

Oct. 23, 1962

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3,059,965

BABY CHAIR

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2 Sheets-Sheet 1

Fig. 1

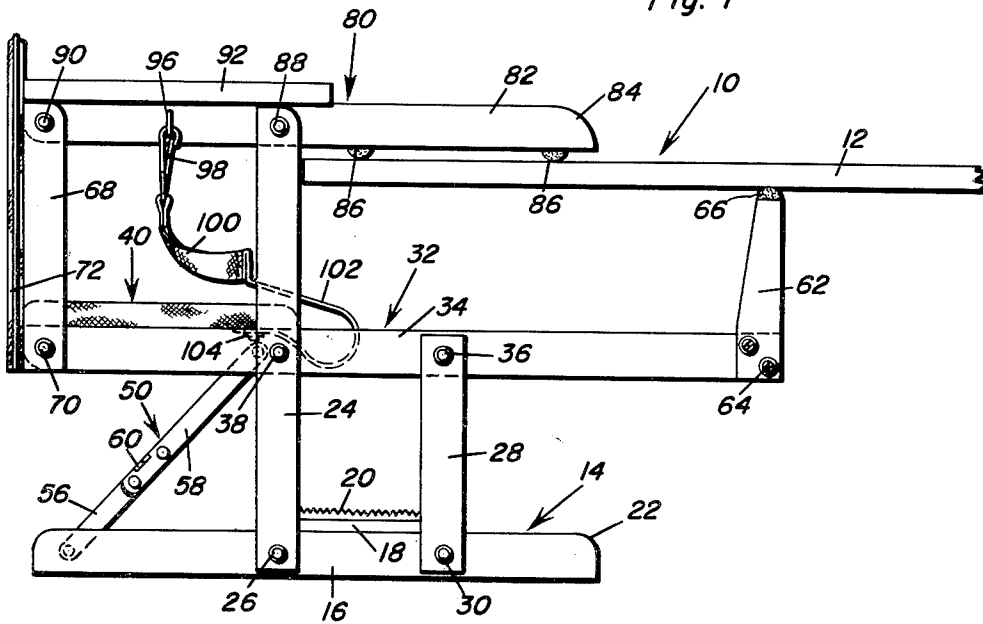
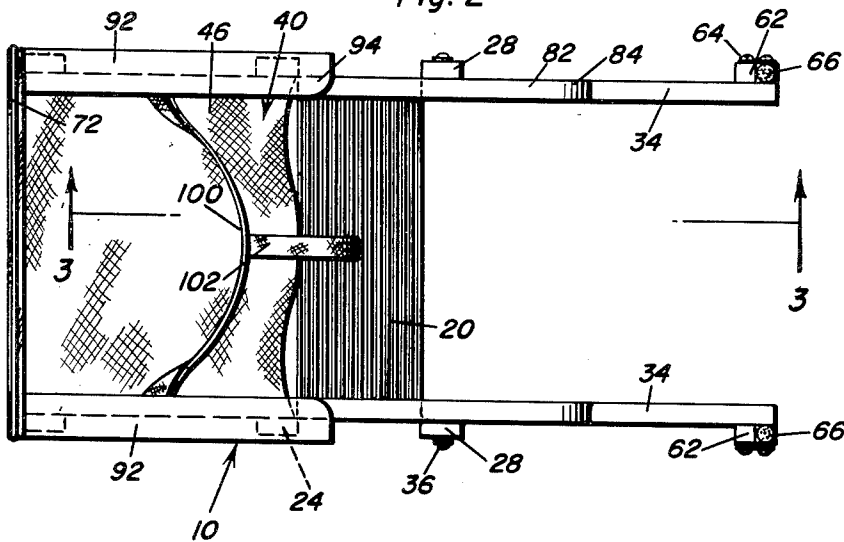


