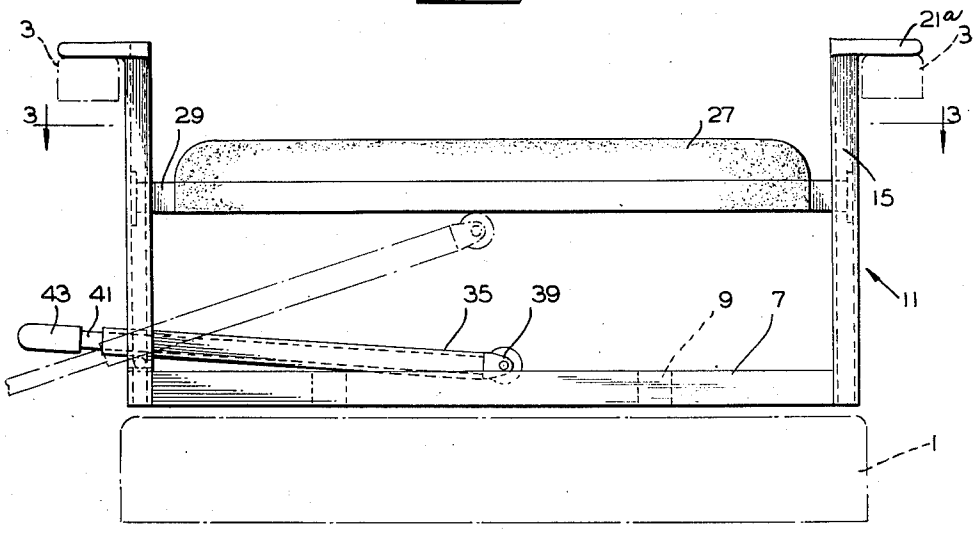
May 13, 1958 T. TANNER 2,834,401

AUXILIARY CHAIR

Filed March 8, 1957 2 Sheets-Sheet 1

FIG 1.



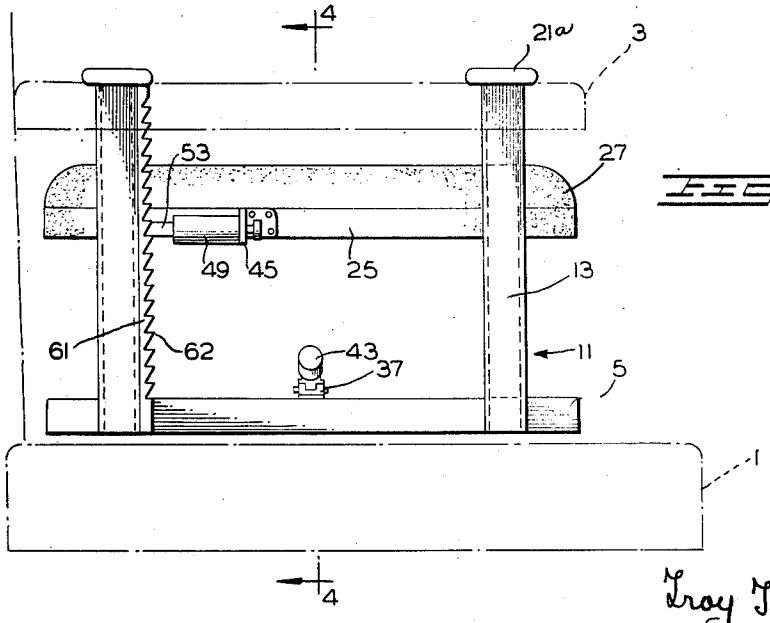


FIG 2.

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May 13, 1958 T. TANNER 2,834,401

AUXILIARY CHAIR

Filed March 8, 1957 2 Sheets-Sheet 2

FIG 3.

