

Feb. 15, 1966

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3,235,256

PLAYGROUND SWING WITH RIGID GUARD MEMBERS

Original Filed Aug. 8, 1961

2 Sheets-Sheet 1

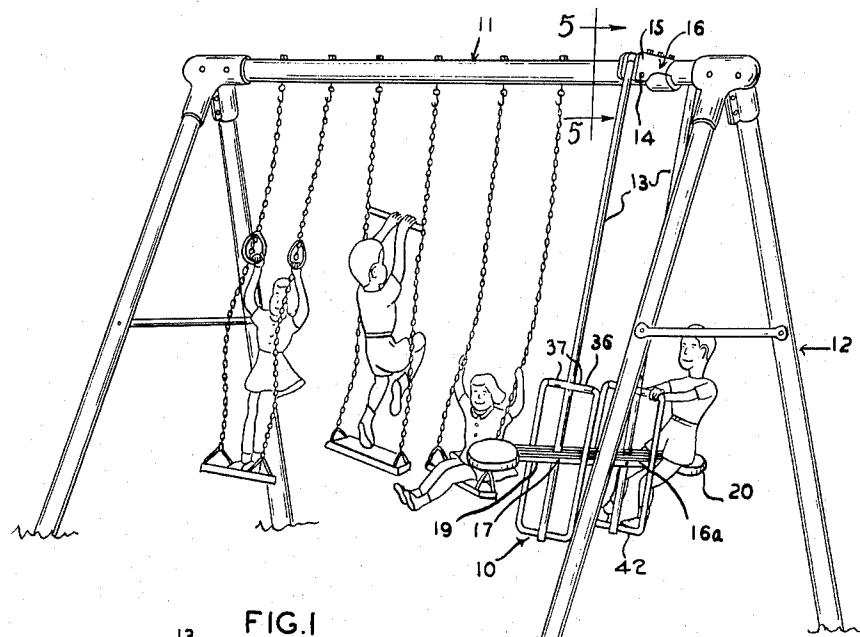


FIG. 1

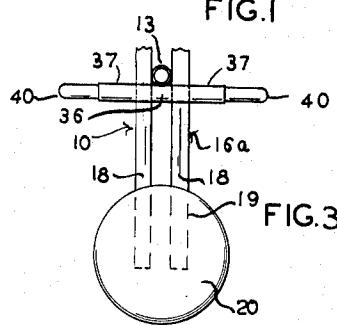
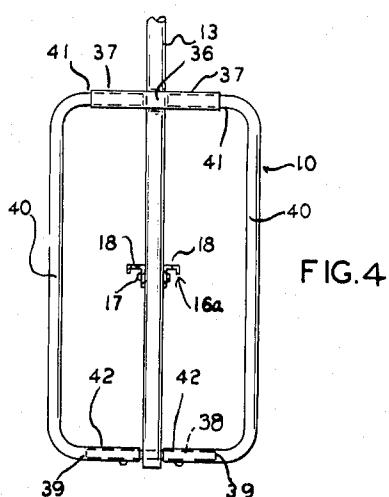
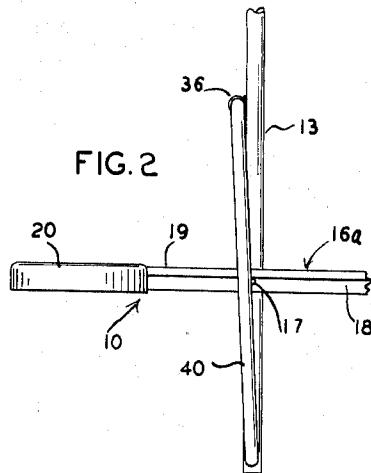


