attachment for bath tubs and has for its principal object to provide a step construction which is detachably associated with the side of the bath tub in order to permit a person to enter or leave the tub in a safe manner.

One of the important objects of the present invention is to provide a step construction for bath tubs which includes the provision of a pair of interconnected step members, one of which is adapted for disposition within the inside of the tub, and the other on the outside of the tub, suitable hand grips being associated with the step members in order that the person using the tub may enter or leave the same without any danger of slipping and sustaining injury.

A still further object is to provide a device of the above mentioned character wherein the step which is adapted for disposition within the inside of the tub may be swung upwardly out of the tub in order that the tub can be properly used for bathing purposes without any interference of the inner step.

A still further object is to provide a step construction for bath tubs which is simple in construction, inexpensive, strong and durable and further well adapted to the purposes for which it is designed.

Other objects and advantages will become apparent during the course of the following description.

In the accompanying drawings forming a part of this application, and in which like numerals indicate like parts throughout the same:

Figure 1 is a front elevation of the device embodying my invention showing the same attached to the side of a bath tub.

Figure 2 is a side elevation thereof, the tub being shown in section.

Figure 3 is a top plan view, the vertical standard or rod of one of the hand grips being shown in section.

Figure 4 is a view similar to Figure 2, showing the inner step member swung upwardly to an inoperative position.

Figure 5 is a detail of the locking means, and

Figure 6 is a detail of one of the adjustable feet.

In the drawings, wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates generally a frame, the same comprising the spaced vertically disposed arms 2 and 3, the upper ends of which are curved to provide hooks 4 for engagement over the rim portion B of the bath tub A in the manner clearly shown in the drawings. The arms may be constructed of tubular material, although I do not wish to limit myself to the particular material which may be employed. The lower ends of the arms 2 and 3 are flattened as indicated at 5.

The frame 1 further includes the provision of a pair of horizontally disposed step supporting members 6 and 7, respectively, which are also formed of tubular material.

The inner or rear ends of these horizontally disposed members 6 and 7 are bent upwardly as indicated at 8 and are bifurcated to receive the flattened lower ends 5 of the respective vertically extending arms 2 and 3, and a pivot pin 9 extends therethrough whereby the step supporting members are pivotally connected to the lower ends of the vertically disposed arms in a manner more clearly shown in Figures 1 and 4 of the drawings.

A step 10 extends across the upper portions of the horizontally disposed members 6 and 7, and the ends of this step are secured to the respective supporting members by any appropriate fastening means such as is shown at 11. The step may be constructed of metal or wood, and is preferably covered with a rubber mat on its upper face in order to prevent any slippage when a person steps upon the step.

A pair of vertically extending leg members 12 and 13, respectively, also formed of tubular material having their upper ends flattened and pivotally secured in the bifurcated downwardly bent forward ends 14 of the step supporting members 6 and 7, respectively, the pivots being illustrated at 15. A floor engaging foot 16 has its shank 17 slidably disposed in the lower open end of each of the leg members and a set screw 18 is threaded through a suitable opening provided therefor in the lower end portion of each leg member and the inner end of this set screw engages the shank of the respective foot for adjustably securing the shank in each leg member and this construction is clearly disclosed in Figure 6. The purpose of the provision of the adjustable feet is to provide a means whereby the step may be adjusted to any desired height.

The frame 1 is adapted for disposition on
the outside of the bathtub A. Adapted for disposition within the inside of the tub is the frame designated generally by the numeral 19 and the same comprises a pair of vertically disposed arms 20 and 21, respectively, which are pivotally secured at their upper ends to the free end portions of the downwardly turned hooks 4 of the arms 2 and 3, respectively. The pivotal connection between the upper ends of these arms and the free ends of the hooks is designated generally at 22. When the arms 20 and 21 of the frame 19 are disposed in a true vertical position, they will be located adjacent the inner side of the bathtub A in the manner clearly shown in Figure 2.

The frame 19 further includes the provision of a pair of step supporting members 22 which have their inner ends disposed upwardly and pivotally secured to the lower ends of the respective arms 20 and 21 as at 24. A step 25 extends across the upper faces of the horizontally disposed member 23, and the securing means for the step is shown at 26. The outer ends of the horizontally disposed member 23 are bent downwardly and pivotally secured at their upper ends to the downwardly disposed outer ends of the step supporting members 22 are the leg members 27. The pivotal connection being designated at 28.

These leg members 27 are also formed of tubular material as are the remaining portions of the frame 19 and slidably arranged within the lower ends of the leg members 27 are the shanks 29 of the feet 30. A set screw 31 is associated with the lower end of each leg member 27 for cooperation with the respective shank 29 in adjustably securing each of the feet 30 with respect to the lower end of the respective leg members.

When the leg members 27 and the remainder of the frame 19 are disposed within the bathtub A, the feet 30 will engage the bottom of the tub in a manner clearly shown in Figure 2.

For the purpose of rigidly securing the attachment to the tub and that so the same will not be free to move laterally, I provide a suitable locking means, the construction of which will now be specifically described.

