Jan. 21, 1958 R. E. PARK ET AL 2,820,468

COVERS FOR PLAY PENS

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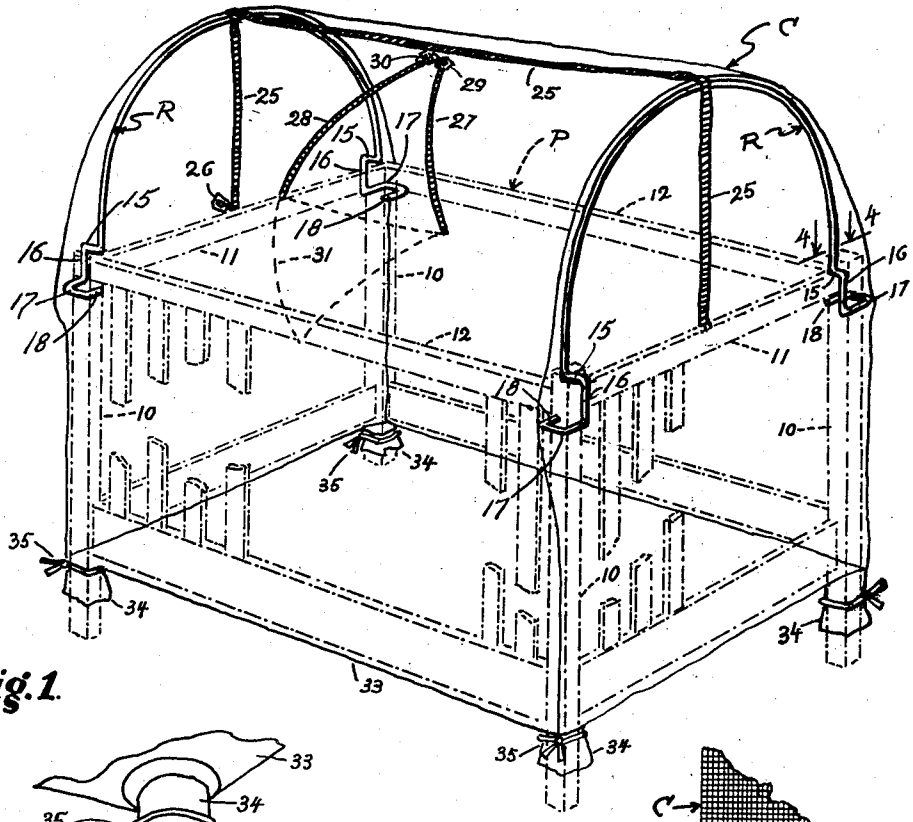


Fig. 1.

Fig. 2.

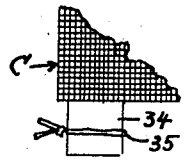


Fig. 3.

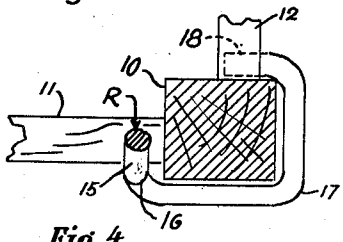


Fig. 4.

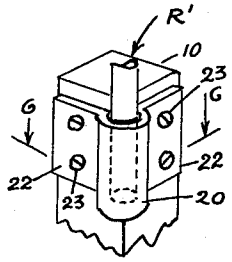


Fig. 5

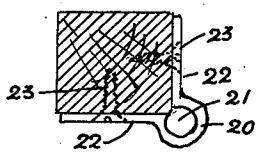


Fig. 6.

INVENTORS.
ROBERT E. PARK.
FLORA E. PARK.
MARGARET PARK.
BY Horace B. Van Valkenburgh
ATTORNEY.

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COVERS FOR PLAY PENS

Robert E. Park, Lakewood, Colo., and Flora E. Park and Margaret Park, Birmingham, Ala.

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5 Claims. (Cl. 135—5)

This invention relates to covers for articles such as play pens.

When a child is placed in a play pen located out of doors, there is a possibility of over-exposure to the sun's rays and also the possibility of the child's being attacked or annoyed by insects and the like. It is not always possible to place a play pen in the shade, and even when a tree is utilized as shade, there is the possibility of insects or other small forms of life dropping from the tree into the play pen. In addition, flies, mosquitoes and the like often disturb or annoy the child, requiring additional attention on the part of the child's attendant as well as the physical danger involved in insect bites and the like. Insects and the like not only may enter the play pen from above or through the side walls, but may also enter through the bottom.

