March 27, 1934. J. KERSTEN 1,952,872

BABY JUMPER

Filed March 21, 1932 3 Sheets-Sheet 1

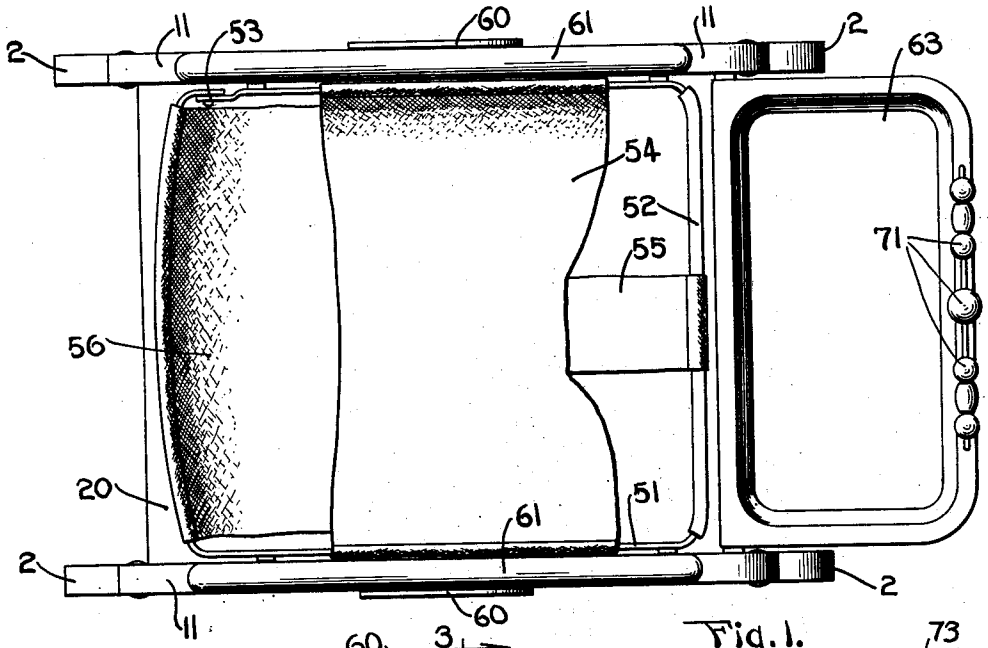


Fig. 1.

