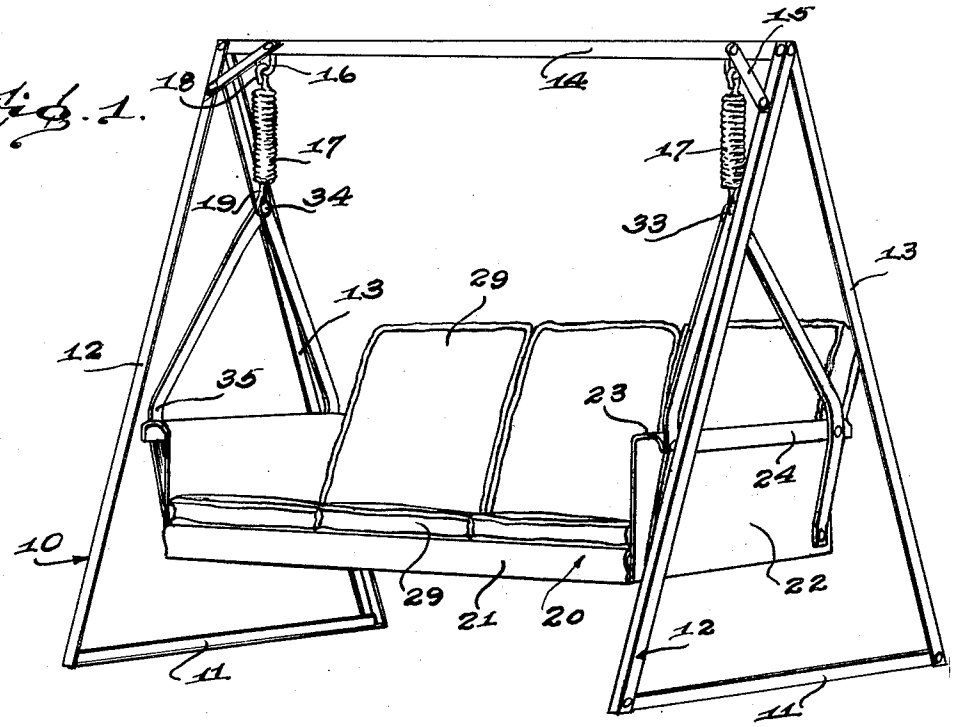
April 3, 1951 W. I. SMITH 2,547,891

SOFA SWING

Filed Oct. 5, 1946 2 Sheets-Sheet 1

Fig. 1.



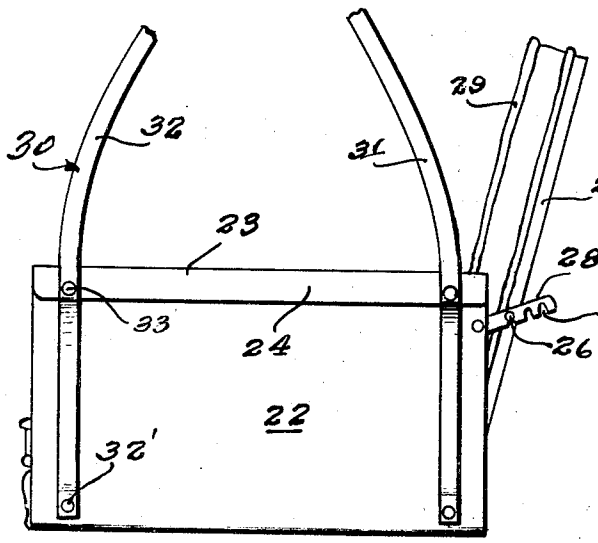


Fig. 2.

