

March 19, 1935.

E. H. HAWES

1,994,703

BASEBALL

Filed March 14, 1933

2 Sheets-Sheet 1

Fig. 2

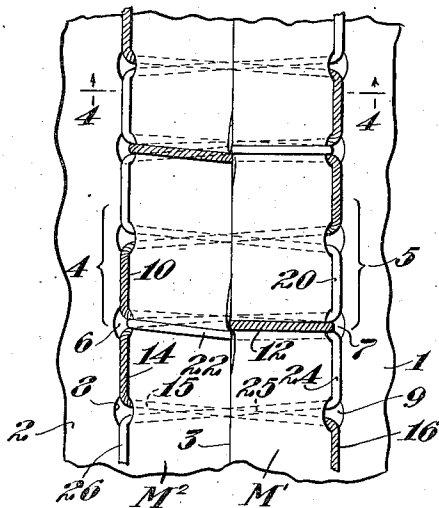


Fig. 3

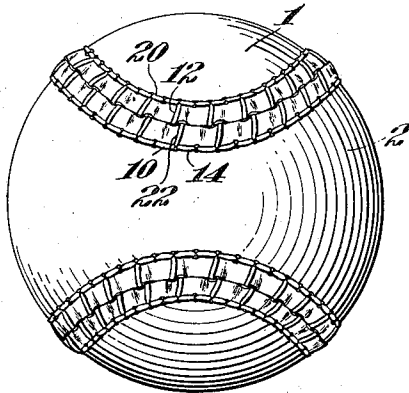
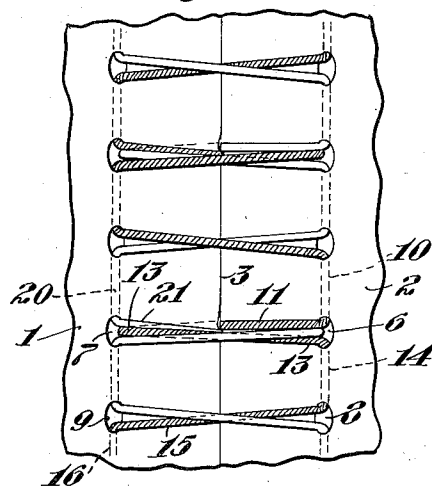