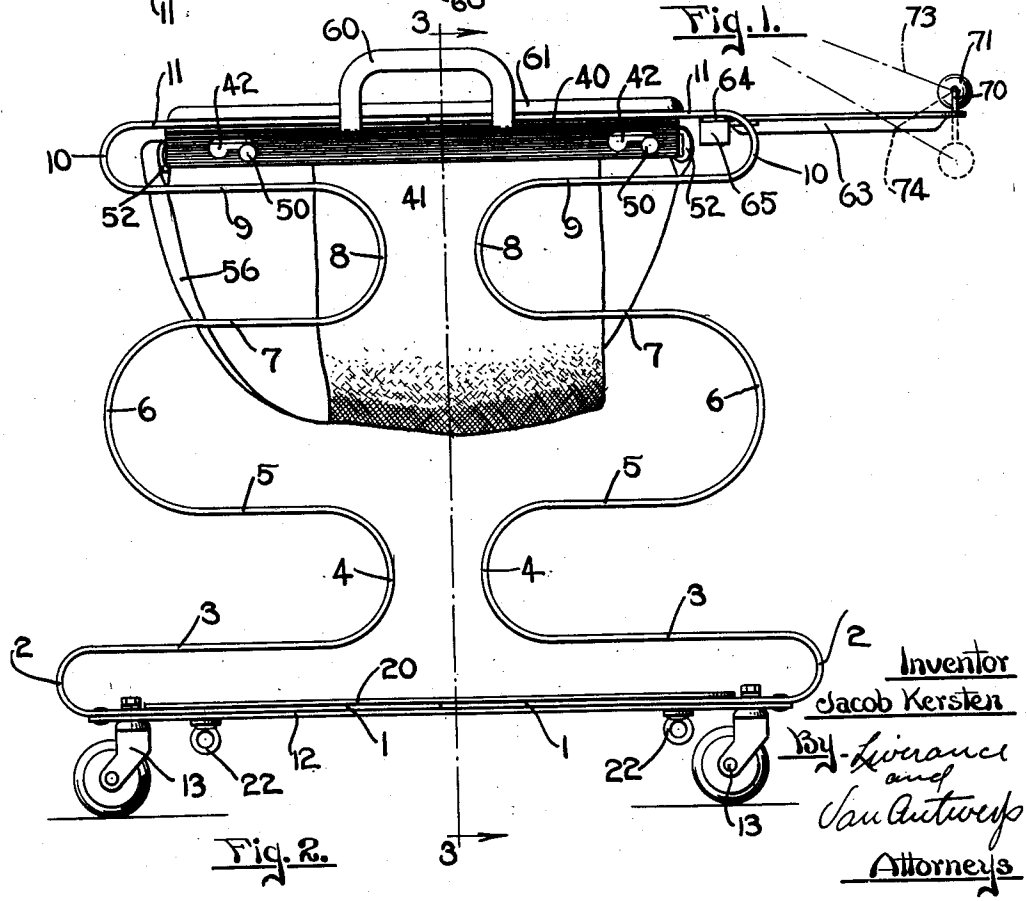


Fig. 2.

Inventor
Jacob Kersten
By Livingston and Van Antwerp
Attorneys

March 27, 1934 J. KERSTEN 1,952,872

BABY JUMPER

Filed March 21, 1932 3 Sheets-Sheet 2

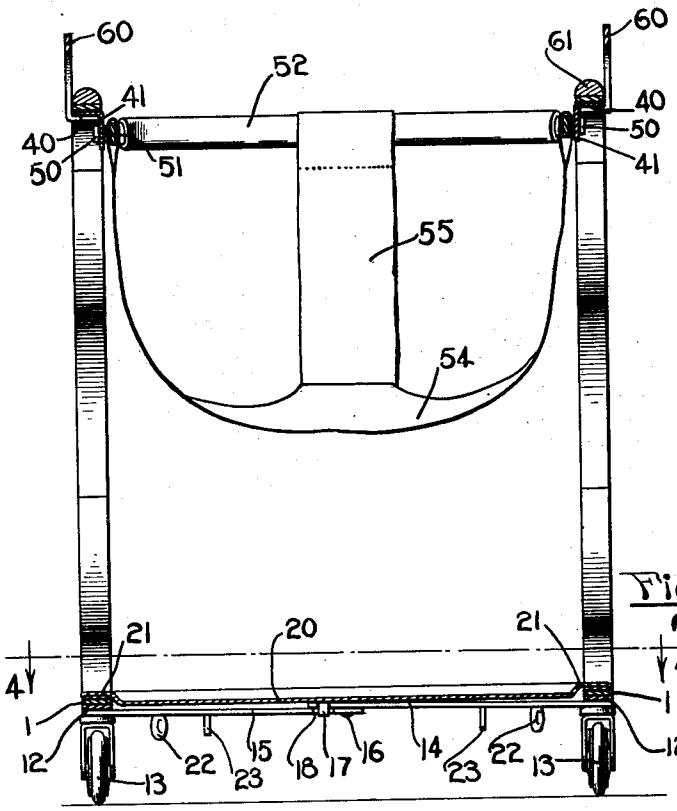


Fig. 3.

