Oct. 25, 1966 J. C. MANGLOS 3,281,183

COMBINATION CHAIR BACK AND CHILD'S HIGH CHAIR

Filed June 30, 1965

2 Sheets-Sheet 1

Fig. 1

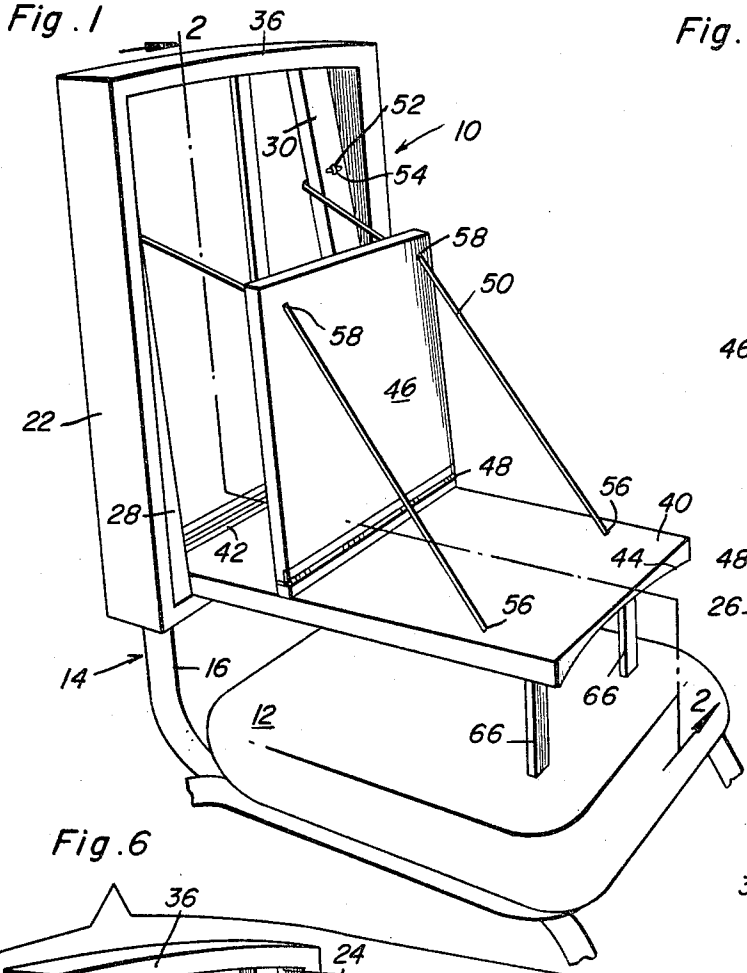


Fig. 5

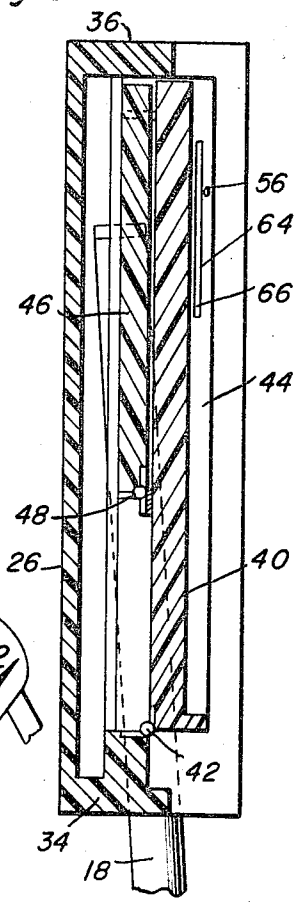
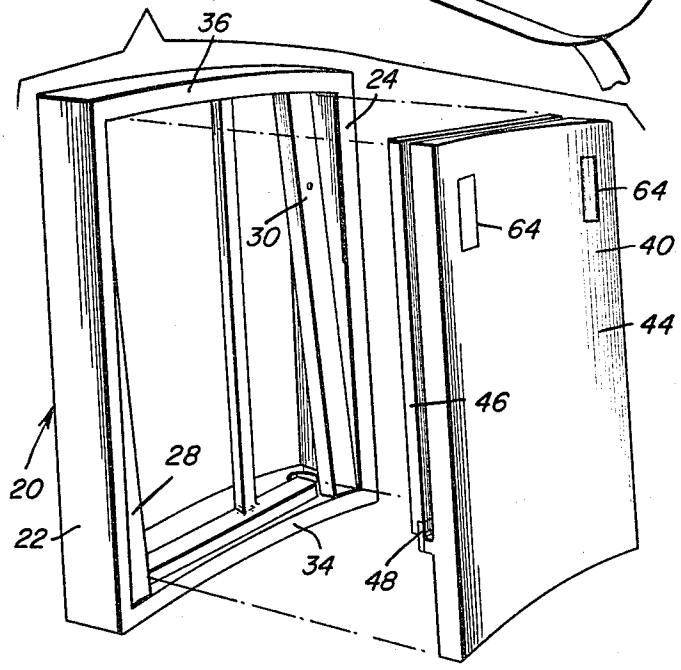


