Oct. 14, 1969 R. G. FLYNN 3,472,509

PORTABLE FOLDING GYM

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FIG. 1

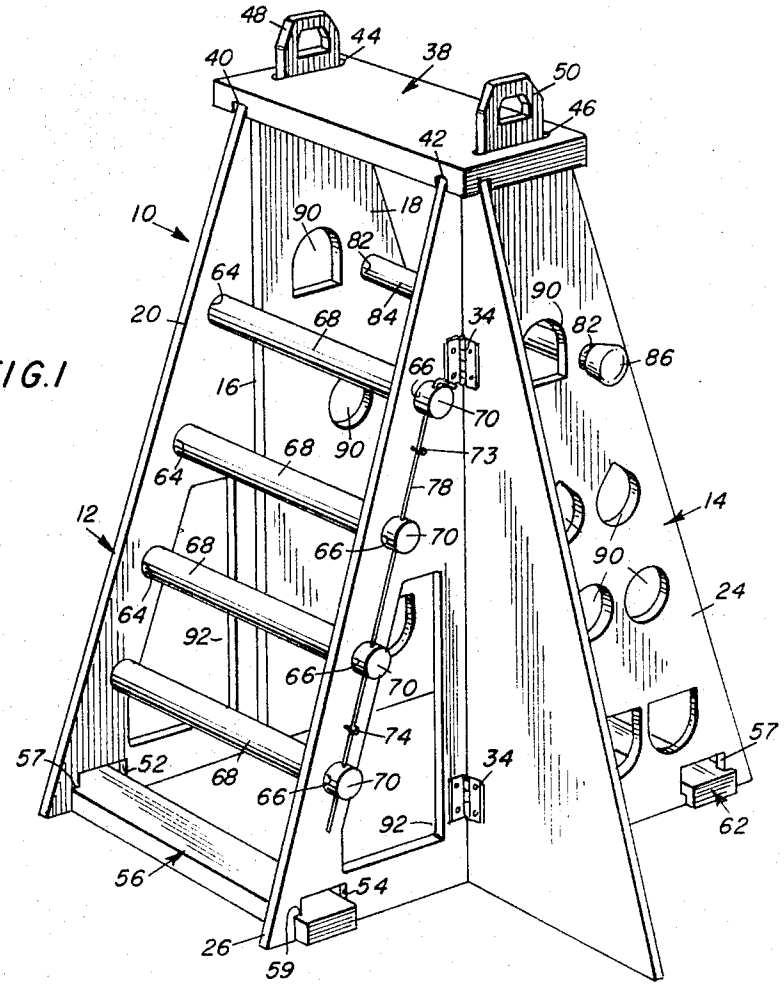


FIG. 4

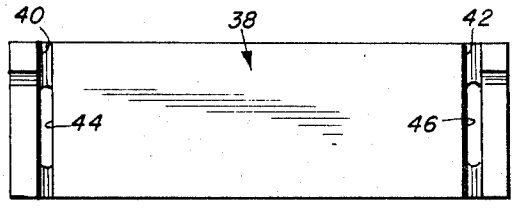
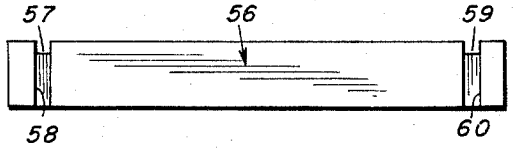


FIG. 5



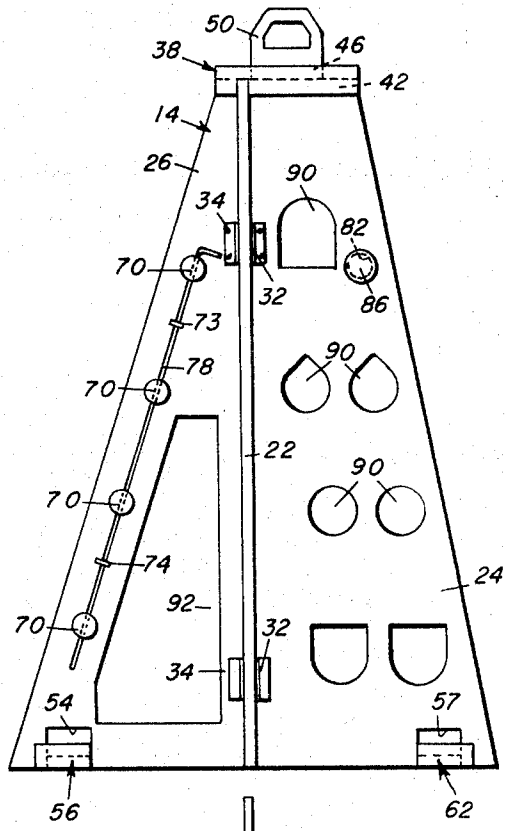
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PORTABLE FOLDING GYM