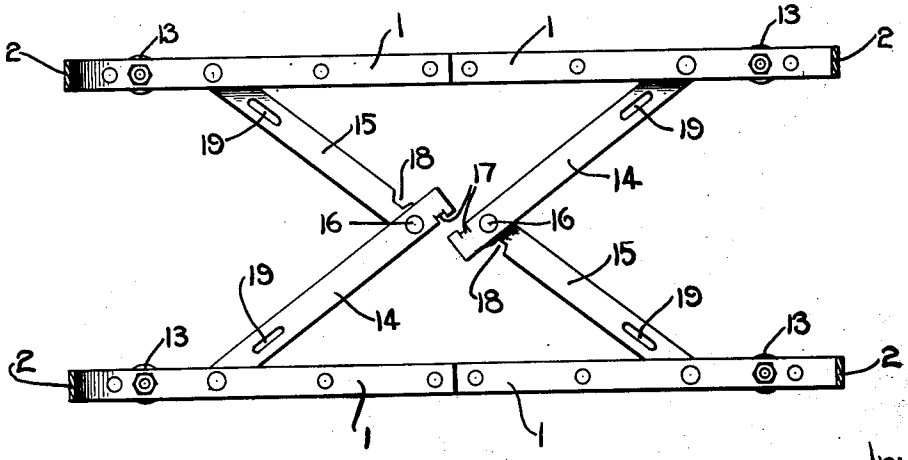


Fig. 4.

Inventor
Jacob Kersten
By Livernace and
Van Antwerp
Attorneys

March 27, 1934. J. KERSTEN 1,952,872

BABY JUMPER

Filed March 21, 1932 3 Sheets-Sheet 3

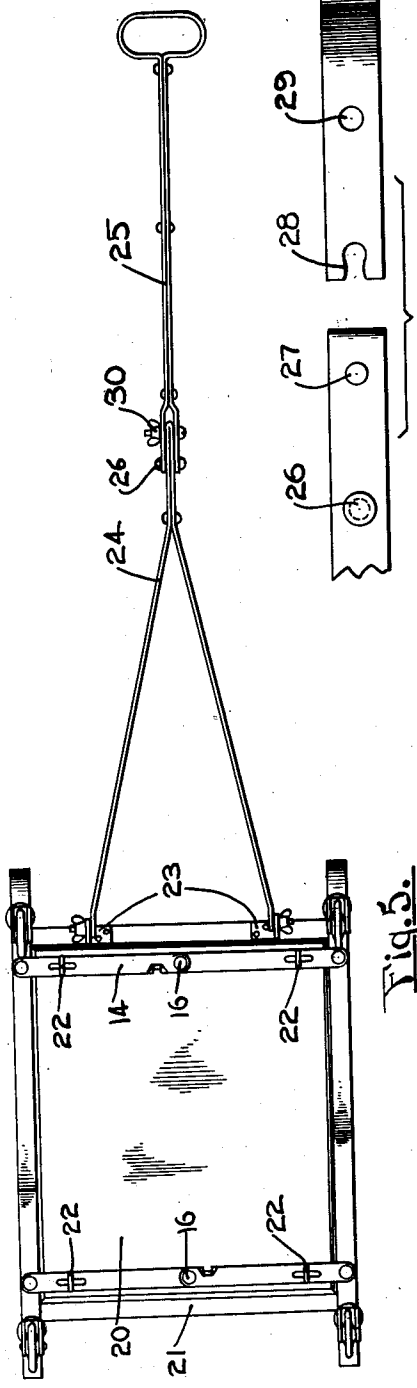


Fig. 5.

Fig. 6.

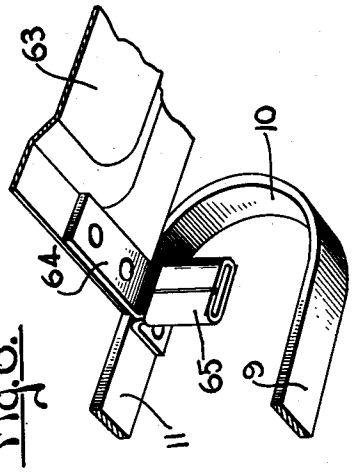


Fig. 8.

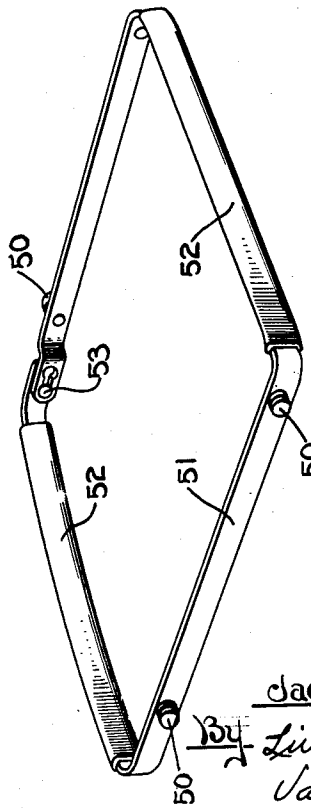


Fig. 7.

