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A. E. FEGAN

1,923,359

PLAYGROUND AND OTHER BALLS AND METHOD OF MAKING SAME

Filed July 13, 1931

Fig. 1.

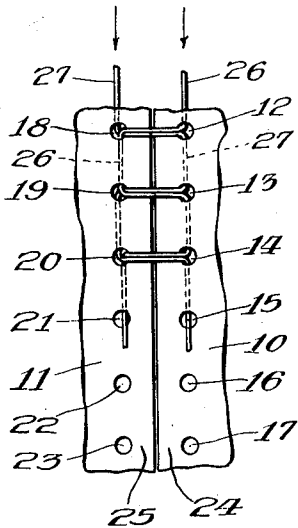


Fig. 2.

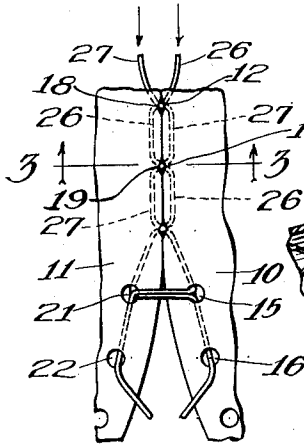


Fig. 3.

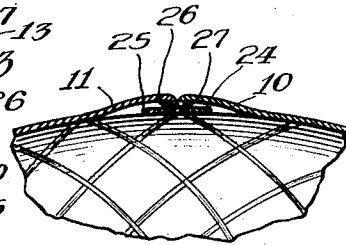


Fig. 4.

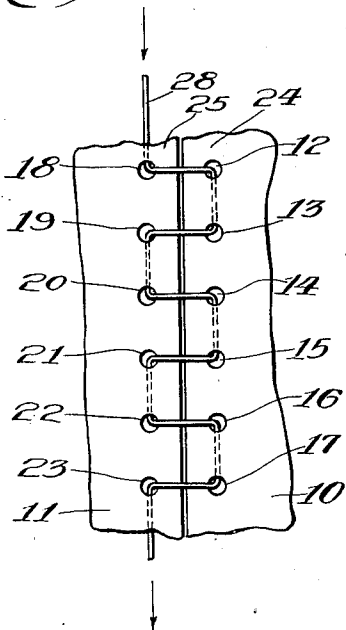


Fig. 5.

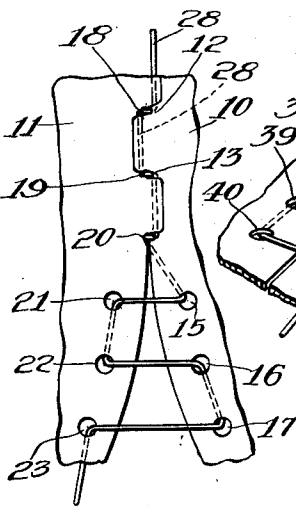
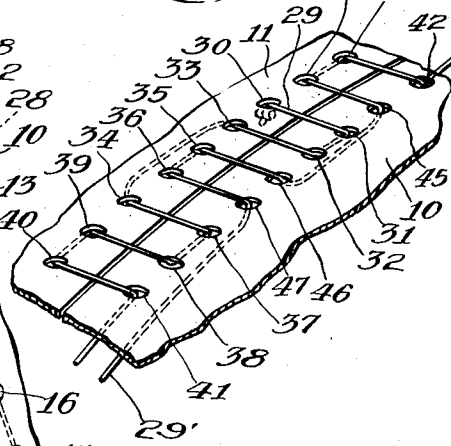


Fig. 6.



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UNITED STATES PATENT OFFICE

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3 Claims. (Cl. 2—275)

This invention relates to playground, pastime, indoor and other balls, and particularly to improved covers for balls of the type referred to, and to the method of preparing same.

5 The outer coverings of balls of the character described are usually made of leather, such as cow hide, and consist of two elongated pieces having curved margins. Said pieces are arranged over any suitable core or inner construction, one piece longitudinally and the other latitudinally, in such manner that the two pieces, when connected, completely cover the core, and the proximate edges of the pieces are stitched together.

15 In prior art constructions, the cover sections, two or more, have been stitched together from the outside, and the edges of the leather forming the seam have been exposed.

It has also been customary, for the purpose of fastening the end of the sewing thread, to overlap or repeat the sewing of a number of stitches in order to form what is known as lock stitches at the end of the seam.