FIG. 3

FIG. 2



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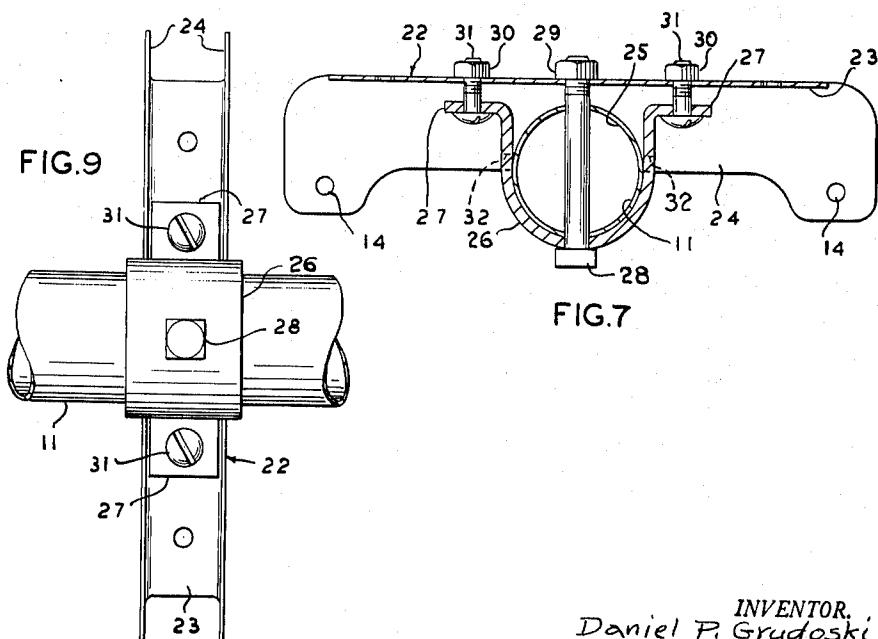
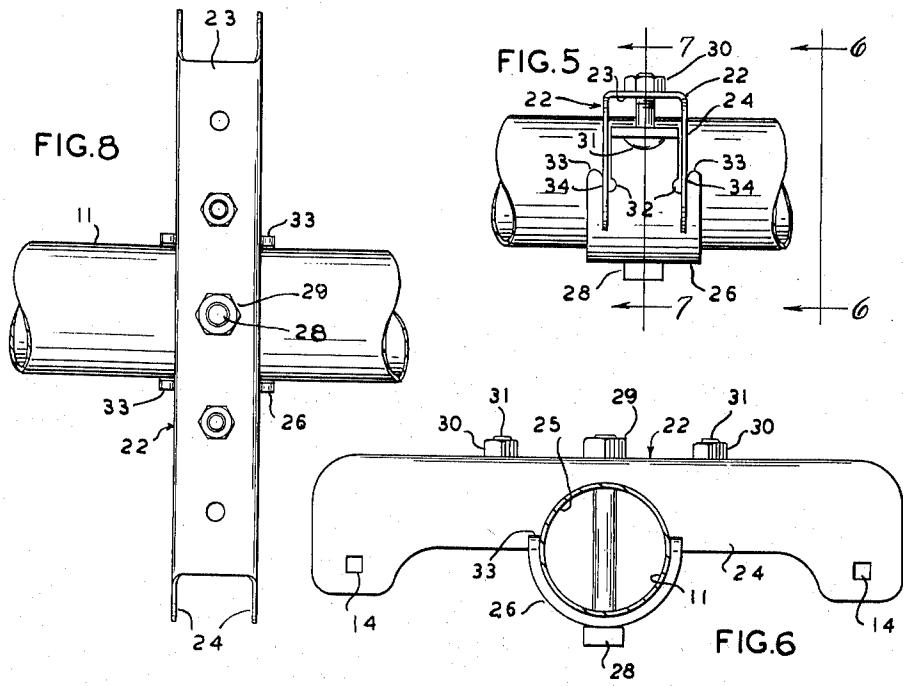
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3,235,256 PLAYGROUND SWING WITH RIGID GUARD MEMBERS

Daniel P. Grudoski, Hartstown, Pa., assignor to Blazon, Inc., Cuyahoga Falls, Ohio, a corporation of Ohio
Original application Aug. 8, 1961, Ser. No. 130,137, now
Patent No. 3,145,013, dated Aug. 18, 1964. Divided
and this application Nov. 27, 1963, Ser. No. 326,581
2 Claims. (Cl. 272—87)

This invention relates to playground or gymnasium equipment; and in particular relates to glider-type play swings.

This is a division of U.S. application serial No. 130,137, filed August 8, 1961, now Patent No. 3,145,013.

Hertofores, 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.

One object of the present invention is to provide a glider-type swing having improved pressure-applying portions provided with a safety device for protecting the knees and legs against injury.

These and other objects of the invention will be manifest 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, rigid 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

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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 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 in-turned side flanges 24, 24, the latter being provided with 10 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 15 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 26 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 20 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 25 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 13, 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 cross-piece or bar 38 may be received through each 30 drop-arm and affixed thereto, as by welding, to provide stem portions 39 at laterally opposite sides of the drop-arm 13 oppositely disposed U-shaped elements providing vertical leg-guard rails 40, 40 and top and bottom in-turned extensions 41 and 42, the top extensions 41 which are telescopically received within the hand-grip portions 37, and bottom in-turned, foot-engaging extensions 42 within which the stem portions 39 are telescopically received. 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. That is, each rigid drop-arm 13 has a rigid guard member, including U-shaped elements 40 and parts 36 and 38 affixed thereto to swing with the same.

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 and attached guard members are swingable on bracket 16 in parallelism within a vertical plane. For this purpose, the child's knees are freely receivable 45 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 playground or like swing, comprising: a support, rigid drop-arms pivotally suspended from said support at transversely spaced points to swing in the same transverse plane; a cross-bar pivoted to lower portions of said drop-arms maintaining the same in substantial parallelism when swung on said support, said cross-bar having seat means on extensions thereof transversely outwardly of the drop-arms; and rigid guard members affixed on said drop-arms to swing therewith; each said guard member having laterally opposite U-shaped elements providing vertical leg-guard rails spaced laterally outwardly of opposite sides of the respective drop-arm and vertically spaced upper and lower portions inwardly of said vertical rails and above and below the corresponding cross-
bar pivot, said upper and lower portions thereby serving

as hand-grip and foot-engaging bars, respectively, at said opposite sides of the rigid drop-arm.

2. A playground swing as in claim 1, each said guard member including upper and lower cross-pieces affixed to the drop-arms, and each providing laterally opposite projecting ends telescopically interengaged with the respective said upper and lower inturned portions of the respective U-shaped elements.

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RICHARD C. PINKHAM, Primary Examiner.