

No. 878,254.

PATENTED FEB. 4, 1908.

W. TAYLOR.
GOLF BALL.

APPLICATION FILED SEPT. 11, 1906.

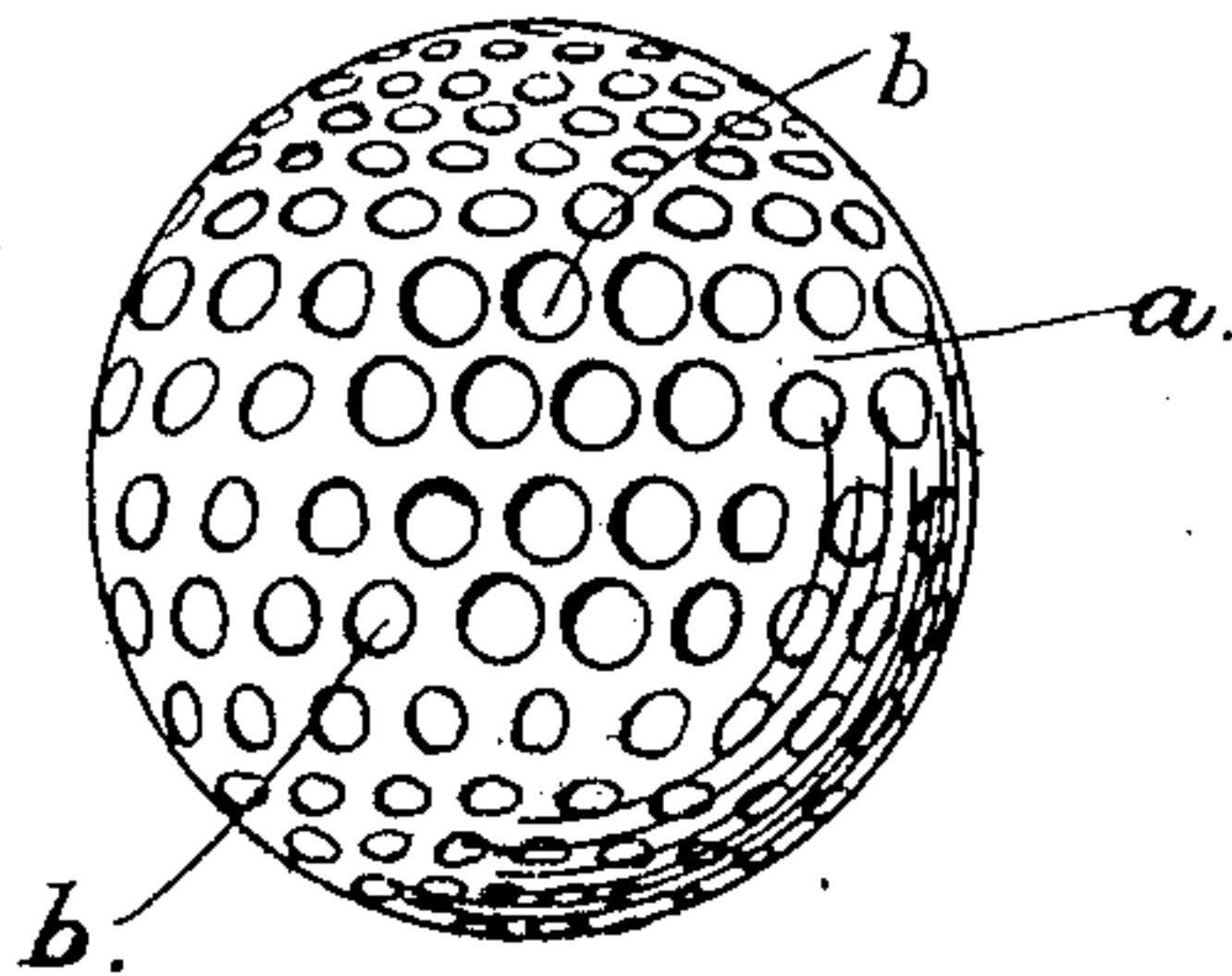


Fig. 1.

Fig. 2.