25 The main object of the present invention is to produce a ball having cover members securely stitched together and in which the seams will not be exposed. Another object is to provide means for securely fastening the ends of the threads forming the stitches, in a manner invisible exteriorly of the ball, without sewing over previously sewed stitches. Another object is to produce an improved method of preparing the cover.

In the drawing—

35 Fig. 1 shows parts of two pieces of cover material having their edges abutting, and showing the manner in which double stitch threads are applied from the outside of the cover.

Fig. 2 illustrates the parts shown in Fig. 1 after the proximate edges of the cover members have been intumed, and the threads have been drawn taut.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

45 Fig. 4 is a view similar to Fig. 1 showing the manner in which a single stitch thread is applied from the outside of the cover.

Fig. 5 illustrates the parts shown in Fig. 4 after the proximate edges of the cover section have been intumed and brought together by drawing the thread taut.

Fig. 6 is a perspective view illustrating, in connection with a single stitch thread, how the sewing of a seam is commenced and finished for the purpose of securely fastening the ends of the threads without exposing knots or sewing over

stitches previously made at the beginning of the seam.

In that embodiment of the invention shown in the drawing, 10 indicates part of one of the pieces of cover material and 11 the other piece. Each is provided adjacent its edges with equidistantly spaced apertures, the apertures shown in the piece 10 being indicated at 12, 13, 14, 15, 16 and 17, and those in the piece 11 at 18 to 23, inclusive.

It will be understood that for purposes of illustration, the abutting edges of the cover sections 10 and 11 have been shown as straight, whereas in practice said sections are cut with curved margins complementary to and parallel with each other to properly fit over the round inner construction of the ball.

The cover members 10 and 11 are first arranged in position on the core, being cut to proper size so that in the finished ball the edges 24 and 25, being the portions located inwardly of the apertures, may be intumed and the cover will fit smoothly over the core when said intumed edges are connected together.

In Figs. 1 and 2 is shown a double stitch seam produced by using two needles and threads, the threads being indicated at 26 and 27, respectively. The thread 26 is passed under the cover member 10, up through the aperture 12, over the edges 24, 25, down through the aperture 18 of the cover 11, under the member 11, up through aperture 19, over edges 25 and 24, down through aperture 13, under fabric 10, up through aperture 14, over edges 24, 25, down through aperture 20, under cover member 11, up through aperture 21, etc. The thread 27 is passed under the cover member 11, up through aperture 18, across edges 25, 24, down through aperture 12, under fabric 10, up through aperture 13, across edges 24, 25, down through aperture 19, under fabric 11, up through aperture 20, across edges 25, 24, down through aperture 14, under fabric 10, up through aperture 15, etc.

Fig. 1 shows the cut edges 24, 25, abutting and the threads loosely arranged in order to indicate the method of stitching, but Fig. 2 properly shows the external appearance of the seam after the edges 24 and 25 have been tucked inwardly and the threads 26 and 27 have been drawn taut. In the finished state, the threads 26 and 27, substantially parallel to each other and to the intumed margins of the cover sections except where the threads cross between opposite apertures, draw the intumed edges of the cover sections together to form a smooth straight seam in which

the stitches are invisible. The crossed portions of the threads which are shown as slightly visible in Fig. 2 are exaggerated in said drawing, for in practice the leather or fabric adjacent the apertures overlaps the threads where they cross and practically completely hide even that small part of the thread which is indicated as visible in the drawing.

In Fig. 4 a single thread stitch is shown, the thread 28 being passed under the cover section 11, up through the aperture 18, over edges 25, 24, down through aperture 12, under cover section 10, up through aperture 13, across edges 24, 25, down through aperture 19, under cover section 11, up through aperture 20, etc., as shown. When the edges 24 and 25 have been turned in and the thread has been drawn taut, said inturned edges appear as indicated in Fig. 5, the seam having a slightly wavy appearance.

In sewing ball covers having exposed seams, it has been customary to form several lock stitches to end the sewing and to fasten the thread. Such lock stitches have been formed at the end of a seam by sewing over a number of the stitches previously formed at the beginning of the seam. I have devised an improved method of closing and ending the seam which is particularly adapted to the finishing of unexposed seams where it is impractical, if not impossible, to form stitches over those previously formed at the beginning of the seam without having the same visible and unsightly.

