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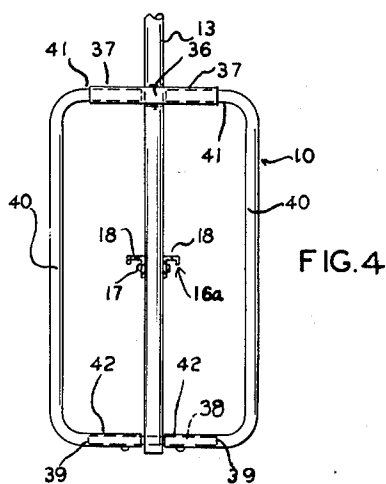
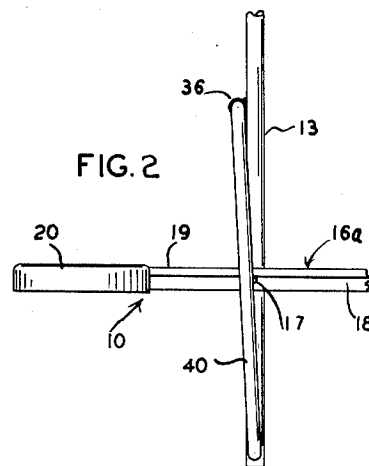
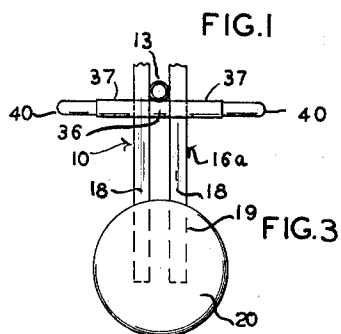
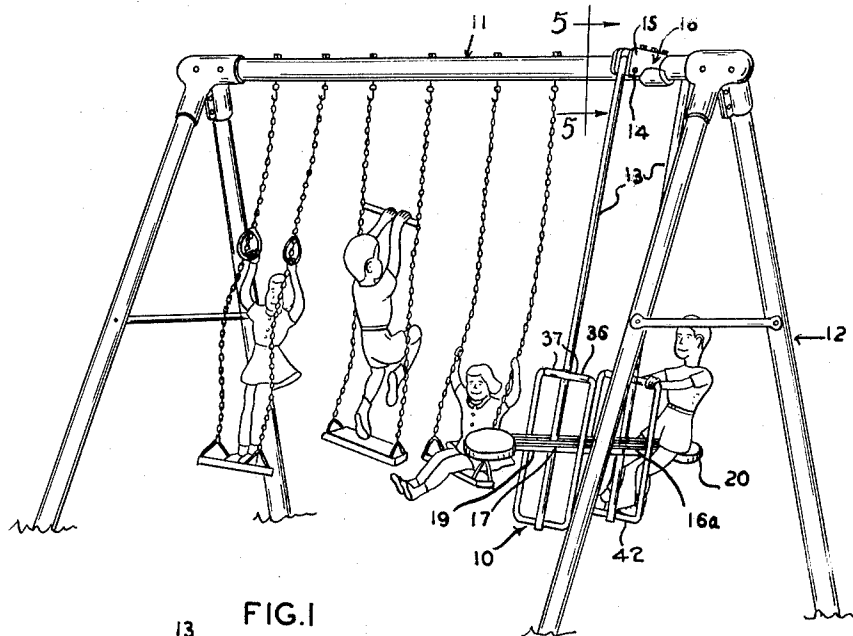
D. P. GRUDOSKI

