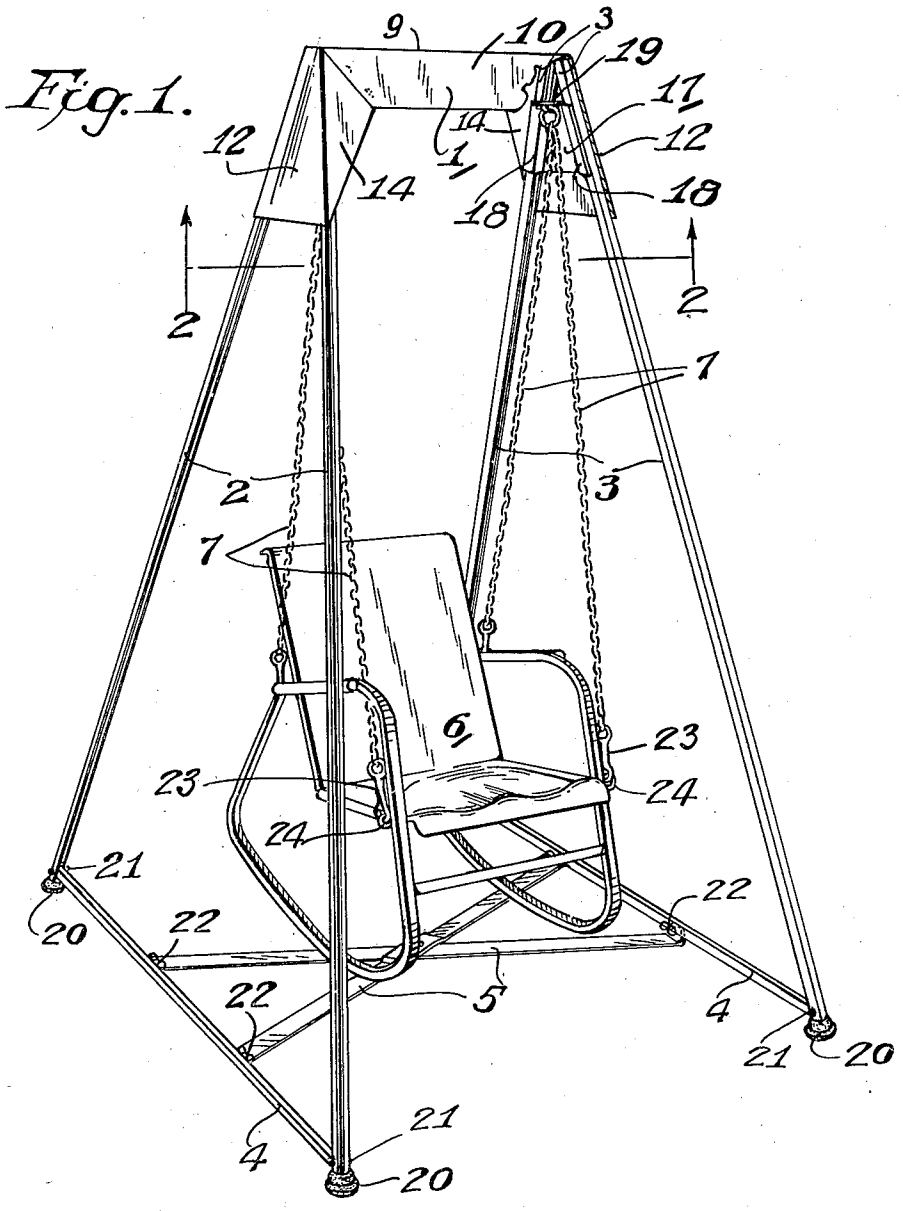
Aug. 25, 1942. F. C. CASTELLI 2,294,223

TOY

Filed June 21, 1940 2 Sheets-Sheet 1

Fig. 1.



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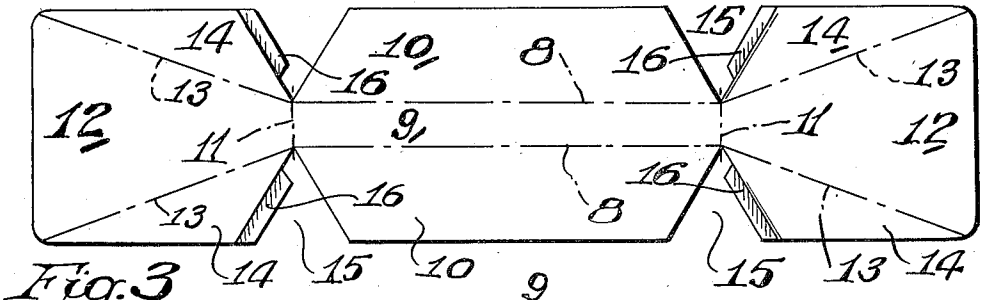