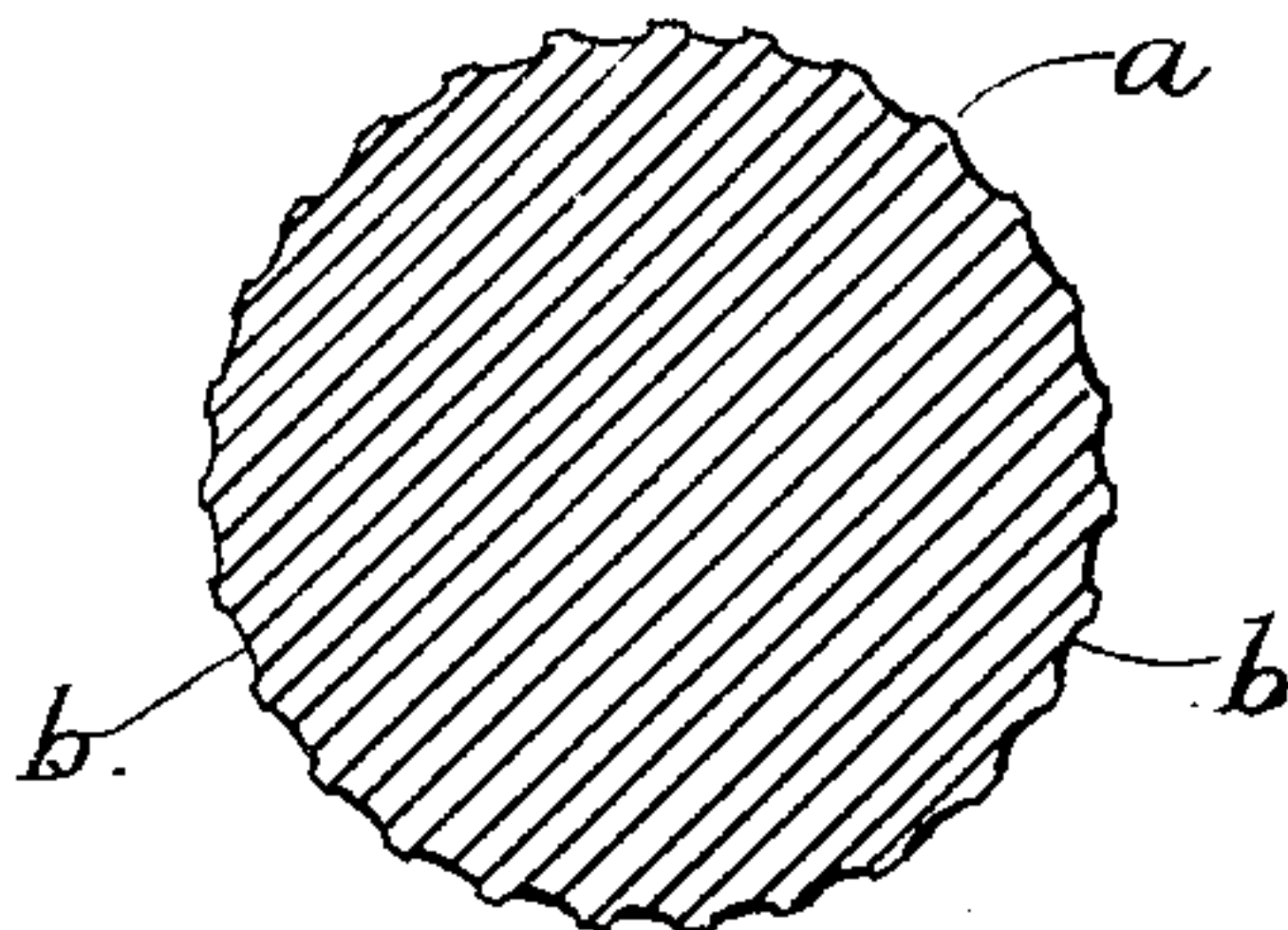


Fig. 3.



Fig. 4.