Fig. 1

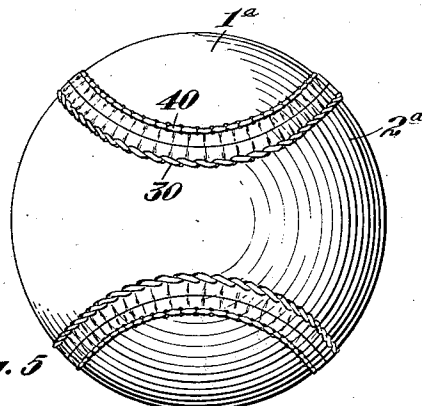


Fig. 5

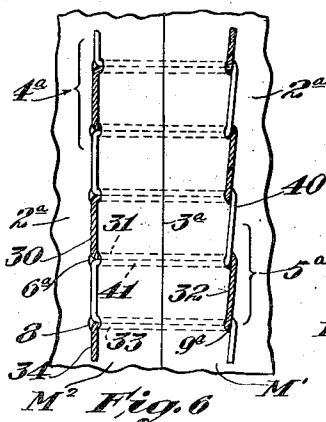


Fig. 6

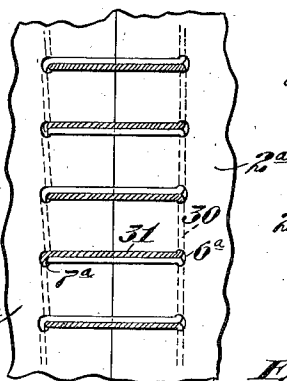


Fig. 7

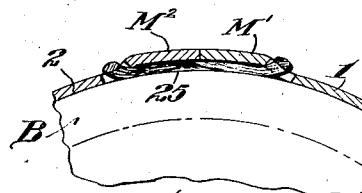


Fig. 4

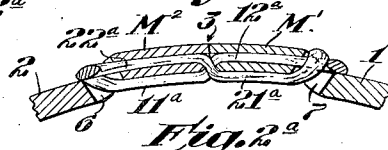


Fig. 2a

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2 Sheets-Sheet 2

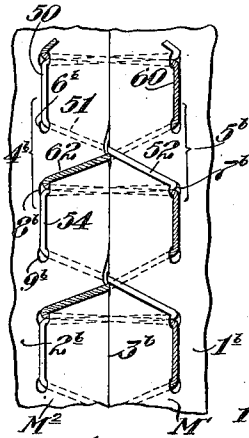


Fig. 9

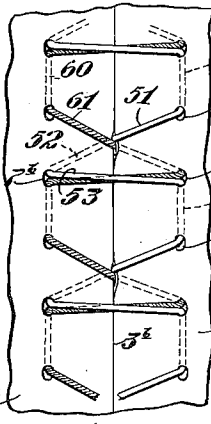
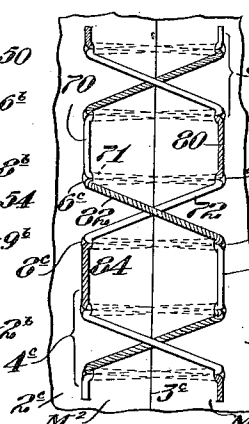


Fig. 10



UNITED STATES PATENT OFFICE

1,994,703

BASEBALL

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Application March 14, 1933, Serial No. 660,684

21 Claims. (Cl. 112—262)

This invention pertains to playing balls,—particularly to baseballs for outdoor or indoor use, and relates more especially to an improved cover seam for such balls. In accordance with usual methods baseballs are provided with covers consisting of two independent pieces which are sewn together with their edges in abutting relation. The most common practice is to employ two sewing threads and to form a substantially flat seam in which each thread extends diagonally first in one direction and then in the other in uniting the cover members.

During use, a baseball is subjected to heavy blows, moisture, grit, harsh friction, etc., and while the cover material itself may withstand such hard usage for a reasonable length of time, the seams soon loosen and tend to open, and the sewing threads fray and break before the body of the ball shows any substantial sign of deterioration. As noted, the usual baseball seam consists wholly of stitches extending diagonally across the line of union of the cover parts. Apparently this diagonal arrangement of the stitches is in part responsible for the loosening of the seam after short use, it being evident that the line of pull of such a diagonal stitch is not the most effective for holding the edges of the cover parts in close contact, since the pull exerted by such a diagonal stitch has a component extending lengthwise of the seam. Thus any creep of one cover part relative to the other tends to open the seam, while if such a diagonal stitch be drawn very tight, it tends to pucker the material of the cover so that the stitch tension itself has a tendency to open the seam at points between the stitches.

In accordance with the present invention the parts of the cover are united by a seam which, at intervals at least, comprises thread runs extending perpendicularly to the length of the seam so as to exert a direct pull having no longitudinal component. Thus, when such runs are drawn tightly, the only tendency is to pull the edges of the cover material into firm engagement and as the length of thread now extending from cover member to cover member is a minimum, relative creep of the cover parts increases the stitch tension, while the loosening effect of stretch in the thread becomes less apparent than when diagonal runs are depended upon to unite the parts.

Preferably a perpendicular run of one thread is always associated with a similar run of the other thread, thus affording a connection having double the full strength of a single thread, and in certain embodiments of the invention all

of the perpendicular runs are disposed within the cover where they are protected from injury.

In certain preferred embodiments of the invention the uniting threads are so disposed as to form a row of stitches extending longitudinally of the line of union of the cover parts at each side of such line of union, and these longitudinally extending stitches reinforce the cover material adjacent to its edge, thereby tending to prevent stretch of the cover and so assisting in maintaining a tight and close joint.

In certain embodiments of the invention, runs of the threads extend across the line of union of the cover parts at the outer or exposed side of the seam, or at least as far as the line of union, and across the margin of one cover part, thereby holding the marginal portion of the cover part closely against the ball body; moreover, in certain instances, transverse runs of the threads may extend through the thickness of the marginal portions of the cover material so as to hold the latter down without exposing the runs of thread.