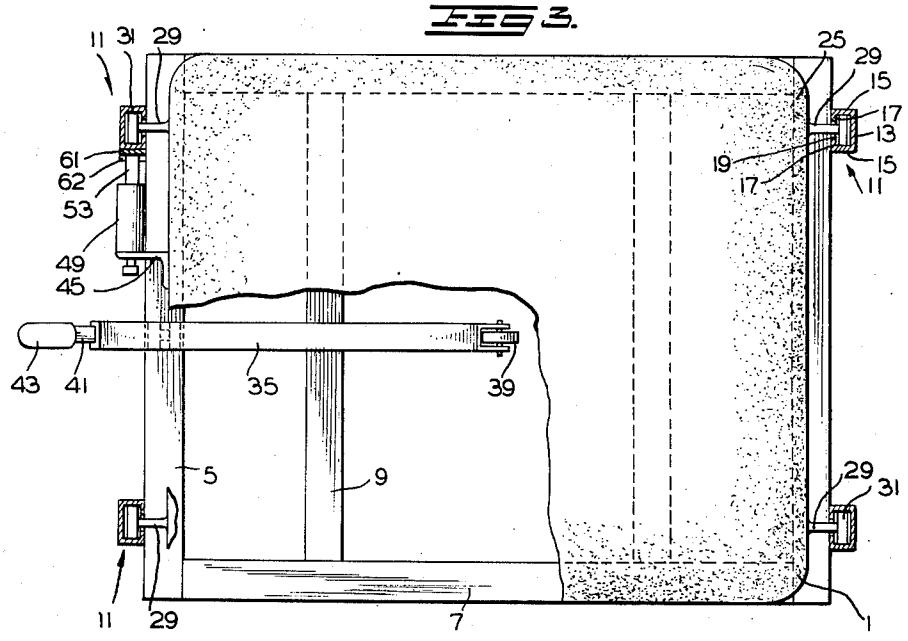


FIG 4.

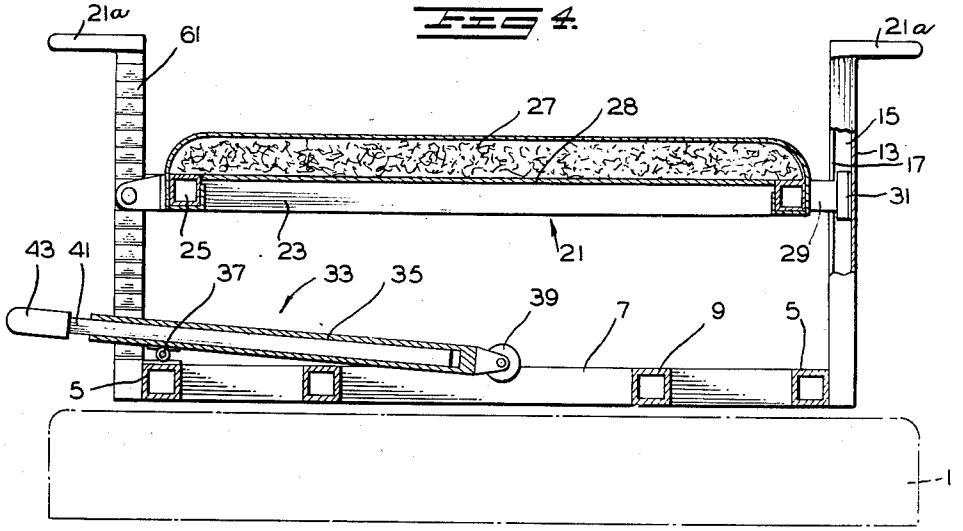
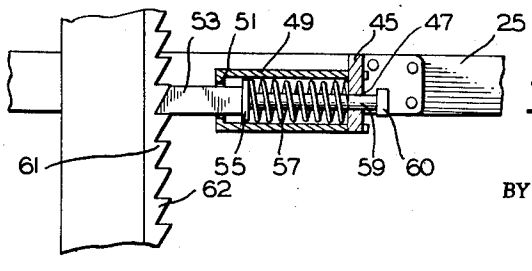


FIG 5.