Fig. 6



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Fig. 3

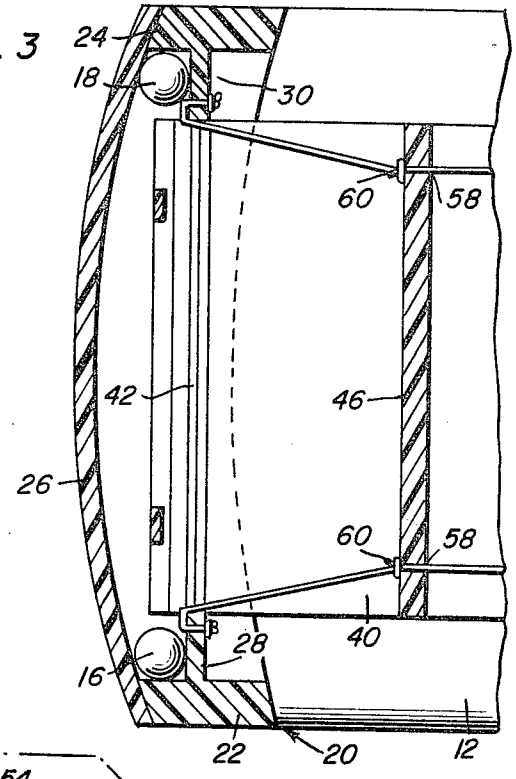


Fig. 4

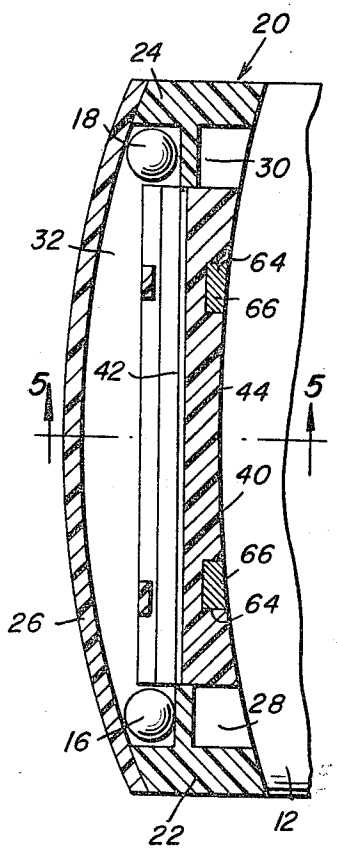
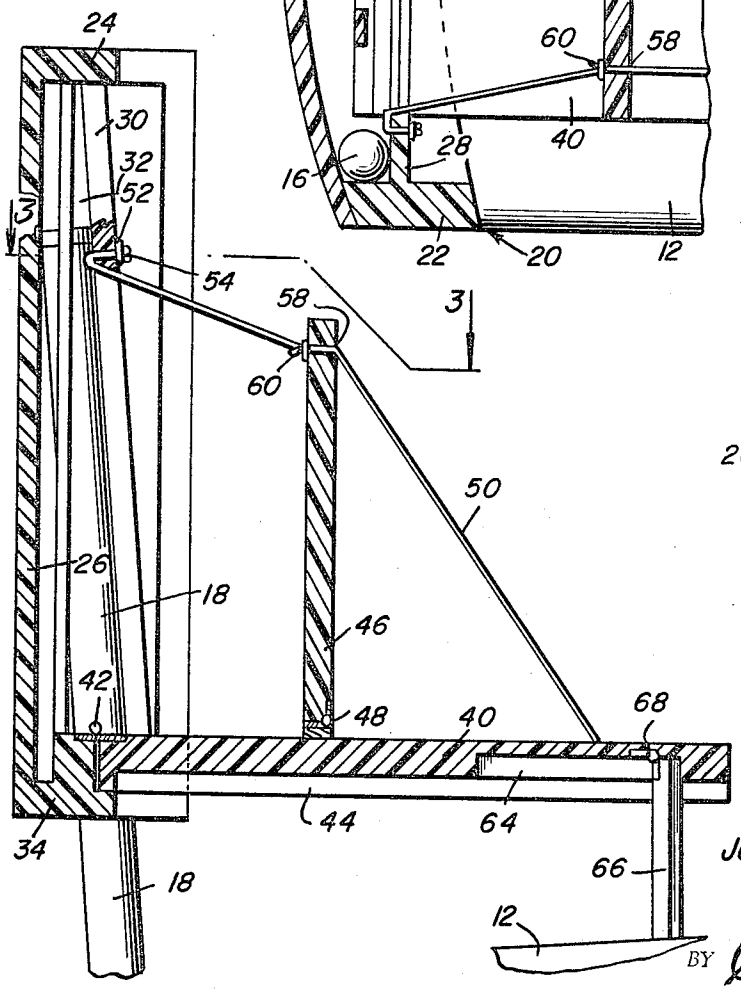