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FIG. 2



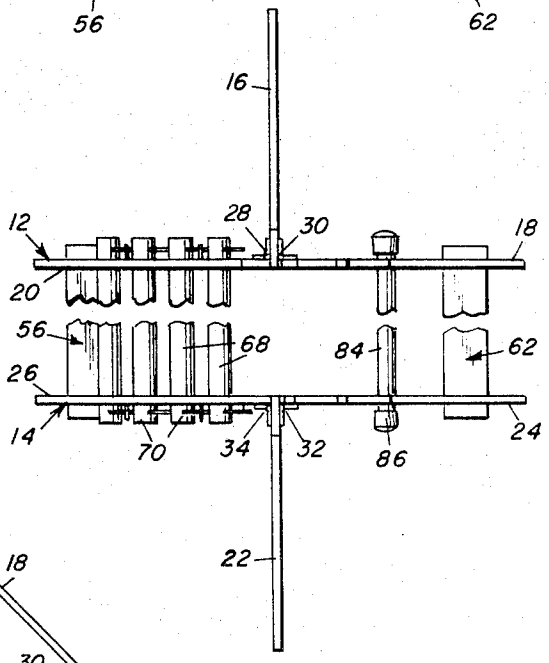


FIG. 3

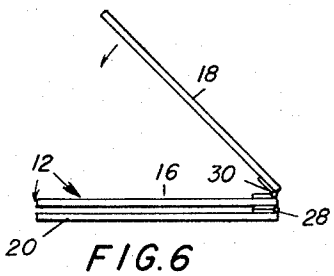


FIG. 6

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PORTABLE FOLDING GYM

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U.S. Cl. 272—60 9 Claims

ABSTRACT OF THE DISCLOSURE

A knock-down, climbing and gym apparatus having foldable side assemblies secured together and rigidified via a seat member and by bracing members formed with grooves interfitting in peripheral edges of openings in the foldable side units.

An objective of this invention is to provide a folding gym-like apparatus which is easily stored in a compact, packageable, flat form and is quickly assembled and rigidified by an adult without the use of tools or the exercise of any unusual manual dexterity or skill, yet which cannot be disassembled easily by children.

An additional objective of this invention is to provide a portable play unit having a climbing ladder, a swinging bar, a perch seat, climbing holes and crawl-through spaces, while maintaining economy of manufacture.

A still further objective of this invention is to provide a locking and bracing means for a knock-down gym set wherein the stresses and weight forces administered by children utilizing the invention will tend to increase the stability of the unit.

Heretofore, climbing units for children have been primarily of the relatively expensive outdoor type and for maximum enjoyment oftentimes required a permanent emplacement. As a result, gym and climbing sets, although popular with children, have been limited to relatively hard to assemble and disassemble metal frame apparatus. A primary objective of this invention is to provide a gym unit for ready and repeated assembly and disassembly without wear to parts and which, when disassembled, is easily stored in a closet of the average home. The apparatus of this invention then is uniquely suited for use in apartments, homes and classrooms where children's play space is limited and/or permanent installation of a gym is undesirable and/or the gym will be used in different places indoors and outdoors. The instant invention satisfies this need in the art.

A further objective of the invention is to provide an extremely portable gym set which, when disassembled, is comprised of individual elements each of which is easily handled by an adult. Further, the individual elements are sized to fit in the trunk of automobiles of standard design.

These and other objects of the invention will become more apparent to those skilled in the art by reference to the following detailed description when viewed in light of the accompanying drawings, wherein:

FIGURE 1 is a perspective view of the assembled apparatus;

FIGURE 2 is a side view thereof;

FIGURE 3 is a top plan view of FIGURE 2 with the top seat removed;

FIGURE 4 is a view showing the slot pattern of the bottom side of the seat portion of FIGURE 1;

FIGURE 5 is a bottom view of a brace member; and

FIGURE 6 is the fold position of one assembly.

