Dec. 5, 1939. D. M. KENNEDY 2,182,669

INFANT'S BATHING DEVICE

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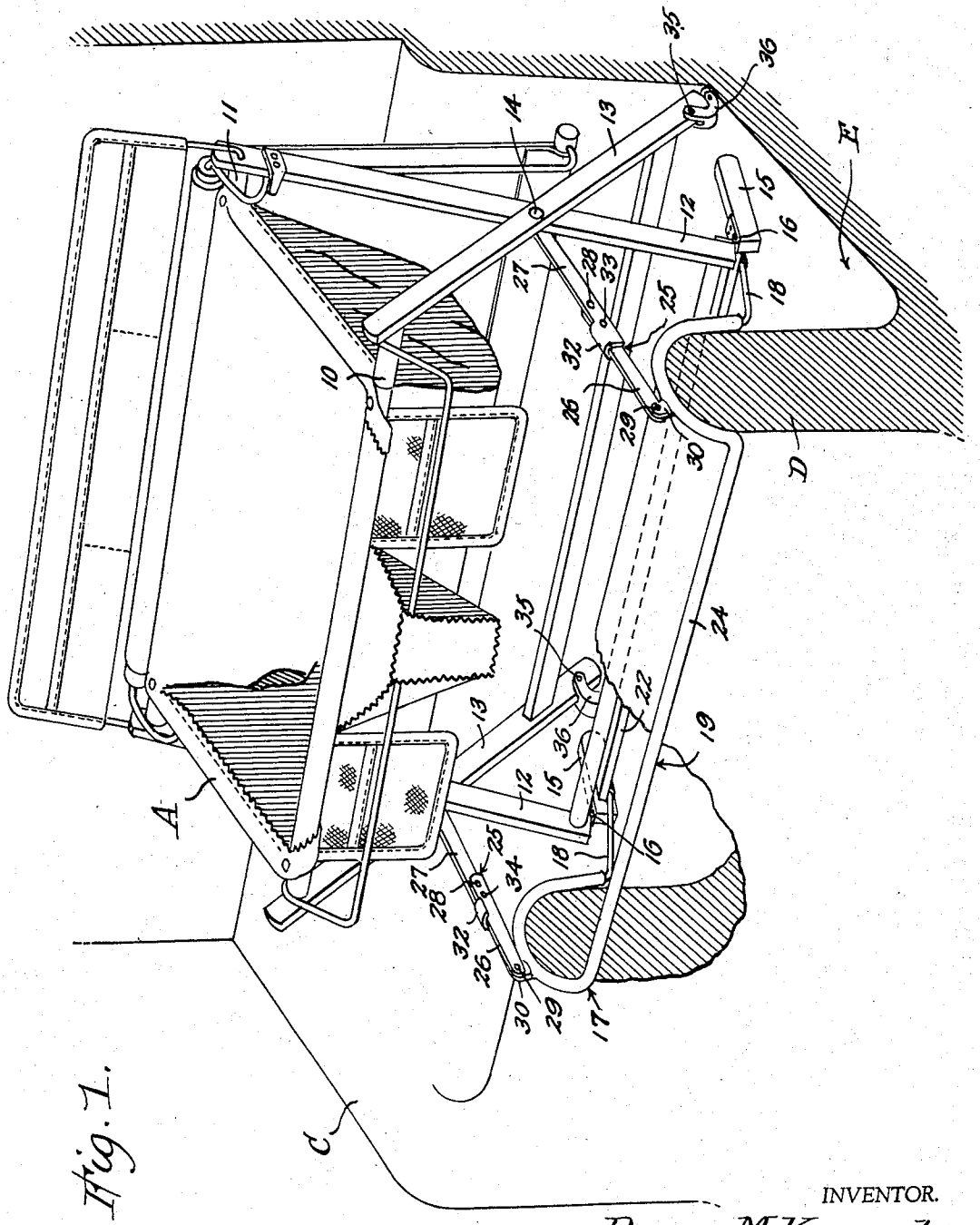


Fig. 1.

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INFANT'S BATHING DEVICE

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Fig. 3.

