

United States Patent Office.

HENRY A. ALDEN, OF MATTEAWAN, NEW YORK, ASSIGNOR TO NEW YORK RUBBER COMPANY.

Letters Patent No. 72,355, dated December 17, 1867.

IMPROVEMENT IN THE MANUFACTURE OF BASE-BALLS.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, HENRY A. ALDEN, of Matteawan, in the county of Dutchess, and State of New York, have invented a certain new and improved Compound for Base-Balls, &c.; and I hereby declare the following to be a full, clear, and exact description of the same.

The body of an ordinary base-ball is formed of yarn wound tightly upon a rubber cone, and covered by the usual leather casing. The disadvantages attending the use of balls made in this manner are numerous, and very great. The yarn under all circumstances becomes either displaced, or broken, or soft after the ball has been in use for a little time, and should the ball become wet, not only the exterior leather casing, but the yarn, becomes so affected by the moisture as to practically unfit it for further use.

The object of my invention is to produce a base-ball which shall be subject to none of these disadvantages, and to this end it consists in forming the body of the ball of a rubber compound, as hereinafter described, which shall have the proper hardness and elasticity to fit it for the purposes for which it is intended.

The proportions of this compound may be varied, so as to give more or less elasticity, hardness, and weight to the ball. The principal ingredients are rubber, and lead, and cork, or suitable equivalents for the last two, with a sufficient amount of sulphur to vulcanize the compound. I find that the best results may be obtained by using the following proportions:

Take a quantity of rubber, equal to one half the weight it is desired to give the ball. The remaining half of the weight of the ball is formed by adding to the rubber the following ingredients: sulphur, half an ounce, per pound of rubber; carbonate of lead, a quarter of a pound, per pound of rubber; the balance of ground cork.

This compound is first mixed thoroughly, and is then put in a mould of the proper form, and heated to the vulcanizing point. As soon as it is vulcanized it can be used at once as a base-ball, without the leather cover which is usually employed, or, if desired, the cover may be put on.

The composition of the ball, it will be perceived, is such that it is impervious to and unaffected by wet or moisture, while the homogeneous mass of which it is composed will retain at all times the same degree of hardness and elasticity possessed by it when first taken from the vulcanizing-mould. It thus has none of the defects of ordinary balls, can be used quite as cheaply, and in all respects is better adapted to resist the rough usage to which such balls are constantly subjected. A ball made in the manner herein described is adapted not only for a base-ball, but for a cricket-ball, and for other similar uses.

Having described my invention, and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. A compound, formed of rubber mixed with the ingredients herein named, or their equivalents, in the proportions substantially as specified, which, when vulcanized, will have the hardness and elasticity required for base-balls or other like articles, substantially as set forth.

2. A base-ball or other like article, made of the compound herein specified, the said compound being moulded to the form required, and vulcanized, substantially as set forth.

In testimony whereof, I have signed my name to this specification, before two subscribing witnesses.

H. A. ALDEN.

Witnesses:

W. N. RICHARDS,

THOMAS ALDRIDGE, Jr.