

[54] **SYMBOLICALLY REINFORCED GOLF CLUB HEAD**
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[21] Appl. No.: **327,988**

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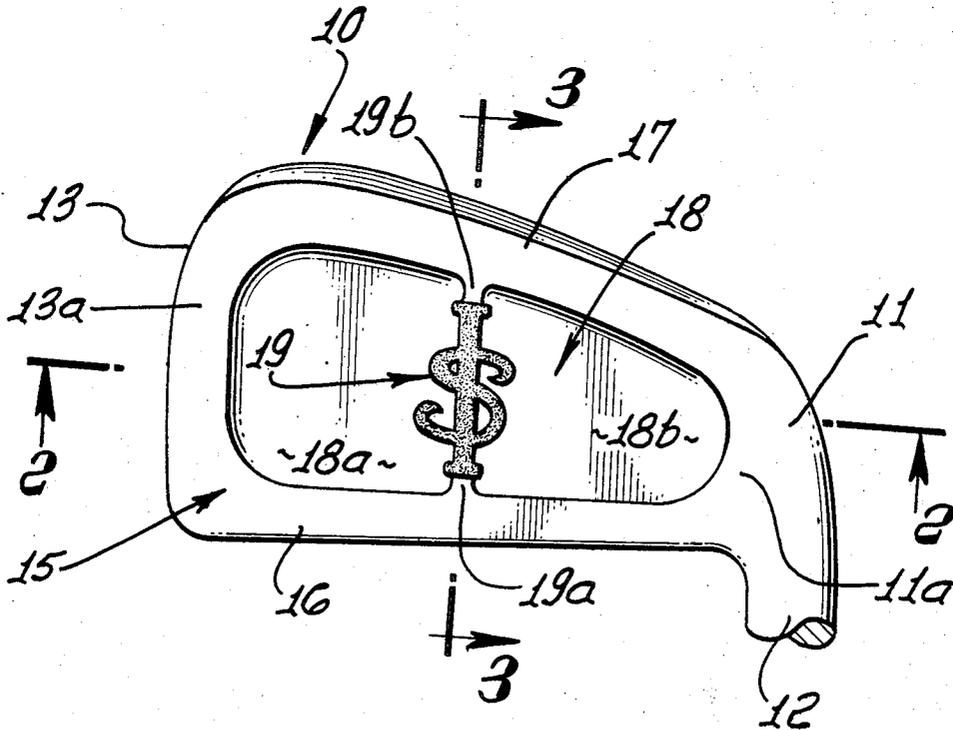
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 [58] **Field of Search** 273/77 R, 77 A, 164, 167-175; D34/5 GH

