Dec. 23, 1952 E. O. LEMPONEN 2,622,877

COMBINATION TABLE AND PLATFORM SWING

Filed Jan. 16, 1948 2 SHEETS—SHEET 1

Fig. 1

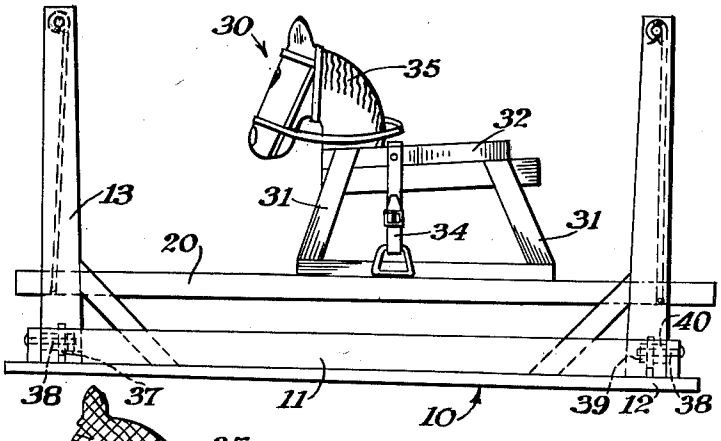


Fig. 2

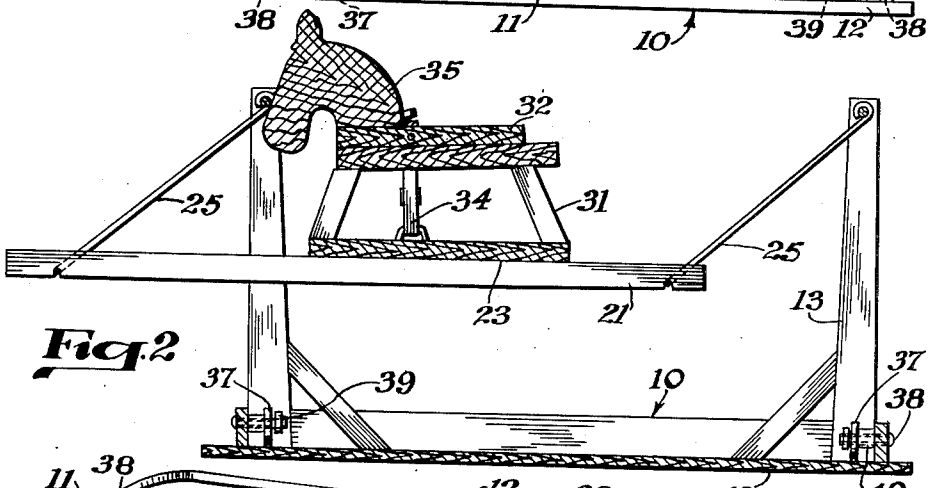
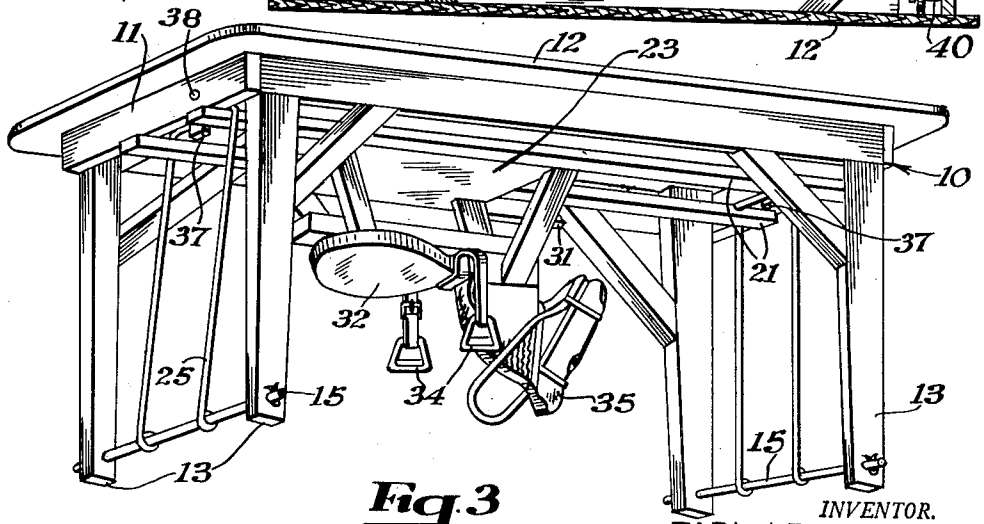


