

Aug. 19, 1924.

1,505,296

W. L. SMITH

GOLF CLUB

Filed June 20, 1922

2 Sheets-Sheet 1

Fig. 1

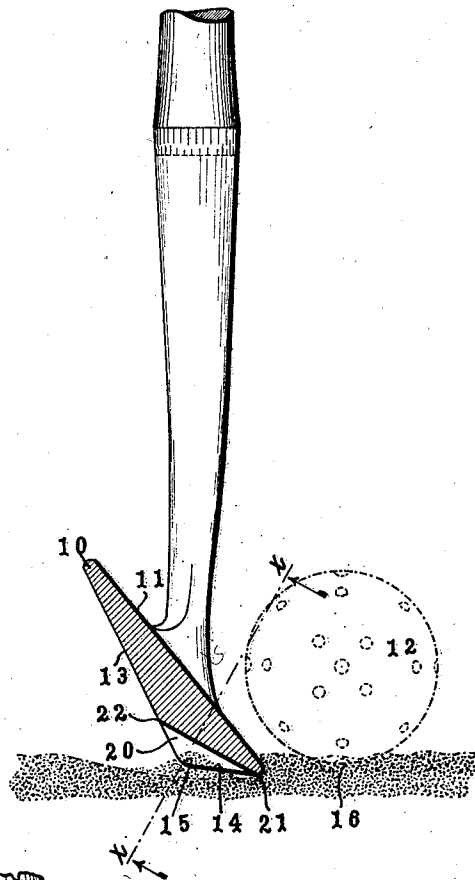
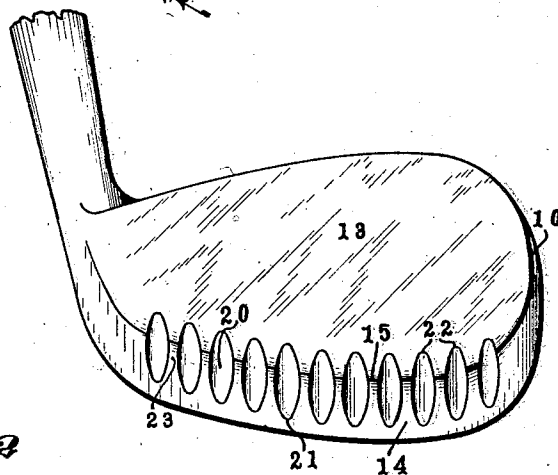


Fig. 2



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Fig. 3

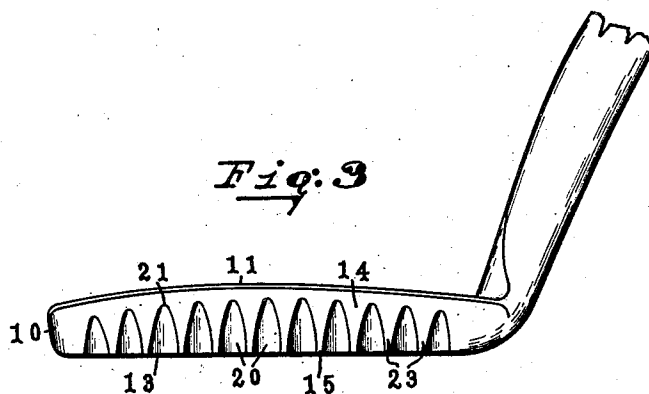


Fig. 5

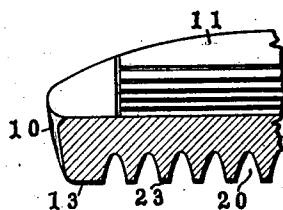
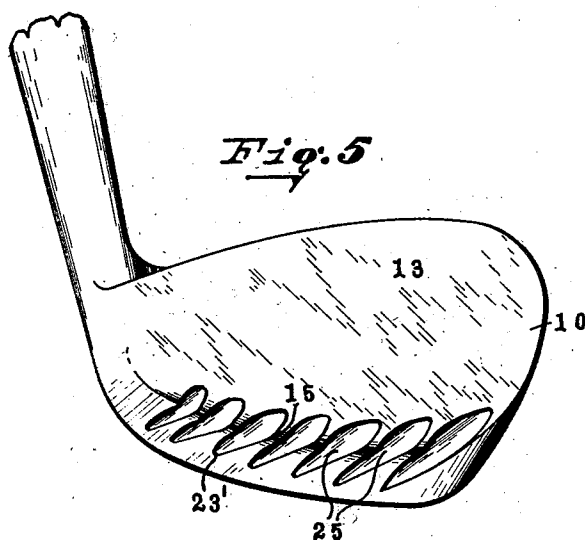


Fig. 4

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UNITED STATES PATENT OFFICE.

WALTER L. SMITH, OF NEW YORK, N. Y.

GOLF CLUB.

Application filed June 20, 1922. Serial No. 589,656.

To all whom it may concern:

Be it known that I, WALTER L. SMITH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Golf Clubs, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to golf clubs, and more particularly to golf clubs of the niblick type.

