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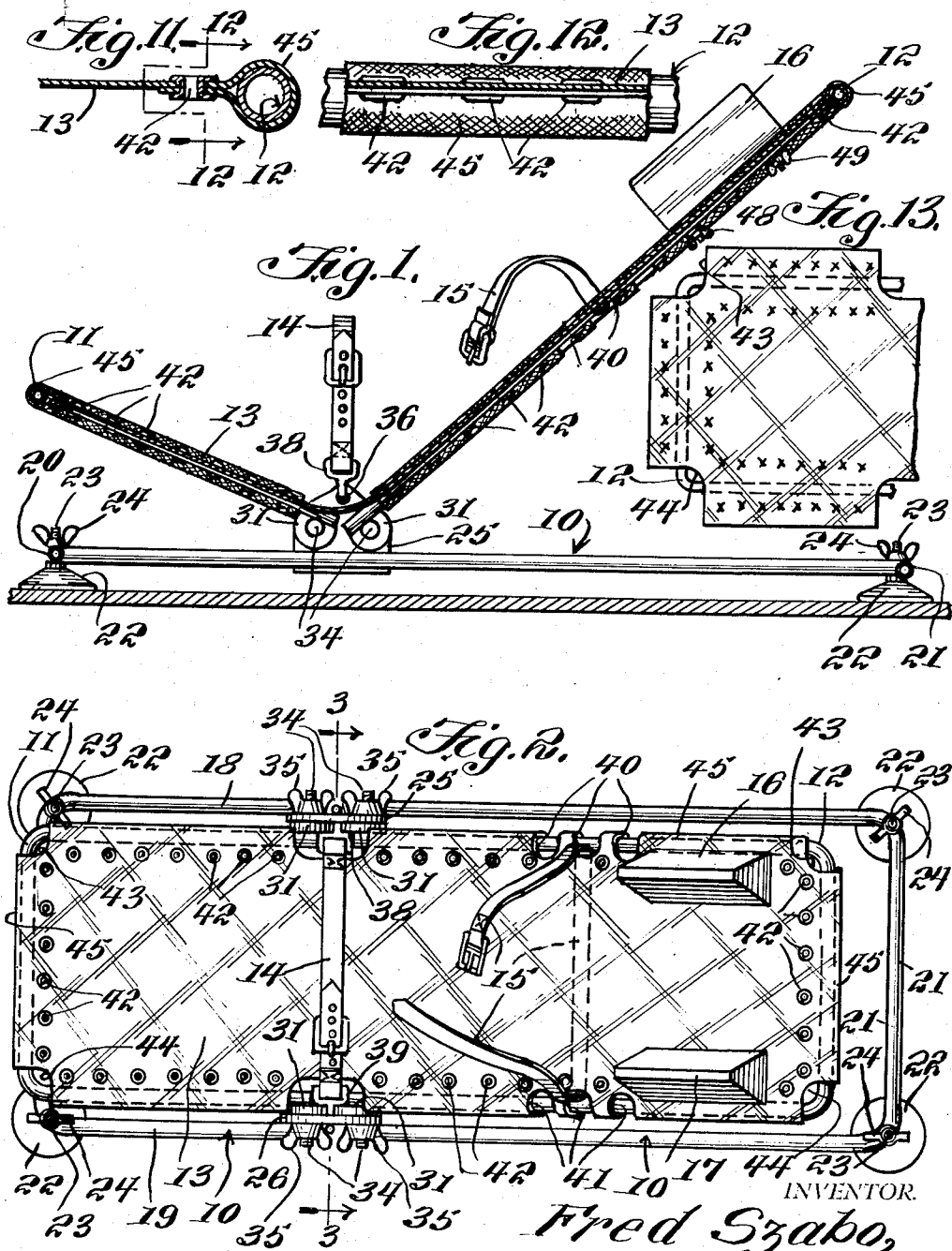
F. SZABO