3,145,013

PLAYGROUND SWING

Filed Aug. 8, 1961

2 Sheets-Sheet 1



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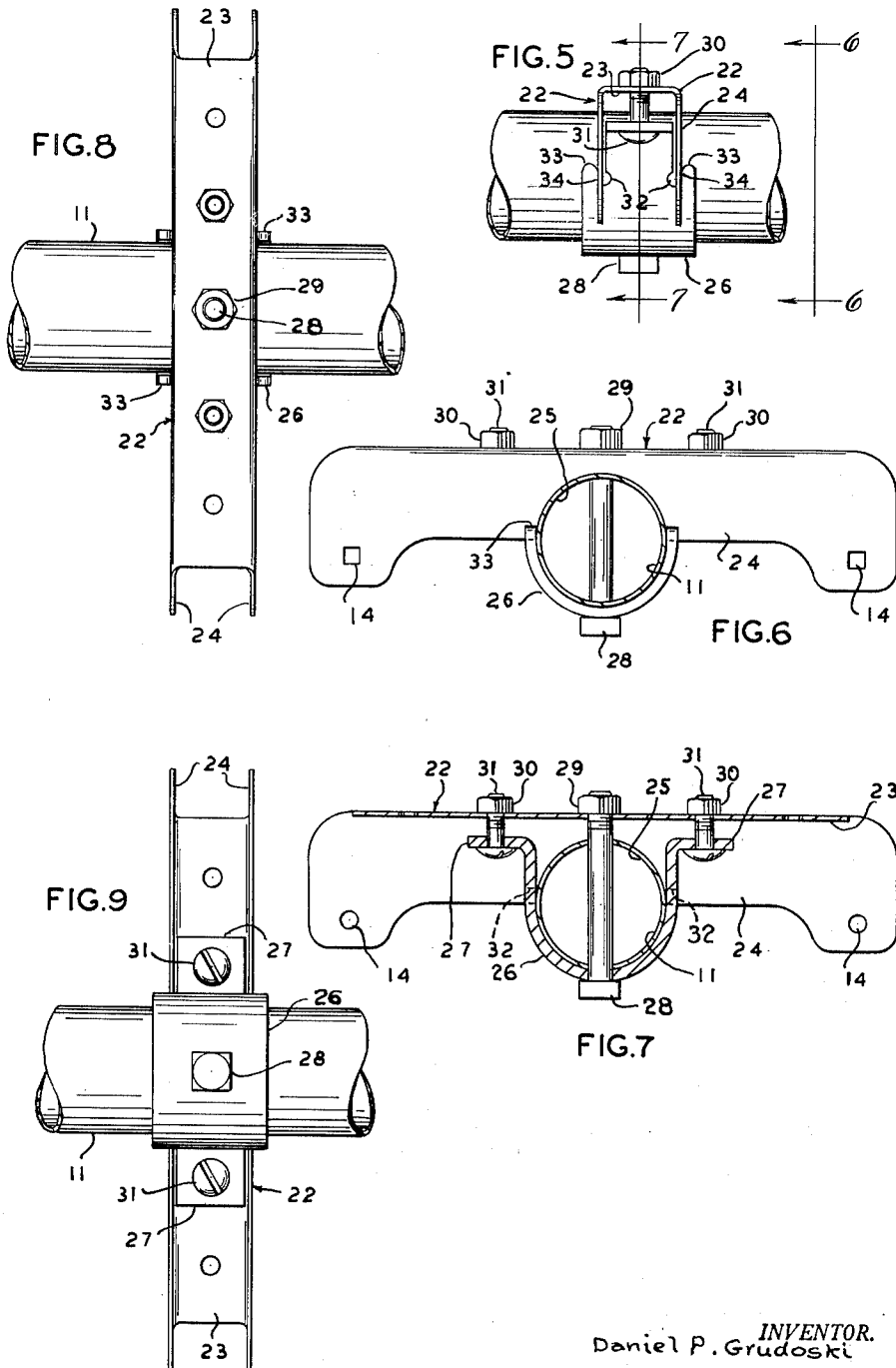
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PLAYGROUND SWING

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This invention relates to playground or gymnasium equipment, and in particular relates to a support for glider-type play swings.

Heretofore, children's glider-type swings have been provided wherein transversely spaced drop-arms were suspended from a fixedly supported cross-piece to swing in parallelism, as maintained by a cross-bar pivoted to the drop-arms at pivot points spaced above the lower ends thereof. The swinging or gliding action was controlled from seats affixed on opposite end extensions of the cross-bar transversely outwardly of the drop arms, as by at least one child seated on a seat applying requisite pressure to hand grips and foot rests provided above and below the pivot point on the respective drop-arm. In use of such swings, however, it was possible for the users to injure knees or legs by bumping them on adjacent portions of the equipment, especially when the swing was swerved or swayed out of a vertical plane of normal swinging movement of the drop arms. This condition was sometimes aggravated due to the cross-piece becoming loose on its supporting bar.

Another object of the invention is to provide improved means for immovably attaching the supporting cross-piece to the fixed supporting bar, and by which the swing will withstand severe abuse substantially indefinitely without the suspension fastening means becoming loose on the supporting bar.

These and other objects of the invention will be manifested from the following brief description and the accompanying drawings.

Of the accompanying drawings:

FIGURE 1 is a perspective view of a playground apparatus embodying the improved glider swing of the invention.

FIGURE 2 is an enlarged fragmentary side elevation of one end of the swing.

FIGURE 3 is a cross-section of the portion of the swing shown in FIGURE 2, as viewed from the top thereof.

FIGURE 4 is a cross-section of the same as viewed from the right of FIGURE 2.

FIGURE 5 is an enlarged front elevation, partly broken away, of the upper portion of the glider swing shown in FIGURES 2 to 4, substantially as viewed on the lines 5—5 of FIGURE 1, and with the drop-arms removed.

FIGURE 6 is a cross-section taken substantially on the line 6—6 of FIGURE 5.

FIGURE 7 is a cross-section taken substantially on the line 7—7 of FIGURE 5.

FIGURES 8 and 9 are top and bottom plan views, respectively, of FIGURE 5.

Referring to the drawings generally, and to FIGURES 1 to 4 in particular, the numeral 10 designates a glider-type swing embodying the features of the invention, supported on a top bar 11 of tubular metal, on rigid supporting frame 12 for a plurality of swings as shown in FIGURE 1.

