### New York Rules

<table>
<thead>
<tr>
<th>Year</th>
<th>Weight (oz) min</th>
<th>Weight (oz) max</th>
<th>Circumference (inches min)</th>
<th>Circumference (inches max)</th>
<th>Rubber</th>
<th>Notes</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1854</td>
<td>5.5</td>
<td>6</td>
<td>8.675</td>
<td>11</td>
<td>x</td>
<td>Defined by just 3 clubs in this year</td>
<td>19cbaseball.com</td>
</tr>
<tr>
<td>1855</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>No data found</td>
<td></td>
</tr>
<tr>
<td>1856</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>No data found</td>
<td></td>
</tr>
<tr>
<td>1857</td>
<td>6</td>
<td>6.25</td>
<td>10</td>
<td>10.25</td>
<td>x</td>
<td>India rubber wrapped in yarn</td>
<td>Laws Of Base Ball, 1857</td>
</tr>
<tr>
<td>1858</td>
<td>6</td>
<td>6.25</td>
<td>10</td>
<td>10.25</td>
<td>x</td>
<td>India rubber wrapped in yarn</td>
<td>NABBP Rules, published</td>
</tr>
<tr>
<td>1859</td>
<td>5.75</td>
<td>6</td>
<td>9.75</td>
<td>10</td>
<td>x</td>
<td>India rubber wrapped in yarn</td>
<td>NABBP Rules, published</td>
</tr>
</tbody>
</table>

In 1859 Chadwick noted that the ball was a bit too large for skillful fielding.

So reduced the ball size and weight for 1860

<table>
<thead>
<tr>
<th>Year</th>
<th>Weight (oz) min</th>
<th>Weight (oz) max</th>
<th>Circumference (inches min)</th>
<th>Circumference (inches max)</th>
<th>Rubber</th>
<th>Notes</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1860</td>
<td>5.75</td>
<td>6</td>
<td>9.75</td>
<td>10</td>
<td>x</td>
<td>India rubber wrapped in yarn</td>
<td>Beadles Dime Rule Book, 1850</td>
</tr>
<tr>
<td>1861-67</td>
<td>5.5</td>
<td>5.75</td>
<td>9.5</td>
<td>9.75</td>
<td>x</td>
<td>India rubber wrapped in yarn</td>
<td>Beadles Dime Rule Book, 1861-67</td>
</tr>
<tr>
<td>1868-70</td>
<td>5</td>
<td>5.25</td>
<td>9.25</td>
<td>9.5</td>
<td>x</td>
<td>India rubber wrapped in yarn</td>
<td>Beadles Dime Rule Book, 1868-70</td>
</tr>
<tr>
<td>1871</td>
<td>5</td>
<td>5.25</td>
<td>9.25</td>
<td>9.25</td>
<td>1</td>
<td>India rubber wrapped in yarn</td>
<td>Beadles Dime Rule Book, 1871</td>
</tr>
<tr>
<td>1872</td>
<td>5</td>
<td>5.25</td>
<td>9</td>
<td>9.25</td>
<td>1 *</td>
<td>Vulcanized rubber wrapped in yarn</td>
<td>Beadles Dime Rule Book, 1872</td>
</tr>
</tbody>
</table>

Ball has been same weight/size since 1872

### Massachusetts Rules

<table>
<thead>
<tr>
<th>Year</th>
<th>Weight (oz)</th>
<th>Circumference (inches)</th>
<th>Rubber</th>
<th>Notes</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1858-60</td>
<td>2</td>
<td>2.75</td>
<td>6.5</td>
<td>8.5</td>
<td>x</td>
</tr>
</tbody>
</table>
### Materials used

- Strips of rubber from boots, rolled together to form a ball
- Rubber strips put in boiling water, then molded into ball shape
- In Lake regions, use of a sturgeon's eye

- Wrapped in woolen yarn

- Covered in rude leather or cloth
- Sheepskin popular due to belief it lasted the longest.
- Horsehide gained popularity in 1878 as best leather, but used prior to 1878.
- Before 1880 any leather was acceptable.
People we know made base balls:

In 1858, Harrison P. Harwood and Sons of Natick, MA (c/o North Avenue and Main Street) became the first factory to produce baseballs

http://mgrp-project.weebly.com/baseball-factory.html

http://www.wickedlocalmediasolutions.com/blog/throwback-thursday-natick-home-of-the-first-baseball-factory

Harvey Ross (Ryan Ross ?), who was a sail maker and member of the Atlantic Club of Brooklyn. 1½ ounces of rubber and was considered a dead ball. Popular in 1855, 1856. (1)

John Van Horn, second baseman for the Baltic Club of New York, in the 1850's, was the leading producer of baseballs in the early 1860's. Van Horn, who was a shoe maker used rubber from

<table>
<thead>
<tr>
<th>Process stuff</th>
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<tbody>
<tr>
<td>Covers cut with large steel punch, hit with a mallet. (Figure 8 at this time)</td>
</tr>
<tr>
<td>Using set up to wind yarn. Skeins of yarn on spools. They use a cup like feature to hold the ball, so they can pound the ball as they go, to harden it.</td>
</tr>
<tr>
<td>Balls rolled, under pressure, in polished groove, to flatten seams.</td>
</tr>
<tr>
<td>Staking the leather to stretch it first. Placed it across a block to smooth it out after stretching.</td>
</tr>
<tr>
<td>Holes punched with an awl. 1/8” from edge.</td>
</tr>
<tr>
<td>Use of saddlers horse to stitch the ball. The clamp could make the ball odd shape, so used rollers to bring it back into shape.</td>
</tr>
<tr>
<td>Double cover balls tried, Louis Mahn. 1 oz vulcanized rubber, woolen yarn until about 2/3 size. Then a leather cover added, then more yarn, but loosely added to correct size, then top cover. Loosely added yarn was to soften the ball on the hands.</td>
</tr>
<tr>
<td>Major manufacturers used 2 oz rubber strips, wrapped into a round ball. Course yarn fine yarn then worsted yarn, all dry, wrapped in horsehide (William Vogel)</td>
</tr>
<tr>
<td>1854 JB Shibe, use of wetted yarns. Placed in oven, and baked so yarn would contract around the ball. Then wet leather and baked in similar fashion.</td>
</tr>
</tbody>
</table>
old shoes to comprise the core of his baseballs. He used between 2 and 2½ ounces of rubber in baseball, which translated in to a "lively" ball and used sheepskin for the cover (1)

Edward I. Horsman was known to produce baseballs of different degrees of "liveliness,"

One of the largest sporting goods businesses was owned by James F. Masters

AG Spaulding/Spalding

Andrew Peck and Co.,
Peck and Snyder,
Rice, In NY -> sold out to S.W. Brock in Brooklyn, NY, who then invested heavily in base ball making in early 1870s.
George Ellard, Cincinnati, OH,
John Whiting, in NY

1870 The New York Rubber Company reportedly manufactures a ball with a rubber cover which is deemed a failure for baseball uses because the rubber cover tears easily.