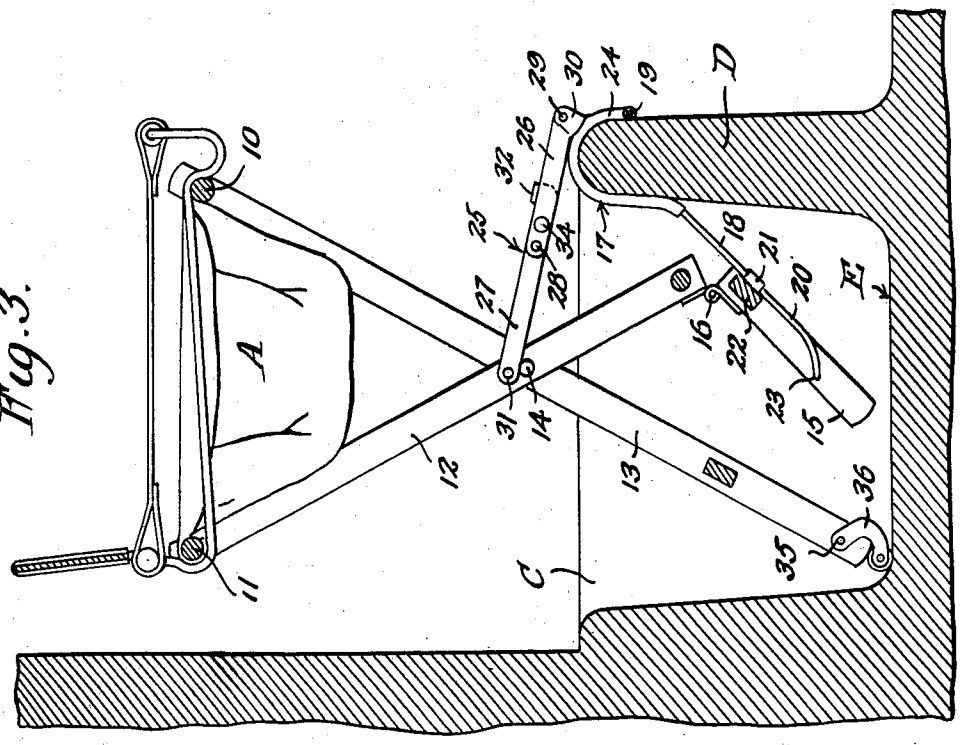
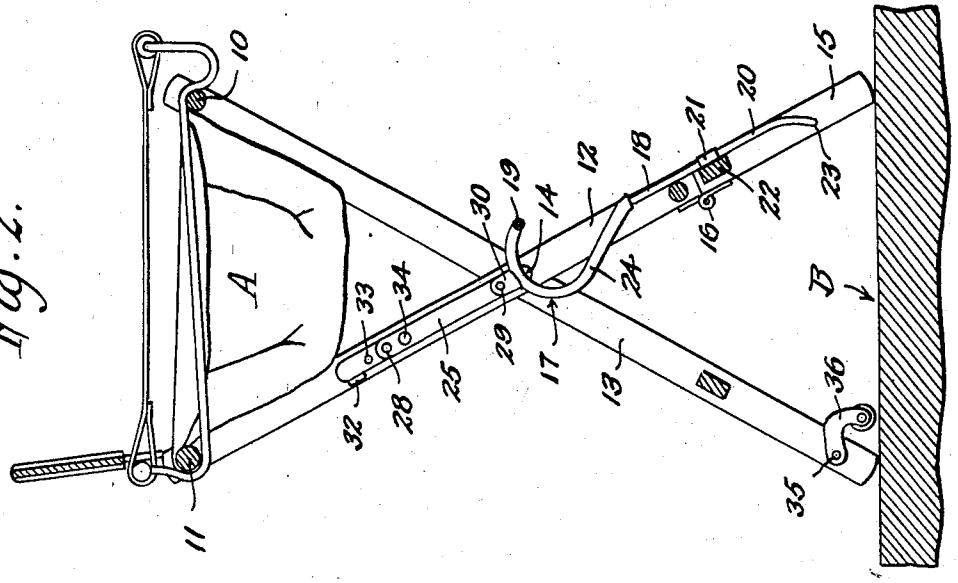


Fig. 2.



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INFANT'S BATHING DEVICE

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Fig. 4.