Inventor
Jacob Kersten
By Livernance and Van Antwerp
Attorneys

Patented Mar. 27, 1934 1,952,872

UNITED STATES PATENT OFFICE

1,952,872

BABY JUMPER

Jacob Kersten, Kalamazoo, Mich.

Application March 21, 1932, Serial No. 600,121

9 Claims. (Cl. 155—17)

My invention relates to a baby jumper and has for its primary object and purpose, the production of a relatively simple, practical and economically built supporter for small children, the same embodying a jumper seat resiliently supported upon a wheeled frame. The construction is made almost entirely from light metal and is one which can be readily lifted and easily carried (or rolled) from one place to another.

One defect of devices of this type hitherto manufactured has been their provision of overhead handle members, such being a constant hazard to the safety of the child through their tendency to swing downwardly. Such handle members have been deemed necessary both for lifting the carrier and also serving as a brace between the sides thereof but I have eliminated the necessity for such by utilizing the food or toy tray, such extending directly between the sides, as a reinforcing strut whereby the sides are pushed apart against the resistance of the seat carrier frame thus rendering the construction extremely rigid.

Several advantages reside in my side frame construction. In the first place I use strips of metal of relatively great length, such being convoluted as shown, whereby they may yield in all directions. In other words, the top of the strip of metal may yield to and fro in a horizontal plane and also have the usual up and down movement, the sum of these several motions giving a desirable universability of swaying and shifting which is highly amusing and entertaining to the child. In the second place, the manner of manufacturing the side frames is simplified as they are formed by merely fastening together two of the curved strip members in opposed relationship.

Another advantage of the device lies in its construction whereby it may be folded together into a small space in order to expedite the shipping thereof. This is accomplished by removing the seat frame carrier, the upper and lower trays and then folding the side frames whereby they lie side by side.

A further advantage resides in the side construction whereby a relatively large open space is provided about intermediate thereof, this space serving to permit the child to protrude its legs therethrough. These openings are sufficient so that no pinching of the child will result under any conditions.

Yet another advantage lies in the removable bottom tray, this construction not only aiding in the manufacturing of the device but also serving to maintain the sides in proper spaced relationship by locking the folding means between the sides in their extended position.

Still another advantage lies in the upper tray this tray performing not only the usual function of supporting the child's food or toys but also serving to rigidly space the upper portions of the side members. This tray is also nickeled so that the colored balls mounted at its outer edge are doubly visible to the child due to the reflective qualities of the nickeled tray.

Further objects, purposes and meritorious features will became apparent as the description proceeds.

In the drawings:—

Fig. 1 is a plan view of my invention.

Fig. 2 is a side view thereof.

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 2, the upper tray being removed.

Fig. 4 is a sectional view taken along the line 4—4 of Fig. 3, this view illustrating the side frames in a partly folded position.

Fig. 5 is a view looking at the underside of the device.

Fig. 6 is an enlarged view showing the intermediate joint of the tongue is disassembled relationship.

Fig. 7 is a view of the seat supporting frame.

Fig. 8 is a perspective view showing the connection between the upper tray and the side members.

Similar numerals refer to similar parts throughout the several views.

In the construction of the baby jumper, two spaced apart side members are provided, each of which includes two spring parts of identical form reversed in position with respect to each other. Each of the spring parts comprises a horizontal lower section 1 continued upwardly and inwardly in a bend 2, and thence in a horizontal section 3, which is parallel to and lies directly above the section 1, the section 3 being continued in a rear bend 4 having a greater radius than the bend at 2, the bend 4 joining with the further horizontal section 5, shorter than the section 3, and which in turn joins with a still further return bend 6 having a greater radius of curvature than the bends 2 and 4 and which joins with a horizontal section 7 above the section 5; and the section 7 joins with a return bend 8, the radius of curvature of which is substantially the same as the bend 4, it in turn connecting with a horizontal section 9 above the section 7 which, at its outer end, has a return bend 10 of substantially the same radius of curvature as the bend 2, and which terminates in an upper horizontal section

11. Two of these members of flat metal spring material are located with the ends of the lower sections 1 and of the upper sections 11 in abutting engagement to provide a side for the cart.