Certain embodiments of the invention produce a somewhat prominent seam projecting slightly above the general surface of the ball as compared with the so-called flat seam in common use, but not projecting so prominently as the welt or so-called "out-seam" sometimes employed in baseballs, particularly playground balls, and which is objectionable by reason of its great prominence and tendency to injure the player. In certain embodiments wherein this slight elevation of the seam material is present, the crossing runs at the exposed surface of the ball may be drawn so tightly as to sink partially into the material of the cover, thus causing the marginal portions of the cover parts to protrude between successive crossings of the thread, forming in effect a series of prominences bounded in whole or in part by exposed runs of the thread.

In the accompanying drawings wherein various embodiments of the invention are shown by way of example:

Fig. 1 is a front elevation of a ball having a seam constructed in accordance with a preferred embodiment of the invention;

Fig. 2 is a fragmentary view, to large scale, showing details of the exposed surface of the seam employed in the ball of Fig. 1;

Fig. 3 is view similar to Fig. 2 but showing the arrangement of the threads at the rear or inner side of the cover;

Fig. 4 is a fragmentary radial section, on line 4—4 of Fig. 2, illustrating one arrangement of the perpendicular runs of yarn;

Fig. 2a is a view similar to Fig. 4 but illustrating a modified arrangement of the crossing runs to somewhat larger scale;

Fig. 5 is a front elevation of a ball having a seam of modified construction;

Fig. 6 is a fragmentary view to larger scale showing the construction of the seam of the ball of Fig. 3;

Fig. 7 is a similar view showing the seam from the inner side of the cover;

Fig. 8 is a front elevation of a ball having a further modified form of seam;

Figs. 9 and 10 are fragmentary views, to larger scale, showing details of the seam employed in the ball of Fig. 8 as it appears from the outside and inside respectively of the cover;

Fig. 11 is a front elevation of a ball having a seam of further modified construction;

Figs. 12 and 13 are fragmentary views, to larger scale, showing details of the seam employed in the ball of Fig. 11 viewed from the outside and inside, respectively;

Fig. 14 is a front elevation of a ball of still further modified construction; and

Figs. 15 and 16 are views to larger scale, showing details of the seam of the ball of Fig. 14 viewed from the outside and inside, respectively.

Referring to the drawings, and particularly to Figs. 1, 2, 3 and 4, the ball comprises two cover members 1 and 2 shaped in the well known manner so that when their cut or raw edges are in abutting relation they form a complete cover for the spherical body B of the ball. In accordance with the preferred construction illustrated in Figs. 2 and 3, the seam which unites the cover members 1 and 2 is formed from two independent threads so disposed as to provide substantially parallel stitch rows 4 and 5, respectively, at opposite sides of the line of contact 3 of the abutting cut or raw edges of the cover members 1 and 2.

In forming this seam, one of the threads is arranged to form a stitch 10 of the row 4 directly opposite a stitch 20 of the other thread forming a part of the row 5. The thread forming the stitch 10 passes inwardly through an opening 6 in the cover member 2, thence across beneath the marginal portion M² of the cover member 2 to form the run 11 which extends as far as the line 3 at which the cover members abut. This thread then passes out between the edges of the cover members to form the run 12 overlying the margin M¹ of the cover member 1. The same thread then passes inwardly through the opening 7 of cover member 1 and extends transversely across beneath both margins M¹ and M², that is to say, between the cover material and the body of the ball, forming a run 13 extending substantially perpendicular to the line of abutment 3 of the cover members and emerging again through the opening 6 in the cover member 2. This thread then forms a second stitch 14 of the row 4,—passes in through the opening 8 and beneath both margins M² and M¹ of the cover material, forming the run 15 extending substantially perpendicular to the line of abutment 3 of the edges of the cover, and then emerges through the opening 9 in the cover member 1 to form a stitch 16 of the row 5. The thread which forms the stitch 20 passes through a similar course providing, for example, the run 22 at the exposed side of the material overlying the margin M² and then passing beneath the margin M¹ at the line of abutment of the cover members, where it crosses the first thread at that point where the run 12 of the latter emerges from behind the margin M², and

after passing beneath the margin M¹ the second thread appears again through the hole 7 to form the stitch 24 of the row 5. This thread then passes in through the opening 9,—transversely across the line 3, and out through the opening 8 to form the stitch 26 of the row 4.