AJ Reach (manufactured)
Mass producing machinery. Ben Shibe. Worked for AJ Reach. Used hydraulic pressure. Mass producing brought various grades of base balls. High quality to low quality. Covers cut with large steel punch, hit with a mallet. (Figure 8 at this time)
Using "stitching horse" set up to wind yarn. Skeins of yarn on spools. Horse has a cup like feature so they can pound the ball as they go, to harden it.

1888, winding machine brought into use to remove manual winding of yarn.
1890 Machine Die for cutting covers, and rolling machines to smooth the ball out.
This is a reference citation as to what they called the style of cover used in the early days. I think "lemon peel" is actually a modern vintage base ball term.. which really makes no sense.. but this article, which also has some process and materials info, calls that early ball a “star” pattern ball. Richard Hershberger posted this on Facebook. Brooklyn Herald, July 9, 1888
MOUTHES FED BY BASE BALL

The Making of Bats and Balls a Big Industry—A Chance for a Fortune.

The national game of base ball has taken so deep a hold upon the youth of this generation that, to keep pace with the demand for balls and bats, big factories have sprung up in many localities, says the New York Tribune, and hundreds of working men and women gain a livelihood turning the bats over their lathes or sewing the covers by hand over the inner core of the sphere, which is now made by machinery. Bats are shipped to this city by the carload from Michigan and West Virginia, and it is estimated that 50,000 cords of ash and willow wood were thus used last winter for this summer's trade. The bulk of the bats are ordered by amateur players, of course.

Willow is the favorite material for the popular bat, as its lightness is combined with a sufficient amount of strength for youthful players, and West Virginia turns out the best grade of this variety. The superior toughness of ash makes it indispensable for the great strain which a professional player subjects it to, and Michigan's forests furnish an inexhaustible supply of this tough wood. The manufacture of balls demands more care. The better class of balls, those of regulation size and weight, as prescribed by the professional rules, are covered with horse hide, stretched with double linen thread, well waxed and smoothed by machinery. The inner core is of rubber, carefully wound about with yarn by hand until the correct size is obtained.

The practice ball, or boys' ball, is covered with sheepskin, and is more cheaply and roughly made. The core is usually composed of leather scraps, which are pressed into a spherical shape by machinery and have no more yarn wound around them than is necessary to hold the scraps together until the cover is put on. The design of cover now in universal use differs widely from the old "star" pattern. It consists of two strips of leather cut something like the figure 8, or even like the heelless sole of a baby's shoe. These, when laid over the sphere, exactly cover it and are more easily sewn together than any other pattern, and if the man who invented it had only patented his idea, he might have been reaping a fortune for his pains.

Work items:

The history and manufacture of the baseball, by William R Vogel  
** Note. Only available through HOF in Cooperstown. Would love to get some screen shots.

These are the only 2 I am missing right now...
San Francisco Examiner, Jan 8 1888.
Chicago Herald, May 1, 1890. Story about orange peel. “most men ot to-day remember”.

Importance of having a base ball.
From Peter Morris book, But Didn’t We Have Fun ? p31.
Reference to Sporting News, Feb 29, 1896 article. Please note red box. Morris says “soldier” but I have seen many other accounts that call him a “saddler” in that quote.
I don’t want anyone getting hung up on which it is.. soldier or saddler.. the key here is the reference to the importance of the ball in the last paragraph.

The Knickerbockers’ survival was also threatened by a practical dilemma. Adams originally made the club’s baseballs but found the covers troublesome. “I went all over New York to find someone who would undertake this work,” he later recollected. “but no one could be induced to try it for love or money. Finally I found a Scotch soldier who was able to show me a good way to cover the balls with horsehide, such as was used for whip lashes.” Adams continued to make the covers himself until “some time after 1850” when “a shoemaker was found who was willing to make them for us.”

This may seem like a rather trivial issue to modern readers, but as we shall see from later accounts it was a grave one at the time. Had Adams not located the soldier and the shoemaker or, even more crucially, had he not shown such dedication in the intervening years, the club well could have died for lack of a functional baseball.
In the early days of the national game, when the public interest in the sport was centered in New York, the balls used in Major League games were made by John Van Horn of New York, the first recognized baseball manufacturer. He cut off the outer skins of sheepskin on wool yarn to replace the sheepskin outer covers, and the yarn was suitably treated for the covering of the rubber center. The ball was fitted with the correct amount of rubber cushion to provide the proper ball of the day. Several experiments were made with balls, and the yarn used was 'the best available, and that peculiar quality was greatly improved upon.
ANCIENT BASE BALLS.

The Famous Veteran, A. J. Reach, Tells Who Made the First Ball Ever Used in to the National Game.

The famous old-time player, A. J. Reach, now president of the A. J. Reach Company, the great base ball and sporting goods manufacturing concern, was recently queried by a California customer as to the original balls used in the infancy of base ball. Here is Mr. Reach’s answer, which possesses a certain historical interest and value:

Philadelphia, Pa., February 2.—My dear Mr. Lowry: Replying to your favor of the 14th ult. regarding base balls, etc., you say Mr. Lowry would like to have, will give you some thoughts from memory.

As to the first base balls, my recollection of them dates from about 1835 or ’36. The most popular ball in those days was the Ross ball; Harvey Ross, the maker, was a member of the Atlantic Base Ball Club, of Brooklyn, and a carll-maker by trade; his home was on Park Avenue, where he made the balls. John Van Horn was a member of the Union Club of Morristown, New York; he had a little box and shoe store on Second Avenue, New York City. These two makers turned out the best base balls for some years, and they were used in nearly all of the match games that were played up to the early 70’s.

E. J. Horsman, of Brooklyn, New York, also made balls in the early ’80’s for the market, not having the success, however, of the Ross and Van Horn balls among the experts of that day.

The popular clubs of those days, as I remember, were the Getham, Eagles, Empire, Knickerbocker, Mutual and Union of New York City, most of them playing at the Elysian Fields, Hoboken; the Atlantic Excelsior, Eckfords, Putnam and Continental were all of Brooklyn. These mentioned are the oldest existing clubs that I remember, having no date at hand at present.