Fig. 2



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2 Sheets-Sheet 2

Fig. 3

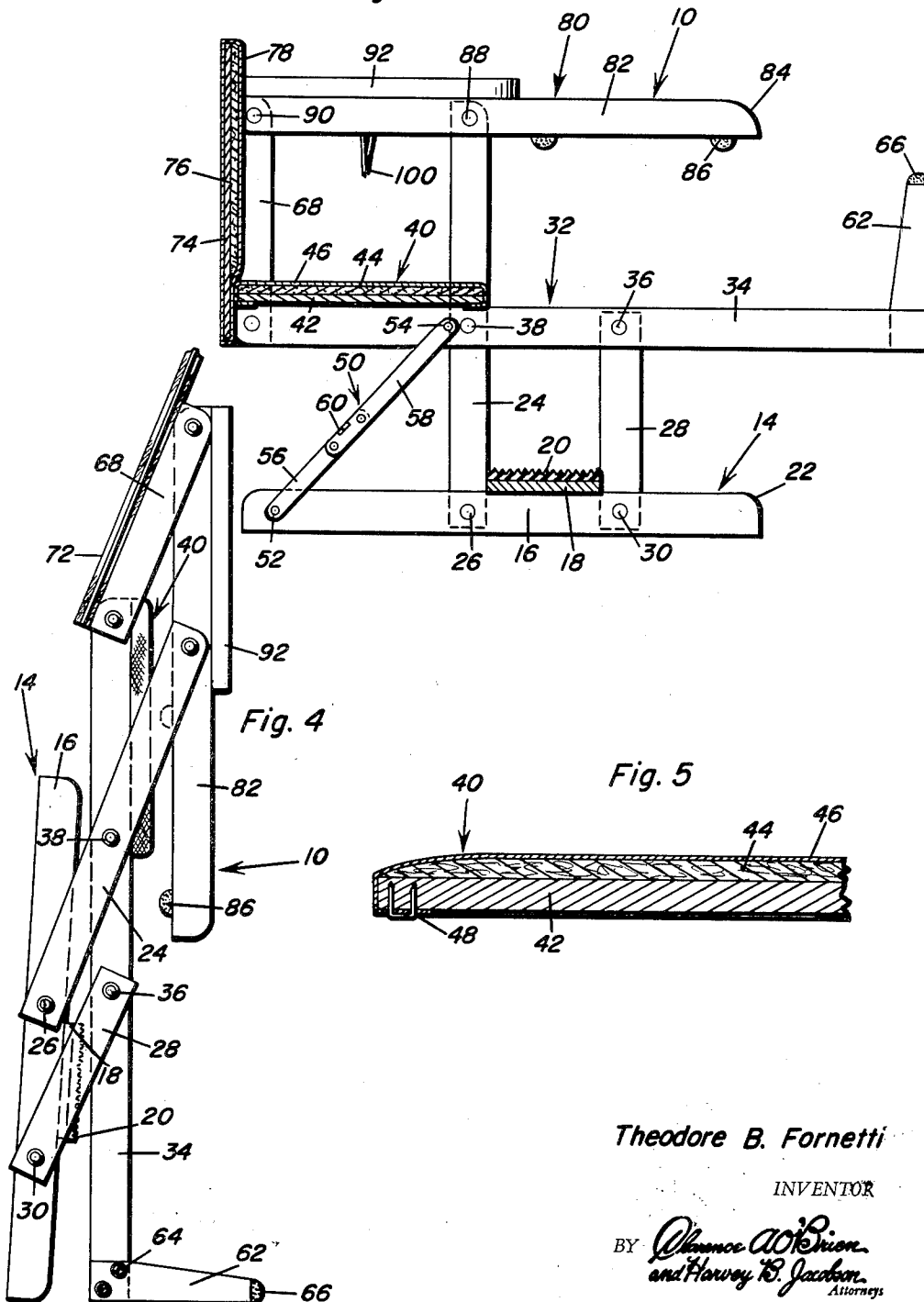
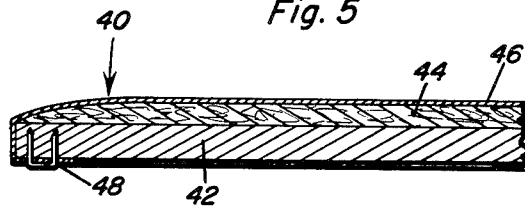


Fig. 4

Fig. 5



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1

3,059,965

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3 Claims. (Cl. 297-174)

The present invention generally relates to an article of furniture and more particularly to a chair for infants which may be used as a self-supported chair on a floor surface or the like and also supported directly and solely from a table thereby enabling the infant to be seated alongside of a table while eating with the construction of the chair enabling the infant to be disposed in an optimum relation to the table for eating with the least possibility of dropping food and otherwise causing foods to be spilled or the like.

It is usually desirable that a child sit alongside of a table when eating at the earliest possible age in order that the parents may assist and instruct the child while eating and also so that the child will become accustomed to eating with their parents. While high chairs of various types have been provided with trays from which infants normally eat, such high chairs are usually cumbersome and do not fit properly when associated with a table due to their enlarged base structure. Also, high chairs are extremely difficult to carry such as when travelling thus rendering the same almost useless except as a stationary piece of furniture from which the baby or infant may consume its food. Therefore, it is the primary object of the present invention to provide a chair which has utility in many orientations but is primarily constructed for the purpose of supporting itself from the table with the infant disposed alongside of the table top in optimum position with the chair having no enlarged base and actually having no support from the floor surface when supported from the table since the table top forms the complete and sole support for the chair which is disposed on the table top somewhat in the nature of a cantilever arrangement.