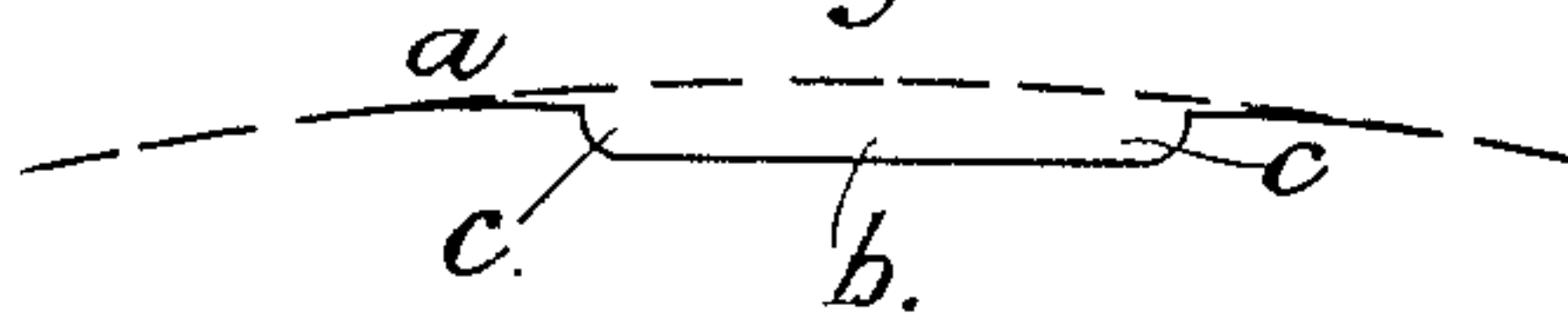
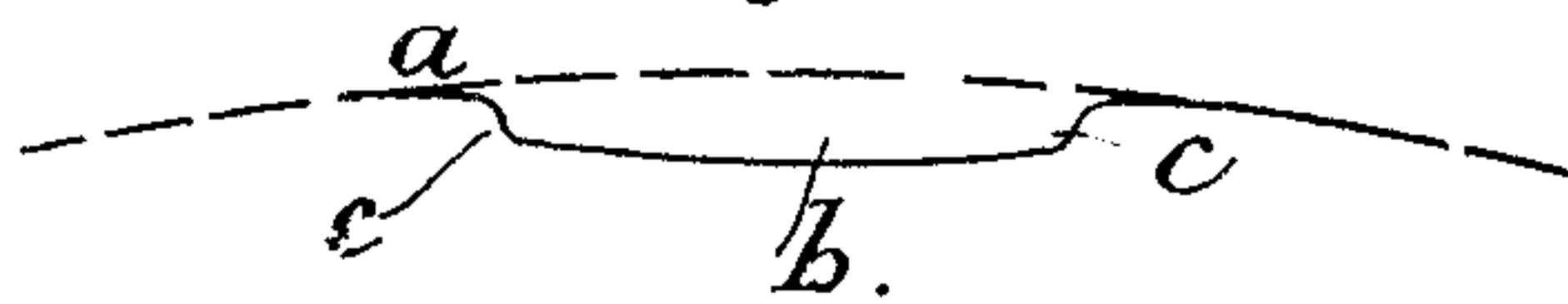


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM TAYLOR, OF LEICESTER, ENGLAND.

GOLF-BALL.

No. 878,254.

Specification of Letters Patent.

Patented Feb. 4, 1908.

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To all whom it may concern:

Be it known that I, WILLIAM TAYLOR, a subject of the King of Great Britain, residing at 57 Sparkenhoe street, Leicester, in the 5 county of Leicester, England, engineer, have invented certain new and useful Improvements in Golf-Balls, of which the following is a specification.

This invention relates to balls such as are 10 used in the game of golf and has for its principal object to obtain better results in the flight of the ball in the direction of a sustained hanging flight giving a flat trajectory with a slight rising tendency particularly 15 towards the end of the flight, than have been possible with balls of known types. Formerly the most common marking for such balls consisted of numerous grooves of even width intersecting each other and leaving 20 between them isolated polygonal portions of the spherical surface of the ball, and it has been proposed to invert this marking so that the spherical surface of the ball consists of numerous ridges intersecting each other 25 and inclosing isolated polygonal cavities. Another common marking consists in forming the surface with numerous separate prominences resembling those upon the surface of a blackberry and named on this 30 account the bramble pattern. The character of the marking which constitutes the present invention may be described in general terms as an inverted bramble pattern, and consists of isolated cavities the essential 35 features of which are, that they must be substantially circular in plan and substantially evenly distributed, they must be shallow, and their sides, particularly at the lip of the cavity, must be steep. Steepness of 40 the cavity walls is essential to the hanging flight, but excessive depth besides promoting the collection of dirt, is detrimental to length of flight by offering great resistance to the passage of the air. Consequently the cavity 45 must be shallow and the steepness of its walls confined to the immediate neighborhood of the lip. These features are described and illustrated in the accompanying drawings, in which