As I look back to those early days of our national game and remember the great interest displayed then by the crowds on match days in all the movements of the players, I do not wonder at its growth, and that it now takes a field in those same cities with a capacity to take care of the crowds of from twenty-five to forty thousand people, and they will even grow from those figures. Then the playing field was a pretty sight, being fully two-thirds surrounded by carriages and wagons filled with people, and inside of the line of carriages was the crowd sitting and standing until they almost encircled the playing field. I am referring back to the days when no entrance fee was charged, so while there was no money there was no lack of interest and lots of excitement when the strongest clubs got together. With best wishes, I am yours truly, A. J. REACH.
Our attention has of late been called to the necessity of a change in the size and weight of the base ball, and the establishment of some stringent rule having the effect of preventing any manufacturer of base balls, for club purposes, of a greater weight or size than that established by the National Association. We now earnestly receive the report of a ball match in which some severe injury has not been sustained, and that, too, mainly from the ball, the result, in nearly every instance, being traceable to the weight and size. Experiments were made by cricketers years ago, to ascertain the best size and weight of a ball for fielding purposes; and the result was the permanent establishment 5 1/4 ounces in weight and nine inches in circumference; and this weight and size, with a limp to 5 3/4 ounces in weight and 9 1/2 inches in circumference, would be found the correct figures for the standard measurement of a base ball.

The importance of a regular standard, in this respect, and of at once establishing the size of the ball permanently, has not been sufficiently estimated, from the fact that the difference in the effects of various sizes of balls has not been practically examined into. Another thing affecting this ball question is, that the generality of manufacturers have only studied present profits in the regulation of the size and weight of the balls they make, without any regard, apparently, for their future reputation as makers of "regulation" balls of the legal size, weight and material. Having found that clubs who excel in batting powers, and who lack in fielding skill, purchase large, heavy and elastic balls in preference to those of legal size, which, though hard and elastic, are not large enough to be hit easily, or heavy enough to make them difficult and dangerous to field, when coming swiftly from the bat, they have not hesitated, in some instances, to make balls of illegal size to suit the demand. Hence we find that a large quantity of unfair balls are in the market, a specimen being in our possession, stamped with the name of a well known maker, weighing six and a half ounces, and measuring within a fraction of ten inches. These balls, too, we learn, are in great demand by country clubs; and because there is such a demand the market is to be supplied with them, even if the making of such a ball is a fraud, or its being played with results in serious injuries to fielders.

Under the circumstances of the making and using of balls of such illegal size and weight, it is no wonder that we learn of men being killed by being hit in the head with a base ball, or of fingers and even arms and legs being broken by blows from such balls. Why is it that cricketers, with a ball far harder than the hardest base ball, do not sustain the number of injuries to their hands in fielding in a whole season that ball players do in a single match? Simply because the additional half ounce on every quarter ounce in weight, and inch or half inch in size, admits of such a ratio of increase in the force of a ball as to make the difference fatal in its results. That is, take a cricket ball of a quarter of an ounce less in weight and an inch less in circumference than a base ball, the former being hard and not half as elastic as the latter, and let both be hit by the bat with the same force, while the former will be grasped and
held, the latter will break through the hand, splitting the flesh or breaking the fingers, this additional power being the result of the great increase in momentum given it by the little additional weight which the increased size admits of, the ratio of this increase being surprising in extent. No one would think that such a slight increase in size and weight would lead to such results from looking at and comparing a 5 1/2 ounce ball with a 6 ounce one, but let both be hit with the same force and let the same man attempt to stop both from the same blow, and he would painfully realize the great difference.

But there is one point to which we desire to call the attention of clubs who are not particular enough in ascertaining the exact size and weight of a ball previous to a match, and that is, that any gum in which a ball over size and weight—i.e., not under—is used, becomes "null and void" and is no match, as the use of a ball of illegal size and weight is an infringement of the rule which section 40 punishes with the penalty above referred to.

Manufacturers of base balls may not hitherto have regarded this matter in the important light in which we view it, and they may have supplied the demand for large and heavy balls unconscious of any wrong-doing in the matter. A little reflection, however, will teach them that by supplying an article illegal in size and weight to clubs who believe that their stamp on a ball is a full guarantee of its being of the regulation size and weight, they commit a fraud upon the customer as much as if they were to introduce into the ball a material not named in the rule governing its manufacture. Ball makers will find that those who use the best material and workmanship, and who make every ball the legal size and weight, will eventually profit the most in sales, as they certainly will in reputation. We shall advocate that the next Convention endorse only those manufacturers of base balls who will give the National Association a guarantee that every ball they make for club use shall be of the regulation size and weight as well as material.
THE BASE BALL, PAST AND PRESENT.

The American base ball most used as implements for recreation has in its make up always been governed by strict rules prescribing in minute terms just how and of what it should be made, the size, weight and covering.

Back in 1857 when Senator Arthur P. Gover of Maryland was president of the "national association," an organization composed of about two hundred amateur clubs located in all the principal towns and cities of the country, the ball was described as follows in section 1 of the rules and regulations: "The ball must weigh not less than 52 nor more than 53 ounces avoirdupois. It must measure not less than 9 1/8 nor more than 9 3/8 inches in circumference. It must be composed of India rubber and yarn and covered with leather." The balls then most in use were made by Peck & Snyder of New York, Harvey Ross of Brooklyn, and Horsman of Philadelphia, and were built as follows: A small ball composed of strips of India rubber tightly stretched and wound formed the center around which the yarn was very tightly wound, as it had to be to get the required weight in the prescribed size. This was covered by leather, quartered, and not in the shape now used. This made an exceedingly lively ball, one which it was almost impossible for an infielder to handle and which, with the slow, straight pitching of those days was provocative of enormous scores, among which home runs figured most prominently. Scores of fifty to one hundred runs were very common.