Fig. 2



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United States Patent Office 3,281,183 Patented Oct. 25, 1966

3,281,183

COMBINATION CHAIR BACK AND CHILD'S HIGH CHAIR

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Filed June 30, 1965, Ser. No. 468,290
4 Claims. (Cl. 297—238)

This invention relates to a novel and useful combination chair back and a child's high chair and more specifically to an apparatus which is designed to adapt a conventional straight back chair to selectively function as a conventional chair and as a child's high chair.

While there are numerous types of children's high chairs commercially available and some of these high chairs are constructed in a manner whereby they may be readily folded so as to be compactly stored and transported from one location to another, these complete high chairs being necessarily quite expensive to manufacture, especially if they are of the folding type, and usually constructed in a manner whereby they support children at a predetermined height in a non-adjustable fashion.

Parents of small children still using high chairs and also children which have only recently graduated from using a high chair will occasionally desire the use of a high chair which will seat the child supported thereby at an elevation somewhat lower than the elevation at which a child is supported by a conventional high chair. Still further, while the types of conventional high chairs which are foldable may be transported from one location to another with less effort than a high chair which cannot be folded, even the foldable type of high chair requires considerable storage space and is oftentimes cumbersome to handle.

Accordingly, it is the main object of this invention to provide a high chair attachment for use in connection with a conventional chair of the type including a straight back, such a chair being of the type provided with a "dinette set" or a card table set including a table and four chairs.

Another object of this invention is to provide a high chair attachment for a straight back chair which may be readily removably engaged and supported from the straight back portion of such a card table or dinette set chair.

Yet another object of this invention is to provide a high chair attachment for use in connection with the aforementioned type of straight back chair and which may be semi-permanently secured thereto in a manner such that the chair may alternately be used as a high chair for a small child and as a conventional chair by an adult without removing the attachment from the chair.

Another object of this invention is to provide a high chair attachment in accordance with the preceding objects which may be readily removed from an associated straight back chair and stored or transported in an extremely compact state.

A final object of this invention to be specifically enumerated herein is to provide a high chair attachment in accordance with the preceding objects which will conform to conventional forms of manufacture, be of simple construction and easy to use so as to provide a device that will be economically feasible, long lasting and relatively trouble-free in operation.

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

FIGURE 1 is a perspective view of the high chair attachment of the instant invention shown in an operative position to form a high chair for a small child and supported from the back of a conventional straight back chair;

FIGURE 2 is a fragmentary enlarged vertical sectional view taken substantially upon the plane indicated by the section line 2—2 of FIGURE 1;

FIGURE 3 is a fragmentary horizontal sectional view taken substantially upon the plane indicated by the section line 3—3 of FIG 2;

FIGURE 4 is a fragmentary sectional view similar to that of FIGURE 3 but showing the high chair attachment in a collapsed position mounted on the straight back chair in order that the chair may be utilized to support an adult;

FIGURE 5 is a fragmentary vertical sectional view taken substantially upon the plane indicated by the section line 5—5 of FIGURE 4; and

FIGURE 6 is an exploded perspective view of the high chair attachment of the instant invention.

Referring now more specifically to the drawings, the numeral **10** generally designates the high chair attachment of the instant invention. The attachment **10** is illustrated in FIGURES 1–5 of the drawings as being secured to a conventional dinette set type of straight back chair including a seat **12** and a straight upright back assembly generally referred to by the reference numeral **14**. The back assembly **14** is defined by a pair of rearwardly and upwardly inclined support arms **16** and **18**. The support arms **16** and **18** are usually interconnected by means of a back bracing member (not shown) but which has been removed from the chair in order that the high chair attachment **10** may be more readily supported therefrom.