2,647,561

INVALID CHILD'S BATHING AND AMUSEMENT CHAIR

Filed Sept. 12, 1951

2 Sheets-Sheet 1



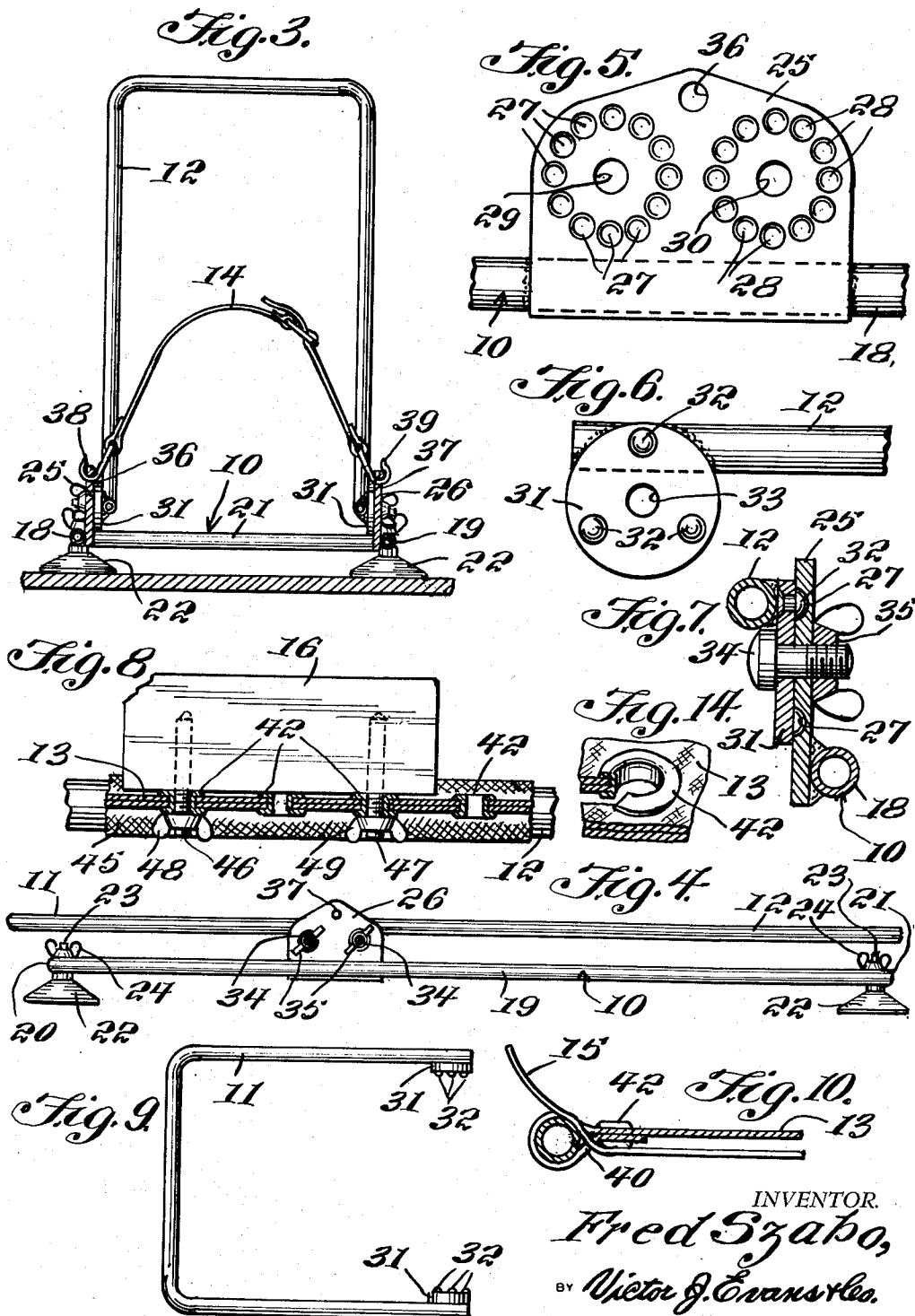
INVENTOR.
Fred Szabo,
BY *Victor J. Cranstetter*

ATTORNEYS

F. SZABO

INVALID CHILD'S BATHING AND AMUSEMENT CHAIR

2 Sheets-Sheet 2



INVENTOR

Fred Szabo,
BY *Nictor J. Evans & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE

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INVALID CHILD'S BATHING AND
AMUSEMENT CHAIR

Fred Szabo, Corona, Calif.

