May 21, 1957 T. F. WEST, JR 2,792,877

ASSEMBLED KNOCKED DOWN CHAIR

Filed July 19, 1955 2 Sheets-Sheet 1

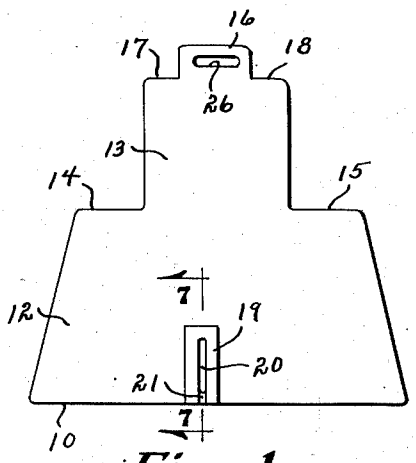


Fig. 1.

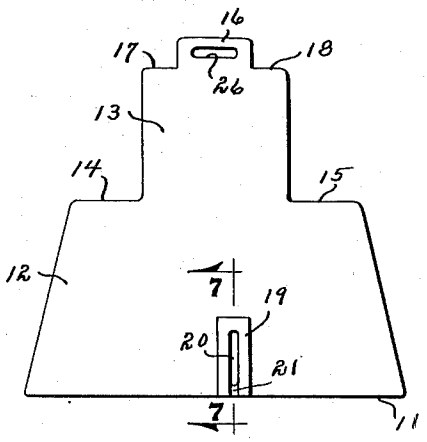


Fig. 2.

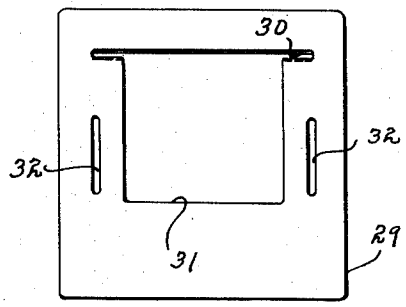


Fig. 3.

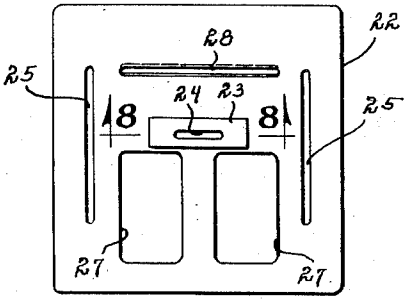


Fig. 4.

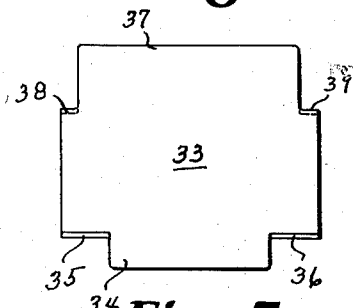


Fig. 5.

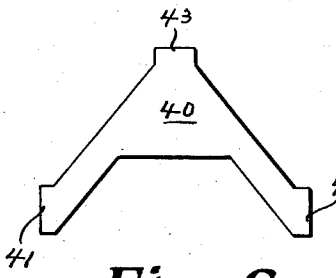


Fig. 6.

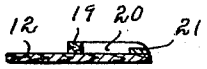


Fig. 7.

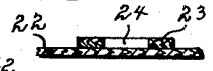


Fig. 8.

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ASSEMBLED KNOCKED DOWN CHAIR

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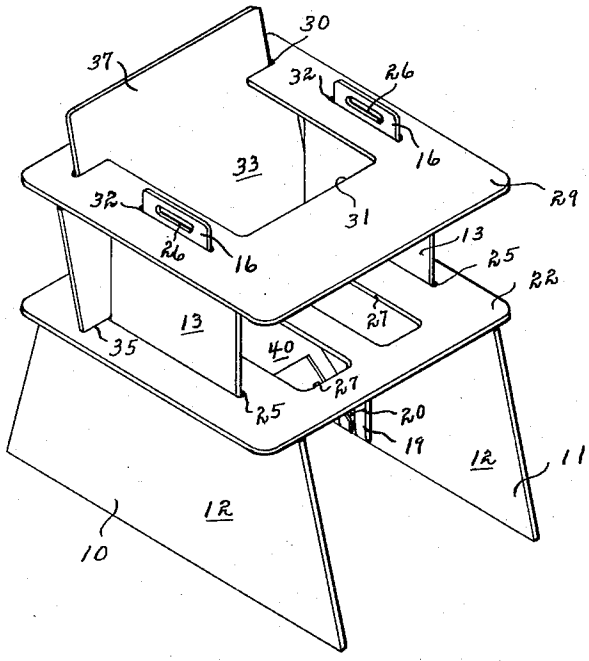


Fig. 9.