This ball continued in use until 1870, when its size was reduced to its present dimensions, viz.: From 9 1/8 to 9 3/8 inches in circumference. Also, about this time the amount of rubber began to be reduced for the purpose of deadening the ball, but there was no stipulated amount required. This was taken advantage of by clubs. Organizations containing good batters ordered their base balls made with plenty of rubber, thus making them lively, while the clubs which excelled in fielding but were deficient in batting had theirs made with very little rubber, which gave them a decided advantage. The tendency, however, was towards deadening the ball and increasing the fielding and pitching skill and this was carried to such an extent that in 1875 and 1876 balls were made with very little rubber and many of them with no rubber in them. But the hitting under this sort of method was very light. So the national and international leagues, in adopting their rules, stipulated that the ball should contain "one ounce of vulcanized rubber molded." In 1878 the Mann "double cover" ball was introduced and was the first ball of the kind ever used. It was made as follows: A ball of molded vulcanized rubber, one ounce in weight, was taken with woolen yarn very tightly until it was about two-thirds the size of the ball required, this was then covered with horse hide; this ball was then again wrapped with yarn, but not so tightly until of the requisite size and again covered with horse hide. The "double cover" that part of the ball between the inside ball and the outer covering was not made so hard as to be more easily handled by catchers and other players; the inside ball being very compact gave enough elasticity to the ball. It was also found out at this time that horse hide was the best covering for base balls and it is still so considered. Other balls were used by the different leagues and associations, made according to the old rule, but not having the double cover.

In 1888, in its second year, the American association adopted the Reach ball, which is in one sense also a double ball. Its composition is as follows: A round molded ball of pure rubber weighing three-fourths of an ounce. This is wrapped with woolen yarn until about one-half the size of the regular ball, and is then dipped in a composition of rubber. It is again wrapped with woolen yarn until of the proper size and then covered with horse hide. This ball has been found to be the best ball ever used and its success has been a veritable gold mine to Al J. Reach and his partners, as his ball is in use wherever base ball is known. The Spalding ball used by the national league is made by this process, although not by Reach as is often supposed. There is the best authority for the statement that Reach & Co. make the enormous quantity of 1,000 dozen base balls per day in their giant factory, where they employ over 400 hands. This includes all grades from the 5-cent ball made of leather scraps and molded into shape by immense hydraulic pressure up to the association ball which is considered the nomen of base ball manufacture. There are many other base ball manufacturers, all of whom do a greater or less business.

This will give some idea of the immense hold this national game of ours has upon the youth of our country.

A SCHEME FOR NEXT WINTER.
THE QUESTION OF ELASTIC vs. "DEAD" BALLS.

During the early years of base ball, in the days when the Knickerbocker and Gotham Clubs were the crack organizations of the metropolis, the leading ball maker of New York only used an ounce and a half of rubber in the composition of the balls he manufactured. At that period the old rule of the bound catch was in vogue, and it was desirable that the ball should not be so elastic as to bound over the heads of the fielders, especially of those occupying positions in the infield. Afterwards, as heavy batting grew to be popular, and large scores seemed to be regarded as a criterion of good batting, more lively and elastic balls were demanded; and when the bound catch was done away with the era of very elastic balls set in, and scores of a hundred and odd runs to a match, in place of thirty or forty, became frequent occurrences in match games. The result of this was that season after season saw the club averages of individual players increase from 2½ and 3 in 1860, up to 5 and 6 in 1867, and during 1868 and '69 the average was still further advanced. With this increase of runs, consequent upon the general use of over-elastic balls, came a proportionate increase of severe injuries to fielders arising from broken fingers and split hands; besides which there was the tedious prolongation of games caused by large scores and home runs, and also the other necessary consequences of errors in the field caused by the difficulty and danger of stopping and fielding the over-weighted and exceedingly elastic balls which were the favorites of heavy batting times. In 1867 this evil grew to such an extent that in one instance a fielder actually died from the effects of a ball of this kind hitting him on the head. In 1868 the ball was reduced in size and weight to its present dimensions; but though this lessened the evil to a small extent the right nail had not been hit on the head, insomuch as the ball was capable of being made as elastic as ever, owing to there being no restrictive regulation governing the amount of rubber which it should contain. There is no doubt of the fact that the present ball, as regards its size and weight, is about as near the right mark as possible; the fact is equally apparent, however, to all disinterested observers, that for all purposes of a full development of the beauties of our game, the ball, in its composition, is the very reverse of the right thing. The opportunities the rule governing its composition affords for making it hard and exceedingly elastic is such as to materially interfere with good fielding; the present elastic ball affording poor but heavy hitters excellent chances to score runs by means of mere muscular power, and to render true skill in batting something almost unnecessary in run getting. What is wanted is a ball hard and elastic enough to be hit well, but not one so elastic as to bound over the heads of the in-fielders when hit to the ground in the infield; and also a ball which cannot be sent from the bat with such force as to render broken fingers or split hands sure results of any efforts to stop them.
SPORTING.

BASE-BALL.

To understand the games of base-ball, four in number, which have been played upon the Chicago ground this year, it is necessary to refer to the "ball dispute" which has been for the space of seven days agitating the League clubs, managers and players, and, to a lesser extent, the ball-loving public. A few words of preface will serve to explain matters: At the December meeting of the League it was voted to have a uniform ball used in all games for the championship. Mr. L. H. Mahn, of Boston, was on hand and spread his wares before the Convention. That body, after discussion, adopted a ball with one ounce of rubber and a double cover. Thereupon the word went forth that a lively ball was to be used. This was unquestionably the understanding and desire of the League, as any delegate at the Cleveland meeting can testify. Mr. Mahn went on and made up a stock of balls according to the samples which the Cleveland Convention had picked out. He sent some of these balls to the clubs, and they tried them and with one voice cried out against them because they were too soft and, after a little use, grew flabby on the outside, so that one could be picked up by the slack like a kitten by the scruff of its neck or a small boy by the slack of his breeches.

A meeting of the League having been opportunely called at Cincinnati to consider the schedule, the defects in the ball were discussed and a vote passed that the Secretary instruct Mr. Mahn to make a harder and livelier ball. Time was short before the beginning of the season and no consultation possible, so Mr. Mahn made up a dozen or so balls for each club in the West, where the play was to begin, and sent them on. One trial with one of the lot convinced the clubs that he had overdone the matter and had produced a set of spheres with the same degree of pliability that would exist in a billiard-ball covered with tan and tightly-stretched horse-bids—not more.

The first games with this ball were enough to make it plenty of enemies. Mr. Haldeman, President of the Louisville Club, writing on the subject said: "It is perfect ruination to the game; in our first game with Cincinnati we played three-and-a-half hours, and half of the audience in the grand stand left before the end of the fifth inning." Mr. Keck, of the Cincinnati Club, also expressed a most decided opinion in the same direction, but it was so marked up by dashes as to be necessarily omitted. Harry Wright, speaking on the same subject, said that it would make the expert player learn his business all over anew. An excellent player with last year's ball might be no good with the new one until after considerable practice. The Chicago Club, while anxious to play with a hard, manly, lively sphere, were not prepared for, and not agreeable to, the wooden ball, as the new one was called, because they were getting laid up and disabled on all sides.