Among the objects of the present invention are to provide a cover for a play pen and the like which will effectively shield the child from undue exposure to the sun's rays, but still permit the child to receive fresh air and considerable sunlight; to provide such a play pen cover which may be installed readily and with convenience on a play pen; to provide such a cover which will not unduly hamper movements of the child in the play pen; to provide such a cover which also prevents the entrance of insects and the like into the play pen; to provide such a cover which permits ready access to the interior of the play pen by an attendant, without requiring the removal of the entire cover or even a major portion thereof; to provide such a play pen cover which may exist in more than one form; and to provide such a play pen cover which is readily and inexpensively manufactured.

Additional objects and the novel features of this invention will become apparent from the description which follows, taken in connection with the accompanying drawing, in which:

Fig. 1 is a perspective view of a play pen cover constructed in accordance with this invention, installed on a play pen which is shown in phantom outline;

Fig. 2 is a fragmentary perspective view showing a lower corner of the cover prior to installation on the play pen;

Fig. 3 is a fragmentary side elevation, taken at one corner of the play pen with the cover installed;

Fig. 4 is a horizontal section, taken from the position of line 4—4 of Fig. 1 and illustrating one form of rod or bracket connection;

Fig. 5 is a perspective view of an alternative form of rod or bracket connection; and

Fig. 6 is a horizontal section taken along line 6—6 of Fig. 5.

A play pen cover C, constructed in accordance with this invention, may be installed on a play pen P, shown in phantom outline in Fig. 1 and conventionally including corner posts 10, top end rails 11, and top side rails 12. The cover C is made principally of a woven fabric, particularly a plastic cloth or the like, which is transparent or semi-transparent, i. e., at least partially transparent, and has interstices sufficiently small to prevent the entrance of insects and the like, but a total open area sufficient to permit air to move comparatively freely through the cover. In Fig. 3, the weave of the plastic cloth which forms the upper portion of the play pen is shown as being similar to screen, although it will be understood that the threads themselves will be transparent or partly transparent. Thus, the child within the play pen may be observed. However, the plastic threads of the fabric reduce the direct rays of sunlight entering the play pen sufficiently so that the child is not unduly exposed to the sun's rays, since the material, while transparent, is preferably such that it intercepts a sufficient number of rays, particularly in the ultra violet range, that undesirable effects are prevented. Thus, while the interior of the play pen might be considered to be in shadow as compared with direct sunlight, sufficient light enters through the cover to provide adequate illumination and also enough rays to provide a beneficial amount of sunlight.

The sides and ends of the cover C are formed generally to correspond to the sides and ends of the play pen P, while the top of the cover C is semi-cylindrical in shape, being substantially semi-circular at those sections transverse to the side rails 12 and flat at the ends above the top end rails 11. The upper portion of the cover is maintained in position by a pair of rods R, which are readily attached to or detached from the play pen, it being understood that an individual cover may be supported by a pair of rods similar to rod R' of Figs. 5 and 6. In general, the rod R requires no sockets or other appurtenances to be attached to the play pen, as does the rod R', although the latter is simpler in configuration.

Each rod R may be formed longitudinally generally to the shape of a semi-circle, to correspond to the shape of the upper edge at the end of the cover C, and rests on the end rails 11. The material of which a rod R is made may be steel or the like, circular or any other desired shape in cross-section. A rod R is preferably formed, as by use of comparatively resilient material, so that it will have sufficient resilience to hold the rod in position, by partially encircling the post 10 below the rail 11. (It will be noted that the forward end of each rod R, in Fig. 1, appears to be within the post 10, but this appearance is due to the fact that the play pen P is illustrated in phantom outline and each rod R in full.) At each end, a rod R is provided with a horizontal, longitudinally extending portion 15, which rests on the side rail 11, then a downwardly extending portion 16, a right angle portion 17, and a laterally and inwardly extending end 18. As will be evident from Fig. 4, the right angle portion 17 and end portion 18 hook around the post 10, thereby engaging three sides of the post and maintaining the rod in position. Preferably, the distance between the horizontal portion 15 and the end portion 18 is sufficiently greater than the height of the side rail 12, so that the rod R may be placed in position by spreading the lower ends apart, moving the ends down over the post 10, with angle 17 and end 18 about the post, until the end 18 is below the side rail 12; whereupon the ends are released, to permit the resiliency of the rod to bring the outside leg of angle 17 inwardly against the post 10, and the rod R then moved down until horizontal portions 15 engage the top of end rail 11. For removal, the rod R is merely moved upwardly, until the horizontal portion 15 is above the top of post 10, after which the rod R may be spread outwardly and taken off. During attachment or removal of rod R from the play pen, at least the upper portion of the cover C is folded back away from the rod, in a manner which will appear later.