As shown in Fig. 6, the sewing is commenced by forming a knot in the thread 29, the knot being located under one of the cover sections, as for example, the section 11. The thread 29 is passed upwardly through the aperture 30, across the abutting edges of the cover sections, downwardly through aperture 31, under cover material 10, up through aperture 32, over the edges of the cover sections, downwardly through aperture 33 and then under the cover section 11 to an aperture 34 located beyond apertures 35 and 36, leaving an unstitched portion beyond the first formed stitches. The thread is then passed upwardly through aperture 34, across the cover sections to aperture 37, down through aperture 37, under cover section 10 to aperture 38, up through aperture 38, over cover section edges to aperture 39, down through aperture 39, under section 11, up through aperture 40, over edges, down through aperture 41, etc. until the seam approaches the point of beginning, passing upwardly through aperture 42, over cover sections, downwardly through aperture 43, under cover section 11 and upwardly through aperture 44, across the cover edges and down through aperture 45, then under cover section 10 for a distance beyond the stitched apertures 31 and 32, and up through aperture 46, over the cover edges, down through aperture 35, under section 11, up through aperture 36, across cover sections, down through aperture 47. This completes the sewing and then the end 29' of the thread 29 is passed under the cover for an appreciable distance and out through any of the seam apertures where it is cut off flush with the cover.

It will be understood that in Fig. 6 the cover sections and the threads are shown as spread out for purposes of clarifying the description, but when drawn taut, with the edges inturned, the cover will appear as illustrated in Fig. 5 if a single stitch is used, or as in Fig. 2 if a double stitch is used. The described method of stitch-

ing part of a seam, then leaving a part unstitched, resuming the stitching to the point of beginning, passing the thread under the previously stitched portion to the unstitched portion and sewing the latter, is equally applicable to the double or single stitch type of seam.

Changes may be made in details of construction without departing from the scope of my invention and I do not intend to be limited to the exact form shown and described except as set forth in the appended claims.

I claim:—

1. A ball provided with a core and a cover for the core, said cover comprising a plurality of sections connected together to fit smoothly over the core, the abutting cover section edges being apertured and inturned, a thread stitched through the apertured edges of two cover sections to form an endless seam in which the thread is substantially invisible externally of the cover and the thread ends securely fastened by the seam to prevent opening of the seam, said cover having the stitch-forming thread forming a number of stitches connecting adjacent edges together, said thread extending beneath the cover to a point removed from the first formed stitches, and forming stitches connecting adjacent cover edges between said unstitched portion and the beginning of said first formed stitches, said thread extending beneath the stitched portion of the cover to the unstitched portion and forming stitches connecting said initially unstitched cover sections, and the end of the thread extending under the cover to a point removed from said last formed stitches.

2. A ball of the character described having a cover comprising a plurality of sections adapted to be secured together to smoothly fit over a core, said cover sections having their edges apertured, a pair of threads forming double stitches connecting said sections together, each thread passing from the point of beginning upwardly through an aperture in one section, a cross abutting section edges, downwardly through an aperture in the second section opposite the first mentioned aperture, under said second section, outwardly through the next adjacent aperture in the second section, and across the section edges, downwardly through an aperture in the first section opposite said last mentioned aperture in the second section, and under said first section, upwardly through the next adjacent aperture of the first section, etc., the edges of the cover beyond the apertures being inturned and the threads taut to connect the sections and to render the stitches substantially invisible, said cover having the stitch-forming threads forming a number of stitches connecting adjacent edges together, said threads extending beneath the cover to a point removed from the first formed stitches, and forming stitches connecting adjacent cover edges between said unstitched portion and the beginning of said first formed stitches, said threads extending beneath the stitched portion of the cover to the unstitched portion and forming stitches connecting said initially unstitched cover sections, and the ends of the thread extending under the cover to a point removed from said last formed stitches.

3. The method of preparing a cover for a ball of the character described, which consists in cutting a plurality of cover sections adapted when connected together to fit over the core of the ball, punching equi-distantly spaced apertures in said sections slightly inwardly of the edges, ar-

ranging the sections on the core, and stitching the sections together externally of the cover, said stitching being first applied to a relatively short portion of the abutting cover edges, the stitch-forming thread extended under the cover to a point beyond the first formed stitches, leaving an unstitched portion, resuming the stitching and continuing same to the beginning of the first formed stitches, passing the thread around said first formed stitches, stitching the unstitched portion, passing the end of the thread to a point removed from said last mentioned stitches.

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