Fig. 3



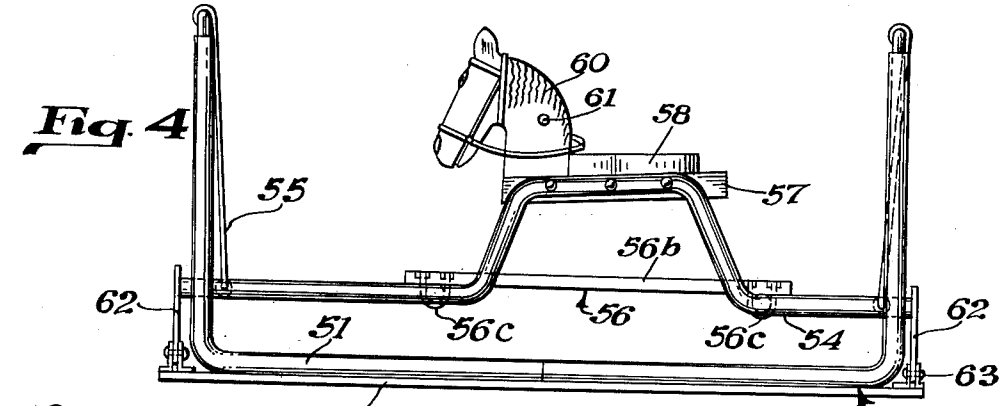
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Fig. 4