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2,834,401

AUXILIARY CHAIR

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Application March 8, 1957, Serial No. 644,837

2 Claims. (Cl. 155—131)

This invention relates broadly to the art of auxiliary chairs and in its more specific aspects relates to such chairs which are designed especially for use by children and are adapted for combination with a basic chair or the like structure, such as barber chairs and dental and medical chairs; and the nature and objects of the invention will be readily recognized and understood by those skilled in the arts to which it relates in the light of the following explanation and detailed description of the accompanying drawings illustrating what I at present believe to be preferred embodiments or mechanical expressions of my invention from among various other forms, arrangements, combinations and constructions, of which the invention is capable within the spirit and scope thereof.

The conventional barber or dental chair is designed dimensionally to fit adults and is usually adjustable so as to bring the head of the adult sitting in the chair to a height which is convenient to the barber or dentist. The usual chair of this nature does not have sufficient range of adjustment to raise it to a level bringing a child's head up to a convenient level and if no auxiliary chair is available it is difficult for the work to be done on the child.

I am aware that auxiliary chairs have been proposed and used, however all that I have knowledge of are objectionable for a variety of reasons. For instance, some prior art auxiliary chairs comprise merely a seat or board extended between and supported by the arms or other stationary elements of the basic supporting structure. These are inherently impractical for they provide no range of adjustment beyond that provided in the basic supporting structure. In some instances such basic supporting structure may not be provided with any adjustable feature whatsoever which substantially reduces the usefulness of the auxiliary chair. Auxiliary chairs have also been devised which are incorporated with the basic chair and are adjustable, however such arrangements require relatively complex and expensive organizations connecting the adjusting mechanism of the auxiliary chair with the hydraulic mechanism of the basic chair. It will be appreciated that in such organizations valves, controls and other equipment are essential and a further objectionable characteristic of such arrangements is that certain parts of the organization must be permanently associated with the basic chair and cannot be removed when the auxiliary chair is not in use. Other types of auxiliary chairs have also been known in the prior art but none of them is free of certain disadvantages which are overcome by the auxiliary chair I have devised.

It has been one of my major purposes to devise an auxiliary chair which is mounted on a basic chair or other supporting structure and involves simple adjusting mechanism whereby the vertical level of the seat may be adjusted independently of the adjusting mechanism of the basic chair.

A further object of my invention has been to provide an auxiliary chair as an independent unit which is easily mounted on and removed from the basic chair or other supporting structure. In accomplishing the objects of this invention I have designed my auxiliary chair so that it is merely removably supported by the basic chair or supporting structure, no alterations of any manner whatsoever are made on the basic chair, no parts must be affixed to the basic chair and no connection is made to the hydraulic or other adjustable means of the basic chair for the adjusting means of my auxiliary chair are completely independent of the basic chair.

The auxiliary chair of this invention constitutes a unitary, compact organization which is mounted on the basic chair as a unit and is removed therefrom as a unit.

In designing my highly advantageous auxiliary chair I have not sacrificed economy of production and use. It has few working parts, none of which are complex or expensive to make, it is efficient in operation and no skill is necessary in either mounting or removing it or in adjusting the seat thereof to various heights. It is lightweight to facilitate its handling in use.

With the foregoing general objects, features and results in view, as well as certain others which will be apparent from the following explanation, the invention consists in certain novel features in design, construction, mounting and combination of elements, as will be more fully and particularly referred to and specified hereinafter.

Referring to the accompanying drawing:

Fig. 1 is a view in front elevation of the auxiliary chair in mounted position on a basic chair and with the seat of the auxiliary chair in a raised adjusted position.

Fig. 2 is a view in side elevation of the auxiliary chair in mounted position on a basic chair and with the seat of the auxiliary chair in a raised adjusted position.

Fig. 3 is a view taken on line 3—3 of Fig. 1.

Fig. 4 is a view taken on line 4—4 of Fig. 2.

Fig. 5 is an enlarged fragmentary view of the locking mechanism whereby the seat of the auxiliary chair is releasably maintained at any of a plurality of adjusted heights.