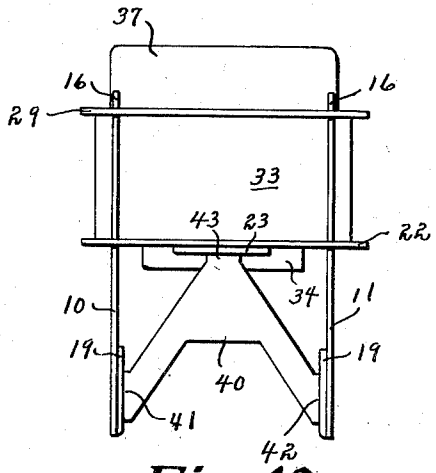


Fig. 10.

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ASSEMBLED KNOCKED DOWN CHAIR

Thomas F. West, Jr., Ames, Iowa

Application July 19, 1955, Serial No. 522,963

9 Claims. (Cl. 155—196)

This invention relates to chairs and more particularly to high chairs for youngsters.

Substantially all human babies require and have high chairs. For home usage the average high chair is satisfactory except as to cost. However, families now travel a great deal taking even the youngest on the trip. Often during such travel there is no high chair available for the child or children to use. High chairs are notoriously large and clumsy affairs and cannot be taken along on the trip, even when the trip only involves a single meeting at some friend's house. Also there is considerable objection to high chairs by merchants, who complain of the great amount of storage room required prior to its sale. The bulk of the average high chair also presents shipping, packaging and transportation problems.

Therefore, one of the principal objects of my invention is to provide a high chair of flat pieces that may be easily and quickly assembled or disassembled.

A further object of this invention is to provide a high chair that occupies only a small flat package when in knocked down condition.

A still further object of my invention is to provide an assemblable chair that has no bolts, screws or like to hold it together.

A still further object of this invention is to provide a strong chair construction (comprising separate engaging elements) that is of light weight and portable.

Still further objects of my invention are to provide a chair of assemblable characteristics that is economical in manufacture, durable in use, and refined in appearance.

These and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangements and combination, of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, specifically pointed out in my claims, and illustrated in the accompanying drawings, in which:

Fig. 1 and Fig. 2 are plan views of the two side portions of my chair,

Fig. 3 is a plan view of the arm rest portion of the chair,

Fig. 4 is a plane view of the seat portion of the chair,

Fig. 5 is a plan view of the back,

Fig. 6 is a plan view of the locking brace portion,

Fig. 7 is a cross sectional view of a portion of the sides taken on line 7—7 of Fig. 1 and Fig. 2,

Fig. 8 is a cross sectional view of a portion of the seat taken on line 8—8 of Fig. 4,

Fig. 9 is a perspective view of my chair, assembled and ready for use, and

Fig. 10 is a front view of my chair and more fully illustrates its construction.

Although I have designated my chair as a high chair, and will describe it as such, obviously the construction lends itself to various types of chairs, including ones for adults.

The two side portions of my chair are generally designated by the numerals **10** and **11**, respectively. These two side members are exact duplicates. Their lower portions **12** have a straight bottom to engage a supporting surface such as a floor or like. Each has a rectangular portion **13** above the portion **12** which is centrally located on and of a width less than the portion **12** to provide the shoulders **14** and **15**. At the center top of each portion **13** is a small rectangular portion **16** having a width less than the portion **13** to provide the shoulders **17** and **18** at each side thereof as shown in Fig. 1 and Fig. 2. Each portion **16** has a hand-hold slot **26**. These two members **10** and **11**, as well as the other parts of my chair are cut or formed from any suitable flat material such as wood, plastic or the like. Sheet plywood is excellent from which to cut the various parts of my chair. On the inner lower side of each of the sides **10** and **11**, I glue or otherwise secure a bar member **19** having a vertical open bottom slot **20**. On the lower end of this slot, I provide a relatively thin cross stop **21**, as shown in Fig. 7.