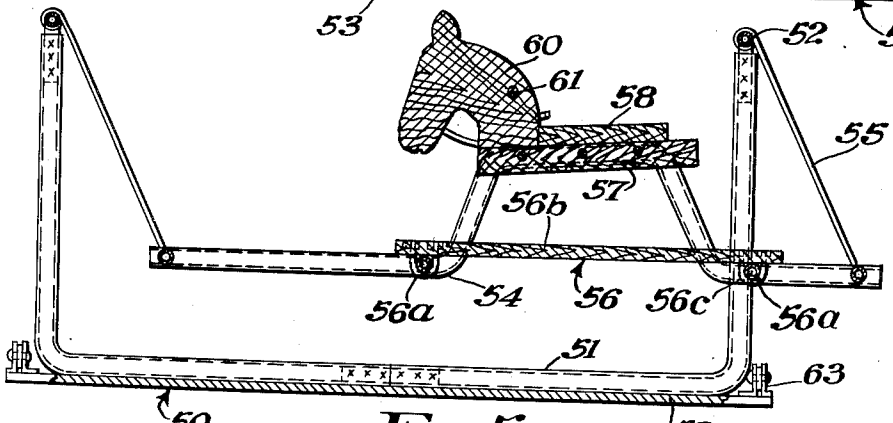


Fig 5

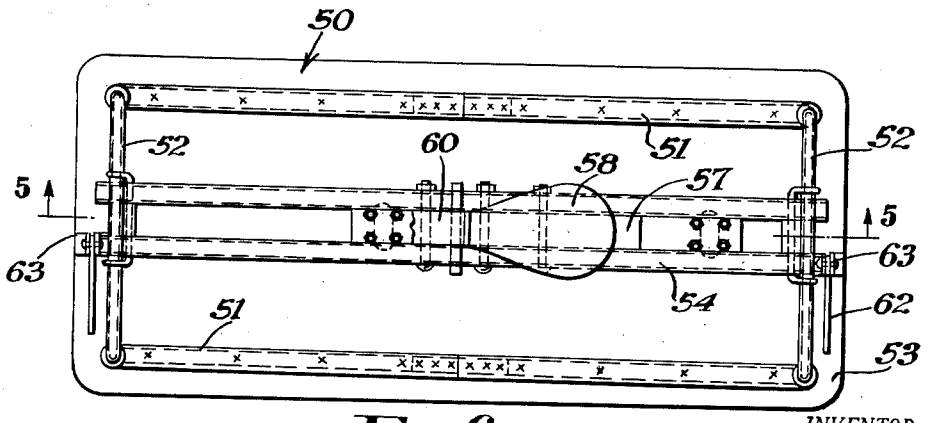


Fig 6

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Patented Dec. 23, 1952

2,622,877

UNITED STATES PATENT OFFICE

2,622,877

COMBINATION TABLE AND PLATFORM SWING

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Application January 16, 1948, Serial No. 2,669

5 Claims. (Cl. 272—3)

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The present invention relates generally to swings and is more particularly concerned with a novel hobby swing which combines unusually long swing motion with strong and sturdy construction and safety means which automatically protects the rider from accidental impact with the swing supporting structure and from other dangers arising when such devices are overswung.

In the past, it has been customary to support garden swings, hobby horses and similar devices by frames which either were free of crossbars or had them out of the way below the swing platform or high above the seat or saddle. The object, of course, was to avoid interference with swing motion by the crossbars. In cases where the bars were omitted, construction, even where the loads expected were light, was necessarily complicated, heavy and expensive due to the lack of crossbar bracing. On the other hand, when the crossbars were retained but disposed high above the swing seat or saddle, special bracing was required to stabilize the structure under the relatively great stresses developed under normal loads applied at the ends of the long arms of the swing hangers. This was likewise a complicated and relatively expensive structure. Furthermore none of these prior devices was equipped with means for protecting riders against the dangers of overswinging.

In contrast to these earlier devices, those of my present invention are strong and rugged without the special bracing means aforementioned and are relatively easily and economically constructed. Moreover the motion of the swing of my invention is substantially greater than that of the typical hobby horse, having necessarily a much heavier frame construction and no crossbars, the links of the hangers of my device being preferably much longer than those known in the latter construction. Additionally, the present hobby swings are more stable than typical hobby horses, due to their relatively large and heavy bases.

As a further advantage, these swings lend themselves to attachment to each other and use together by a number of riders and consequently are particularly well adapted for playground use. The swings in this case might be constructed as a number of separate elements, as illustrated and described hereinafter, or may alternatively be built together on a single base to conserve construction materials and labor and to facilitate movement and storage of the assembly.

Further unlike the previously known devices, those of my invention are provided with means for limiting the relative motion of the swinging

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parts to the stationary parts to a predetermined safe maximum to prevent impact of the riders with the supporting structure and other dangers inherent in overswinging. Also, these devices have the important advantage over prior devices of serving many useful functions. For instance, they may be inverted and employed as tables, the table top being the swing floor, and suitably being detachable for use with the device only when the swing is inverted and secured to the frame so that the assembly may be used as a table without interference by the swing.

Further advantages of the present device, as well as the details of its construction and the manner of its use in a preferred form, will be better understood by those skilled in the art by referring to the following detailed description and the drawings accompanying and forming a part of this specification, in which

Figure 1 is a side elevational view of one form of swing embodying this invention;

Figure 2 is a longitudinal sectional view showing the swing platform at its maximum forward displacement;

Figure 3 is a perspective view of the device of Fig. 1 with the swing inverted and the base disposed as a table top;

Figure 4 is an elevational view of another swing of this invention;

Figure 5 is a longitudinal sectional view taken on line 5—5 of Fig. 6, showing the platform and hobby horse at the maximum rearward displacement; and

Figure 6 is a plan view of the device of Fig. 4.