In the accompanying drawings I have used the numeral 1 to designate any usual seat of a basic supporting structure for my auxiliary chair, such supporting structure may be a barber chair, a dental chair or any other structure adaptable for supporting an auxiliary chair. The basic supporting structure is provided with a pair of usual arm members 3. As will become apparent as this description proceeds my auxiliary chair is adapted for suspended removable support from the arms 3 of the basic chair, the seat of my auxiliary chair being positioned in the vertical plane of seat 1 in adjusted spaced relation with respect thereto.

The auxiliary chair of this invention comprises a supporting framework consisting of end members 5, front and rear members 7 extending between and connected to said end members and any suitable number of reinforcing members 9 connected to and extending between members 7. The front and rear members 7 are of less length than the distance between the arms 3 of the basic chair and the length of the end members 5 is approximately the same as the depth of the seat 1 of the basic chair to thereby form a generally rectangular frame which will fit between the arms 3 and over the seat 1 as will be hereinafter fully explained. While I have shown the members 5, 7 and 9 as being generally hollow rectangular shapes of metal it is to be distinctly understood that such members may be formed as solid rods, slats, tubular elements or of any other suitable type which will serve to provide the necessary framework for my auxiliary chair.

Each end member 5 is provided with a pair of upstanding guide tracks or channel members designated generally

by the numeral 11, a channel member 11 being fixed, as by welding or the like, to a member 5 adjacent to but removed from each end thereof, to extend vertically upwardly from the end members 5. Each guide track or channel member preferably being formed of metal and shaped to provide a web 13 extending between and connecting side walls 15, an inwardly directed flange 17 being extended inwardly from the inner edge of each side wall 15 and the inner edges of the flanges 17 being spaced apart to form a slot 19 therebetween. Each upstanding guide track or channel member 11 is provided at its top with a laterally outwardly extending supporting element 21*a* which may be termed a "hook" and as will be made clear hereinafter provides the suspension means for the supporting framework of the auxiliary chair which I have just described.

The supporting framework comprising the members 5, 7 and 9, the upstanding channel members 11 and the hooks 21 is adapted to adjustably support a seat framework designated in its entirety by the numeral 21. The adjustable seat framework comprises a frame of generally rectangular configuration which consists of the front and rear members 23 connected together at their ends by the end members 25. The members forming the seat frame may be of the same type as the supporting framework members 5, 7 and 9 and the seat frame is dimensionally such that it will fit and be vertically adjustable between the upright guide tracks or channel members 11. I mount in any suitable manner a seat cushion or the like directly on a relatively rigid base 28, the base 28 being fixedly supported on the seat frame comprising members 23 and 25.

Adjacent to each end of each end member 25 but spaced therefrom I weld or attach in any suitable manner laterally extending arms 29 which extend rigidly from the seat frame. The arms 29 are positioned on the end members 25 of the seat frame so that each arm will be in line with and extend into the slot 19 which is provided in the guide tracks or channel members 11. On the outer end of each arm 29 I fix a shoe or plate 31 which is of approximately the same thickness as the depth of the track formed within the channel members 11. It will now be apparent that the arms 29 extend into the channel members through the slots 19 formed therein and that the shoes are positioned within the channel members and are adapted to travel vertically therein as the seat is adjusted vertically relative to the supporting framework as will be described fully hereinafter.

In order to easily and rapidly move the seat 21 upwardly I provide an adjusting or raising mechanism designated generally by the numeral 33. This raising mechanism consists of a sheath or sleeve 35 constituting a fulcrum bar which is hinged or pivotally mounted as at 37 on an end member 5 of the supporting framework so that it may rock thereon. As will be apparent from consideration of the drawings the outer end of the sheath extends beyond the member 5 and the sheath extends inwardly therefrom a substantial distance, the sheath being open at its outer end and preferably closed at its inner end. On its inner end the sheath mounts a roller member 39. I provide an operating lever 41 for causing the sheath to fulcrum on its pivot point 37 in the seat raising operation. The operating lever is provided with a handle 43 on its outer end and is telescopically mounted therein, and as I shall explain is adapted to be partially pulled from the sheath when the sheath is to be rocked to raise the seat to an adjusted vertical position.