It may be noted that between the holes 6 and 7 runs of both threads extend completely across from one row 4 of stitches to the other row 5, such runs being taut and substantially perpendicular to the abutting line 3 of the cover material, and that between the holes 8 and 9 runs of both threads likewise extend across from one row of stitches to the other row. Thus between each pair of opposite holes 6 and 7, and 8 and 9, respectively, there are two taut substantially parallel runs of thread, such runs being perpendicular to the length of the seam and being adapted to draw the cover material into very firm and close engagement. At the same time, at alternate pairs of holes, as for example between the holes 6 and 7, each thread forms a run which extends first at the outside of the cover material and then at the inside thereof, thus binding the edge of the cover down firmly against the body of the ball. Likewise the rows 4 and 5 of stitches spaced from the edge of the material reinforce the material and prevent its stretching longitudinally of the seam.

In this particular construction it may be noted that one of the threads forms two successive stitches 10 and 14 of the row 4, and that these two stitches are then followed by two successive stitches of the other thread, that is to say, two stitches of one thread alternate with two stitches of the other in each of the rows 4 and 5.

When in the present description and claims, reference is made to runs of thread extending "perpendicular" to the line of abutments of the cover parts, it is not thereby intended to intimate any exact mathematical relation, since not only may the opposed holes of a pair be slightly out of alignment, but the threads tend to twist and in crossing to displace each other, and thus the expression "perpendicular run" is to be interpreted as meaning "generally" or "substantially" perpendicular in each case.

In Fig. 2a a slightly modified construction is shown wherein the run 22^a of one of the threads, corresponding to the run 22 of Fig. 2, passes through the thickness of the margin M² instead of across the exposed face of such margin, and then passes down between the abutting edges of the cover members and beneath the margin M¹ of the cover member 1 to form the run 21^a. Likewise the run 12^a of the other thread extends through the thickness of the margin M¹ and then down between the abutting edges and beneath the margin M² to form the run 11^a. This construction is preferred under some circumstances, since the threads are not exposed transversely of the seam, but it is somewhat more difficult to make and thus more expensive. It may be noted by reference to Figs. 1, 4 and 2a that the result of this method of forming the seam is to cause the cover material to protrude or project slightly above the general spherical surface of the ball between the rows 4 and 5 of stitches, but while the seam is thus somewhat prominent, it is not nearly so prominent as the usual out-seam employed, for example, in playground balls, and while affording a good grip, is not liable to cause injury to the player as is often occasioned by the heavy out-seam commonly provided.

Referring to Figs. 5, 6 and 7, a modified con-

struction is illustrated in which the ball comprises the cover members 1^a and 2^a abutted at their edges and secured together by the seam construction shown in detail in Figs. 6 and 7. This seam is likewise formed from two threads and these threads form parallel rows 4^a and 5^a of stitches spaced from the abutment line 3^a of the cover members. One of the threads, for example, may form the stitch 30 of the row 4^a, then pass inwardly through the opening 6^a and beneath both of the margins M² and M¹ of the cover, and thence out through the opening 7^a, it being noted that this run of thread extends substantially perpendicular to the line 3^a. The thread then extends along the surface of the cover member 2^a to form the stitch 32 of the row 5^a,—then passes in through the opening 9^a transversely across and beneath both margins to form the run 33, and thence out through the opening 8 where it forms the exposed stitch 34 of the row 4^a. The other thread forms the stitch 40 of the row 5^a, opposite the stitch 30, then passes in through the opening 7^a,—across in a run 41 to the opening 6^a,—then forms a stitch in the row 4^a, then passes across perpendicular to the line 3^a and out through the opening 9^a.