Another object of the present invention is to provide a chair for infants which is foldable into a relatively compact condition for ease of transportation in an automobile or the like so that the device may be conveniently used in restaurants, small apartments, motels, hotels or in any place in which the infant is likely to eat and also likely to require a seat in the form of a chair.

A further object of the present invention is to provide a chair having a supporting base attached thereto which chair has a relatively small over-all height but which is capable of supporting an infant in the nature of a conventional chair when resting on a supporting surface such as a floor surface or on the seat cushion of an automobile.

Yet another feature of the present invention is the provision of a chair in accordance with the preceding objects in which a pair of arms overlie the table top surface and a pair of abutment members underlie and engage the undersurface of the table top in transversely spaced relation to the point of engagement of the arms thereby supporting the chair from the table top surface.

Another important feature of the invention is the provision of a construction adapted to receive a tray on the arms thereof and which is simple in construction, easy to use, foldable, safe, dependable, durable, comfortable, portable and relatively inexpensive to manufacture.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a side elevation of the chair of the present

2

invention attached to a table top illustrating the manner of association therewith;

FIGURE 2 is a plan view of the chair of the present invention;

FIGURE 3 is a longitudinal, vertical sectional view taken substantially upon a plane passing along section line 3-3 of FIGURE 2 illustrating further structural details of the chair;

FIGURE 4 is a side elevation of the chair when in folded condition; and

FIGURE 5 is a detailed sectional view of the seat illustrating the upholstery and cushioning material mounted thereon.

Referring now specifically to the drawings, the numeral 10 generally designates the infant's chair of the present invention which is shown in FIGURE 1 as being mounted on a table top 12 which may be of any suitable construction and which may be supported by the usual supporting legs and which may be the type of table normally found in kitchens, dining rooms or the like in the home and also in various commercial establishments.

The chair 10 includes a base generally designated by the numeral 14 which includes a pair of longitudinally extending side members 16 which are interconnected by a transverse foot rest or foot plate 18 having a pad 20 on the upper surface thereof which is transversely grooved or serrated. The pad 20 may be of rubber or plastic material and forms an anti-slipping surface for engagement by the feet of the infant. The ends of the side members 16 are rounded as indicated by the numeral 22 and suitable supporting pads or feet may be provided on the side members 16 if desired.

Extending upwardly from the side rails 16 is an elongated vertical member 24 pivotally attached to the side members 16 by a pivot pin 26. In spaced parallel relation to the elongated vertical member 24 is a shorter vertical member 28 pivotally attached to the side members 16 by pivot pins 30.

Supported in spaced parallel relation to the base 14 is a seat supporting assembly generally designated by the numeral 32 which includes a pair of longitudinal side rails 34 disposed in spaced parallel and overlying relation to the side members 16 and extending beyond each end of the side members 16. The upper ends of the short vertical members 28 are connected to the rails 34 by pivot pins 36 and the intermediate portion of the elongated vertical members 24 are connected to the rail 34 by pivot pins 36. Rigidly interconnecting the rear ends of the rails 34 is a seat generally designated by the numeral 40 which includes a rigid board 42 attached to the side rails 34 in any suitable manner together with a pad 44 overlying the seat board 42 and upholstery 46 of plastic, leather or the like overlying the pad 44 and extending under the edge of the board 42 and secured thereto such as by a staple type fastener 48.

A two-piece pivotal lock brace is generally designated by the numeral 50 interconnects the rear end of each side member 16 of the base 14 and side rail 34 of the seat assembly 32 and is connected to the side members 16 by pivot pin 52 and is connected to the said rails 34 by pivot pin 54. The brace 50 is provided with two sections 56 and 58 hingedly and frictionally retained in aligned relation in a conventional manner as at 60 thus retaining the side members 16 in parallel relation to the side rails 34. By braking the brace at the hinge and frictional lock connection 60 and angulating the sections 56 and 58 in relation to each other, the side members 16 may be swung upwardly to a position immediately adjacent to and still generally in parallel relation to the side rails 34 as illustrated in FIGURE 4.