The lower ends of each of the two side members are held together by strips 12 extending thereunder and riveted thereto as clearly shown in Figs. 2 and 3.

Castors 13 are pivotally connected at each end of each side member. Thus a rolling support for the device is had.

Links 14 and 15 are pivotally connected to the bottom portions of the side members, see Fig. 4, and are pivotally connected to each other as at 16. The links 14 each have depending lugs 17, these lugs 17 being received in the recesses 18 of the links 15 when the sides are in fully separated position. See Fig. 5. All of the link members are slotted as indicated at 19.

A lower tray member 20 has a raised edge 21 whereby it may serve as a pan or container, see Fig. 3, and four revolubly mounted locking eyes 22 extend downwardly therefrom, these eyes being received in the respective slots 19 of the several links and then rotated whereby the tray is held tightly in position and whereby the links are so held as to prevent any inward movement of the sides of the device.

Depending brackets 23, see Fig. 5, extend from the pan 20 to receive the detachable tongue by means of which the jumper is pulled. This tongue consists of a lower portion 24 and an upper portion 25. The lower portion has an extended headed rivet 26 and a hole 27 therethrough, the headed rivet 26 receiving the restricted slot 28 in the end of the upper portion of the handle 25 and the hole 29, also in the handle portion 25, coincides with the hole 27 whereby a locking bolt 30 may be passed therethrough. See Fig. 6. Hence it will be seen that the tongue may be readily disassembled whenever necessary.

The upper ends 11 of the side members have angle bars of sheet metal adjacent thereto, one flange 40 of these angles being riveted underneath the respective portions 11; the other flange 41 extending downwardly as clearly shown in Fig. 3. At each end of each angle bar in its vertical portion 41, slots 42 are formed, these slots being enlarged at one end whereby the heads of the rivets 50 may be readily passed therethrough. The other end of the slot is adapted to snugly receive the shank of the rivet 50. Hence a detachable yet secure connection is had between the several rivets 50 and the upper portion of each side frame.

The rivets 50 are attached to the continuous frame 51, see Fig. 7, and rubber covering members 52 are located at the ends of the rectangular frame 51. A detachable connection is provided as indicated at 53, this serving to permit the opening of the seat frame whereby the rubber protecting members 52 and the fabric seat member may be slid into their respective positions.

The open frame 51 described, before it is connected and associated with the sides of the cart, is designed to have a fabric seat member placed thereon, consisting of a main portion 54 located between the sides and at its ends is provided with loops through which said sides pass. A narrow portion 55 is connected to the front edge of the main portion 54 and through a loop at its front end the frame 51 and the rubber covering 52 thereover passes. A rear portion or back 56, also of fabric, is connected at its lower end to the main portion 54 and its upper rear edge has a loop through which the back member of the frame 51 passes. This seat member may be put on the frame by opening the same at the side at 53, sliding the same to position and then reconnecting the joint 53.

The open frame described with the seat member attached thereto is located between the downwardly extending flanges or legs 41. The headed pins 50 are properly spaced that the same may pass through the larger ends of the slots 42 in said flanges or legs 41 and then, by moving the frame, the shanks of said pins may be carried along the narrower portions of said slots and preferably seat in notches or depressions formed at the front ends and at the under edges of said slots.

Handle members 60 are welded or riveted underneath the horizontal webs 40 and extend upwardly as clearly shown in Fig. 3. Wooden protective strips 61 are positioned immediately inside the handle members and protect the arms of the small child from cold contact with the portions 11 of the side members.

An upper tray member 63, see Fig. 1, has brackets 64 at its ends, see Fig. 8, these brackets being received in the socket members 65 rigid with the side members. The bracket members 64 slidably engage in the socket member 65 and exert pressure for pushing the side members apart whereby the side members contact very tightly with the rivet heads 50 and hence a very stable construction is had. That is, the upper tray member 63 acts in the nature of a compression member while the frame member 51 serves as a tension member.