The alternative rod R' is semi-circular in shape, each end thereof adapted to fit within a bracket socket 20

having a closed bottom 21, as in Figs. 5 and 6, to prevent the rod from going through the socket. The bracket may also include lateral flanges 22, extending at 90° to each other and adapted to be attached to the post 10 in a suitable manner, as by screws 23. As will be evident, the brackets preferably remain attached to the play pen at all times, while the attachment or removal of the rod R' is merely accomplished by inserting or removing the ends of the rod R' from the sockets 20.

The upper portion of the cover C is provided with a zipper 25, sewn or otherwise attached to the material of the cover, which extends from a position corresponding to one end rail 11, up the flat end of the upper portion of the cover, longitudinally along the top, and then down the opposite flat end to a position corresponding to the opposite end rail 11. The zipper 25 is provided with a tab 26, which may be utilized in opening the zipper 25, so that the two upper portions of the cover, thus formed, may be folded back and down, for attachment or removal of the rods, such as rods R or R'. During use of the play pen, the zipper 25 remains closed, and is thus used primarily in placing the cover on or removing the cover from the play pen.

On one side of the upper portion thereof, the cover C is further provided with zippers 27 and 28, which extend at an angle to each other, meeting at the top and diverging toward the bottom. The zipper 27 may be closed by a tab 29 and the zipper 28 by a tab 30, which meet when the zippers are in closed position, as shown in full in Fig. 1. However, when access to the interior of the play pen is desired, as for placing the child therein, removing the child therefrom, or attending to the wants or needs of the child, the zippers 27 and 28 may be opened by moving the tabs 29 and 30 to the lower ends thereof, thus producing a flap 31 which may be folded down to the dotted position of Fig. 1, to provide an access opening between the now open zippers 27 and 28. It is to be understood that there is preferably no physical connection between the zipper 25 and the zippers 27 and 28, since the zipper 25 is located at a position suitable for installing or removing the cover C, while the zippers 27 and 28 are located in a position to provide access to the interior of the play pen. Thus, the cover C may be stretched comparatively tightly over the rods R or R', when the zipper 25 is closed, but the zippers 27 and 28 may still be readily opened and closed.

The cover C is further provided with a bottom 33 which is preferably formed of a more closely knit fabric, such as canvas or the like, which may be non-transparent. The bottom 33 is disposed beneath the bottom of the play pen P, but in a position spaced above the ground, and is attached to the ends and sides of the cover C which, as explained previously, are preferably made of a relatively transparent cloth formed of plastic threads or the like. In addition, the cover C is provided, at each of its four corners, with a tube 34, conveniently of the same material as the bottom 33 and attached to the bottom 33 around a hole in the bottom. Each tube 34 is provided with a drawstring 35, so that each tube 34 may be tightened about the leg formed by the lower end of the respective post 10, and thereby seal the bottom against the entrance of insects and the like. The tubes 34, of course, are placed in positions corresponding to the legs formed by the lower ends of posts 10.

For installation of the cover C on the play pen P, the top zipper 25 is opened, and the two halves of the upper portion thus produced opeend up, so that the play pen may be placed within the cover. The tubes 34 are fitted to the legs at the bottom of the play pen and then pulled up until the bottom 33 of the cover is disposed adjacent to the bottom of the play pen. The rods R or R' may then be attached to the play pen, after which the cover is pulled up further and the upper edges of the ends fitted over the rods. Then, the zipper 25 may be closed, and the tubes or sleeves 34 secured about the legs by tieing or tightening the drawstrings 35. For removal of the cover C, the zipper 25 is opened and the two halves of the upper portion of the cover slipped back along the rods R or R'. If the rods used are in the form of the rod R', the rods may then be lifted from the play pen. However, if the rods are similar to the rods R, it is desirable to push the cover down past the lower ends of the rods, after which the rods may be moved upwardly, and the lower ends then pressed outwardly. The cover may then, either before or after removal of the rods, be slipped down about the sides and ends of the play pen until the lower portion of the play pen is reached, the drawstrings 35 being loosened or untied at this time or before, if desired. Then, the play pen may merely be lifted from the cover.

From the foregoing, it will be evident that the play pen cover of this invention fulfills to a marked degree the requirements and objects herein set forth. The transparent plastic material of which the cover C, except the bottom, is made, intercepts a sufficient amount of harmful rays of the sun to permit the play pen to be placed out in the sunlight with a child therein, but still permits air to move through the play pen and a beneficial amount of sunlight to enter the interior of the play pen. In general, a large proportion of the rays of the sun are intercepted, but a sufficient number of reflected rays enter through the interstices to provide a beneficial effect. The bottom of the cover is adequately sealed, as by tubes 34 to the legs of the play pen, and may be made of comparatively inexpensive material. It will be observed that the cover C provides a considerable amount of head room above the level of the end rails 11, and therefore does not unduly confine the child's activities, as would a flat cover extending across the top of the play pen. The zippers 27 and 28 permit ready access to the interior of the play pen, while the zipper 25 permits the cover to be pulled over or pulled from the rods R or R' with ease. Each of the rods R and R' are readily mounted on and removed from the play pen, and either form may be used with ease. While the configuration at each lower end of the rod R involves operations unnecessary in forming the rod R', which may be merely cut to length and bent to shape, the rod R does not require any brackets to be attached to the play pen.