With the multiplication of sand pits and their greater depths in golf courses of modern construction, the niblick and like clubs have become of greater importance than heretofore in playing the game of golf. In playing a ball from a sand pit, where this type of club is ordinarily used, the lower edge of the face of the club must be forced into the sand and under the ball to raise it out of the pit. To give greater force to the stroke the sole of the niblick is generally made of greater depth than in the other iron clubs. In consequence of this greater depth, the shoulder made by the rear edge of the sole and the lower edge of the rear face of the club becomes more pronounced and operates to hinder the passage of the club through the sand, making it more difficult to carry through and also detracting from the force of the stroke.

One of the objects of this invention accordingly is to provide an improved golf club of the niblick type, which is more efficient in action than the prior clubs.

Another object is to provide a club of this character adapted to be forced through sand with less resistance than formerly.

Another object is to provide a niblick golf club adapted to impart greater force to the ball from the stroke without increasing the club's weight.

Still another object is to provide an improved construction for the rear shoulder of the sole of a niblick whereby it may pass through sand with substantially a minimum of resistance, the construction being such as not to disturb the balance of the club.

Other objects of this invention will in part be specifically pointed out in connection with the detailed description which follows, and in part will be obvious.

The invention accordingly consists in the

features of construction, the combination and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of their application will appear in the appended claims.

For a more complete understanding of the nature and advantages of this invention reference should be had to the following detailed description, which describes the best illustrative embodiment of this invention at present known to me, taken in connection with the accompanying drawing, in which:

Figure 1 is a view partly in section and partly in elevation showing the manner in which a niblick club constructed to embody this invention cuts through sand to strike the ball;

Fig. 2 is an elevation of the rear face of the club shown in Fig. 1;

Fig. 3 is another elevation of the golf club shown in Figs. 1 and 2 showing the features of the sole;

Fig. 4 is a section of the club shown in Fig. 1 taken on the line $x-x$; and

Fig. 5 is an elevation of the rear face of a golf club showing a modified construction embodying this invention.

Referring now to the drawing, 10 denotes generally the blade or metallic head of a niblick golf club, which blade has a front face 11, inclined as shown in Figure 1 and adapted to come into engagement with golf balls when lying in sand as illustrated at 12. This club has a rear face 13, and a sole 14. The inclination of the front face 11 is quite pronounced, and when in engagement with the ball 12, makes an angle with the vertical which is approximately 45 degrees. The rear face 13 has considerably less inclination; the sole 14 in consequence is relatively deep.

The shoulder formed at 15 by the sole 14 and the rear face 13 of the blade obstructs the passage of the blade through the sand, indicated at 16 in Figure 1, such passage being necessary for the bunker stroke; especially is this so when the ball lies in a little pocket in the sand as it generally does.

In accordance with the practice of this invention, the niblick is provided with furrows 20, cut through the shoulder 15, in a manner such that very little resistance will result when pressing the club through the sand. These furrows 20 accordingly are cut fore and aft across the shoulder and ar-

ranged to follow one another closely along the edge of the shoulder. The webs of metal 23 (see Figure 4) remaining in the shoulder 15 between the furrows will be relatively thin or narrow and are so shaped as to offer substantially the minimum resistance when cutting through the sand in making the stroke. The furrows 20 in consequence will be substantially inverted V's in shape, preferably slightly arched or rounded at the vertex or base of the furrow and arranged so that the wider parts of the furrows tend to flare out toward the surface of the blade, while the narrower parts extending inwardly toward the interior of the blade, as clearly illustrated in the section in Figure 4.

The forward points or ends 21 of the furrows 20 are preferably disposed about $\frac{1}{8}$ to $\frac{1}{4}$ of an inch rearwardly from the forward edge of the sole 14, thus providing a cutting edge sufficiently thick to avoid being easily burred or feathered when encountering hard objects in the sand, while at the same time the rearward points or ends 22 of the furrows 20 preferably extend about $\frac{1}{4}$ to $\frac{3}{8}$ of an inch upwardly on the rear face of the blade from the shoulder 15.

The cutting of these furrows 20 through this shoulder will reduce somewhat the weight at the base of the club but this will be compensated very largely by the lessened resistance to the passage of the blade and the drag of the shoulder 15 when being driven through sand. It may also, if desired, be further compensated by increasing the depth of the sole so as to increase the mass of the blade towards its base and thereby bring the centre of percussion back substantially to the centre of the front face 11.

To this same end the inclination of the sole 14 with reference to the front face 11 may be changed; for example, by tipping the plane of the sole 14 slightly below the horizontal when in striking position about an axis corresponding with the forward edge of the sole, the shoulder 15 in consequence cutting more deeply into the sand; also the contour of the front face may be altered and made somewhat convex or concave instead of plane. In general though the balance of the club, when provided with furrows, may be restored by employing suitable inclinations for both the surfaces of the rear face and the sole of the club.

In the modification illustrated in Fig. 5 the furrows indicated at 25 are not cut straight across the shoulder as are the furrows in Fig. 2 so as to be in planes crossing the shoulder edge 15 at right angles, but are cut diagonally, so as to be in planes which cross the edge of the shoulder 15 making acute angles on the one side and obtuse angles on the other. As a result the club provided with diagonal furrows is adapted for the diagonal or slicing strokes of certain players

who desire to impart a slow rotation to their ball and to cause the ball to rise more abruptly when lying in a bunker near the edge. The webs of metal 23' have a guiding effect upon the club in its swing as it cuts through the sand which assists in imparting the desired diagonal stroke to the ball.