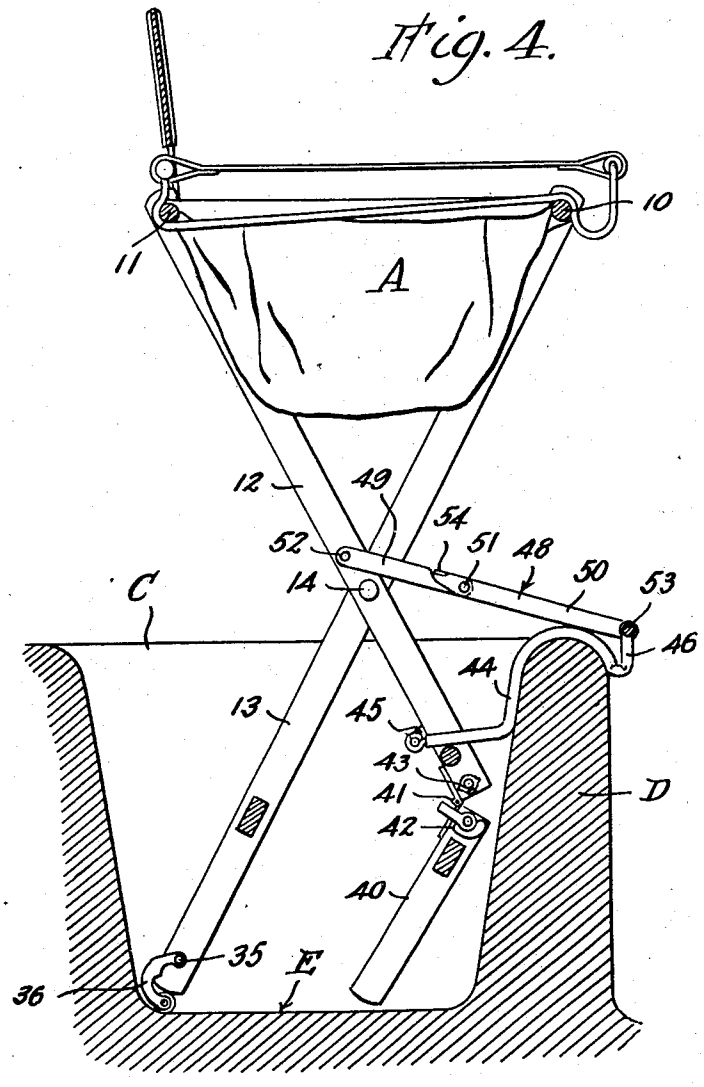
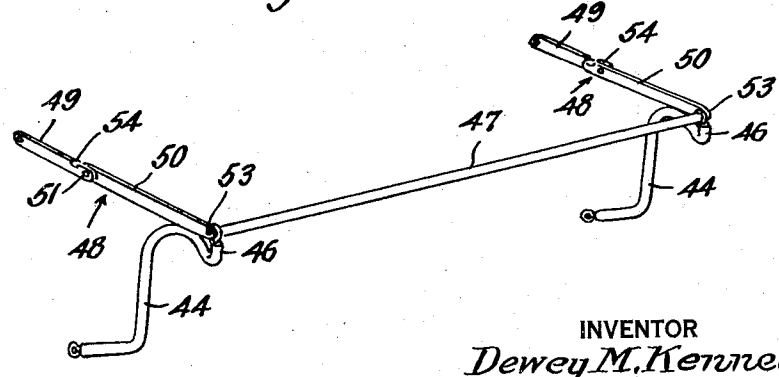


Fig. 5.



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INFANT'S BATHING DEVICE

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Fig. 6.

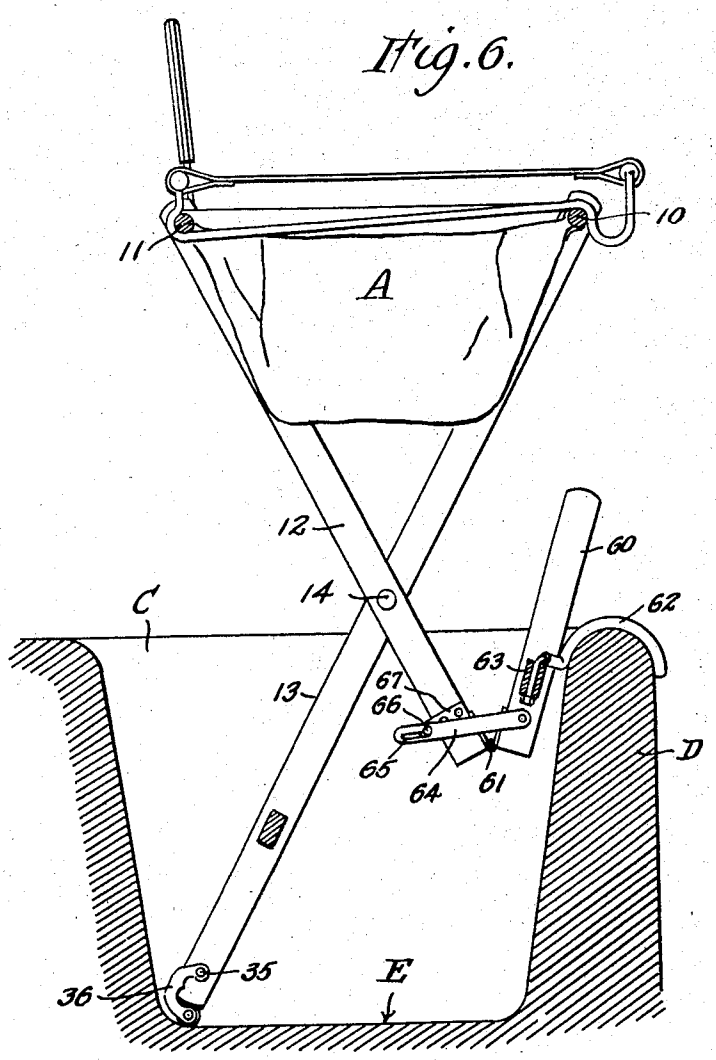


Fig. 8.