Fig. 3

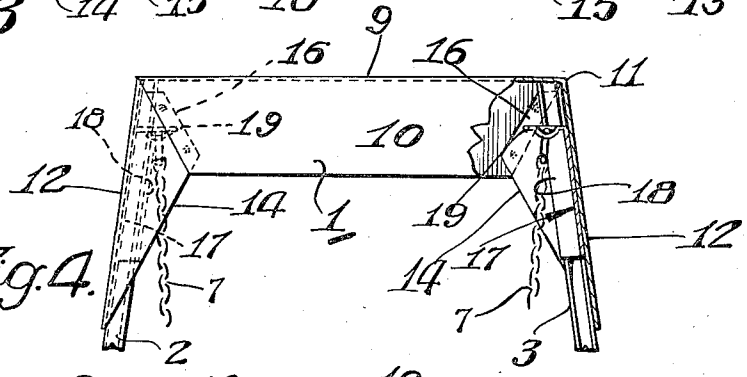


Fig. 4.

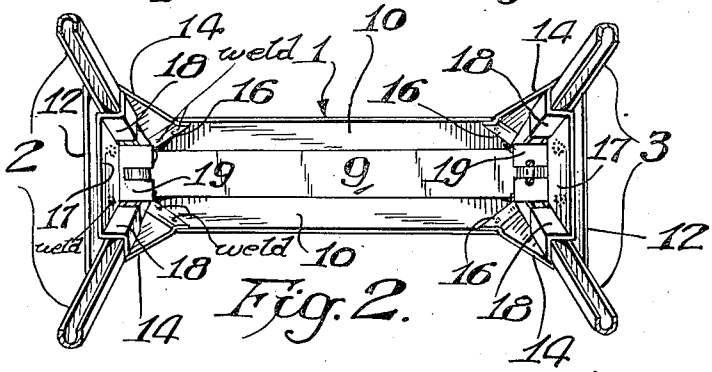


Fig. 2.

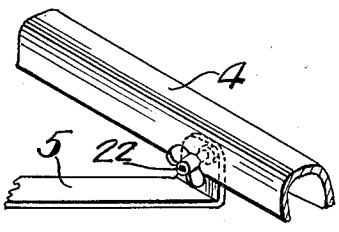


Fig. 5.

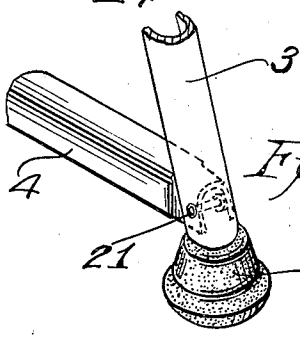


Fig. 6.

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Application June 21, 1940, Serial No. 341,647

9 Claims. (Cl. 155—58)

My invention relates to toys, such as swings, embodying frames having a cross-head and supporting legs therefor.

It is a principal object of my invention to provide for such purpose a knock-down frame which may be quickly and readily assembled and disassembled without the use of tools and which may be constructed from elements inexpensively formed from sheet metal. A further object of my invention is the provision of a sturdy, balanced and attractive frame, suitable for indoor or outdoor use, having flexible hangers depending therefrom to which a chair may be quickly and securely attached to serve as a swing.

In the preferred embodiment of my invention, the cross-head is formed from a substantially rectangular blank so notched, bent and welded as to provide a top web with trapezoidal side flanges, and diagonally inclined end webs with triangular flanges connected with the trapezoidal flanges. Sheet metal brackets having bent edges are welded within the end webs with their bent edges adjacent to the triangular flanges.

There is thus formed a cucullate hood having an intermediate section of channeled cross-section and end caps containing sockets for the reception of the upper ends of downwardly diverging legs preferably of channel shape cross-section. The lower ends of the legs of each pair are connected by stringers pivotally connected therewith, and the stringers are connected by crossed and pivotally connected straps. Flexible hangers are suspended from the frame and provided with latched hooks on the ends thereof for ready attachment to and detachment from eyes mounted on the front and back of a chair.

The characteristic features and advantages of my invention will further appear from the following description and the accompanying drawings in illustration thereof.

In the drawings, Fig. 1 is a perspective view of a toy embodying my invention, with parts broken away to show the inner construction; Fig. 2 is a view taken on the line 2—2 of Fig. 1; Fig. 3 is a plane view of the cut blank from which the cross-head shell is formed; Fig. 4 is a side view of the cross-head bracket with parts broken away; Fig. 5 is an enlarged fragmentary view of the connection between a bottom strap and stringer; and Fig. 6 is an enlarged fragmentary view of a connection between a stringer and leg.