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1 Claim. (Cl. 155-118)

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This invention relates to folding seats and chairs for invalids and particularly children afflicted with infantile paralysis and the like and in particular a pair of canvas covered frames, one forming a seat, and the other a back, pivotally mounted on a base frame with vacuum cups positioned at the corners of the base frame for retaining the seating position in a bathtub or on a surface upon which it is desired to position the seat.

The purpose of this invention is to provide an invalid support having an adjustable seat and also an adjustable back in which the device, as a unit, may be placed in a bathtub or retained at a convenient point whereby invalid children strapped to the seat and back may be bathed or entertained.

Various types of invalid chairs have been provided for holding children and the like, however, it is difficult to use conventional devices of this type as a means of holding afflicted children in a bathtub or in other positions for amusement and the like. With this thought in mind this invention contemplates a supporting device having a base frame with a seat and back hingedly mounted on the frame in which both the seat and the back are independently adjustable to compensate for the condition of the patient.

The object of this invention is, therefore, to provide means for forming a seat for invalids and the like in which the parts are readily adjustable and in which the entire seat structure may be positioned in a bathtub to facilitate bathing the patient.

Another object of the invention is to provide an adjustable seat particularly adapted for invalid children that may be retained in position on a floor, or table, or in a bathtub or the like.

A further object of the invention is to provide an adjustable invalid seat having means for retaining the seat in position on a stationary surface in which the seat is of a comparatively simple and economical construction.

With these and other objects and advantages in view the invention embodies a substantially rectangular shaped tubular frame having vacuum cups at the corners and having plates with radially disposed indentations therein extended upwardly from side bars thereof, canvas covered seat and back frames pivotally mounted on the plates with bolts having wing nuts thereon whereby the positions of the seat and back frames are readily adjustable, and straps for retaining a patient in position upon the frames.

Other features and advantages of the invention

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will appear from the following description taken in connection with the drawings wherein:

Figure 1 is a longitudinal section through the adjustable seat showing the parts with the seat and back in upwardly extended positions.

Figure 2 is a plan view of the seat.

Figure 3 is a cross section through the seat taken on line 3-3 of Figure 2, showing the back frame extended upwardly and showing the frame with the canvas removed.

Figure 4 is a side elevational view showing the seat, back, and base frames and showing the device with the seat and back frames collapsed or folded to positions for transportation and storage.

Figure 5 is an elevational view showing one of the vertically disposed clamping plates on an enlarged scale and with other parts omitted.

Figure 6 is a detail illustrating the lower end of one of the side bars of the seat and back frames and showing a disc on the end of the bar with projections positioned to register with indentations of the mounting plate.

Figure 7 is a cross section through one of the sides of the device, taken substantially on line 3-3 of Figure 2 and showing the parts on an enlarged scale.

Figure 8 is a detail showing a section through the upper part of the back frame and illustrating the mounting of a head block on the canvas or material of the back.

Figure 9 is a detail showing a plan view of the seat frame with the canvas and other parts omitted.

Figure 10 is a detail also on an enlarged scale illustrating a method of attaching one of the holding straps to the back of the seat.

Figure 11 is a detail showing a cross section through a rail of one of the frames illustrating the method of attaching the canvas covering to the frames.

Figure 12 is a section taken on line 12-12 of Figure 11 showing grommets connecting the edges of the material to the body of the material on the frames.