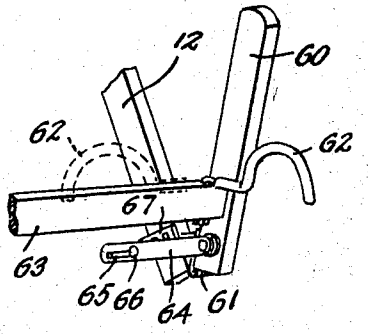
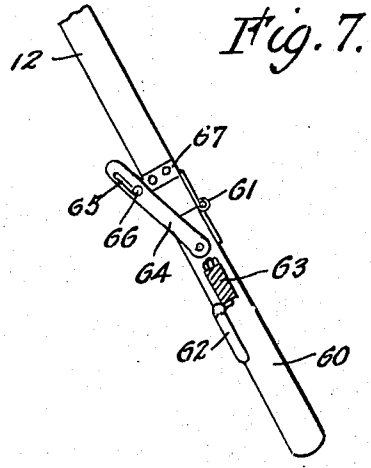


Fig. 7.



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INFANT'S BATHING DEVICE

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Fig. 9.

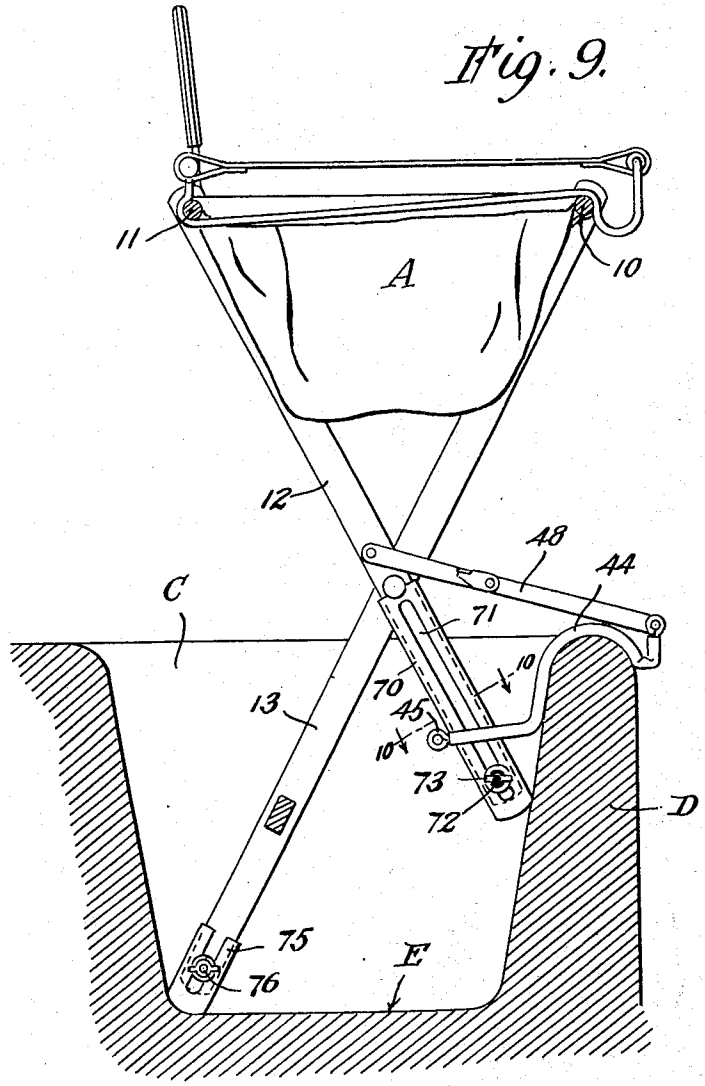
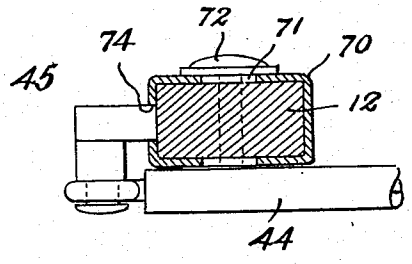


Fig. 10.



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UNITED STATES PATENT OFFICE

2,182,669

INFANT'S BATHING DEVICE

Dewey M. Kennedy, Rochester, N. Y.

Application September 30, 1939, Serial No. 297,401

10 Claims. (Cl. 4—177)

This invention relates to infants' bathing devices of the type which include a folding tub with a collapsible cross leg support therefor and the present invention is particularly directed to certain improvements in said collapsible cross leg support, and is a continuation in part of my co-pending application, Serial No. 255,013 filed February 7, 1939.

Heretofore the cross leg supports of devices of this character have generally been designed and intended to rest upon a level horizontal supporting surface, such as a floor, but due to the restricted floor space in modern bathrooms, especially in apartment houses, a need has arisen for a cross leg support which is adapted for supporting the bathing device within a stationary bathtub.