INVENTOR.
William I. Smith
BY Nicholas W. Pierce
ATTORNEY

April 3, 1951 W. I. SMITH 2,547,891

SOFA SWING

Filed Oct. 5, 1946 2 Sheets-Sheet 2

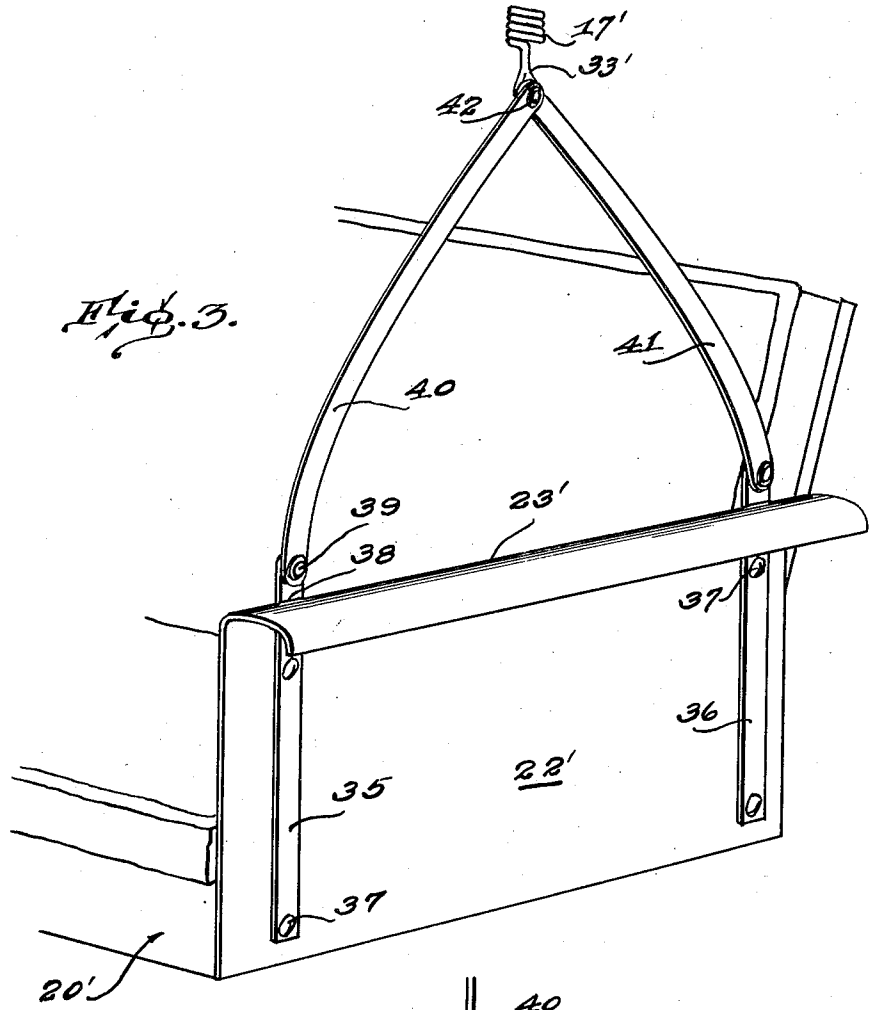


Fig. 3.

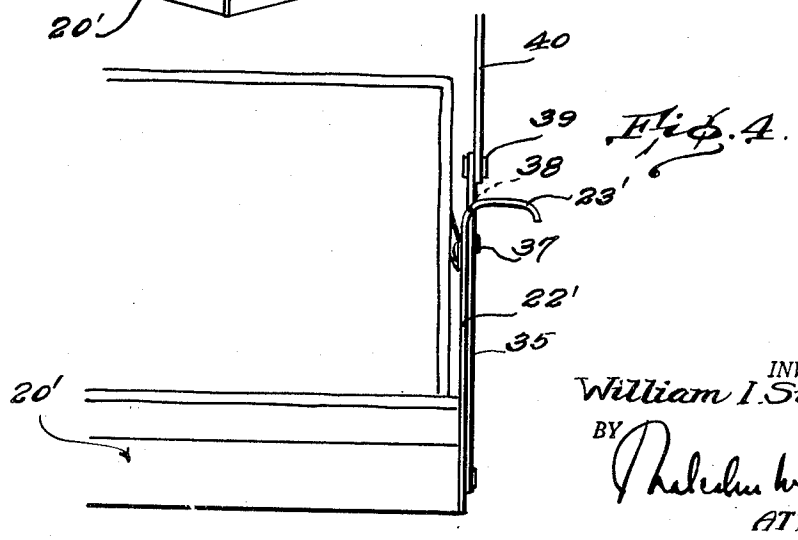


Fig. 4.