It will be understood of course, that the length, position and angle between the side zippers 27 and 28 may be varied; that different materials may be used for the upper portion and the bottom of the cover C; that the zipper 25 may extend for a greater distance down either end of the cover C; and that other types of supporting rods may be utilized. Thus, although a preferred embodiment of the cover C and two types of supporting rods therefor have been illustrated and described, it will be understood that other embodiments may exist and variations made therein, all without departing from the spirit and scope of this invention.

What is claimed is:

1. A cover for a play pen having sides and ends, comprising side and end walls adapted to enclose the sides and ends of a play pen and an enclosing top portion having sides and ends and extending above said play pen; means for supporting the top portion of said cover; a zipper extending longitudinally across the top of said top portion and centrally down each end of said top portion; and a pair of zippers in one side of the top portion, said pair of zippers meeting at their upper ends and diverging from each other downwardly, said pair of zippers when open freeing a triangular piece adapted to be folded down to provide an opening between the position of said zippers, at least a substantial portion of said cover being formed of fabric having a sufficiently close weave normally to exclude insects and the like and to shield an occupant of the play pen from the sun's rays but still permit movement of air therethrough.

2. A cover for a play pen having sides, ends and legs,

comprising side and end walls adapted to enclose the sides and ends of a play pen and a top portion having upright ends which are semi-circular in cross-sectional shape; a first zipper extending longitudinally across the top of said top portion and centrally down each end of said top portion and at least to a position corresponding to the upper edge of the ends of said play pen; a pair of zippers in one arcuate side of said top portion, said pair of zippers meeting at their upper ends at a point spaced from said first zipper, and diverging from each other downwardly, said pair of zippers when open freeing a triangular piece adapted to be folded down to provide an opening between the position of the zippers; a bottom attached around its edges to the side and end walls of said cover, said bottom being formed of non-transparent fabric on the order of canvas, and the walls and top portion of said cover being formed of fabric woven from a material at least partially transparent and having a sufficiently close weave normally to exclude insects and the like and to shield an occupant of the play pen from the sun's rays but still permit movement of air therethrough; sleeves attached to and extending downwardly from the bottom of said cover at positions corresponding to the legs of said play pen; a string for drawing each said sleeve tight about the respective leg; and a rod disposed at each end of said top portion for supporting said top portion, each of said rods having a generally semi-circular longitudinal configuration and being removably attachable to the corresponding end of said play pen.

3. A cover for a play pen having corner posts and end rails, and as defined in claim 1, wherein each of said rods is provided at each lower end with a longitudinally extending, horizontal portion, a downwardly extending portion, a right angle portion and an inwardly extending end, said rods being attachable to said play pen with said horizontal portion resting on an upper end rail of said play pen and said right angle and end portions extending around a post of said play pen with said end beneath a side rail of said play pen.

4. A cover for a play pen having corner posts, and as defined in claim 1, including a bracket for each end of each of said rods, each said bracket being adapted to be attached to a corner post of said play pen, each of said brackets having a closed bottom socket for receiving the lower end of said rod and flanges extending laterally from said socket for attachment to said post.

5. A cover for a play pen having sides and ends, comprising side and end walls adapted to enclose the sides and ends of a play pen and a top portion having upright ends which are semi-circular in cross-sectional shape; a first zipper extending longitudinally across the top of said top portion and centrally down each end of said top portion; a pair of zippers in one arcuate side of said top portion, said pair of zippers meeting at their upper ends at a point spaced from said first zipper, and diverging from each other downwardly, said pair of zippers when open freeing a triangular piece adapted to be folded down to provide an opening between the position of said zippers; a bottom attached around its edges to the side and end walls of said cover, said bottom being formed of fabric on the order of canvas and the remainder of said cover being formed of fabric having a sufficiently close weave normally to exclude insects and the like and to shield an occupant of the play pen from the sun's rays, but still permit movement of air therethrough; and means for supporting said top portion of said cover, said means being adapted to be mounted on said play pen.

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U. S. DEPARTMENT OF COMMERCE

PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 2,820,468 January 21, 1958

Robert E. Park et al.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 5, lines 31 and 41, for the claim reference numeral "1", each occurrence, read -- 2 --.

Signed and sealed this 22nd day of April 1958.

(SEAL)
Attest:

KARL H. AXLINE
Attesting Officer

ROBERT C. WATSON
Commissioner of Patents