Although the back bracing member which usually interconnects the support arms **16** and **18** has been removed, it is to be understood that the high chair attachment **10** could readily be constructed in order to be fully operative even if the back bracing member was present.

The high chair attachment **10** includes a shallow housing generally referred to by the reference numeral **20** and including a pair of opposite side walls **22** and **24** interconnected by means of an arcuate back wall **26**. The side walls **22** and **24** include rearwardly and upwardly inclined inwardly projecting flange portions **28** and **30** which, together with the back wall **26** define a rear hollow portion **32**.

A bottom wall **34** is secured between the lower ends of the side walls **22** and **24** and the lower end of the back wall **26** and has certain portions thereof cut away in order to provide downwardly opening portions of the rear portion **32** adapting the housing **20** to be telescoped downwardly over the upper ends of the support arms **16** and **18**, the housing **20** being firmly supported from the back assembly **14** in this manner.

The upper end of the housing **20** includes a top wall **36** which interconnects the upper ends of the side walls **22** and **24** and the back wall **26**. The front of the housing **20** is open as best seen in FIGURE 1 of the drawings and a high chair seat and regular chair back-forming panel member **40** is pivotally secured along one edge portion to the bottom wall **34** by means of a piano hinge **42**. In this manner, the member **40** is pivotable from the raised retracted position illustrated in FIGURE 5 of the drawings to a substantially horizontally disposed extended and high chair seat forming position illustrated in FIGURES 1 and 2 of the drawings. In addition, it will be noted that the member **40**, when in its retracted position, includes an arcuate front surface **44** adapted to conform to the contour of the back of a person seated in the chair. Still further, the member **40**, when in the raised position, forms a closure for the front end of the housing **20**.

A chair back-forming panel **46** is pivotally secured at one edge portion to the member **40** by means of a piano hinge assembly **48** a spaced distance from the hinge assembly **42**. The high chair back-forming panel **46** is pivotable between a position substantially paralleling the member **40** and a position disposed substantially normal to the member **40**.

A pair of flexible tension members **50** have one pair of corresponding ends secured through suitable bores **52** in the flanges **28** and **30** as at **54** and their other ends secured through the free marginal edge portion of the member **40** as at **56**. Intermediate portions of the flexible members **50** are secured through suitable bores **58** formed in the high chair back-forming panel **46** adjacent its free-swinging edge portion and the flexible members **50** may be knotted as at **60** so as to limit swinging movement of the free edge portion of the panel **46** away from the free edge portion of the member **40**. In addition, the flexible member **50** limit downward swinging movement of the free edge portion of the member **40** toward the horizontally disposed high chair seat forming position illustrated in FIGURE 1 of the drawings.

The arcuate or concave front face **44** of the member **40** includes a pair of elongated recesses **64** in which elongated leg members **66** are pivotally secured by means of suitable hinge assemblies **68**. The leg members **66** are fully retractable within the recesses **64** and are pivoted to the extended positions illustrated in FIGURES 1 and 2 of the drawings when it is desired to utilize the attachment as a high chair seat.

In operation, the back bracing member (not shown) normally secured between the support arms **16** and **18** is first removed. Then, the attachment **10** is telescoped downwardly over the upper ends of the support arms **16** and **18** with the latter received within the rear portion **32** of the housing **20**. If the member **40** is in the upstanding closed position illustrated in FIGURE 5 of the drawings, its forward or front surface **44** will provide a suitable backrest for an adult seated in the chair. However, when it is desired to use the chair as a high chair, the member **40** is pivoted to the position illustrated in FIGURE 1 of the drawings which will automatically cause the panel **46** to be also positioned as illustrated in FIGURE 1 of the drawings. Then, the leg members **66** may be swung to their depending positions and engaged with the upper surface of the seat **12** to assist in supporting the weight of a child seated in the attachment **10**.

It will of course be understood that the height of the high chair seat-forming member **40** when the latter is in its open position is determined by the height of the back of the associated chair. Accordingly, the attachment **10** is readily adaptable to the height of any table if suitable chairs for that table are provided with conventional height backs.

As hereinbefore set forth, if it is desired that the attachment **10** is to be utilized in conjunction with a straight back chair without removing the aforementioned back-bracing member, the rear portion **32** of the housing **20** may be made larger during the construction of the attachment **10** in order that the rear portion **32** will also accept such a back-bracing member secured between the support arms **16** and **18**.