While the strong feeling was at its height, Secretary Young had his attention called to the fact that the new ball was not made in accordance with League rules, in that it had cotton yarn next the cover, the League rule prescribing that the ball shall be wholly of woolen yarn. As soon as Mr. Young became fully convinced, by examination and otherwise, of the fact referred to, he immediately addressed the following telegram to Mrs. W. A. Halbert, of Chicago, President of the League:

WASHINGTON, May 14.-I have notified all League Clubs that the ball with the red label on the box is illegally made, and must not be used. The action of the Cincinnati Convention practically rejected the ball with the black label, to take effect after a more acceptable one could be obtained, until which time it must be necessary to consider the legal ball. The new ball with red label can only be considered as trial, and I requested each of the clubs receiving them to advise me if they met their expectations and approval. I did this to save the manufacturer from losing a stock on hand in case they failed to meet the wishes of the League as expressed at Cincinnati.

N. E. Young, Secretary.
A word about the illegality of the ball: On cutting one of the "red-label" balls open, it will be found that next to the cover is a layer of fine cotton yarn wound as tightly as its strength would allow. This is what makes the ball so dangerous to use and so hurtful to players. In balls wholly of woolen, after a few innings' use the outside of the ball becomes "mellowed," so that it can be handled without pain. The ball with the cotton outside cannot by any possible amount of use be softened at all. No doubt Mr. Mahn did the best he could under the instructions; he took as nearly pure rubber as he could work for his "one ounce of rubber," and it made a lump twice as large as the old kind; then he had to wind his yarn tight in order to get the required weight into the regulation size. That is probably how he came to use the cotton yarn.

The problem which was presented by these conditions was not to be easily solved, and consequently it was decided to call a meeting of the League to ponder on it. The invitations went out Tuesday, and the managers will meet this morning at 10 o'clock in the Hotel Bates, Indianapolis. Mr. Mahn, the ball-maker, who is a stockholder in, and now traveling with, the Boston Club, will be present and consult with the League. The representation will probably be: Chicago Club, W. A. Hulbert; Boston Club, Harry Wright; Hartford Club, Robert Ferguson; Louisville Club, W. N. Haldeman; St. Louis Club, Charles A. Fowle; Cincinnati Club, J. L. Keck.
BASE BALLS.

Manner and Extent of their Manufacture in this Country—How they were Made Fifty Years Ago—Gradual Growth of the Business—Preparing for Next Season’s Trade—Dead Balls Going Out of Favor—Ball Makers’ Wages.

Less than a half a century ago such base balls as are in use at the present time were entirely unknown. The balls then used were made of rubber and were so lively that when dropped to the ground from a height of six or seven feet they would rebound ten or twelve inches. A blow with the bat would not drive them so far as one of the balls now in use can be driven with the same force, but when they struck the ground they were generally much more difficult to stop on account of their bounding propensities. Fifty years ago there were no professional ball players and the demand for manufactured base balls of any description was very small. Many of the balls then in use—in fact nearly all of them—were home made. An old rubber overshoe would be cut into strips a half inch wide and the strips wound together in a ball shape. Over this a covering of woven yarn would be wound and a rude leather or cloth cover sewn over the yarn. Sometimes the strips of rubber were put in a vessel of hot water and boiled until they became gummy, when they would adhere together and form a solid mass of rubber. This, after being wound with yarn and covered with leather by the local shoemaker, was a fairly good ball and one that would stand considerable battling without bursting. In the lake regions and other sections of the country where sturgeon were plentiful, base balls were commonly made of the eyes of that fish. The eye of a large sturgeon contains a ball nearly as large as a walnut. It is composed of a fibrous substance and will rebound if thrown against a hard base. These eyeballs were wound with yarn and afterward covered with leather or cloth. They made a lively ball, but were more like the dead ball of the present than any ball in use at that time. These, of course, were all rude, homemade balls. There were no manufactured base balls of the present description until about twenty-five years ago. As clubs of professional ball players began to come into existence there sprung up a demand for a better base ball than could be obtained at that time. Several parties in different sections of the country began to experiment in base ball making, but the demand had not yet become sufficiently great to make their manufacture a paying business.

ONE OF THE EARLIEST MANUFACTURERS.

Among the first to begin making base balls in this country was a man named Rice, who commenced business in a small room in a frame building on Nassau street, New York. He continued in the business until about 1870, and became quite an expert base ball maker, although he was never able to make more than a living out of the business. About 1870 he sold out to G. W. Brock, a Brooklyn man who was then doing a small novelty business in the same locality. The new owner soon became convinced that the manufacturing of base balls was likely to become a large and lucrative business. He disposed of his novelty business and invested his entire capital—only about two hundred dollars—in base balls. From that time the demand for base balls began to increase and the success of the business was assured. It soon became necessary to have more room, and in order to obtain it the business was removed to a large building on Doy street, where it still remains.

There are now five or six base ball manufactories in the United States, and they do an aggregate business of about $250,000 per annum. There are three leading manufactories. The largest of these is located in New York City, the second in Massachusetts, and the third in Portland avenue, in this city. The New York establishment is the only one in the country that continues manufacturing throughout the year. The Brooklyn establishment, which is known as the Wilson & Carr Company, is now just commencing business for the spring trade, after having been closed for some months. Thirty-five hands are now employed in the Brooklyn factory—twenty girls and fifteen boys. The New York factory employs seventy-five hands the year round, and does a business of over $50,000 per annum.

Over twenty different grades and varieties of base balls are made, and the prices obtained by the manufacturers vary from twenty-eight cents per dozen up to ten dollars per dozen, according to the grade. Those sold at the latter price are the finest base balls made. Each one of these balls is carefully packed in a paper box by itself and sells at retail at one and a half dollars. The balls being made for next season’s use are generally being wound on a small base of rubber, which gives them more elasticity and life than is possessed by the dead balls which have been in use for some time past. The dead balls are said to be going out of favor, because of their liability to burst when struck a hard blow with the bat.

The first steps to be taken in making base balls is to cut the covers and wind the yarn. The covers are made of sheepskin and are cut into the proper shape, by means of a large steel punch. The sheepskins are spread out on large wooden blocks. The operator, with the steel punch in his left hand and a wooden block in his right, cuts the covers by placing the sharp edges of the punch on the sheepskin and striking the punch a smart blow with the mallet.