This locking means includes a lever 32 which is pivotally secured at one end to the vertical arm 2 of the frame 1 at a 33 with reference more particularly to Figures 2 and 5 of the drawings. The outer end of this lever 32 is disposed downwardly to provide a dog 34 for locking engagement with the outer side of the bathtub A and for the purpose of swinging the lever into or out of engagement with the bathtub, I provide the rod 35 which extends downwardly through the hook 4 formed on the upper end of the arm 2. The lower end of this rod is threaded as illustrated at 36, while the upper end is formed with an actuating knob 37. This actuating knob 37 is located above the hook 4, while the lower threaded end 36 of the rod 35 is threaded into what may be considered as a nut 38 which is carried by the lever 32. Manifestly by rotating the knob 37 in one direction, the threaded end 36 will cooperate with the threaded nut 38 in turning the lever 32 upwardly whereby the dog 34 may be brought into locked engagement with the outer side of the tub. Obviously, by rotating the knob 37 in the reverse direction, the lever 32 will be lowered and the dog 34 will be disengaged from the outside of the tub, thus permitting the device to be readily removed from engagement over the rim B of the bathtub A.

The hook formed on the upper end of the arm 2 of the frame 1 is formed with a socket 39 into which extends the shank or free end portion of a suitable hand hold or grip 40 in the manner clearly disclosed in Figures 2 and 3. A set screw 41 is threaded through the side of the socket and engages the shank or free end portion of the hand hold or grip 40 for detachably securing the same in position.

The other hook 4 which is associated with the upper end of the arm 3 is also formed with a socket indicated at 42 for receiving the lower end of the vertically extending rod 43, the upper end of which is bent to form a horizontally disposed handle 44, and which handle extends outwardly from the bathtub at one side of the frame 1. A set screw 45 is threaded into the side of the socket 42 for engagement with the lower end of the rod 43 for securing the same in position in the socket.

In use, the attachment is arranged in the manner shown in Figure 2 whereby the hooks 4 are disposed over the rim B of the bathtub A and the frame 1 is located on the outside of the bathtub, while the frame 19 is disposed on the inside thereof and the steps 10 and 25 are arranged in a horizontal position. The dog 34 will lock the attachment in rigid engagement with the bathtub. In order to prevent marring of the enameled surface of the tub, the portions of the device which engage the tub may be covered with rubber or any other protecting medium.

A person desiring to use the tub will grasp the handle 44 and step upon the outer step 10 and then upon the inner step 25 thus permitting the person to enter the tub in a safe manner. The inner frame 19 is then swung upwardly out of the tub to the position shown in Figure 4 so that the frame 19 and the inner step carried thereby will not interfere with the proper use of the tub.

In leaving the tub, the frame 19 is swung inwardly to the position shown in Figure 2 and the bather grasps the handle 40 and steps upon the step 25 and then over the
outer side of the tub onto the outer step 10 from which a person can readily and easily step onto the floor.

The provision of a step structure of the above mentioned character will be of great assistance to a person in entering or leaving a bath tub, and furthermore will prevent the person from sustaining any injury while in the act of entering or leaving the tub. The simplicity of my device enables the same to be readily and easily attached or detached from a bath tub, and furthermore may be manufactured at a very low cost and will be also strong and durable and at all times positive and efficient in carrying out the purposes for which it is designed.

While I have shown the preferred embodiment of my invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention and the scope of the appended claims.

Having thus described the invention, what I claim is:

1. In an attachment for bath tubs, a pair of interconnecting step members adapted for disposition on the inside and outside of a bath tub, respectively.

2. In an attachment for bath tubs, a pair of interconnecting step members adapted for disposition on the inside and outside of a bath tub respectively, the inner step members being adapted for vertical swinging movement whereby the same may be disposed upwardly out of the bath tub.

3. In an attachment for bath tubs, a pair of interconnecting step members adapted for disposition on the inside and outside of a bath tub respectively, and means for rigidly securing the attachment to a bath tub.

4. In an attachment for bath tubs, an outer frame adapted for disposition on the outside of the bath tub, hooks formed on said frame and adapted for disposition over the rim of the bath tub, a step supported on said frame, floor engaging legs associated with the frame, and means for rigidly securing the frame to the bath tub.

5. In an attachment for bath tubs, an outer frame adapted for disposition on the outside of the bath tub, hooks formed on said frame and adapted for disposition over the rim of the bath tub, a step supported on said frame, floor engaging legs associated with the frame, an additional frame operatively connected to the hooks of the first mentioned frame, a step carried by the additional frame, said additional frame adapted for disposition entirely within the bath tub when in one position, and substantially out of the bath tub when disposed in another position.

6. In an attachment for bath tubs, an outer frame adapted for disposition on the outside of the bath tub, hooks formed on said frame and adapted for disposition over the rim of the bath tub, a step supported on said frame, floor engaging legs associated with the frame, an additional frame operatively connected to the hooks of the first mentioned frame, a step carried by the additional frame, said additional frame adapted for disposition entirely within the bath tub when in one position, and substantially out of the bath tub when disposed in another position, and hand holds carried by the first mentioned frame.

7. In an attachment for bath tubs, an outer frame adapted for disposition on the outside of the bath tub, hooks formed on said frame and adapted for disposition over the rim of the bath tub, a step supported on said frame, floor engaging legs associated with the frame, an additional frame operatively connected to the hooks of the first mentioned frame, a step carried by the additional frame, said additional frame adapted for disposition entirely within the bath tub when in one position, and substantially out of the bath tub when disposed in another position, and means for rigidly securing the outer frame to the bath tub.

8. In an attachment for bath tubs, an outer frame adapted for disposition on the outside of the bath tub, hooks formed on said frame and adapted for disposition over the rim of the bath tub, a step supported on said frame, floor engaging legs associated with the frame, means for rigidly securing the frame to the bath tub, said means comprising a pivoted dog carried by the frame, and manually adjustable means for moving the dog into locking engagement with the outer side of the bath tub.

In testimony whereof I affix my signature.

ANTON WIEBMER.