It will be perceived that a club embodying this invention may be used with like advantages to play the ball from high grass or from rough places off the fair green other than sand bunkers.

As many changes could be made in the above construction, and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein described and all statements of the scope of the invention, which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I claim is new and desire to secure by Letters Patent is:

1. A golf club of the niblick type comprising a blade having an inclined front face, a rear face and a sole meeting the rear face, the shoulder formed by the rear face and sole having a plurality of substantially V-shaped furrows formed therein, said furrows extending into the sole and rear face providing channels for the passage of sand and forming a plurality of webs all sides of which converge toward the shoulder, thereby providing webs adapted to cut through the sand with substantially a minimum of resistance.

2. A golf club of the niblick type comprising a blade having an inclined front face, a rear face and a sole meeting the rear face, the shoulder formed by the rear face and sole having a plurality of substantially V-shaped furrows formed therein, said furrows extending into the sole and rear face providing channels for the passage of sand and forming a plurality of webs all sides of which converge toward the shoulder to present sand engaging faces gradually decreasing in width from their bases toward the shoulder.

3. A golf club of the niblick type comprising a blade having an inclined front face, a rear face and a sole meeting the rear face forming a shoulder, said shoulder having a plurality of substantially V-shaped furrows formed therein, said furrows extending into the sole and rear face providing channels for the passage of sand

and forming a plurality of webs disposed along the shoulder, said webs presenting in the rear face and sole sand-engaging faces sloping and gradually decreasing in width from their bases toward the center line of the shoulder thereby providing webs adapted to cut through the sand with substantially a minimum of resistance and to effect an efficient discharge of the sand passing through said channels.

4. A golf club of the niblick type comprising a blade having an inclined front face and rear face and a sole meeting the rear face forming a shoulder, said shoulder having a plurality of substantially V-shaped furrows formed therein, said furrows extending into the sole to substantially one-eighth to one-sixteenth of an inch rearwardly of the front edge and into the rear face to a point one-fourth to three-eighths of an inch above said shoulder providing channels for the passage of sand and forming a plurality of webs disposed along the shoulder said webs presenting in the rear face and sole sand-engaging faces sloping and gradually decreasing in width from their bases toward the shoulder thereby providing webs adapted to cut through the sand with substantially a minimum of resistance and to effect an efficient discharge of the sand passing through said channels.

5. A golf club of the niblick type comprising a blade having an inclined front face, a rear face and a sole meeting the rear face forming a shoulder, said shoulder having a plurality of furrows formed therein, said furrows extending into the sole and rear face providing a plurality of direction guiding webs, the sides of said webs converging toward the shoulder presenting sand-engaging faces gradually decreasing in width from their bases, thereby providing webs adapted to cut through the sand with substantially a minimum of resistance and to effect an efficient discharge of the sand passing through said furrows, said webs being disposed to change the direction of movement of the club when it contacts with the ground.

6. A niblick or like club adapted for use in the game of golf, comprising a blade having an inclined front face, a rear face, and a sole, the shoulder formed by said rear face and sole being provided with substantially V-shaped furrows, said furrows

being cut diagonally across the shoulder and having its forward point disposed substantially one-eighth to one-sixteenth of an inch to the rear of the front edge of the sole.

7. A niblick or like club adapted for use in the game of golf, comprising a blade having an inclined front face, a rear face, and a sole, the shoulder formed by said rear face and sole being provided with a substantially V-shaped furrow, said furrow being cut diagonally across the shoulder and having its rear point extending upwardly from the edge of said shoulder substantially one-quarter to three-eighths of an inch.

8. A niblick or like club adapted for use in the game of golf comprising a blade having an inclined front face, a rear face, and a sole, the shoulder formed by said rear face and sole being provided with substantially V-shaped furrows said furrows being cut diagonally across the shoulder and having the base of the furrow arched and rounded, the forward point of the furrow extending across the sole to substantially one-eighth to one-sixteenth of an inch rearwardly of the front edge of the sole and upwardly on the rear face to a point one-quarter to three-eighths of an inch above said shoulder.

9. A niblick or like club adapted for use in the game of golf comprising a metallic blade having an inclined front face, a rear face, and a sole, the shoulder formed by said rear face and sole being provided with a plurality of substantially V-shaped furrows cut diagonally thereacross, said furrows having the wider parts closely spaced along the shoulder and thereby providing relatively thin metallic webs therebetween adapted to cut through sand, said furrows extending across said sole to forward points disposed to the rear of the front edge thereof substantially one-eighth to one-sixteenth of an inch and reaching upwardly on the rear face to points substantially one-quarter to three-eighths of an inch above said shoulder.

In testimony whereof I affix my signature, in the presence of two witnesses.

WALTER L. SMITH.

Witnesses:

WM. W. FRASER,
M. A. CASHIN.