In order to supply this need, the present invention broadly comprehends in an infant's bathing device, an improved cross leg support which is so constructed and arranged as to render the same readily adaptable for supporting the device either upon the floor or within a stationary bathtub.

The invention further comprehends in an infant's bathing device, a support including a pair of pivotally connected cross legs at each end wherein one of the legs of each pair includes upper and lower sections which are connected together for movement of the lower sections from an active position in which the pairs of cross legs are adapted to support the device on the floor to an inactive position in which the device is adapted to be supported within a stationary bathtub with the said lower sections disposed in an out-of-the-way position, and means carried by the support and adapted to engage with the front wall of the bathtub for supporting the upper sections of said legs when the lower sections thereof are moved to said out-of-the-way position.

More particularly the invention resides in certain of its forms in an improved cross leg support of the indicated character in which the lower sections or terminal portions of one of the legs of each pair are pivoted to the upper sections thereof for swinging movement from an active position in alignment therewith for engagement with the floor to an inactive out-of-the-way position and which legs carry hooked means adapted for embracing engagement with the edge of a stationary bathtub when the said lower sections or terminal portions are swung to the inactive position.

The invention further embodies in another of its forms a cross leg support in which the lower section or terminal portions of one of the legs of each pair are connected with the upper sections thereof for sliding movement from an active position in alignment therewith to an inactive out-of-the-way position and with a yoke carried by said upper sections for embracing engagement with the edge of a stationary bathtub when the said lower sections or terminal portions are moved to the inactive out-of-the-way position.

Due to the fact that the upper surface of the bottom walls of stationary bathtubs are longitudinally pitched for drainage, it is necessary to compensate for said pitched surface so as to insure a level position and stabilized support of the device within a bathtub and to this end the present invention further embodies leveling means provided on one of the legs of each pair of legs of the cross leg support, which means are independently and selectively adjustable to compensate for either a right or left hand pitch.

As a further feature, the invention comprehends locking means for securely retaining the said lower sections or terminal portions and the yoke respectively in their active and inactive positions to thereby insure proper support of the bathing device either when supported on a floor or within a bathtub.

With the above enumerated and other objects in view, the invention is set forth in greater detail in the following specification and illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view illustrating a bathing device constructed in accordance with the invention, arranged within and supported by a stationary bathtub which is broken away and shown in section to more clearly disclose the invention.

Fig. 2 is a vertical sectional view through the bathing device illustrating the cross leg support arranged to support the same upon the floor.

Fig. 3 is a similar view illustrating the cross leg support arranged to support the same within the bathtub.

Fig. 4 is a vertical sectional view through a bathing device illustrating a modified form of cross leg support arranged to support the device within a stationary bathtub.

Fig. 5 is a perspective view illustrating the tub engaging means.

Fig. 6 is a vertical sectional view through a bathing device illustrating the cross leg support constructed in accordance with another form of the invention and showing the same arranged

to support the device within a stationary bathtub.

Fig. 7 is a fragmentary sectional view illustrating the lower leg section disposed in a position for supporting the bathing device upon the floor.

Fig. 8 is a fragmentary perspective view illustrating the lower leg section in the angular disposed position shown in Fig. 6 with the tub engaging means respectively shown in full and dotted lines in active and inactive positions.

Fig. 9 is a vertical sectional view through a bathing device illustrating a cross leg support constructed in accordance with a further modification of the invention and showing the same arranged to support the device within a stationary bathtub.

Fig. 10 is an enlarged detail fragmentary cross sectional view taken approximately on the line 10—10 of Fig. 9.

Referring to the drawings by characters of reference, the infant's bathing device is of the type which includes a foldable tub A of flexible material, the opposite longitudinal upper edges of which tub are anchored to spaced parallel front and rear rails 10 and 11 of a collapsible support which consists of a pair of cross legs 12 and 13 at each end, which pairs of legs are swingably connected together by means of pivots 14 with the rails 10 connecting the upper ends of the legs 13 and the rails 11 connecting the upper ends of the legs 12.

In order to render the device adaptable to be supported either upon a horizontal surface, such as the floor B, as illustrated in Fig. 2, or within a stationary bathtub C, as illustrated in Figs. 1 and 3, the legs 12, in the form of the invention illustrated in Figs. 1 to 3 inclusive, each includes a lower section or terminal portion 15 which is pivotally connected to the upper section or remaining portion thereof by a hinge 16 to permit of the rearward swinging movement of said lower sections 15 from an active position in which the said lower sections are aligned with the upper sections or the remaining portions of said legs as shown in Fig. 2 and in which the pairs of cross legs are adapted to support the device upon the floor, to an inactive angularly disposed position as shown in Figs. 1 and 3 of the drawings in which the device is adapted to be supported within a stationary bathtub with the lower sections of said legs disposed in an out-of-the-way position and the lower ends of the upper sections disposed adjacent to the front wall of the stationary bathtub.