INVENTOR.
William I. Smith
BY
ATTORNEY

Patented Apr. 3, 1951 2,547,891

UNITED STATES PATENT OFFICE

2,547,891

SOFA SWING

William I. Smith, Perrysburg, Ohio, assignor to The Hettrick Manufacturing Company, Toledo, Ohio, a corporation of Ohio

Application October 5, 1946, Serial No. 701,483

1 Claim. (Cl. 155—66)

1

This invention relates to swings of the type mounted for to and fro swinging movement on a rigid support and a principal object is to produce a swing of relatively few simple and inexpensive parts readily combined to form a structure having new and improved features of construction and arrangement that not only enhance comfort and safety while in use, but improve the appearance, sturdiness and ease of assembly and disassembly by unskilled persons without the use of special tools.

Another object of this invention is to produce an improved suspension mounting for a swing on a supporting frame in a manner to increase the riding comfort and appearance and at the same time militate against the dangers of upsetting as well as pinching portions of the person's wearing apparel between cooperating parts.

Other objects and advantages will become apparent from the following description and claims, and for purposes of illustration but not of limitation, embodiments of the invention are shown in the accompanying drawings, in which

Figure 1 is a perspective view of the improved swing embodying the features of this invention;

Figure 2 is an enlarged fragmentary side elevational view of the swing showing in detail the arrangement and construction of the suspension straps;

Figure 3 is a perspective fragmentary view of another form of the invention; and

Figure 4 is a detailed front elevational view of a portion of the swing illustrated in Figure 3.

Referring now to the drawings, an upright supporting standard is provided and consists of a pair of supporting frames 10 each formed of similar interconnected rigid members, for example of three channel members 11, 12 and 13 joined at their respective ends as by welding, riveting or nut and bolt means, in a manner to form a triangular section having one side wall as the base to prevent tipping transverse to the planes of frames 10 when standing on a substantially flat floor or on the ground. A cross arm or crown bar 14 interconnecting the vertices of the spaced apart triangular members, is reinforced by angularly disposed braces 15 joining inner portions of the cross arm 14 with lower portions of the triangular sections, thereby also to enhance the rigidity of the supporting frame.

Secured as by welding to the crown bar 14 in the region near the respective ends are a pair of depending hooks that might take the form of a bail 16. To each bail there is anchored one end of a link in the form of a coil spring 17 as by

2

means of a hook 18 formed integral with each spring end, it being understood that there are two such springs, the other end of each coil spring terminating in the form of an integral depending eyelet or hook 19 for engagement with the swing supporting members to be described.

The seat member 20 comprises a rectangular frame 21 having an end plate 22 of metal or the like secured to each lateral end by the ordinary metal joining means such as welding, riveting, screws or the like. The upper portion of each end plate is formed with an outwardly disposed arm rest 23 which may be curvilinear or substantially flat in cross section and has a downwardly turned skirt 24 integral with the outer end. A back rest 25 pivotally mounted by well-known means to the lower rearward portion of the frame 21 has pins 26 extending laterally from an intermediate portion of the back rest selectively to seat in notches 27 of a rack bar 28 pivotally secured at one end to an upper rearward portion of each end plate 22, thereby adjustably to dispose the back rest in the desired angular relationship with respect to the frame. Cushions 29 on the seat and back rest enhance the comfort as well as the appearance of the swing.