Both the illustrated swings comprise a supporting frame with a platform secured to the frame for movement laterally relative thereto. Additionally a seat is mounted on the platform and means are provided and secured to the platform for engaging the frame and thereby limiting motion of the seat relative to the frame to a predetermined minimum thus to prevent overswinging the platform.

Referring to Figs. 1, 2 and 3, frame 10 comprises a generally rectangular base made up of two side and two end pieces 11, and a relatively thin flat surface panel 12 secured to the pieces 11 for engagement with the floor or to serve as a table top. Four uprights or legs 13 are disposed at the corners of the frame and are connected together in pairs by two crossbars 15 suitably of metal.

The platform 20 of this swing comprises two spaced apart and substantially parallel wood rails 21 and a panel 23 bridging the space between the

rails and secured thereto along its sides at a point slightly to the rear of the platform midsection. Platform 20 is supported by means of hanger rods 25 of generally U-shape as shown in Fig. 3, which are hung on crossbars 15 and are received in notches provided in the lower side of the two ends of the platform.

The seat in this case comprises a hobby horse 30 having four legs 31 fastened to the bridging panel of the platform, a saddle piece or seat 32 to which a pair of stirrups 34 are secured and a head 35 simulating that of a horse. Seat 32 is disposed with respect to platform 20 and legs 13 in such a manner that the forward displacement of the platform is limited to a predetermined maximum which will not result in rear displacement by reaction to such an extent that the rider may strike the rear crossbar 15. Head 35 engages the forward crossbar, as shown in Fig. 2, effecting this result.

Motion of the horse and platform relative to the frame is automatically prevented when the assembly is inverted as shown in Fig. 3 for use as a table. The means accomplishing this result includes a pair of blocks 37 disposed at opposite ends of the rectangular frame 10 between and adjacent to end pieces 11 and secured in place in each case by means of a bolt 38 which in cooperation with a nut 39 and a spacing block 40 pivotally secures one end of the block 37 to end piece 11 and permits vertical arcuate motion of the unsecured end of the block when the assembly is inverted. When the assembly is inverted, the blocks fall downwardly relative to frame 10 so that the then lower end portions of the said blocks engage the hangers 25 between the rails 21 of platform 20 and the platform is thus firmly held in position between blocks 37 and retained in centered relation to the table top.

Referring to the device of Figs. 4, 5 and 6, the frame 50 is of tubular metal construction and comprises a pair of spaced apart and substantially parallel side members 51 which are secured together by means of crossbars 52 and additionally connected by means of a floor or table top panel 53. A platform 54 comprising a pair of parallel metal tubes of substantially inverted U-shaped in side elevation are carried by frame 50, being suspended from crossbars 52 by means of a pair of hangers 55 pivoted to bars 52 and the platform. A foot rest 56 is carried by the platform and includes a pair of parallel tubular braces 56*a*, extending transversely of the platform and connecting the sides of said platform where the metal tube members are bent to define the U-shape aforementioned. A plank 56*b* is supported by and secured to braces 56*a* by any suitable means such as U-bolts 56*c*.

The seating means of this device comprises a panel 57 joining the tubes of platform 54 in approximately their midsections, a seat or saddle 58 attached to panel 57, and a wooden horse head 60 secured to panel 57. Head 60 is provided with handles 61 conveniently located for one mounted on the saddle.

Stopping means to prevent motion of the platform and swing relative to the frame when the frame is inverted for use as a table, or for other purposes, comprises a pair of stiff metal strips or plates 62 for engagement with the ends of the platform, as shown in Fig. 4. Strips 62 are attached to the table top by means of a pair of brackets 63 between which they are pivotally secured for free motion urged by gravity, for instance.

The tubular elements of the frame and the platform are made up of a plurality of segments which are joined together preferably by welds with tubular segments of smaller diameter disposed within the ends of the adjoining parts. The tubular segments are bent to shape by known means, such as by packing the tubes with resinous material, applying a bending force to produce the desired shapes without collapsing or creasing the tubes, and subsequently melting the resinous material and removing it from within the tubes.