In this construction, as in that previously described, a pair of thread runs, substantially perpendicular to the line of abutment of the two cover members, extends across between each pair of opposite openings in the cover parts, thus very firmly uniting the covers to each other with a minimum possibility of loosening by stretching of the threads and without any tendency to pull the cover parts longitudinally of the seam relative to each other. It may be noted that in this construction a stitch 30 of one thread alternates with a stitch of the other thread in each of the rows 4^a and 5^a.

Referring to Figs. 8, 9 and 10, a further modification is illustrated in which the ball has the cover members 1^b and 2^b abutting each other at their edges and held together by the seam construction shown in detail in Figs. 9 and 10. This seam structure is formed from two independent threads arranged so as to provide rows 4^b and 5^b, respectively, of stitches at opposite sides of the junction line 3^b of the cover members. Thus, for example, one thread may form a stitch 50 of the row 4^b exposed at the surface of the cover member 2^b, while the other thread forms a similar and oppositely arranged stitch 60 of the row 5^b. The thread which forms the stitch 50 then passes in through the opening 6^b,—forming the run 51 beneath the margin M². This thread then emerges between the abutting edges of the cover parts and forms the exposed diagonal run 52 on the outer surface of the margin M¹. This thread then passes in through the hole 7^b and forms the transverse run 53 (Fig. 10) substantially perpendicular to the line 3^b,—then emerges through the opening 8^b and forms the exposed stitch 54 of the row 4^b. This thread then passes in through the opening 9^b to form a diagonal run behind the margin M² similar to the run 51. In like manner the thread which forms the stitch 60 extends diagonally across, forming the partially exposed run 62, then transversely from the hole 8^b across to the hole 7^b beneath the cover material,—then forms an exposed stitch of the row 5^b, and then passes in behind the margin M¹ to form another diagonal run.

This construction provides pairs of runs of thread substantially perpendicular to the line 3^b, but at alternate pairs of holes instead of at every

pair of holes as in the previous instances. However, these runs, extending perpendicular to the seam line 3^b, draw the cover members firmly together, while the diagonal runs, which are partly inside and partly outside of the cover material, help to bind the cover firmly against the body of the ball. This seam, while possessing many of the desirable characteristics of that of Fig. 2, for example, is somewhat easier to make and requires less material, and thus may be made more cheaply than that shown in Figs. 1, 2 and 3.

Referring to Figs. 11, 12 and 13, a still further arrangement is shown which provides pairs of runs of thread extending perpendicular to the seam line at each pair of opposite openings, and in addition provides diagonal runs of thread at the exposed surface of the cover adapted to hold the cover firmly against the ball body. This seam is formed of two threads in the same way as the others, and one of these threads may form the stitch 70, for example, of the row 4^c in the cover member 2^c, such thread then passing in through the opening 6^c and then transversely across and beneath both margins M² and M¹ and perpendicular to the seam line 3^c,—then merging through the opening 7^c of the cover member 1^c. This thread then passes in an exposed diagonal run 72 across the seam line 3^c,—then in through the opening 8^c,—across in a run 73 perpendicular to the seam line, and out through the opening 9^c where it forms an exposed stitch 74 of the row 5^c. In the same way the other thread, which forms the stitch 80 opposite the stitch 70, extends in through the opening 7^c forming the transverse run 81, then out through the opening 6^c to form the diagonal run 82, then in through the opening 9^c and out through the opening 8^c where it forms the stitch 84 of the row 4^c. It may be noted that in this arrangement the exposed diagonal runs 72 and 82 cross each other substantially on the seam line, both runs being on the outside of the cover material and that in this arrangement alternate stitches of the rows 4^c and 5^c are formed by the two respective threads.

In the arrangement shown in Figs. 14, 15 and 16, the ball comprises the cover members 1^d and 2^d and the seam consists of two threads as in the previous instances. One of these threads may form the diagonal run 90, for example, exposed at the outside of the cover and which passes in through the opening 6^d,—then transversely across substantially perpendicular to the seam line 3^d and out through the opening 7^d,—then forming another exposed diagonal run 92 extending across the seam line. In the same way the other thread forms the diagonal run 100, crossing the seam line 3^d beneath the run 90, then passing in through the opening 7^d and transversely across in the run 101 substantially perpendicular to the seam line, thence out through the opening 6^d to form the diagonal run 102 crossing beneath the run 92 of the other thread.