Referring now to the drawings wherein like elements indicate like parts, the numeral **10** indicates the gym set of this invention. The principal supporting elements are a pair of folding side assemblies **12** and **14**. These assemblies

can be manufactured from wood, plywood, flakeboard or particle board having selected characteristics. The side assembly **12** includes a stabilizer **16**, a first panel **18** and a second panel **20**. The side assembly **14** includes the stabilizer **22**, a third panel **24** and a fourth panel **26**. The stabilizer **16** is secured to panel **20** by hinges **28** and the panel **18** is secured to stabilizer **16** by hinges **30**. Likewise, the panel **24** is secured to stabilizer **22** by hinges **32** and the panel **26** is secured to the stabilizer **22** by the hinges **34**. As best seen in FIGURE 6, the stabilizers and the panels are foldable together in parallel relationship for storage. They also are readily pivoted to the positions shown in FIGURES 1, 2 and 3 to provide a stable support.

The stabilizer and the side panels slope upwardly and inwardly from their lower base lines to upper ends which, except for handle portions mentioned hereinafter, terminate in a common plane indicated by the numeral **36**. Therefore, when panels **24** and **26** and **18** and **20** are respectively placed in common vertical planes and stabilizers **16** and **22** are placed perpendicular to these common planes, the upper ends form two generally T-shaped configurations in the plane **26**. A seat member **38**, having corresponding T-shaped groove patterns **40** and **42**, unifies the panels and stabilizers by snugly receiving the T-shaped configurations in plane **36**. The seat **38** is also slotted at **44** and **46** to receive a pair of hand grips **48** and **50** which extend upwardly respectively from panels **18** and **24**. The hand grips are apertured as shown in FIGURE 1 for easy gripping by a child utilizing the gym set.

At their lower ends, panels **20** and **26** are formed with rectangular openings **52** and **54**. A bottom brace **56** has grooves **58** and **60** formed in the bottom surface thereof. A second set of grooves **57** and **59** in the depth-wise or vertical direction respectively intersect the grooves **58** and **60**. The grooves **57** and **59** engage the bottom ledge openings **52** and **54** and the grooves **58** and **60** the side edges thereof. The bottom brace **56**, together with seat **38**, stabilizes the panels **20** and **26** with respect to one another. The lower ends of panels **18** and **24** are provided with similar openings **57** and a bottom brace **62** having grooving similar to that of brace **56**. The lateral grooves **58** and **60** of the bottom braces **56** and **62** are longitudinally spaced from one another slightly less than the distance between the seat slots **44** and **46**. This causes the side assemblies to be closer at their bases than at their upper ends causing additional pressure to be placed on the stabilizers.

The panel **20** is formed with a series of aligned apertures **64**. The panel **26** is equipped with corresponding aligned apertures **66**. A plurality of wood ladder rungs **68** having a greater length than the distance between panels is received by the corresponding apertures. Each rung is of sufficient length to provide an extension **70**. Of course, there is also an extension on the other side extending beyond the panel **26**. These extensions or end portions are drilled with transverse bores **72** therethrough. Interposed along the line of openings **66** is a pair of eyelets **73** and **74**. The ladder rungs are readily but securely affixed to the side panels by inserting a metallic rod **78** respectively through each of the bores **72** and the eyelets **73** and **74**. A flange **80** at the upper end of the rod prevents the rod from slipping through and from being removed by children. The rod also prevents the rungs from revolving to insure a more stable ladder.

The panels **18** and **24** have opposing apertures **82** through which a pull-up bar **84** is inserted. A pair of removable and resilient grips **86** and **88** maintains the bar **84** in position between the panels while allowing the bar to revolve freely for swinging.

In storage, the side assemblies **12** and **14** are folded upon themselves as shown in FIGURE 6. The remaining

units of the invention; namely, the elongated seat **38**, the bottom braces **56**, the rungs **68** and the rod **78**, are easily stored with the side units. In assembly, the two side units are spaced apart at an estimated distance. Since the units are three-paneled, they readily stay in position. The bottom braces **56** can then be inserted and the positions of the side panels and stabilizer of each side assembly are rigid with respect to each other. The hanging bar **84** and the rungs **68** are quickly slipped into their appropriate position and the rod **78** slipped through the holes **72** and eyelets **73** and the top seat is placed in position by slightly varying the distances between the side units until their upper ends are firmly received in the groove patterns **40** and **42**. It can be seen that a rigid, durable and attractive gym-like set is ready for the play of children in less than a minute. The disassembly procedure merely consists of a reversal of the above steps.