The foregoing is considered as illustrative only if 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. In combination with a conventional chair of the type including a seat and an upright back, a high chair attachment comprising a high chair seat and regular chair back-forming member, means pivotally securing one edge portion of said member to said back for rotation about a generally horizontal axis extending along said edge portion and across said seat a spaced distance above the latter, a high chair back-forming panel pivotally secured along one edge portion thereof to said member for rotation about an axis generally paralleling and spaced laterally from the first-mentioned axis toward the free edge of said member and with said back panel disposed above said member when the latter is generally horizontally disposed, means operatively connected between said panel and said member limiting pivotal movement of the free edges thereof away from each other to relative positions with said panel and member disposed generally normal to each other, and means connected to said member and engageable with said conventional chair to limit the swinging movement of the free end of said member away from the upper portion of said back to a position with said member substantially horizontally disposed and spaced above said seat, said means pivotally securing said one edge portion of said member to said upright back comprising a mounting member secured to said upright back and to which said one edge portion of said member is pivotally secured, said mounting member defining a shallow housing open at its forward end, said chair back-forming member, with said panel thereon, being swingable from said horizontal position to an upright position forming a closure for the forward end of said housing and with said panel disposed in said housing, said housing also including a rear portion which opens downwardly, said housing being removably telescoped downwardly over the upper end of said upright back with the latter disposed in said rear portion.

2. In combination with a conventional chair of the type including a seat and an upright back, a high chair attachment comprising a high chair seat and regular chair back-forming member, means pivotally securing one edge portion of said member to said back for rotation about a generally horizontal axis extending along said edge portion and across said seat a spaced distance above the latter, a high chair back-forming panel pivotally secured along one edge portion thereof to said member for rotation about an axis generally paralleling and spaced laterally from the first-mentioned axis toward the free edge of said member and with said back panel disposed above said member when the latter is generally horizontally disposed, means operatively connected between said panel and said member limiting pivotal movement of the free edges thereof away from each other to relative positions with said panel and member disposed generally normal to each other, and means connected to said member and engageable with said conventional chair to limit the swinging movement of the free end of said member away from the upper portion of said back to a position with said member substantially horizontally disposed and spaced above said seat, said mounting member comprising a housing including a downwardly opening portion removably telescoped downwardly over the upper end of said upright back.

3. A high chair attachment for use in connection with a conventional chair of the type including a seat and an upright back, a high chair seat and regular chair back-forming member, means carried by one edge portion of said member adapting said member to be pivotally secured to said back above said seat for rotation about a generally horizontal axis extending along said edge portion and across said seat a spaced distance above the latter, a high chair back-forming panel pivotally secured along one edge portion thereof to said member for rotation about an axis generally paralleling and spaced laterally from the first-mentioned axis toward the free edge of said member and with said back panel disposed above said member when the latter is generally horizontally disposed, means operatively connected between said panel and said member limiting pivotal movement of the free edges thereof away from each other to relative positions with said panel and member disposed generally normal to each

other, and means connected to said member and engageable with said conventional chair to limit the swinging movement of the free end of said member away from the upper portion of said back to a position with said member substantially horizontally disposed and spaced above said seat, said means adapted to pivotally secure said one edge portion of said member to said upright comprising a mounting member adapted to be secured to said upright back and to which said one edge portion of said member is pivotally secured, said mounting member defining a shallow housing open at its forward end, said member, with said panel thereon, being swingable from said horizontal position to an upright position forming a closure for the forward end of said housing and with said panel disposed in said housing, said housing also including a rear portion which opens downwardly, said housing being adapted to be removably telescoped downwardly over the upper end of said upright back with the latter disposed in said rear portion.

4. A high chair attachment for use in connection with a conventional chair of the type including a seat and an upright back, a high chair seat and regular chair back-forming member, means carried by one edge portion of said member adapting said member to be pivotally secured to said back above said seat for rotation about a generally horizontal axis extending along said edge portion and across said seat a spaced distance above the latter, a high chair back-forming panel pivotally secured along one edge portion thereof to said member for rotation about an axis generally paralleling and spaced laterally from the first-mentioned axis toward the free edge of said member and with said back panel disposed above

said member when the latter is generally horizontally disposed, means operatively connected between said panel and said member limiting pivotal movement of the free edges thereof away from each other to relative positions with said panel and member disposed generally normal to each other, and means connected to said member and adapted to be engaged with said conventional chair to limit the swinging movement of the free end of said member away from the upper portion of said back to a position with said member substantially horizontally disposed and spaced above said seat, said means adapted to pivotally secure said one edge portion of said member to said upright comprising a mounting member adapted to be secured to said upright back and to which said one edge portion of said member is pivotally secured, and said mounting member comprises a housing including a downwardly opening portion adapted to be removably telescoped downwardly over the upper end of said upright back.

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