For purposes of suspending the seat member to the supporting frame in a manner enabling to and fro swinging movement, there are provided straps which might consist of chains, cable or belting but preferably are formed and herein described as rigid metal members, a pair 30 and 31 of which engage each end of the seat member. The lower end portions 32' of each pair of straps are secured respectively to the lower corner regions of each end plate and from there are outwardly inclined in substantial parallel relation to abut the outer surface of the depending skirt 24 to which they are secured by bolt, screw, rivet or other metal joining means 33, thereby rigidly to mount each strap member at two spaced apart points to the seat member in a manner enabling full use of the arm rest.

The portions of each arm 30 and 31 extending upwardly beyond the arm rest 24 are bowed at 32, or inclined toward each other bringing their ends in overlapping relation so that apertures 33 in the ends of each are in registry enabling a pin 34, bolt and nut means or the like pivotally to mount each pair of strap arms to respective eyelets depending from the spaced coil springs as described. The arms may also be inwardly inclined as shown at 35 where desired.

It is apparent that the arrangement of members not only enables full use of the arm rest to

increase the comfort of the occupants, but the rigid spaced metal supporting straps engaging the seat member at multiple spaced apart points militate against upsetting of the seat member not infrequently resulting from the use of collapsible mounting means when a shifting of weights naturally urges the seat member to be tilted backwardly or forwardly.

Another form of the invention illustrated in Figures 3 and 4, comprises substantially the same parts described, the differences mainly residing in the means mounting the seat member 20' with the suspended coil springs 17'. For this purpose there are provided a pair of rigid straps 35 and 36 of metal or the like mounted in vertical parallel relation to the outer wall of each end plate 22', preferably in the region adjacent the forward and rearward edges respectively. Each strap is stationarily secured to the respective end plate by means of two or more screws 37, bolts, rivets or the like, and has one end portion extending through a slot 38 in the arm rest 23' so as to protrude beyond the arm rest.

To each protruding portion there is pivotally mounted as by a pin 39, bolt or the like through registering end apertures, hanger straps 40 and 41 of metal or the like which are inclined in a manner to bring apertures in the free ends of each pair of straps in registry so that, by means of a pin 42 or bolt, the assembly may be pivotally connected to an eyelet 33' depending from each coil spring as previously described. For purposes of greater comfort, freedom of arm movement and appearance, each hanger strap may be curvilinear to appear in the assembled position as a tong-like suspension which is immovable in view of the fact that each of the three corners is anchored.

In this manner, there is provided a more simplified rigid mounting for the seat member enabling uninhibited to and fro swinging movement without the fear of upsetting. In both described modifications, there are no movable parts within the ordinary reach of occupants that might otherwise be dangerous enabling the swing to be used by children who, during use, might grasp the hanger straps or the like. Through the use of hook members as well as bolt and nut joining means, the installation or disassembly of the swing may be readily effected without the use of skilled labor or special tools.

It is apparent from the description that I have produced a swing incorporating new and novel features enabling safer and more comfortable use and which consists of such simple contoured parts as to enhance the appearance and sturdiness as well as the manufacture and assembly of the swing.

It is to be understood that numerous changes may be made in the details of construction, and arrangement without departing from the spirit of the invention especially as defined in the appended claim.

What I claim is:

In a swing suspended from the crown bar of an upright supporting standard, the swing comprising a seat having upright end members, an arm rest extending laterally outward from the upper end of each end member, and means for suspending each end of the swing from the supporting standard including a pair of rigid strap metal arms joined at their upper ends, link means connecting the joined ends of the arms to the supporting standard crown bar, said arms extending divergingly from their joined ends and bowing outwardly and downwardly to the outer side of the adjacent arm rest, fastener means securing each arm to the arm rest, lower end portions of said arms inclining downwardly and inwardly from the arm rest to the lower portion of the adjacent end member, and fastener means securing the lower ends of said arms to the end member.

WILLIAM I. SMITH.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
445,492	Billeaux	Jan. 27, 1891
1,325,358	Elzey	Dec. 16, 1919
1,426,405	Neiswender	Aug. 22, 1922
2,300,116	Goldberg	Oct. 27, 1942