At the forward end of each side rail 34, there is provided an upstanding abutment 62 secured to the forward

end of the rail 34 by fasteners 64. The upper end of the abutment 62 is provided with a friction member 66 generally in the form of a semi-spherical button or the like secured thereto in any suitable manner for engagement with the undersurface of the table top 12 for cushioning the engagement with the table top 12 and also preventing slippage thereof in relation to the table top 12.

At the rear end of each side rail 34, there is provided an upstanding vertical member 68 having the lower end hingedly attached to the side rail 34 by pivot pin 70. Rigidly affixed to the outer vertical edge of the member 68 is a back rest 72 which spaces the vertical member 68 and also extends vertically from the rear edge of the seat 40 as illustrated in FIGURE 3. The back rest 72 is provided with a board member 74, a cushion 76 in the form of a pad and an enclosing upholstery member 78 of plastic, leather or the like which completely encloses the board 74 and pad 76.

Disposed in spaced parallel relation to the seat assembly 32 is what may be termed an arm assembly generally designated by the numeral 80 and including a pair of spaced parallel arms 82 disposed in overlying and spaced parallel relation to the side rails 34 with the forward ends thereof being rounded as designated by the numeral 84 and overlying the top surface of the table top 12. The undersurface of the forward portion of each of the arms 82 is provided with a pair of friction pads or members 86 generally in the form of semi-spherical resilient or cushioning members secured to the arms 82 in any suitable manner for engaging the top surface of the table top 12 thus preventing any possible scratching of the surface or marring of the surface and also reducing any tendency of the device to slip on the table top.

The upper end of each of the elongated vertical members 24 is attached to the respective arm 82 generally at an intermediate point by a pivot pin 88. Also, the rear end or outer end of each of the arms 82 in relation to the table top is attached to the upper end of the vertical member 68 by a pivot pin 90. Mounted on top of each of the arms 82 is an arm rest 92 which is provided with a curved front end 94 for providing an arm rest for an infant seated on the seat 40. The arm rest may be upholstered if desired.

Projecting from the side surface of each arm 82 intermediate the vertical members 24 and 68 is an eye member 96 which receives a snap hook 98 on the end of a belt 100 adapted to encircle around the front portion of the waist region of an infant and the strap or belt 100 is provided with a crotch strap or belt 102 attached thereto which is adapted to extend between the legs of an infant. The crotch strap or belt 102 is perpendicular in relation to the strap or belt 100 and the lower end of the strap or belt 102 is detachably connected to the undersurface of the seat 40 such as by a snap fastener assembly 104.

While no tray has been disclosed, it is pointed out that a tray may be provided for detachable engagement with the arms 82 outwardly of the arm rest 92 thus providing a convenient surface from which an infant may eat or upon which various articles may be supported as desired.

When the chair is folded, it is only necessary to pivot the brace by bracing the hinge and friction lock 60 thus enabling the elongated vertical member 34 to fulcrum about pivot pin 38 thus moving the side members 16 forwardly and upwardly towards the side rails 34 and moving the arms 82 rearwardly and downwardly towards the side rails 74 and seat 40. The resultant orientation of components is shown in FIGURE 4 which enables the device to be conveniently transported and easily folded to a collapsed position or unfolded to an extended position for use.

The device may be effectively supported directly from the table top 12 in which case the supporting base 14 does not engage any supporting surface whatsoever since it is spaced considerably above the floor surface upon which

the table top 12 is supported by the usual table legs. This cantilever type support provides a positive support and one which cannot hardly be disconnected or broken until the infant is completely lifted from the chair or its weight completely lifted. It is possible that the chair with the infant therein can be removed from the table by lifting up the entire device. However, this cannot be accomplished by the infant since the infant will be supported on the chair whether the infant is standing up partially or sitting up completely on the seat. The crotch strap 102 and the waist strap 100 which extend across the legs prevents the child from sliding down through the chair and also prevents the child from getting up from the chair until the strap 100 is disconnected.