Figure 13 is a detail showing an end of one of the frames and illustrating a section of the canvas cover before the edges of the cover are formed around the rails of the frames.

Figure 14 is a detail illustrating the mounting of one of the grommets in the canvas covering of the seat.

Referring now to the drawings wherein like reference characters denote corresponding parts the improved invalid seat of this invention in-

cludes a base frame 10, a seat frame 11, a back frame 12, a canvas cover 13, retaining straps 14 and 15 and head rests 16 and 17.

The base frame 10, which is substantially rectangular shape in plan, is formed with side rails 18 and 19 and end rails 20 and 21. The base is provided, at the corners, with vacuum cups 22 and the cups are provided with threaded studs 23 which extend through the frame. Thumb nuts 24 are positioned on the threaded studs for securing the vacuum cups to the base frame.

Mounting plates 25 and 26, as shown in detail in Figure 5 are secured, preferably by welding, to the side rails 18 and 19 of the base frame and these plates are provided with radially disposed indentations 27 and 28, the indentations 27 being positioned around a bolt hole 29 and the indentations 28 around a bolt hole 30.

The lower ends of the side rails of the frames 11 and 12 are provided with discs 31 with radially disposed projections 32 positioned around bolt holes 33 therein and, as illustrated in Figure 7, the discs 31 are secured to the mounting plates with the projections 32 in the indentations 27 and 28 with threaded studs 34 having thumb or wing nuts 35 thereon.

By this means the positions of the seat and back are readily adjustable independently and with the projections 32 positively held in the indentations both the seat and back are adapted to remain in position with the weight of an invalid person.

The mounting plates 25 and 26 are provided with openings 36 and 37, respectively, through which hooks 38 and 39 of the strap 14 are positioned.

The strap 15, which is mounted on the back of the seat, extends through openings 40 and 41 in the canvas cover and it will be understood that the position of this strap is readily adjustable to compensate for the size of the child or to facilitate positioning the strap on the child. As illustrated in Figure 10 the strap 15 extends through both layers of canvas and extends across the back on the under side of the canvas.

As illustrated in Figures 11 and 12 the edges of the canvas are wrapped around the rails or bars of the frames and the edges are secured to the body of the material by the grommets 42 as illustrated in Figure 3. The corners of the canvas or other covering material may be cut away, as shown at the points 43 and 44 to facilitate wrapping the edges 45 of the canvas around the frame.

The head rests, which are preferably formed of wood, are mounted on the back of the seat with threaded studs 46 and 47 with thumb or wing nuts 48 and 49 thereon and, as shown in Figure 8,

the studs extend through the grommets or eyelets 42 which secure the canvas covering to the frames.

With the parts arranged in this manner an invalid child may be strapped to the seat and the seat and back may be adjusted to comfortably support the child. With the child in position on the seat the seat may be placed in a bathtub to facilitate bathing the child or it may be placed on a table, floor, or stand to retain the child in a convenient position for entertainment, or for feeding and the like.

It will be understood that modifications may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

In an adjustable seat, the combination which comprises a rectangular shaped tubular frame, vacuum cups carried by the corners of said frame, mounting plates with spaced bolt holes there-through and having radially disposed indentations positioned around said bolt holes extended upwardly from side members of said frames, the upper ends of each of said mounting plates being substantially triangular in shape and having an opening therein receiving a hook shaped element, substantially U-shaped back and seat frames having discs with bolt holes therethrough and having radially disposed projections around said bolt holes mounted on the ends of the arms thereof, the radially disposed projections of the discs positioned to register with the indentations of the mounting plates, a canvas sheet positioned on the seat and back frames with the edges of the sheet extended around rails of the frames and secured to the body of the sheet with grommets, a retaining means secured to the hook-shaped elements received in the opening in each of said mounting plates, and studs with thumb nuts thereon extended through said discs and mounting plates for retaining the seat and back frames in adjusted positions.

FRED SZABO.

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