A yoke, designated generally by the reference character 17, is provided which includes a pair of hooked arms 18 joined by a bight 19, and which arms are designed to embracingly engage over the upper edge of the forward wall D of the stationary bathtub C. The free terminal portions 20 of the arms 18 are secured by clips 21 to the lower brace 22 of the legs 12 and the extremities 23 of the arm terminal portions are anchored to the lower sections 15. This secures the yoke 17 to said lower sections 15 for swinging movement of the yoke and lower sections 15 from the inactive position of the yoke shown in Fig. 2, to the active position thereof shown in Figs. 1 and 3, wherein the bathing device is supported within the bathtub C by engagement of the yoke 17 over the upper edge of the forward wall D of the bathtub C and the lower ends of the legs 13 rest upon the bottom wall E of the bathtub. The yoke is preferably constructed of a metallic rod or wire and the bight and portions of the hooked arms 18 are preferably covered with a tubing 24 of rubber or other cushioning material.

In order to lock and securely retain the pivoted lower sections 15 and the yoke 17 in their respective active and inactive positions, a pair of stay hinges or locking braces are employed which are designated generally by the reference character 25. Each stay hinge or locking brace 25 includes rigid strap sections 26 and 27 pivotally connected together at 28, each strap 26 being pivotally connected at its other end at 29 to a bearing ear 30 provided on the arm 18 of the yoke, while the other end of each strap 27 is pivotally connected at 31 to a leg 12 adjacent its point of pivotal connection 14 with a leg 13. Each strap 27 is provided with a stop lug 32 which is adapted to engage with the strap 26 for limiting the stay hinge or locking brace to folding in one direction only and to dispose the straps 26 and 27 in aligned position when fully opened. In addition to the lug 32, the strap sections of each stay hinge are respectively provided with interengageable detent elements 33 and 34 which function to lock the strap sections in fully opened longitudinally aligned relation so as to prevent casual or unintentional folding thereof. When the stay hinge strap sections are in opened aligned relation, they serve as a means to secure the yoke in its active position for engagement over the upper edge of the front wall D of the bathtub C with the lower sections 15 swung rearwardly at an angle to the remainder of the legs 12 and to their out-of-the-way inactive position. It will be further noted that when the bathing device is supported on the floor, as illustrated in Fig. 2, the pivotal points of connection 28, 29 and 31 are disposed approximately at dead center so as to prevent casual or unintentional swinging of the lower sections 15 with reference to the remainder of the legs 12.

In order to compensate for the usual pitch of the upper surface of the bottom wall E of the bathtub C and thereby insure a level position and stabilized support of the device within the tub, the lower end of each leg 13 has pivotally connected thereto, as at 35, an element 36, the free terminal of which, when in its active position, is disposed under the lower end of the leg, as illustrated in Figs. 1 and 3. It is understood that the elements 36 are selectively used on the legs 13 which are nearest the drain, while the other element 36 is disposed in an inactive position. When the bathing device is supported upon the floor B or an equivalent horizontal surface, both of the elements 36 are swung upwardly to an inactive position.

In this form of the invention, as well as in the remaining forms thereof, the legs 12, one of which is located at each end of the support, constitute the front legs, while the legs 13 constitute the rear legs thereof.

In the form of the invention illustrated in Figs. 4 and 5, the legs 12 each includes a lower section or terminal portion 40 which is hingedly connected to the upper section or remaining portion thereof by a hinge 41 for rearward swinging of the lower sections from an active position in alignment with the upper sections thereof to an inactive out-of-the-way position, as shown in Fig. 4. Adjacent the hinge 41 the lower and upper sections of each of said legs are provided respectively with an interengageable latch and keeper element 42 and

43 for locking the lower sections 40 to the upper sections of said legs in aligned active position therewith.

A pair of hooked arms 44 are provided which are adapted to engage with the inner face of the forward wall D of the stationary bathtub C and to extend over and embracingly engage the upper edge of the said forward wall. The inner ends of the hooked arms 44 are pivotally connected respectively to bearing ears 45 secured to the upper sections of the legs 12 and have their rebent outer terminals 46 connected to the ends of a longitudinally extending bar 47 for effecting simultaneous swinging movement of the hooked arms on the pivotal connections 45 from the active position shown in Fig. 4 whereby the upper sections of the legs 12 are supported when the bathing device is disposed within the stationary bathtub C with the lower sections 40 of the said legs disposed in the out-of-the-way inactive position and with the hooked arms 44 engaging over the front wall D of the bathtub.