The numeral **22** designates in general the seat portion. Fig. 4 shows the bottom or underside of this member. It is substantially rectangular in cross section and glued or otherwise secured on its center bottom is a bar **23**, having a slot **24** as shown in Fig. 8. Near each side of the member **22** is a slit opening **25** having a length substantially that of the width of the portion **13**. Two spaced apart leg openings **27** are forward of the bar **23**. The numeral **28** designates a slot opening to the rear of the bar **23**, as shown in Fig. 4. The numeral **29** designates the arm rest and body confining member. The numeral **30** designates a slot opening in the rear portion of the member **29**. The numeral **31** designates the body opening forward of and communicating with the slot **30**. The slot **30** is of greater length than that of the width of the body opening **31** as shown in Fig. 3. The numeral **32** designates a slot opening at each side of the opening **31**, each having a length substantially that of the width of the portion **16**.

The numeral **33** designates the back portion. It has a tab extension **34** at its bottom to produce shoulders **35** and **36** at its bottom and a top tab **37** to produce shoulders **38** and **39** at its top as shown in Fig. 5. The width of the tab portion **34** is substantially that of the length of the slot **28** and the tab portion **37** is substantially that of the length of the slot **30**.

The numeral **40** designates the brace locking member of A-shape as shown in Fig. 6. The numerals **41** and **42** designate the two leg side portions and the numeral **43** the top portion of this brace locking member.

It will be appreciated that all the parts may be sawed, cut or like from sheet plywood. There are no screws, bolts or like used in assembling the parts into a chair such as shown in Fig. 9. To set up my chair it is merely necessary to take the two sides **10** and **11**, stand them vertical with the cleat bars **19** inside and opposite each other. Next the seat portion **22** is threaded onto the sides **10** and **11**, with the slots **25** embracing the portions **13** and with the seat portion resting on the shoulders **14** and **15** of the side members. Next the back portion **33** is placed with its tab portion **34** extending into the slot **28** and with its shoulders **35** and **36** resting on the top of the seat portion. Next the member **29** is threaded onto the back and sides, with the slot **30** embracing the tab portion **37** of the back and with the part **29** resting on the shoulders **38** and **39**. The portion **16** of the sides will extend through the slots **32**, and, therefore, the part **29** will also rest on the shoulders **17** and **18**. The hand grip openings **26** for lifting the unit will be above the surface of the member **29**. Lastly, the locking brace **40** is pushed upwardly to bring its parts **41** and **42** into the slots **20** of the sides

respectively and with its top **43** in the slot opening **24** on the bottom of the seat. The member **40** will spring or snap into place as shown in Fig. 10, binding and locking the parts. The cross bars **21** will prevent the accidental removal of the A-shaped locking brace **40**. To disassemble the device, the back **33** and part **29** are lifted upwardly and free of the other parts, at which time the parts all fall apart. Inasmuch as they are of flat nature, they are laid one upon the other and inserted in a flat carton or box for shipment or storage. The assembly only take a moment's time and after the member **40** is locked into place the entire unit is most strong and rigid. There is enough spring or give to the plywood sides to snap the member **40** into position. There are only six parts to my invention.

Some changes may be made in the construction and arrangement of my assemblable knocked down chair without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. A knocked down furniture, comprising, two duplicate flat side members each having a bottom portion, an upright portion above said bottom portion centrally located and of a width less than the median width of said bottom portion, and a top portion above said upright portion centrally located and if a width less than said upright portion, a seat portion having a leg opening, slots embracing the two upright portions of said side members respectively, and a rear transverse slot, an arm rest portion having a body opening, two slots embracing the two top portions of said two side members respectively, and a transverse back slot, a back member having a tab portion extending into the rear transverse slot of said seat portion, and a tab portion extending through the transverse back slot of said arm rest portion, and a locking member extending between and connecting the two said side members; all of said parts capable of being disassembled.

2. A knocked down furniture, comprising, two duplicate flat side members each having a bottom portion, an upright portion above said bottom portion centrally located and of a width less than the median width of said bottom portion, and a top portion above said upright portion centrally located and of a width less than said upright portion, a seat portion having a leg opening, slots embracing the two upright portions of said side members respectively, and a rear transverse slot, an arm rest portion having a body opening, two slots embracing the two top portions of said two side members respectively, and a transverse back slot, a back member having a centrally located tab portion extending into the rear transverse slot of said seat portion, and a centrally located tab portion extending through the transverse back slot of said arm rest portion, and a locking member extending between and connecting the two said side members; all of said parts capable of being disassembled.

3. A knocked down furniture, comprising, two duplicate flat side members each having a bottom portion, an upright portion above said bottom portion centrally located and of a width less than the median width of said bottom portion, and a top portion above said upright portion centrally located and of a width less than said upright portion, a seat portion having a leg opening, slots embracing the two upright portions of said side members respectively, and a rear transverse slot, an arm rest portion having a body opening, two slots embracing the two top portions of said two side members respectively, and a transverse back slot, a back member having a tab portion extending into the rear transverse slot of said seat portion, and a tab portion extending through the transverse back slot of said arm rest portion, and a detachable locking member extending between and connecting the two said side members; all of said parts capable of being disassembled.