It will be observed from the drawings that a rider such as a small child may, when properly disposed on either of the illustrated hobby horses, be swung without danger of hitting uprights or crossbars of the swing although moving through a considerable distance laterally relative to the supporting frame. Where there is a tendency for the child to overswing the horse, the nose of the horse engages the forward crossbar preventing further forward displacement of the platform, which might result in rearward reaction of the swing to the extent that the child would strike the rear crossbar. Striking of the horse against the forward bar could under no ordinary circumstances be dangerous to the rider and consequently the devices of this invention are ideal from the standpoint of safety and control over the operation of the swing at all times.

Having thus described the present invention so that others skilled in the art may be able to understand and practice the same, I state that what I desire to secure by Letters Patent is defined in what is claimed.

What is claimed is:

1. A hobby swing comprising a generally rectangular supporting frame having two spaced apart pairs of arms of approximately average table-leg length extending upwardly from the frame and a crossbar extending between and secured to the upper ends of the arms of each pair, a pair of hangers movably secured to each crossbar, a platform depending from and pivoted to said hangers and movable laterally relative to the frame, a seat comprising a hobby horse on said platform, and lock means for securing the platform and horse in fixed position relative to the frame, the head of said horse providing protecting means engaging one of the crossbars when motion of the platform relative to the frame exceeds a predetermined maximum, and said lock means comprising a pair of rigid members disposed adjacent to each end of the supporting frame and adjustably connected thereto for movement into position to engage end portions of the platform and to grip the platform between them.

2. A hobby swing comprising a supporting frame having a generally rectangular floor, two spaced apart pairs of arms of average table-leg length extending upwardly from said floor and a crossbar extending between and secured to the upper end portion of the arms of each pair, a platform depending from said bars and movable laterally relative to the frame, a seat comprising a hobby horse secured to said platform, the head of said horse providing protecting means engaging one of the crossbars when platform motion relative to the frame exceeds a predetermined maximum, and lock means for fixedly securing the platform to the frame, said

hobby horse being disposed lengthwise of the platform with the saddle to the rear of the transverse midsection of the platform and approximately half-way vertically between the crossbars and said platform, and said lock means comprising a pair of rigid members disposed adjacent to each end of the of the supporting frame and adjustably connected thereto for movement into position to engage end portions of the platform and to grip the platform between them.

3. A hobby swing comprising a tubular metal supporting frame having an attached floor, said frame comprising two spaced apart pairs of arms of average table-leg length extending upwardly from said floor and a crossbar extending between and secured to the upper ends of the arms of each pair, a pair of hangers movably secured at one end to the crossbars, a platform depending from and pivoted to the other end of said hangers and movable laterally relative to the frame, a hobby horse secured to the platform and having a saddle seat for a rider and a head, for the head of said horse providing protecting means engaging one of the crossbars when platform motion relative to the frame exceeds a predetermined safe maximum, and means for fixedly securing the platform to the frame.

4. A hobby swing comprising a supporting frame having a generally rectangular floor, two spaced pairs of arms of average table-leg length extending upwardly from said floor and a crossbar extending between and secured to the upper portion of the arms of each pair, a platform depending from said bars and movable laterally relative to the frame, a seat comprising a hobby

horse secured to the platform for motion therewith, and means comprising two spaced levers secured to the frame and movable relative thereto to engage the platform and prevent relative motion of the platform to the frame.

5. A swing comprising a supporting frame having two spaced apart pairs of arms extending upwardly from the frame and a crossbar extending between and secured to the arms of each pair, a platform depending from said bars and movable relative to the frame, a hobby horse secured to the platform, and stop means movably carried by the frame for engagement with the platform to prevent movement of said platform relative to the frame, said hobby horse having a seat portion on which to support a rider and a head portion disposed forwardly of and extending above the seat portion, the head having a leading part disposed ahead of the mid-point of the platform for engagement with the forward crossbar to limit swing travel relative to the said supporting frame.

EARL O. LEMPONEN.

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