In order to lock and retain the hooked arms 44 in the active position shown in Fig. 4, a pair of stay hinges or locking braces, designated generally by the reference character 48, are provided which include rigid strap sections 49 and 50 pivotally connected together as at 51. The strap sections 49 are respectively pivoted as at 52 to the upper sections of the legs 12 adjacent the pivotal connection 14 of the legs 12 and 13, while the outer ends of the strap sections 50 are pivotally connected as at 53 to the ends of the longitudinally extending bar 47. The strap sections 50 are each provided with a stop lug 54 adapted to engage with the strap section 49 for limiting the folding of the stay hinges 48 in one direction and to dispose the trap sections 49 and 50 in aligned position when fully extended for locking the hooked terminals 44 in engagement over the upper edge of the forward wall D of the stationary bathtub.

In the form of the invention illustrated in Figs. 6 to 8 inclusive, the legs 12 each includes a lower section or terminal portion 60 which is hingedly connected to the upper section or remaining portion thereof by a hinge 61 for forward swinging of the lower sections from a position in alignment with the upper sections thereof for supporting the bathing device upon the floor to an angularly disposed position as shown in Figs. 6 and 8 of the drawings when the device is arranged and supported in a stationary bathtub. In this form of the invention, a pair of hooked arms 62 are provided for embracing engagement over the upper edge of the forward wall D of a stationary bathtub C when the lower sections are swung to said angularly disposed position for supporting the bathing device within the said bathtub, and said hooked arms have their inner ends pivotally connected to the underside of a cross brace 63 joining the lower sections 60 and are located adjacent the ends of said cross brace for pivotal swinging movement from the active position shown in Fig. 6 in which the hooked arms are adapted to engage over the upper edge of the said wall D to an inactive position in the plane of and between the lower sections 60 of the legs 12 as shown in Fig. 7.

A pair of locking braces 64 are pivoted at one of their ends to the lower sections 60 respectively and are each provided at their opposite ends with a bayonet slot 65 which engages a pivot pin 66 carried by a bracket 67 secured to the upper section of each of said legs 12. This permits of the forward swinging of the lower sections 60 from the aligned position shown in Fig. 7 to the angularly disposed position shown in Figs. 6 and 8 and the locking of the said lower sections in both positions by engagement of the pins 66 in the offset portions at the inner end of the bayonet slots 65.

In the form of the invention illustrated in Figs. 9 and 10 of the drawings, the legs 12 of the support each includes a lower section or terminal portion 70 which is of tubular construction and is arranged upon the lower end of the upper section or remaining portion thereof for sliding movement from an extended position in which the legs 12 are of the same length as the legs 13 for supporting the bathing device upon the floor to a retracted position as shown in Fig. 9 when the bathing device is arranged and supported within a stationary bathtub.

The lower sections 70 are provided with elongated slots 71 through which protrudes a screw 72 for engagement by a wing nut 73 for locking the lower sections 70 in extended or retracted position. This form of the invention is provided with a pair of hooked arms 44 for embracing engagement over the upper edge of the forward wall D of a stationary bathtub C and a pair of stay hinges 48 for locking the hooked terminals in engagement over the upper edge of the said forward wall D and which hooked arms and stay hinges are of the same construction as that used in association with the form of the invention shown in Figs. 4 and 5. In this form, however, the lower sections 70 are each provided with an elongated slot 74 through which protrudes the bearing ear 45 carried by the upper sections of the legs 12 so as to permit of sliding movement of the lower sections 70 on the lower ends of said legs 12.

In lieu of the adjustable elements 36 in the other forms of the invention for compensating for the pitch in the upper surface of the bottom wall E of the bathtub C, the legs 13 in this form of the invention are each provided with a tubular foot 75 telescopically engaging the lower ends of the said legs and adapted to be locked in adjusted position thereon by a set screw 76. The feet 75 are adapted to be selectively retracted or extended for equalizing the lengths of the legs 13 when the bathing device is supported upon the floor or shortening one or the other of the said legs when the bathing device is supported in a stationary bathtub.

What is claimed is:

1. In an infant's bathing device, a cross leg support including pivotally connected pairs of front and rear legs, each of said front legs having a hingedly connected lower portion thereof adjustable from an active position in alignment therewith for engagement with the floor, to an inactive position, and means carried by said front leg portions and adjustable therewith for engaging the front wall of a bathtub to cooperate with the rear legs for supporting said bathing device within said bathtub when the front leg portions are adjusted to an inactive position.

2. In an infant's bathing device, a cross leg support including pivotally connected pairs of front and rear legs, each of said front legs having a hingedly connected lower portion thereof swingable rearwardly from an active position in alignment therewith for engagement with the floor to an inactive position, hooked means carried by said front leg portions and swingable therewith for engaging over the upper edge of the front wall of a bathtub to cooperate with the rear legs for supporting said bathing device with-

in said bathtub when the front leg portions are swung rearwardly.