4. A knocked down furniture, comprising, two duplicate flat side members each having a bottom portion, an upright portion above said bottom portion centrally located and of a width less than the median width of said bottom portion, and a top portion above said upright portion centrally located and of a width less than said upright portion, a seat portion having a leg opening, slots embracing the two upright portions of said side members respectively, and a rear transverse slot, an arm rest portion having a body opening, two slots embracing the two top portions of said two side members respectively, and a transverse back slot, a back member having a tab portion extending into the rear transverse slot of said seat portion, and a tab portion extending through the transverse back slot of said arm rest portion, and a locking member extending between and connecting the two bottom portions of said side members; all of said parts capable of being disassembled.

5. A knocked down furniture, comprising, two duplicate flat side members each having a bottom portion, an upright portion above said bottom portion centrally located and of a width less than the median width of said bottom portion, and a top portion above said upright portion centrally located and of a width less than said upright portion, a seat portion having a leg opening, slots embracing the two upright portions of said side members respectively, and a rear transverse slot, an arm rest portion having a body opening, two slots embracing the two top portions of said two side members respectively, and a transverse back slot, a back member having a tab portion extending into the rear transverse slot of said seat portion, and a tab portion extending through the transverse back slot of said arm rest portion, and a locking member extending between and connecting the two said side members; all of said parts capable of being disassembled; said tab portions of said two side members, each having a hand grip opening.

6. A knocked down furniture, comprising, two duplicate flat side members each having a bottom portion, an upright portion above said bottom portion centrally located and of a width less than the median width of said bottom portion, and a top portion above said upright portion centrally located and of a width less than said upright portion, a seat portion having a leg opening, slots embracing the two upright portions of said side members respectively, and a rear transverse slot, an arm rest portion having a body opening, two slots embracing the two top portions of said two side members respectively, and a transverse back slot, a back member having a tab portion extending into the rear transverse slot of said seat portion, and a tab portion extending through the transverse back slot of said arm rest portion, and a detachable A-shaped locking brace member having its two leg ends detachably engaging said two side members respectively, and its top engaging the underside of said seat portion.

7. A knocked down furniture, comprising, two duplicate flat side members each having a bottom portion, an upright portion above said bottom portion centrally located and of a width less than the median width of said bottom portion, and a top portion above said upright portion centrally located and of a width less than said upright portion, a seat portion having a leg opening, slots embracing the two upright portions of said side members respectively, and a rear transverse slot, an arm rest portion having a body opening, two slots embracing the two top portions of said two side members respectively, and a transverse back slot, a back member having a tab portion extending into the rear transverse slot of said seat portion, and a tab portion extending through the transverse back slot of said arm rest portion, and a detachable A-shaped locking brace member having its two leg ends detachably engaging groove openings in said two side

members respectively, and its top engaging a groove opening in the underside of said seat portion.

8. A knocked down furniture, comprising, two duplicate flat side members each having a bottom portion, an upright portion above said bottom portion centrally located and of a width less than the median width of said bottom portion, and a top portion above said upright portion centrally located and of a width less than said upright portion, a seat portion having two spaced apart leg openings, slots embracing the two upright portions of said side members respectively, and a rear transverse slot, an arm rest portion having a body opening, two slots embracing the two top portions of said two side members respectively, and a transverse back slot, a back member having a tab portion extending into the rear transverse slot of said seat portion, and a tab portion extending through the transverse back slot of said arm rest portion, and a locking member extending between and connecting the two said side members; all of said parts capable of being disassembled.

9. A knocked down furniture, comprising, two duplicate flat side members each having a bottom portion, an upright portion above said bottom portion centrally located and of a width less than the median width of said bottom portion, and a top portion above said upright portion centrally located and of a width less than said upright portion, a seat portion having a leg opening, slots embracing the two upright portions of said side members respectively, and a rear transverse slot, an arm rest portion having a body opening, two slots embracing the two top portions of said two side members respectively, and a transverse back slot, a back member having a tab portion extending into the rear transverse slot of said seat portion, and a tab portion extending through the transverse back slot of said arm rest portion, and a locking member extending between and connecting the two said side members; all of said parts capable of being disassembled; said body opening of said arm rest and said transverse back slot therein being in communication with each other.

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