

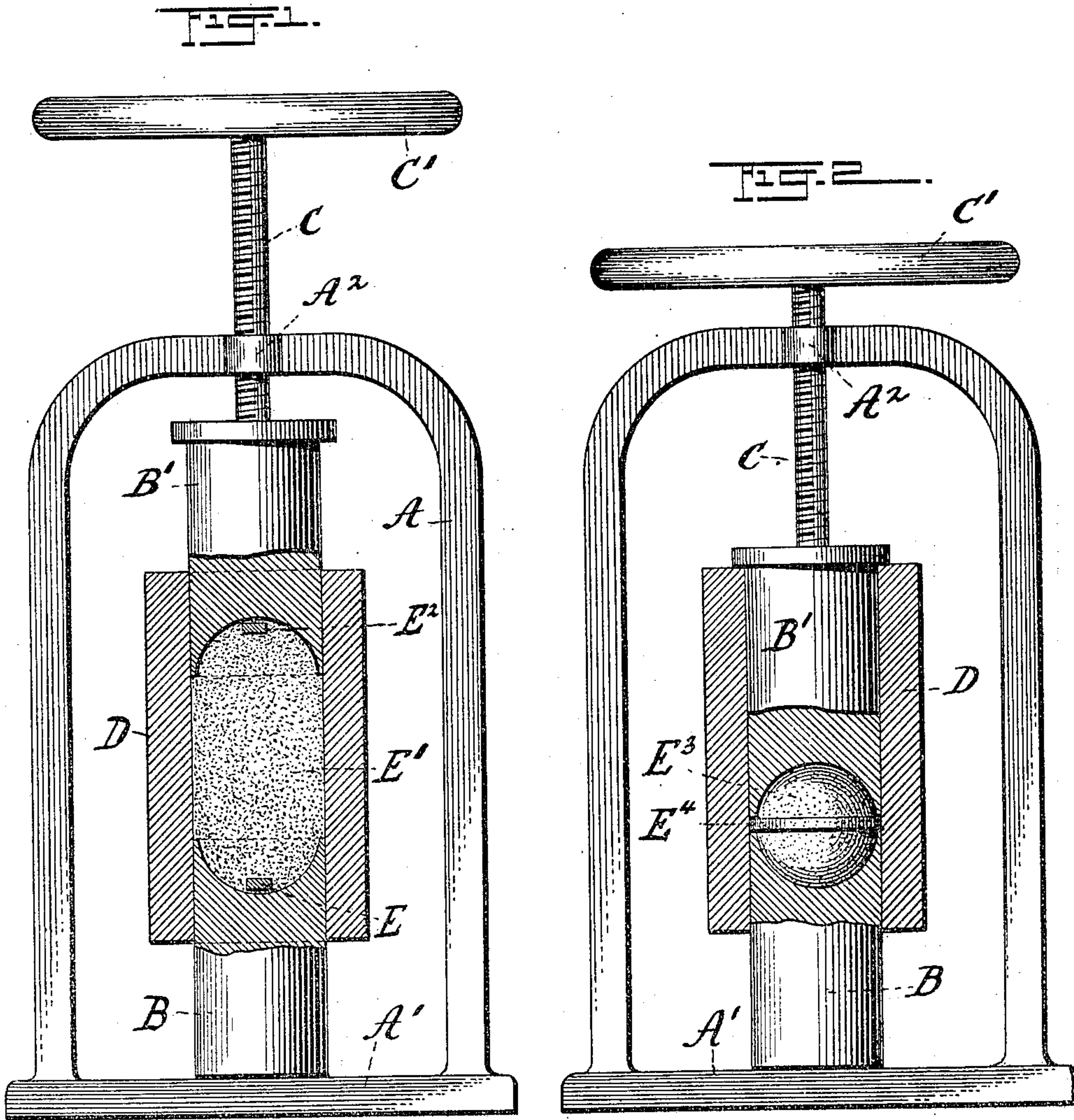
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PATENTED DEC. 19, 1905.

A. L. BURT.

PROCESS OF MAKING GAME BALLS.

APPLICATION FILED DEC. 5, 1901. RENEWED MAR. 16, 1903.



Witnesses
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UNITED STATES PATENT OFFICE.

ALONZO L. BURT, OF MILBURN, NEW JERSEY.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALONZO L. BURT, a citizen of the United States, and a resident of Milburn, Essex county, New Jersey, have
5 invented certain new and useful Improvements in Processes of Making Game-Balls, of which the following is a specification.

My invention relates to a process of making balls such as are used in the game of pool.

10 The object of my present invention is to simplify and shorten the process used hitherto, while obtaining results which are as perfect as, if not superior to, those obtained heretofore.

15 I will now proceed to describe my improved process and will then point out its novel features in the claim.

For the sake of better illustrating I have hereunto appended a sheet of drawings representing an apparatus or press such as may be
20 used in carrying out my improved process.

In said drawings, Figure 1 shows the press as it would appear at the beginning of the operation, and Fig. 2 shows the parts at the end
25 of the operation.

The press shown consists of a frame A, having a cross-bar A', on which the lower die B is adapted to rest, and a screw-threaded bearing A² for a spindle C, which is adapted to
30 press on the upper die B'. The two dies are of the same formation so far as their operating-surfaces are concerned—that is, they are dished, as shown, so that only a very narrow plane edge portion remains adjacent to the
35 dished portion of either die. The spindle C is provided with a head or hand wheel C' for turning it. The dies B B' are adapted to fit into a tubular mold D, which is open at both ends.

40 The material from which I make the game-balls is any suitable plastic material in pulverulent or granular form which possesses the property of becoming more firmly united by heating under pressure. My invention is
45 applicable to those game-balls which are provided with so-called "spots." These spots consist of small disks or cylindrical pieces of material which are first formed by pressure in a cold condition, any suitable press being
50 employed for this purpose. The spots having thus been formed, one of them, E, is placed centrally upon the dished recess of the lower die B. This die is then introduced into the mold D, and a suitable amount of

loose plastic material E' is filled into the 55 mold, so as to surround the spot E. Then the other spot E² is placed on top of the loose material E', and this material is pressed by screwing down the die B'. The pressure exerted by the die will contribute to bring both 60 spots E and E² into an absolutely central position. The result of the compression is, as shown in Fig. 2, a substantially spherical body E³, with a ring E⁴ projecting at the center, this ring being formed by the plane 65 surfaces at the inner ends of the dies. Inasmuch as the spots E E² are cylindrical, having, therefore, plane end surfaces, while the mold-surfaces of the dies B B' are curved spherically, it will be obvious that some of 70 the loose material E' may cover the outer surfaces of the spots, so that said spots will not be visible after the compression has been completed. This compression of course also takes place without the application of heat. 75 The ball so formed is then removed from the mold and compressed under the application of heat, this being the usual procedure, which I need not further describe. Finally the ball is finished in the usual manner to expose the 80 spots. It will thus be seen that the separate parts of the ball are first shaped by cold compression of the loose material of which the parts are composed, and then these parts are integrated by the application of heat and 85 pressure. By first compressing the loose material in a cold state and compressing the material forming the main part of the ball around the spots I am enabled to complete the ball with only one heating, which con- 90 tributes materially to the reduction of the cost of the operation.

I claim as my invention—

The herein-described process of making game-balls having spots, which consists in 95 separately forming the spots from loose plastic material by compression in the cold state, embedding said spots in a body of loose plastic material, compressing said loose material with the spots embedded therein into sub- 100 stantially spherical form in the cold state, and finally integrating the ball so formed by the application of pressure and heat.

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Witnesses:

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