On the end member 25 of the seat framework corresponding to the end member 5 of the supporting framework on which the sheath is pivotally mounted I affix an outwardly extending L-shaped bracket provided with an opening 47 in an arm thereof. Fixed to the arm of the bracket is a housing 49 which extends generally parallel to the member 25 and toward the rear guide track 11. At its forward end the housing is apertured as at 51 and I provide a pawl or detent 53 having a head 55 on its inner end which is within the housing 49. The pawl is urged outwardly of the housing into operative projected position by means of a spring 57 which is mounted within the housing and extends between the head 55 of the pawl and the bracket arm. In order to retract the pawl from projected operative position I fix a stem 59 to the head of the pawl, which stem extends through the spring and out of the housing through the opening 47 in the bracket arm where its knob 60 may be grasped by the adjuster of the seat for retracting the detent from projected operative position.

On the side wall 15 of the guide track or channel member 11 which is adjacent to the detent 53 and its housing I mount a rack bar 61, the teeth 62 of which are directed toward the detent and are adapted to be engaged thereby.

In use the auxiliary chair is mounted on the basic supporting chair or other supporting structure by moving the auxiliary chair which involves the supporting framework and the seat framework, into position between the arms 3 of the basic supporting chair until the hooks 21*a* engage the arm and thereby support the entire auxiliary chair organization. With the auxiliary chair mounted in this manner between and suspended from the arms 3 the seat framework may be moved vertically upwardly merely by grasping knob 43 on the operating lever 41 and pulling it outwardly a distance and then exerting a downward pressure thereupon. This will rock the sheath 35 upwardly until the roller or bearing 39 comes into contact with the rigid element 28 of the cushion, continued downward pressure will move the seat framework upwardly. As the seat frame is upwardly moved under the action of the sheath 35 the detent will ride along the teeth 62 of the rack 61 and will maintain the seat in any vertically adjusted position. When it is desired to lower the seat the knob 60 is grasped to retract the detent from its locked position with the teeth 62 to thereby permit the seat to be lowered.

When the seat framework is raised and lowered as described the shoes 31 will slide in the trackways provided by the upstanding channel members 11 and since the shoes are dimensionally generally the same as the width and depth of the channels the seat will be maintained in substantially horizontal position regardless of its adjusted position.

It will be recognized that the sheath or fulcrum bar functions not only as the means for raising the seat framework but also as a storage means for the operating lever 41 when it is not in use. With the operating lever 41 stored within the sheath 35 it is in out of the way position within the auxiliary chair, yet is accessible for projection when it is desired to use the seat raising mechanism.

It will now be appreciated that I have devised a simple and easily operable auxiliary chair organization which may be adjusted to suit children of various sizes. The auxiliary chair is easily mountable on and demountable from a basic chair, is economical to produce and has no complicated working parts to get out of order.

I claim:

1. An auxiliary chair adapted for removable mounting on a basic supporting chair, said auxiliary chair including a supporting framework and a seat framework adapted for vertical movement relative to said supporting framework, means on said supporting framework for guiding said seat framework in its vertical movements, and a sheath rockably mounted on said supporting framework, the inner end of said sheath being engageable with said seat framework when the sheath is rocked on said supporting framework, an operating lever telescopically mounted in said sheath and projectable therefrom for manual actuation to cause said sheath to rock and engage said seat framework for its upward movement to adjusted

positions, and means for releasably maintaining said seat framework in any such adjusted position.

2. An auxiliary chair adapted for removable mounting on a basic supporting chair, said auxiliary chair including a supporting framework and a seat framework adapted for vertical movement relative to said supporting framework, means on said supporting framework for guiding said seat framework in its vertical movements, and a fulcrum member rockably mounted on said supporting framework, the inner end of said fulcrum member having a roller element fixed thereon engageable with said seat framework and the outer end of said fulcrum member being rockable downwardly to cause the roller element to engage the seat framework for its upward movement to adjusted positions, and means for releasably maintaining said seat framework in any such adjusted position.

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