Swing 10 includes transversely spaced drop-arms 13, 13 of tubular stock pivoted at 14, 14 on transversely opposite extensions 15, 15 of a bracket 16 rigidly affixed on top bar 11. The drop-arms are maintained to swing in parallelism in a vertical plane, as by means of a cross-bar 16a pivoted to the drop-arms at points 17, 17 spaced substantially above the lower ends of the same. Cross-bar 16a may be formed of a pair of angle bars 18, 18 embracing opposite sides of the drop-arms, and having opposite end

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extensions 19, 19 outwardly of the respective pivots on which seats 20, 20 are affixed.

Referring now to FIGURES 5 to 9, the bracket 16 is designed to have maximum resistance to turning movement on the top bar 11, as well as to minimize the shearing stresses on the clamping or attaching bolts for the same. Accordingly, the bracket may include a channel-shaped cross-piece 22 having a web portion 23 and inturned side flanges 24, 24, the latter being provided with arcuate cut-outs 25, 25 for complementary engagement with the upper portion of top bar, and also includes a U-shaped clamping member 26 which is complementally engageable with the underside of the top bar. Member 26 has transversely opposite out-turned flanges 27, 27 engageable between the side flanges 24 and in spaced relation to the web 23. A bolt 28 is received through aligned openings in the web 23, top bar 11, and member 26, and a nut 29 is threaded on bolt 28 to clamp these parts together and to prevent the bracket from turning on the top bar. Further clamping action of member 26 and cross-piece 22 on the top bar is accomplished by tightening nuts 30 on bolts 31 received through each flange 27 and the web 23. This last-named clamping action is also effective to urge edge portions of the flanges 24 into angularly disposed cam slots 32, 32 formed in off-set shoulders 33 on the member 26, and into tight wedging engagement with angular edges 34 to lock the cross-piece 22 and member 26 against turning with respect to each other. In other words maximum assurance is provided against turning of the bracket on the top bar 11, in any direction, and yet the bracket is removable as for storing or shipping the apparatus in knock-down condition.

Referring again to FIGURES 1 to 4, welded or otherwise affixed to each drop-arm 11, at a point above the respective pivot 17, there may be a metal tube 36 providing laterally outwardly extended hand-grip portions 37, 37. At a point below the pivot a tube or cylindrical bar 38 may be received through each drop-arm and affixed thereto, as by welding, to provide foot-supporting portions 39, 39. Vertical guard rails 40, 40 of tubular stock, provided at laterally opposite sides of each drop-arm 13, have top and bottom inturned extensions 41 and 42, the top extensions 41 being telescopically received within the hand-grip portions 37 and the bottom extensions 42 having the foot-supporting portions 38 telescopically received therein. Rivets or other suitable means may be used to secure the guard rails to portions 41 and 42 to maintain the guard rails in spaced relation to the respective drop-arms.

The arrangement is such that in use of the swing 10 a child sitting on a seat 20 may grip the portions 37 with the hands, while resting the feet on the portions 42, so that by application of requisite hand and foot pressures the drop-arms are swingable on bracket 16 in parallelism within a vertical plane. For this purpose, the child's knees are freely receivable between the drop-arms and the respective guard rails 26 to protect them against injury by bumping against adjacent portions of the supporting structure.

Modifications of the invention may be resorted to without departing from the spirit thereof or the scope of the appended claims.

What is claimed is:

1. A supporting hanger for suspension of a swing or like supporting element from a cylindrical top bar of a playground frame, comprising a channel-shaped cross-piece having a web portion and spaced inturned flanges; said flanges having portions shaped for complementary engagement with the cylindrical top bar; a member engageable with the cylindrical top bar in opposition to said cross-piece and having out-turned portions adapted to extend between said inturned flanges and to be in spaced

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relation to said web portion; adjustable means including a shank portion receivable through said web portion, said top bar and said member for non-rotatably clamping the member and cross-piece together on the top bar; bolt means through said web portion and said out-turned portions operable to clamp the cross-piece and member on said top bar independently of said adjustable means; said member having recessed shoulder portions for reception therein of portions of said flanges of the cross-piece, thereby tending to resist relative rotation of the member and cross-piece; and means on said cross-piece for suspension of a swing thereon.

2. A supporting hanger as set forth in claim 1, said recessed portions defining angular edges wedgingly engageable by said portions of the flanges upon tightening said bolt means.

3. A Support for use on a playground or like swing comprising: a horizontally extending bar; a horizontal

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cross-piece extending transversely of said support and having spaced flanges defining a channel portion; said cross-piece engaging said bar in one direction to have said channel portion opening inwardly of the bar; a member engageable with said bar in the other direction to have portions thereof substantially non-rotatably received between said flanges of the channel portion; means for clamping said member and cross-piece together on the bar; and means on said cross-piece and said member for locking said member and cross-piece against relative movement with respect to each other and said bar.

References Cited in the file of this patent

UNITED STATES PATENTS

2,286,615	Griswold	June 16, 1942
2,517,207	Hugueny	Aug. 1, 1950
2,699,201	Levy	Jan. 11, 1955
3,014,683	Littmann	Dec. 26, 1961