THE COVERS.

The covers, when cut, are almost exact imitations of the sole of a shoe. After being cut they are sent into the sewing room, where they are sewn together by girls, one and being left open so that the ball can be placed inside. The balls are wound by men. Each man has a reel in front of him on which a skein of yarn is placed. He also has a block of wood, which stands perpendicularly upon the floor. In the upper end of this block there is a polished indentation somewhat resembling a teacup, though not so deep. When the operator has wound off yarn enough to make a ball as large as a black walnut he stops winding, places the block in the cup like form on the block of wood and with a small club which he has close at hand, strikes it several hard blows. He then winds on more yarn and repeats the blows. In this way he proceeds until the ball is large enough to receive the cover. The blows are given for the purpose of hardening the ball. After the covers are put on the balls are rolled, under considerable pressure, in a polished grove. After being rolled they are perfect and present a very smooth and pretty appearance, all the roughness of the seams being completely removed by this operation. They are now thrown into barrels and removed to the packing room, where they are packed into boxes for the trade.

Base ball makers are paid for what they buy and pay the place. The sewing is all done by girls, and they make as much money as the men. All average from ten dollars to fifteen dollars per week the year round.

S. L.
OLDEST BASEBALLS
BEAR DATE OF 1858

Son of Knickerbockers' Captain
Has Relics of Games Played
at Fashion Course.

SPHERES WELL PRESERVED

New York Team Kept the Balls as
Mementoes of Victory Over Cham-

pion Team of Brooklyn.

Doubts about the claims made for the
"oldest" baseballs treasured as relics
have no existence concerning two balls of
authenticated history, brought to light by
Charles De Bost of 259 West Ninety-third
Street, in response to statements recently
published about other relics of long-ago
baseball. Mr. De Bost is the son of
Charles Schuyler De Bost, Captain and
catcher for the Knickerbocker Baseball
Club, in the infancy of the game, and the
quaint old leather-covered globes he pos-
sesses came to him directly from his
father, with full record of the part they
had in the series of games played between
the champion nines of New York and
Brooklyn in 1858.

The balls resemble the modern base-
ball only in the general spherical outline,
and now are dead and mummies though
well preserved in the glued leather covers.
The balls, according to the exact knowl-
edge of the owner, verified by witnesses
when witnesses to the games of half a
century ago were available, have never
left Mr. De Bost's possession—since they
came to him. Both have inscriptions
stating the date and scores made in the
games for which they were used. The
older ball is inscribed as follows:

New York-Brooklyn
B. 18
Fashion Course, L. L.
July 20, 1858.

The record of what was New York's
score in that game has been obliterated,
but the second ball, which is better pres-
served, leaves no doubt of the result of
the championship series, the inscrip-
tion on this being as follows:

Brooklyn vs. New York,
Sept. 10, 1858.
Fashion Course, L. L.
Rubber Game.
Brooklyn, 18; New York, 29.

As described to the owner of the relics
by the catcher in both contests and the
Captain of the winning team, the cham-

pionship was played for on the old Fash-

ion race course, near Flushing, L. I., fa-
mous then as a race track and still living
in the memory of old turfmen as the
scene of some of the great sectional races
of ante-bellum days.

Both balls have odd one-piece covers,
the leather having been cut in four semi-

ovals still in one piece, the ovals, shaped
like the petals of a flower, folding over
the body of the ball and being sewed in
four seams to complete the cover in the
style that was followed before the mod-
ern two-piece cover, sewed in one con-

tinuous seam, was invented.
MEMOIRS OF THE FATHER OF BASE BALL

He Resides in New Haven, and Retains an Interest in the Game.

New Haven, Conn. February 4th - Special Column -
E. C. Edelson.

Dr. D. L. Adams, who resided in New Haven, and was, according to reliable authority, the father of Doc Adams, who made a most signal success as a baseball player, was born in New Haven on April 29, 1846, and died April 29, 1896. Dr. Adams was the father of Doc Adams, the baseball player, and the story of his life is one of interest to all who follow the sport.

The rest of the Doc Adams article on next page
HE WAS CHAIRMAN.

"I was chairman of the Committee on Rules and Regulations from the start and so long as I held that membership I presented the first draft of rules, prepared after much careful study of the matter, and it was the main adopted. The distance between bases was 90 yards—the only previous determination of distance being the bases shall be from home to second bases 2 1/4 paces from first to third base 4 1/4 paces equal distances—which was generally agreed upon. In every meeting of the National Association while I was a member, I advocated the 'by-games' that is, not to allow first base to be caught except that it was always defeated on the vote. The change was made, however, soon after I left, as I predicated in my last speech on the subject, before the convention.

"The distance from home to pitcher's base is made 60 feet. Many of the old rules, such as those defining a foul, remain substantially the same today, while others are changed and, of course, more new ones added. It is said that the base rules have been changed 50,000, but not once, but rather thousand were present to witness matches and there is no number of outside players standing ready to take a hand on regular playing days, but we pioneers never expected to see the game so universal, as it has now become.

"I have no idea of the number of clubs at present, nor the number of players present, nor the number of persons employed in making base ball material, but it is an important industry. Newspapers are now obliged to report games and could not afford to neglect it."

"William P. Caldwell, still living, I think, was a newspaper man who took great interest in the game at that time. The paper he ran was the New-York Sunday Mercury, and he used to all he could to keep the game alive in the city. He was one of the first to report the matches and was generally a member of the baseball committee, though he did not belong to our club.

"The Knickerbocker Club had an existence of about 30 years, and my connection with it lasted about half that time. All old book of rules issued by the club in 1845 gives the members and members at that time as follows:


LOCUSTHUR, N.Y., May 14, 1851.

"Many other were members at one time or another. The one then named in the list I remember two brothers namedvertising, whose were broken and afterward became very wealthy. There was also a man named Morgan, who was very successful in business. Henry T. Anthony is the principal supply dealer who is well-known all over the country through his large New York establishment. Daniel F. Curry was an insurance man, and James Crozicke, a judge in the Superior Court.

"The best player then developed was not a member of the Knickerbocker Club, but of the Excelsior Club of Brother, His name was Crozicke, and he was considered a star in his day."

"James H. Davis, a broker, and secretary of our club, is still living. He ought to go down to history as the first base ball player, as his ball for a long time was the most notable of his class. In those days he was an expert. We had a flag on which were the words 'Knickerbocker Base Ball Club,' and I understand that he has given orders that when the club is in to be wrapped in that flag. But most of the old players of the Knickerbocker Club are already 'down the road.'"