It should also be noted that the gym set is enhanced by the provision of climbing holes **90** in panels **18** and **24** and the provision of "crawl-through" openings **92** in panels **20** and **26**. These openings not only reduce the weight of the side units but provide a diversification of play to the using children. Since the primary components of the gym set are of wood or wood-based products, the various openings, grooves and apertures are easily formed by workman in the average wood-working shop.

In a general manner, while there has been disclosed effective and efficient embodiments of the invention, it should be well understood that the invention is not limited to such embodiments, as there might be changes made in the arrangement, disposition, and form of the parts without departing from the principle of the present invention as comprehended within the scope of the accompanying claims.

I claim:

1. A readily assembled and disassembled play unit for children comprising first and second elongated stabilizer members for disposition in a common plane with respective first and second inner edges spaced a first distance from one another, first and second elongated panels, first means hingedly securing said first and second elongated panels to said first stabilizer member along said first inner edge whereby said first and second panels can pivot with respect to each other, third and fourth elongated panels, second means hingedly securing said third and fourth elongated panels to said second stabilizer member along said second inner edge whereby said third and fourth panels can pivot with respect to each other, and whereby said first and third panels can be pivoted to a position substantially parallel with one another and said second and fourth panels can be pivoted to a position substantially parallel with one another, a seat member having a first bottom groove pattern receiving the upper ends of said first stabilizer, said first panel and said second panel and a second groove pattern receiving the upper ends of said second stabilizer, said third panel and said fourth panel, a first removable bottom brace interconnecting the lower ends of said first and third panels, and a second removable bottom brace interconnecting the bottom of said second and fourth panels.

2. The invention of claim **1** wherein first and second hand grips extend upwardly from said first and third panels and said seat member has first and second openings for respectively receiving said first and second hand grips.

3. The invention of claim **1** wherein said first and third panels have first and second openings formed along their lower ends and said first brace has first and second grooves receiving portions of the peripheries of said first and second openings.

4. The invention of claim **1** wherein the distance between said first stabilizer member from said second stabilizer member is greater at the upper ends thereof than at said lower ends.

5. The invention of claim **3** wherein said second and fourth panels have opposing openings formed near their lower ends and said second brace has grooves receiving portions of the peripheries of said openings.

6. The invention of claim **1** wherein said second panel has a first series of apertures formed in a line along the longitudinal length thereof and said fourth panel has a second series of corresponding apertures, and a series of ladder rungs having a length greater than said first distance extending between corresponding apertures.

7. The invention of claim **6** wherein extensions of said rungs have openings therethrough, an eyelet means is secured to said first panel along said line, and rod means extend through said eyelet and said openings.

8. The invention of claim **7** wherein all of said panels and stabilizer members have gripping holes dispersed throughout for the convenience of climbing children, and said second and fourth panels have crawl-through spaces enabling children to enter between the side assemblies and use the gym as a house, tent or teepee.

9. A readily assembled and disassembled play unit for children compriseing first and second elongated stabilizer members for disposition in a common plane with respective first and second inner edges spaced a first distance from one another, first and second elongated panels, first means hingedly securing said first and second panels with respect to said first stabilizer member along said first inner edge whereby said first and second panels can pivot with respect to each other, third and fourth elongated panels, second means hingedly securing said third and fourth panels with respect to said second stabilizer member along said second inner edge whereby said third and fourth panels can pivot with respect to each other and said unit can assume, either a first position wherein said first stabilizer and said first and second panels can be folded to a side-by-side parallel relationship and said second stabilizer and said third and fourth panel can be folded to a side-by-side parallel relationship, or to a second position wherein said first and third panels are pivoted to a position substantially parallel with one another and said second and fourth panels are pivoted to a position substantially parallel with one aonther, removable means engaging said stabilizer members and said panels for maintaining them in said second position, a first removable bottom brace interconnecting the lower ends of said first and third panels, and a second removable bottom brace interconnecting the bottoms of said second and fourth panels.

References Cited

UNITED STATES PATENTS

346,437	7/1886	Geissinger	182—172 X
1,134,491	4/1915	Savage	182—172

FOREIGN PATENTS

619,929	3/1949	Great Britain.
724,531	12/1965	Canada.

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U.S. Cl. X.R.

182—129, 172; 272—62