3. In an infant's bathing device, a cross leg support including pivotally connected pairs of front and rear legs, each of said front legs having a hingedly connected lower portion thereof swingable rearwardly from an active position in alignment therewith for engagement with the floor to an inactive position, hooked means carried by said front leg portions and swingable therewith for engaging over the upper edge of the front wall of a bathtub to cooperate with the rear legs for supporting said bathing device within said bathtub when the front leg portions are swung rearwardly, and a common means for locking said front leg portions and said hooked means respectively in their active positions.

4. In an infant's bathing device, a support including pairs of pivotally connected crossed legs, corresponding legs of each pair having hingedly connected lower terminal portions, said terminal portions being swingable rearwardly from an active position in alignment therewith to an inactive position, and arms carried by said terminal portions and swingable therewith and extending upwardly therefrom and provided with hooked end portions for engagement over the upper edge of the front wall of a bathtub to cooperate with the opposite pairs of legs for supporting said bathing device within said bathtub when the said lower terminal portions are swung rearwardly.

5. In an infant's bathing device, a support including pairs of pivotally connected crossed legs, corresponding legs of each pair having hingedly connected lower terminal portions, said terminal portions being swingable rearwardly from an aligned active position for engagement with the floor to an inactive position, arms carried by said terminal portions and swingable therewith and extending upwardly therefrom and provided with hooked end portions for engagement over the upper edge of the front wall of a bathtub to cooperate with the opposite pair of legs for supporting said bathing device within said bathtub when the said lower terminal portions are swung rearwardly, pairs of hingedly connected strap elements pivotally connected to the hooked end portions of said arms and to the support adjacent the pivotal connection of the crossed legs, and stop means on said hingedly connected strap elements for limiting the folding thereof in one direction and for locking said lower terminal portions and said hooked end portions respectively in their active positions.

6. In an infant's bathing device, a cross leg support, including pivotally connected pairs of front and rear legs, each of said front legs having a hingedly connected lower terminal swingable rearwardly from an active poistion in alignment therewith for engagement with the floor to an inactive position, means carried by said front leg terminals and swingable therewith for engaging the front wall of a bathtub to cooperate with the rear legs for supporting said bathing device within a stationary bathtub when the front leg terminals are swung rearwardly, a common means for locking said front leg terminals and said first means respectively in their active positions, and means on the lower ends of said rear legs selectively adjustable to an active position to compensate for the pitch of the upper surface of the bottom wall of said stationary bathtub.

7. In an infant's bathing device, a cross leg support including pivotally connected pairs of front and rear legs, each of said front legs having a hingedly connected lower terminal swingable rearwardly from an active position in alignment therewith for engagement with the floor to an inactive position, hooked means carried by said front leg terminals and swingable therewith for engaging over the upper edge of the front wall of a stationary bathtub to cooperate with the rear legs for supporting said bathing device within said stationary bathtub when the front leg terminals are swung rearwardly, a common means for locking said front leg terminals and said hooked means respectively in their active positions, and means on the lower ends of said rear legs selectively adjustable to an active position to compensate for the pitch of the upper surface of the bottom wall of said bathtub.

8. In an infant's bathing device, a support including a pair of pivotally connected cross legs at each end, one of the legs of each pair including upper and lower sections, means connecting the sections of each of said legs together for movement of the lower sections from an active position in which the pairs of cross legs are adapted to support the device upon the floor to an inactive position in which the device is adapted to be supported within a stationary bathtub with the lower sections of said legs disposed in an out-of-the-way position and the lower ends of the upper sections disposed adjacent to the front wall of the bathtub, and means carried by said support and adapted to engage with the front wall of the bathtub for supporting the upper sections of said legs when the lower sections are moved to said out-of-the-way position.

9. In an infant's bathing device of the type having a flexible tub and an associated dressing table, a support therefor including a pair of pivotally connected cross legs at each end thereof, one of the legs of each pair including upper and lower sections, means connecting the sections of each leg together for movement of the lower sections from an active position in which the pairs of cross legs are adapted to support the device on the floor to an inactive position in which the device is adapted to be supported within a stationary bathtub with the lower sections of said legs disposed in an out-of-the-way position and the said flexible tub and dressing table disposed adjacent to and above the front wall of the stationary bathtub, and means carried by said support and adapted to engage over the front wall of the stationary bathtub for supporting the said upper sections when the lower sections are moved to the out-of-the-way position.

10. In an infant's bathing device, a support including a pair of pivotally connected cross legs at each end, one of the legs of each pair including upper and lower sections, means connecting the sections of each leg together for movement of the lower sections from an active position in which the pairs of cross legs are adapted to support the device on the floor to an inactive position in which the device is adapted to be supported within a stationary bathtub with the lower sections of said legs disposed in an out-of-the-way position, and means carried by said upper and lower sections and movable with the lower sections for engagement with the front wall of the stationary bathtub when the lower sections are moved to the out-of-the-way position.

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