"OLD TIMES."
THE RULES AND TOOLS OF THE NATIONAL GAME
THEIR HISTORY AND DEVELOPMENT
BY JOHN H. GRUBER
The Ball and the Bat

The Ball

In the second of a series of articles by John H. Gruber, one of the game's most reputable historians, on the development of baseball, it deals with the ball and the bat, those essentials of the game. While Mr. Gruber in his previous articles pointed out that runs were the main things in playing the game, yet he must admit that runs could not be scored without bat and ball to make them. The materials of the ball and bat in the early history of baseball indicated that nothing else could have primitive the game was in the beginning. Today the baseball and the bat are works of art and their manufacturing fills the shops of the world. However, the history of these most essential tools of baseball are few.

The ball is the center and circumference of the game. Around it is built the national pastime, and without it there would be no use for bat, glove or diamond. All there are at hand, and can be reached by merely whittling the limb of a tree, placing stones or driving pegs for bases and selecting an open field. But it requires intelligence and skill to produce a ball. It is the artistic component part of the game, the others being furnished raw by nature. The ball is the symbol of the grand old sport, and the best all fans agree. It is the measure of action of the ball and the bat.

When the game first began to be played there were no restrictions as to the size and weight of the ball. But the general acceptance was that it should be made of India rubber and yarn, covered with leather, and that its proper weight should be 5-1/4 ounces and its measurement 10 inches in circumference. This was rather a heavy and cumbersome contrivance, but nothing was done in the matter until 1855 when a definite rule was adopted.

The rule reads as follows: "The ball must weigh no less than five, nor more than five and one-quarter ounces. It must measure not less than nine and one-quarter nor more than nine and one-half inches in circumference. It must be composed of India rubber and yarn, and covered with leather, and in all match games, shall be furnished by the challenging club, and become the property of the winning club as a trophy of victory."

This rule, in all its essentials, has come to us almost unaltered. For 18 years the regulation ball has weighed no less than five ounces and no more than five and one-quarter. In 1871, the first year of the Professional Association, the size of the ball was cut one-quarter inch, that is, from nine and one-quarter to nine inches in circumference. And in 1872 it was enacted that the ball should not less than nine and one-quarter inches, and these figures still stand, and have stood without change for 46 years.

Home Club Furnishes Balls

In those days, 1858, there was no organized league, and, therefore, the rule required that the challenging club furnish the balls. In 1876, the initial year of the National League, the home club was required to furnish the balls, and it has done so every year to this day.

The section awarding the ball to the winning club is also still in force. In a modified degree. In those days there was never more than one ball in sight. If a ball was lost, another was substituted and it became the only one in sight. This ball was appropriated by the winners. In later years, the rule provided for more balls, and after the game the winning club demanded and got every ball that had been in play. This led to much wrangling, as the players of the losing team were unwilling to give up balls that could be used in practice. So, in 1871, the joint rule committee enacted that the winning team was entitled only to the last ball in play, and this is still the rule. India rubber and yarn were the very first the other substances of which the ball was made. Before 1871 there was no limit to the quantity of rubber and yarn, provided the ball came within the weight demanded by the rule. But in the first year of the Professional Association, 1871, the quantity of rubber was limited to one ounce, "no more, no less," the rule makers declaring that this made the ball lively enough for the purposes of competitive batting. But it became the manufacturers must strips of rubber, which made the ball rather too lively and so it the next year, 1872, it was decreed that "the rubber used shall be vulcanized and in mold form."

In 1885, the American Association eliminated the yarn and rubber qualifications and ordained that the ball must be manufactured from the patent plastic com-
The Composition Indefinite.

But in 1851, when the Joint Rules Committee came into use, the words "yarn" and "rubber" disappeared from the rules forever. It was simply stated that the Spalding League ball or the Reach-American Association (later the American League) ball must be used in all games played under these rules. Therefore, during the past 25 seasons, from 1857 to date, the manufacturers apparently used any kind of material just so long as remained within the limits of weight and measurement.

Recently one of the manufacturers, sprang a surprise by announcing a "Cork" center for every ball.

Leather coverings were used from the very start. Before 1896, any kind of leather was allowed, sheepskin being most preferred, because it was the universal belief that it lasted longer. But in 1899 the rule was changed to read: "The ball must be composed of woven yarn and rubber, with yarn covering both inside and outside." From that year dates the familiar expression of hitting the horse-hide. However, the "horse-hide covers, inside and outside," were in use a couple of seasons only, 1899 and 1900. In 1899, the simple words "covered with leather" were reinserted. In 1897 "leather," like "yarn and rubber," was scratched off the books altogether.

Until 1866, the word "ball" was never used in the plural number. One ball was expected to be sufficient. In that year, for the first time, a second ball was provided for. The rule read: "Should the ball be lost during the game, the umpire shall, at the expiration of five minutes, call for a new ball." In 1875, the rule reading: "The player looking after the ball in the ground shall be called 'Lost,'" so that the umpire can count the time and wait five minutes. The five-minute rule held good until 1876, when it was abolished.

In 1876 it was the custom for the home club to furnish six balls during a series of games, but no rule made it obligatory. In 1882 the American Association ordered that the home club must furnish the umpire with two balls for use, and "when one is lost over the fence or stands or is safe beyond sight of the players, the other shall immediately be put in play." This rule was adopted by the Joint Committee in 1887, with the addition that "as often as one of the two in use shall be lost a new one must be substituted, so that the umpire at all times, after the same begins, have two in use." In 1899, the rule compelled the home club to have at least 12 balls on the ground at each game, and that in the rule today.

Dark in Color at First.

In the olden days, when the ball was cut or ripped, needle and thread were brought into requisition there and then, and the ball mended. If the ball became out of shape, it was squeezed into some semblance of its natural form. In 1876 the National League rule that when a ball became unfit for use, another must be called for by the umpire at the end of "even innings," at the request of either captain. This rule was in force eight years, to 1884. Then it was changed to "a new ball shall at once be called for," and that order still stands.

The cover of the ball at the beginning of the history of the game was invariably dark in color. By and by it became lighter and lighter, until finally it grew pure white. It reached the hands of the pitcher in all its original purity, but when it shot toward the batter it was covered with sin and shame. It was soiled by rubbing in the dirt, or by heaving the pitcher carried in his mouth, or by being tossed from one to the other of the players, each taking the base that it touched the ground before reaching the other. At last, in 1890, the rule made it legal that, "at no time
shall the ball be intentionally destroyed by rubbing it with the roll or otherwise." And that's the rule today.