The supporting base 14 provides a sufficient area of support for the chair during normal operation and may rest upon a floor surface so that the child may sit in the chair whenever desired. Another utility of the present invention is the provision of a seat in a car by setting the base 14 on the upper surface of the cushioned seat with the back rest engaging the front surface of the back rest of the automobile seat. The device may be easily stored and transported in compact condition thus enabling the device to be used effectively when travelling such as when an infant is to eat and rest or the like. The entire device may be constructed of any suitable material which is easily cleaned and which is sufficiently strong for the purposes for which the same is intended and may be constructed of any suitable woods from which infants' furniture is normally constructed or from metals, plastic or the like.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. An infant's chair adapted to be supported from a table top comprising a seat member, a back member swingably attached to the seat member, a pair of elongated side rails supporting said seat member and said back member, a pair of elongated parallel arms swingably attached to said back member adjacent the upper end thereof and disposed in overlying spaced relation to the side rails, a vertical member interconnecting the side rails and the arms in spaced relation to the back member and being pivotally connected to the arms and side rails for enabling the arms to swing downwardly to a position adjacent the side rails whereas the back member and vertical member cooperate with the side rails and arms to form a pivotal parallelogram, the ends of said rails remote from the back rest having rigid upstanding abutments thereon adapted to engage the undersurface of a table top, said arms including means adapted to engage the top surface of a table top in laterally outwardly spaced relation to the abutments for supporting the chair from a table top with the back member extending above the plane of the table top, releasable means rigidly locking the vertical member and side rails thereby retaining the arms and side rails in parallel immovable relationship to each other, a base assembly including a pair of longitudinal side members, said vertical member interconnecting the arms and side rails extending below the side rails and pivotally connected to said side members, a vertical member in spaced parallel relation to the elongated vertical member extending between and pivotally interconnecting the side rails and the side members, and a foot rest extending transversely between the side members and rigidifying the same, said releasable means including a foldable brace extending between the side rails at a point adjacent the elongated vertical member and the rear ends of the side members and including a lock when extended thus

5

retaining the elongated vertical member in perpendicular relation to the side rails thus retaining the arms and side members in extended unfolded condition whereby the chair may be disposed on a floor surface.

2. A folding high chair for suspending from the side edge of a table or resting on a supporting surface comprising a seat member, a back member disposed generally and normally in perpendicular relation to the seat member and adjacent the back edge thereof, a pair of elongated side rails rigidly attached to the seat member, said back member being pivotally attached to the rear ends of said side rails, a pair of forwardly extending arms pivotally connected at one end to the back member adjacent the upper end thereof, said arms being disposed in spaced parallel relation to the side rails with the rear ends of the arms and side rails being normally disposed in the same vertical plane and the forward ends of the side rails extending beyond the forward ends of the arms, a pair of elongated vertical members having the upper ends pivotally attached to an intermediate point of the arms and, the central portion of said vertical members being pivotally attached to said side rails, said side rails, arms, vertical member and back member cooperating to form a pivotal parallelogram, the forward end of each of said side rails including an upstanding member rigid therewith and terminating below the longitudinal plane of the arms for engagement under a table top, each of said arms having means thereon engaging the top surface of a table top in laterally outwardly spaced relation to the upstanding members on the side rails thereby supporting the chair from a table top, a pair of base members pivotally attached to the lower ends of the vertical members and disposed in parallel relation to the side rails and arms with the base members being below the side rails, a pair of vertical links paralleling said vertical members and interconnecting the base members and the side rails whereby the base members, side rails, vertical link and vertical members cooperate to form a pivotal parallelogram, each of said base members having a rear end terminating generally in the same vertical plane as the rear ends of the side rails and arms and having forward ends terminating generally in the same vertical plane as the forward ends of the arms, the area between the side rails forwardly of the seat member and vertical members and the area between the base members forwardly of the vertical links said being free of obstructions, a foot rest interconnecting said

6

base members intermediate the vertical members and vertical links, and a foldable pivotal lock brace interconnecting the rear end of one of said base members and a side rail with the connection between the brace and side rail being disposed rearwardly of the forward edge of the seat member thereby leaving the entire area of the chair forwardly of the seat member free of obstructions and free of moving components with the lock brace forming the sole means for retaining both of the pivotal parallelograms in extended position with the vertical members and vertical links being disposed perpendicularly to the base members, side rails and arms.

3. The structure as defined in claim 2 wherein each of said arms is provided with an armrest along the top surface thereof, the forward ends of the armrest being disposed forwardly of the vertical members for concealing the connection between the upper ends of the vertical members and said arms for protecting the occupant of the chair from contact with the pivotal connection between the arms and the upper ends of the vertical members, said seat member being provided with a cushion and an upholstery covering, said back member being provided with a cushion and an upholstery covering, each of said arms being provided with an eye member on the outer surface thereof intermediate the back member and the upper ends of the vertical members and underlying the armrest, a flexible strap detachably connected and extending between the eye members and extending across the front of the waist region of an infant preventing the infant from rising out of the chair, and a crotch strap connected to said flexible member adjacent the center thereof and extending downwardly, and means detachably connecting said crotch strap to the undersurface of the seat member adjacent the forward central edge portion thereof whereby all of the detachable connections are inaccessible.

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