While this seam structure possesses certain of the characteristics of those previously described, for example, the provision of pairs of runs of thread extending transversely across perpendicular to the seam line, such pairs extending across between each successive pair of openings, and also has diagonal crossing runs at the exposed surface of the ball adapted to hold the cover firmly against the body of the ball, it may be noted that this arrangement does not provide the longitudinal rows of stitches which, as above noted, add to the strength of the cover adjacent to its margins, thus helping to prevent stretching

of the cover and loosening of the seam. However, while the seam shown in Figs. 14 to 16 does not possess all of the desirable qualities of those previously described, it is easy to make, requires less material, and is thus cheaper, and under some circumstances may be preferred.

While I have herein illustrated certain desirable features of the present invention by way of example, I wish it to be understood that the underlying principles of the invention are capable of embodiment in other specific constructions and that all such modifications as may be regarded as equivalents of the construction herein disclosed are to be considered as falling within the scope of the present invention as expressed in the appended claims.

I claim:

1. In a baseball of the type comprising a body and a cover comprising a plurality of parts disposed with their raw edges in abutting relation, and a two thread seam uniting said parts, each seam thread comprising taut runs extending substantially perpendicular to the line of union of the cover parts and between the ball body and cover, and other taut runs exposed in part at least at the outside of the cover, said latter runs of one thread crossing similar runs of the other thread substantially at the line of union of the cover parts, each thread passing back and forth from one cover part to the other and through the entire thickness of each cover part.

2. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their raw edges in abutting relation, each of said parts having a row of openings spaced from but extending substantially parallel to the line of abutment of the parts, the openings of the two rows being disposed substantially opposite to each other, and a seam uniting the cover parts, said seam comprising two threads, each thread having a taut run which extends between the ball body and the cover directly across from an opening of one row to the opposite opening of the other row and in substantial contact with a similar run of the other thread which extends between the same pair of openings, each thread having another transverse run, exposed at least in part at the outside of the cover and which extends from an opening of one row to an opening of the other row and crosses a corresponding run of the other thread.

3. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their raw edges in abutting relation, and a seam uniting said parts, said seam comprising two threads each having runs extending substantially parallel to the line of union of the cover parts and spaced from said line of union, said runs being exposed at the outer surface of the cover, and each of said threads having other tightly drawn runs extending substantially perpendicular to said line of union from one part of the cover to the other and disposed between the body of the ball and the cover.

4. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their raw edges in abutting relation, and a seam uniting said parts, said seam comprising two threads arranged to form rows of stitches exposed at the exterior surface of the completed ball and extending substantially parallel to the line of union of the cover parts and spaced from the abutting edges of said parts, and transverse runs of each of said threads extending across from one of said rows to the other, certain of said

transverse runs being interposed between the body of the ball and the cover, and other of said transverse runs being exposed in part at least at the outside of the cover.

5. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their raw edges in abutting relation, and a seam uniting said parts, said seam comprising two threads arranged to form rows of stitches arranged substantially parallel to and spaced from the abutting edges of the cover parts, and transverse runs of each of said threads extending across from one row of stitches to the other, certain of said transverse runs of thread being substantially perpendicular to the line of union of the cover parts and certain of the transverse runs of each thread crossing similar runs of the other thread substantially at the line of abutment of the cover parts.

6. In a baseball of the type comprising a body and a cover made up of a plurality of parts disposed with their raw edges in abutting relation, a seam uniting said parts and comprising two threads disposed to form rows of stitches exposed at the outer surface of the completed ball and extending substantially parallel to and spaced from the abutting edges of the cover parts, each row of stitches consisting in part of runs of one thread and in part of runs of the other thread, and other runs of each of said threads extending from one such row to the other and across the line of union of the cover parts.