The drawings illustrate the embodiment of my invention in a swing frame comprising a cross-head 1, two pairs of diverging legs 2 and 3, stringers 4 and straps 5 limiting the spreading of the legs, and a chair 6 suspended by flexible hangers 7 from the frame.

The cross-head 1 comprises a sheet metal blank bent longitudinally along the lines 8 to form a top web 9 and trapezoidal side flanges 10. The blank is also bent transversely along the lines 11 to form diverging end webs 12 which are preferably bent along the diagonal lines 13 to form thereon triangular side flanges 14. The blank is preferably notched as indicated at 15 before being bent, and, in cutting such notches, there are left on the triangular flanges 14 the lips 16 which are bent behind and welded to the edges of the trapezoidal flanges 10 when the blank is bent to form a cucullate hood, as shown in Figs. 1, 2, and 4.

A pair of sheet metal brackets 17 have their inclined edges bent to form angular channels 18 and slit ears 19 at the tops thereof and bent transversely thereto. The intermediate web portions of the brackets 17 are welded to the end webs 12 so that the edges of the channels 18 substantially contact the surfaces of the flanges 14 and form, with such flanges and the webs 12, spring sockets in which the legs 2 make a close slip fit. The legs 2 preferably consist of sheet metal strips of channel cross-section and have their lower ends housed in rubber feet 20 and connected by pins 21 with the contracted ends of the stringers 4 which are also made of sheet metal sections of channel cross-section. The inner flanges of the channel sections 4 are apertured for the reception of bolts 22 passing through ears on the ends of the straps 5.

The sections between the slits in the ears 19 are depressed to form loops for receiving rings on the upper ends of the pairs of chains 7, and the lower end of each chain is provided with a hook 23 for engagement with eyes 24 in the front and back of the chair 6.

It will be observed that the toy may be assembled by merely slipping the ends of the legs into the sockets of the cross-head and engaging the hooks in the chair eyes, but preferably undue spreading of the legs is prevented by utilizing the stringers 4 and straps 5 which latter lie flat on the floor due to the upward projection of their ears into position for engagement with the downwardly extending flanges of the stringers.

Having described my invention, I claim:

1. A toy comprising a cross-head and supporting legs therefor, said cross-head having at each end a pair of webs each with diverging edges and secured together face to face between such edges, one of said webs having its inclined edges chan-

neled and coacting with the other of said webs to form sockets with which the ends of said legs make a close slip fit.

2. A toy comprising a frame having a crosshead and supporting legs therefor, said crosshead comprising an integral sheet bent into top, side and end webs forming a cucullate hood, said hood containing sheets secured face to face to said end webs, said sheets having bent edge sections coacting with said side and end webs to form sockets for the reception of the ends of said legs.

3. A toy comprising a frame having a crosshead and supporting legs therefor, said crosshead having at each end thereof a pair of complementary sheet metal webs secured face to face and members bent at angles to said webs and forming sockets for the ends of said legs.

4. A toy comprising a frame having a crosshead and supporting legs therefor, said crosshead comprising a sheet metal blank having a horizontal web with trapezoidal flanges thereon and end webs transverse to said first named web and having flanges thereon parallel to and connected with said first named flanges.

5. A toy comprising a frame having a crosshead and supporting legs therefor, said crosshead comprising a substantially rectangular notched blank having a median section with flanges extending longitudinally thereof and end sections extending transversely to said median section and having flanges thereon bent around said legs and connected with said flanges first named.

6. A toy comprising a frame having a crosshead and supporting legs therefor, said crosshead comprising a notched blank of sheet material having a median section with flanges extending longitudinally thereof and end sections extending transversely to said median section, said end sections being bent along diagonal lines to form triangular flanges engaging said flanges first named, and brackets having channeled edges secured to said blank and coacting therewith to form sockets for said legs.

7. A toy comprising a frame having a crosshead and supporting legs therefor, said crosshead comprising a hood having downturned end webs, webs connected face to face with said webs first named and having slitted brackets forming hanger supports, and hangers depending from said supports.

8. A toy comprising a frame having a crosshead and two pairs of supporting legs therefor of channeled cross-section the open faces of the channels of the legs of each pair being juxtaposed, stringers of channel shaped cross-section connecting the legs of each pair adjacent to the bottoms thereof, and straps connected with the flanges of said stringers, the bodies of the straps being below the stringers.

9. A crosshead for a frame comprising a substantially rectangular sheet metal blank having triangular notches in the longitudinal edges thereof, said blank being bent to form a top web with trapezoidal side flanges and diagonally inclined end webs with triangular flanges connected with trapezoidal flanges, and sheet metal webs secured face to face to said end webs and having bent edges coacting with said blank first named to form sockets for legs.

FRANK C. CASTELLI.