The tray member 63 has a U-shaped wire 70 extending upwardly therefrom, see Figs. 1 and 2, and several sliding colored objects, such as wooden balls 71, are mounted upon the wire 70, such being for the entertainment of the child. The tray member 63 is nickeled and highly polished and hence the colored objects 71 are not only directly seen by the child as indicated by the dotted line 73 but they are also apparently seen again as indicated by the dotted lines 74. See Fig. 2. Such a result is pleasing to the child.

The construction described provides a very practical and simple construction particularly useful for holding young children. The spring character of the side members makes the same flexible and permits up and down movement; also side movements or, if desired, movements toward the front or rear of the upper portion of the parts with respect to the base or lower part thereof. The handles 60 permit lifting and carrying when the child is within the cart. The construction has proven very satisfactory from the standpoint of durability and satisfaction in service. The appended claims define the invention, which is to be considered comprehensive of all forms of construction coming within the scope of said claims.

I claim:

1. A construction of the class described comprising, spring sides, each comprised of two spring members of identical form located vertically having upper and lower ends in substantially abutting relation to each other, said spring members being formed with a plurality of parts convolutioned therein, means for movably connecting the bottom ends of the several spring members together whereby they may be moved toward each other, a bottom plate detachably connected to said means whereby it may be held

in extended position, a seat mounted at the upper end of the two side members, and tray means mounted between the upper ends of the side members whereby the side members are held in spaced relationship.

2. A construction of the class described comprising, two spring sides located vertically, means for movably connecting the bottom ends of the respective sides together whereby they may be moved toward each other, a bottom plate located above and detachably connected to said means whereby said means may be held in extended position and a seat detachably mounted at the upper end of the two side members.

3. A construction of the class described comprising, two spring sides located vertically, means for movably connecting the bottom ends of the respective sides together whereby they may be moved toward each other, a seat mounted at the upper end of the two side members and tray means detachably mounted between the upper ends of the side members whereby the side members are held in spaced relationship.

4. A construction of the class described comprising, spring sides, each comprised of two spring members, said spring members being formed with a plurality of parts convolutioned therein, means for movably connecting the bottom ends of the spring sides together whereby they may be moved toward each other, a bottom plate detachably connected to said means whereby it may be held in extended position, a seat mounted upon the upper ends of the spring members, and tray means mounted between the upper ends of the spring sides whereby the side members are held in spaced relationship.

5. A construction of the class described as recited in claim 2 in which each of the spring sides is formed from a plurality of parts having convolutions therein.

6. A construction of the class described as recited in claim 3 in which each of the spring sides is formed from a plurality of parts having convolutions therein.

7. In a baby jumper of the class described, spaced sides, each including two members of spring material positioned vertically, each of said spring members having extending terminal portions at both its upper and lower ends, said horizontal portions of the spring members extending toward each other, means for connecting the extending portions at the lower ends of the spring members together, additional means for holding the lower portions of said sides in rigid relationship with respect to each other, roller means for movably supporting both of said sides, angle bars each having a depending flange, connecting the upper extending portions of each pair of the members together, said flanges having slots therein, a frame, a fabric seat mounted thereon, and pins rigidly connected onto the said frame, said pins being removably received in said slots whereby a detachable connection is had between the frame and its support.

8. A baby jumper of the class described comprising, vertical sides of spring material adapted to retract or extend in a vertical direction and also move laterally in any direction whatsoever, including a bottom plate for securing the lower ends of said spring sides in spaced relation, bars having depending flanges connected at the upper ends of each of said sides, and a frame adapted to carry a seat detachably connected to and carried by and between said depending flanges of the bars whereby they are connected together so as to move as one, said bottom plate being directly under and of larger size than the said seat and having an upwardly extending flange, at its outer edge entirely therearound for the purpose described.

9. A foldable baby chair of the class described, comprising side frames connected by means whereby the frames may be moved laterally toward and away from each other, a tray removably mounted between the frames to hold them in extended position, and a seat frame carrying a seat removably mounted between said side frames.

JACOB KERSTEN.