50 Figure 1 is an elevation and Fig. 2 a central section of a solid ball the surface of which is marked in the improved manner, it being understood that the invention is equally applicable to the cored type of ball.

Figs. 3, 4 and 5 are enlarged detail views 55 illustrating various forms of cavities.

The section of the cell which is exemplified in the enlarged detail views Figs. 3, 4 and 5, may be of the form of a shallow inverted truncated cone (Fig. 3) with flat bottom, 60 the angle inclosed by the walls being less than a right angle, but preferably the bottom is made somewhat concave (Fig. 5) the reëntrant angle is rounded as shown at c (Figs. 4 and 5) and the angle between the 65 walls at the lip of the cell made more acute so that the section of the cavity becomes practically semi-elliptical (Fig. 5).

Preferably the cavities should occupy not less than a quarter nor more than three quar- 70 ters of the entire surface of the ball, and the diameter of the cavities should be not less than nine-hundredths nor more than fifteen-hundredths of an inch, nor should they be of greater depth than fourteen thousandths of 75 an inch, and in any case their depth should not exceed one-eighth of their diameter.

The whole of the surface of the ball between the cavities may be left spherical, or the surface immediately surrounding the 80 cavities may be sloped inwardly to the lip which may either be left sharp as in Fig. 4 or may be rounded off, as in Fig. 5, and by this means frictional resistance to passage through the air is lessened without sacrificing any- 85 thing of the hanging effect of the flight.

When the improved marking is applied to cored balls, the shell has thereby given to it an added tensile strength and elasticity due to the reticular structure of its surface which 90 tends to prevent bursting and permanent set or slacking of the shell. Further, cavities of the character described with their reëntrant angles rounded off, do not readily collect dirt, and are easily cleaned. 95

Having thus described the nature of this invention and the best means I know of carrying the same into practical effect, I claim:—

1. A golf ball with spherical surface pitted with isolated cavities of large surface area 100 relatively to their depth, substantially circular in plan, with steep sides at the peripheries only of said cavities, and of a depth not exceeding one-eighth of their diameter.

2. A golf ball with spherical surface pitted 105 with isolated cavities of large surface area relatively to their depth, substantially circular in plan, with steep sides at the peripheries

only of said cavities, and dished or concave bottoms, and of a depth not exceeding one-eighth of their diameter.

3. A golf ball with spherical surface pitted with isolated cavities, the surface immediately surrounding the cavities sloping inwardly to the lips of said cavities.

4. A golf ball with spherical surface pitted with isolated cavities of large surface area relatively to their depth, substantially circular in plan, with steep sides at the peripheries only of said cavities, and of a diameter not less than nine-hundredths nor greater than fifteen-hundredths of an inch, and of a depth not exceeding fourteen thousandths of an inch.

5. A golf ball with spherical surface pitted with isolated cavities with large surface area relatively to their depth, substantially circular in plan with steep sides at the peripheries only of said cavities, and dished or concave bottoms, and of a diameter not less than nine-

hundredths nor greater than fifteen-hundredths of an inch, and of a depth not exceeding fourteen-thousandths of an inch.

6. A golf ball with spherical surface pitted with isolated cavities substantially circular in plan, the surface immediately surrounding the cavities sloping inwardly to the lips of said cavities.

7. A golf ball with spherical surface pitted with isolated cavities substantially circular in plan, the surface immediately surrounding the cavities sloping inwardly to the lips of the cavities, and said cavities having steep sides and concave bottoms, and being of a depth not exceeding one eighth of their diameter.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WM. TAYLOR.

Witnesses:

HENRY SHELTON,
H. P. HAGON.