No much for the ball. But to play the game the ball must be put in action, which is naturally accomplished by batting it. The batting is the most interesting part of the game.

The "Power Play"

The "power play" is a much talked about feature of the game. It is essentially a game of skill and strategy. The batter must decide where to hit the ball, and the catcher and other players must react accordingly. The "power play" is a crucial part of the game and requires skill and experience.

The "Base Hit"

The "base hit" is a situation where the batter reaches first base safely. This is a common occurrence in baseball games and is a key factor in scoring runs for the team. The batter must hit the ball in such a way that it is difficult for the opposing team to catch or throw. The "base hit" is a valuable skill in baseball and requires a combination of strength, speed, and strategy.

The "Strikeout"

The "strikeout" is a situation where the batter is declared out after three strikes. This is a common occurrence in baseball games and is a key factor in preventing the opposing team from scoring runs. The batter must learn to hit the ball in such a way that it is difficult for the opposing team to throw it. The "strikeout" is a valuable skill in baseball and requires a combination of strength, speed, and strategy.

The "Walk"

The "walk" is a situation where the batter is awarded first base after the opposing team is unable to throw the ball to first base. This is a common occurrence in baseball games and is a key factor in scoring runs for the team. The batter must learn to hit the ball in such a way that it is difficult for the opposing team to throw it. The "walk" is a valuable skill in baseball and requires a combination of strength, speed, and strategy.

The "Hit by Pitch"

The "hit by pitch" is a situation where the batter is hit by the ball thrown by the opposing team. This is a common occurrence in baseball games and can be a valuable skill in scoring runs for the team. The batter must learn to hit the ball in such a way that it is difficult for the opposing team to throw it. The "hit by pitch" is a valuable skill in baseball and requires a combination of strength, speed, and strategy.
Some screen shots from “But Didn’t We Have Fun “, by Peter Morris Following 6 pages.

This screen shot talks about using “any” ball in the early day, prior to the New York rules game.

This screen shot talks a bit about ball colors.
This screenshot mentions balls of various sizes, materials...
This screenshot brings up the orange peel, plus a bit on materials used.

Ref to citation on “orange”, Chicago Herald – May 1, 1890, but cannot find it in that paper.
This is another instance of using an “orange” as an example of the cover

This is from Porters Spirit of the Times, Dec 27, 1856 referring to the Mass game ball.
Clarence Deming, for example, recalled “the orthodox ‘white’ ball being used only for match games,” with necessity often requiring the same ball to be brought forth for two or three matches. When a club in Rochester, New York, “ordered the first white horshide ball, just one” from Brooklyn, it was treated with awe: “What a host of the boys came to see it and to have a kindly handling.”

As soon as it became possible for a baseball to be spared, matches culminated with the losers presenting the game ball or a brand-new one to the winners. The obvious ritual undertones of this action were enhanced by the ceremony that accompanied it; as described in an account of an 1862 game, “the ball was delivered in a very manly speech [and] the customary things were said on both sides.”

Yet while the ritual elements surrounding the early baseball are undeniable, it is a mistake to emphasize them at the expense of more practical ones. Although the symbolic significance of the baseball is often implicit in early accounts, it is the difficulty of replacing it that is always explicit. As had been the case with the Knickerbockers, early clubs were deeply conscious that their very existence was imperiled by the tremendous difficulty of creating or purchasing a usable ball.

When the ball had to be created from scratch, as was the case in most parts of the country during the early days of baseball, its manufacture involved a series of tricky processes. First, rubber, yarn, and leather had to be obtained, and someone had to be found who could transform the leather into an effective cover. The scarcity of critical components and budgetary constraints made scrounging for secondhand materials common, with the result that the finished baseball was often noticeably imperfect. But these earliest baseballs were treasured all the more for the struggles that went into assembling them.

At one of the first match games ever played in San Francisco, for instance, a field had been found and the two sides arranged before someone pointed out that no suitable ball was
Massachusetts base balls
Info from Brian Sheehy.

Picture 1. Scan of receipt of base ball made by S Horton. Club paid $2,75 for 2 it appears. From 1868 book records

This ad could confirm the ball maker was Sparrow Horton? since he seems to be a jack of all trades.
This is an ad for a sporting goods store in Boston. J Wentworth. Did he make them.. manufacture them? get them from someone else?

Neither Wentworth nor Horton turned up in any of the books I have gone through to this point. Need more info to track down Mass rules base balls...
Pictures of 19th century base balls, from Tracy Martin Base Ball Museum. This is one that Tracy labels as 1850s or 1860s, Lemon Peel. Based on the size and weight, I might lean toward 1850s.
This set, from Tracy’s Museum, is labeled, gusset or belt base balls. 1850s, there are 2 different base balls in this set.
This first set at only 7.5” circumference seems small, and 2.9 ounces seems light, so probably town ball or Mass ball.
This ball, while it is stitched a bit differently, is also only 7.5” and pretty light on weight at only 2.5 ounces. Guessing this is town ball as well, or from some other bat and ball game of the time.
Here are a bunch more from his museum page, but they are not labeled by year or style. This first one looks to have the “figure 8” style, so most likely later 1860s into 19870s.

This next one is “lemon peel” or “star shape pattern” but odd stitching pattern
This one I believe if called a “belt ball”, but could have another name. Likely using up scraps of leather as the main “belt” is a bit short, and they added in another small piece to finish the belt.
This shows a note from Harwood and Sons, Manufacturer of Base Balls.
This is another “lemon peel” but again, a unique style of stitching.

And another “lemon peel” that makes use of two different leathers, based on color. I cannot tell, but it could very well be 4 pieces, or 2 pieces, but leaning toward 4 based on the design. Note that only one side of the ball has the stitching showing, indicating the ball was sewn inside out on the other three, then ball put in and the last leg stitched up in “lemon peel” fashion.
Just an old beat up “lemon peel”, stitching with just a string, and appears to be some repair stitching done.

Another belt style ball, this one with the belt more intact.
Not sure what is going on here. I can guess the inside out stitching, but all four sides are sealed, so maybe the put something over the seams??

A “lemon peel” where the points didn’t quite line up, or was reworked later and just fixed enough to make it playable.
A couple “figure 8” style base balls on the top, not sure on year
A nice “lemon peel” lower left, and another “figure 8” lower right.