7. In a baseball of the type comprising a body and a cover made up of a plurality of parts disposed with their edges in abutting relation, a seam uniting said parts and comprising two threads each having runs extending substantially parallel to the line of union of the cover parts, said runs being exposed at the outer face of the cover, and each thread having other runs extending substantially perpendicular to the line of union of the cover parts from one of said parts to the other, certain of said perpendicular runs being disposed wholly between the body of the ball and the cover, and other of said perpendicular runs being exposed at the outer side of the margin of one cover part and then passing between the abutting edges of the cover parts and being concealed beneath the margin of the other cover part.

8. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their edges in abutting relation, and a seam uniting said parts, said seam comprising two threads forming rows of stitches disposed substantially parallel to and spaced from the line of union of the cover parts respectively, each row comprising two successive stitches of one thread followed by two successive stitches of the other thread, each of said threads also comprising runs extending substantially perpendicular to the line of union from one cover part to the other.

9. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their edges in abutting relation, and a seam uniting said parts, said seam comprising two threads, each thread having a run extending parallel to and spaced from the line of union of the cover parts, said runs being disposed opposite to each other, each thread of such a run then extending inwardly through and beneath the cover and substantially perpendicular to the line of union of the cover parts, thence out between the abutting edges of the cover parts and across the margin of the opposite cover part, then in

through said latter part and beneath the margin of both cover parts and substantially perpendicular to the line of union, thence out through the first cover part and along the outer surface of the latter parallel to the line of union and in line with the first-named run of said thread, then in through said latter cover part and beneath the margins of both cover parts and perpendicular to the line of union and thence out through the other cover part.

10. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their edges in abutting relation, and a seam uniting said parts, said seam comprising rows of stitches extending substantially parallel to the line of union of the cover parts and spaced therefrom, certain of the stitches being formed from one thread and other of said stitches being formed from a second thread, runs of each thread extending across and substantially perpendicular to the line of union from one of said rows to the other, certain of said runs extending beneath the margin of one cover member to the line of union, then passing partially out through said line of union and continuing across within the thickness of the margin of the other cover part to the other row of stitches.

11. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their edges in abutting relation, and a seam uniting said parts, said seam comprising two threads forming rows of stitches disposed substantially parallel to and spaced from the abutting edges of the cover parts, and runs of each thread extending across from one row of stitches to the other, certain of said runs extending from one row over the outer surface of the margin of one cover part to the line of union and then between the abutting edges of the cover parts and beneath the margin of the other cover part to the opposite row of stitches, each stitch row consisting in part of stitches formed from one thread and in part of stitches formed from the other thread.

12. In a baseball of the type comprising a body and a cover made up of a plurality of parts disposed with their edges in abutting relation, a seam uniting said parts and comprising two threads disposed to form rows of stitches extending parallel to and spaced from the abutting edges of the cover parts, one of said rows of stitches consisting wholly of runs of one of said threads and the other row consisting wholly of runs of the other thread, other runs of each thread extending substantially perpendicular to the line of union of the cover parts, said perpendicular runs being concealed between the body of the ball and the cover, and further runs extending diagonally from one row of stitches to the other, said diagonal runs being disposed in part at least at the outer side of the cover.

13. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their edges in abutting relation, and a seam uniting said parts, said seam comprising two threads, each thread having a run extending parallel to and spaced from the line of union of the cover parts, said runs of the two threads being disposed opposite to each other, each thread forming such a run then extending through and beneath the cover and substantially perpendicular to the line of union of the cover parts and out through the other cover part, then diagonally across the margin of the latter part at the outer side thereof, then between the abutting edges of the parts and beneath the margin of the other

part, thence out through the latter to form a second run parallel to the line of union of the cover parts at the outer side of the cover and in line with the first-named run of said thread.

14. In a baseball of the type comprising a body and a cover made up of a plurality of parts disposed with their edges in abutting relation, a seam uniting said parts and comprising two threads, each thread having a run extending parallel to and spaced from the line of union of the cover parts, said runs of the two threads being disposed substantially opposite to each other, each thread of such a run passing inwardly through the cover material, then across beneath the margins of both cover parts substantially perpendicular to the line of union, then out and diagonally across the margins of both cover parts, then inwardly through the first cover part and across beneath the margins of both cover parts substantially perpendicular to the line of union, and then out through the second cover part to form an exposed stitch in line in the first-named run of the other thread.

15. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their edges in abutting relation, and a seam uniting said parts, said seam comprising two threads disposed to form rows of stitches extending substantially parallel to and spaced from the line of union of the cover parts, alternate stitches of each row being of different threads, respectively, each thread having runs extending across from one row to the other beneath the margins of both cover parts substantially perpendicular to the line of union of said parts, and each thread having diagonal runs extending from one row to the other at the outer side of the cover, the diagonal runs of the two threads crossing substantially at the line of union of the cover parts.

16. A baseball having a body and a cover, the latter comprising a plurality of parts with their edges in abutting relation, and a two-thread seam uniting said parts, the seam threads forming rows of stitches, parallel to and spaced from the line of contact of the cover parts, and at opposite sides respectively of said line, said stitches being exposed at the outside of the cover, and runs of the same threads extending across from one row to the other beneath the cover, causing the cover material between the stitch rows to project slightly beyond the general spherical surface of the cover, and other runs of the same threads extending diagonally across from row to row of stitches, said latter runs being exposed at least in part at the outer side of the cover.

17. A baseball having a body and a cover, the latter comprising a plurality of parts with their edges in abutting relation, and a two-thread seam uniting said parts, the seam threads forming rows of stitches, parallel to and spaced from the line of contact of the cover parts, and at opposite sides respectively of said line, said stitches being exposed at the outside of the cover, and runs of the same threads extending across from one row to the other beneath the cover, causing the cover material between the stitch rows to project slightly beyond the general spherical surface of the cover, and other runs of the same threads extending diagonally across from row to row of stitches, said latter runs being exposed at the outside of the cover and, together with the stitches of said rows, setting off the cover material between said rows into polygonal areas.

18. In a baseball of the type comprising a body and a cover made up of a plurality of parts dis-

- posed with their edges in abutting relation, a seam uniting said parts and comprising two threads, each thread having an exposed diagonal run extending from one cover part to the other
- 5 across the line of union of the two parts; then in through the cover material and beneath the margins of both parts to form a run substantially perpendicular to the line of union, and thence out to the outer surface of the first cover part.
- 10 19. In a baseball of the type comprising a body and a cover made up of a plurality of parts disposed with their raw edges in abutting relation, a seam uniting said parts and comprising a pair
- 15 of threads each having portions of its length lying on the outer surface of the cover, other portions extending through the cover, and still other portions lying on the inner surface thereof between the cover and the ball body, said seam including taut runs of each thread formed at least
- 20 in part from said last mentioned portions and extending between pairs of holes disposed in said two cover parts on lines substantially at right angles to the line of union of said parts, the aforesaid taut runs of the two threads being substantially in contact from one of said holes to
- 25 the other.
20. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their edges in abutting relation, and a seam uniting said parts, said seam comprising two threads
- 30 forming rows of stitches exposed at the outer

face of the cover, said rows being disposed substantially parallel to and spaced from the abutting edges of the cover parts, and runs of each thread extending across from one row of stitches to the other, certain of said runs extending from one row over the outer surface of the margin of one cover part to the line of union and then between the abutting edges of the cover parts and beneath the margin of the other cover part to the opposite row of stitches.

10 21. A baseball having a body and a cover, the latter comprising a plurality of parts disposed with their raw edges in abutting relation, and a seam uniting said parts, said seam comprising two threads each having runs extending substantially parallel to the line of union of the cover parts, said runs being exposed at the outer face of the cover, and each thread having other runs extending transversely across the line of union of the cover parts from one of said parts to the

15 other, certain of said transverse runs being disposed wholly between the body of the ball and the cover, and extending substantially perpendicular to the line of union of the cover parts, and other of said transverse runs being exposed

20 at the outer side of the margin of one cover part and then passing between the abutting edges of the cover parts and being concealed beneath the margin of the other cover part.

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