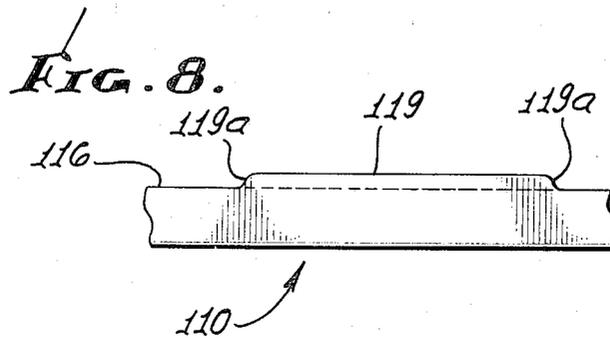
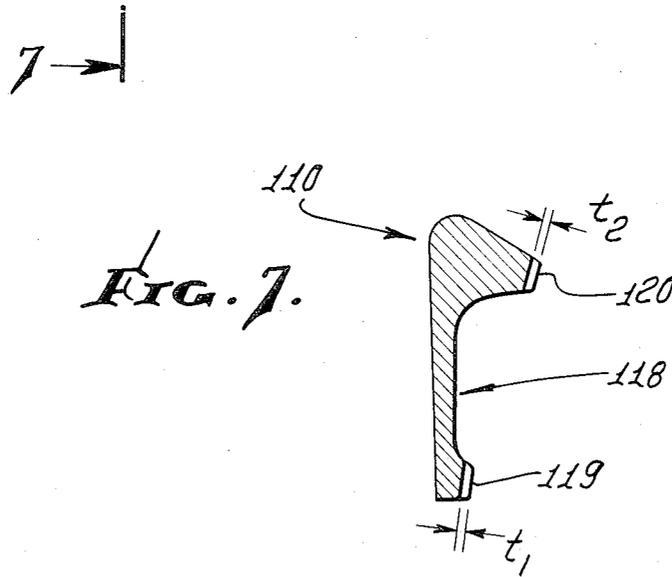
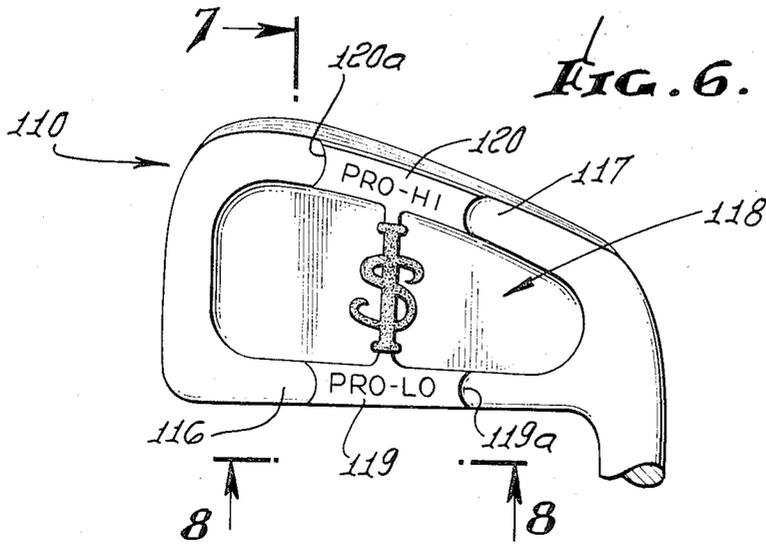
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Attorney, Agent, or Firm—William W. Haefliger

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[57] **ABSTRACT**
 The recessed back side of a golf club head is provided with integral monogram ribbing in such manner as to aid the play of both high and low handicap players.

5 Claims, 8 Drawing Figures





SYMBOLICALLY REINFORCED GOLF CLUB HEAD

BACKGROUND OF THE INVENTION

This invention relates generally to golf clubs, and more particularly concerns the provision of a reinforcing symbol or symbols in a metal club head of improved design.

A golfing iron having a club head which is recessed or hollowed at the back and distributes the weight thus saved to the perimeter helps the average player who does not consistently hit the golf ball at the center of gravity, or "sweet" spot on the striking face. However, such clubs, because of their reduced thickness behind the striking face, hinder the harder hitting low handicap or professional golfer because such clubs produce, both psychologically and physically, a much less "solid" shot than encountered in using a conventional club with a thick "sweet spot."

SUMMARY OF THE INVENTION

It is a major object of the invention to help both high and low handicap players by increasing the moment of inertia and resistance to turning of the clubface by adding to the toe and heel and perimeter the weight saved in providing a reduced thickness sweet spot (i.e., ball striking web) of increased size or area, and which is also reinforced, and in a manner to maintain normal club weight. This object is realized through the provision of integral ribbing extending within the recess at the back side of the head, and generally mid-way between the toe and heel, the ribbing being in the form of letters or symbols typically dividing the recess into two or more longitudinally spaced sections.

As will be seen, the symbolic ribs may extend so that their rear faces are co-terminous with a plane defined by rearwardly thickened edge portions of the club head; the symbol or symbols may comprise at least one letter which is preferably upright to have its top portion closest to the bottom portion of the club head, or inclined or inverted so as to be legible in a golf bag; the club head thickness between the rear face of the symbol or symbols and the front face of the club typically exceeds twice the thickness of the club head between the front face and the interior walls of the recess sections; and the symbolic ribbing may extend crosswise or lengthwise of the recess, or at an angle as will appear.

These and other objects and advantages of the invention, as well as the details of illustrative embodiments, will be more fully understood from the following description and drawings, in which:

DRAWING DESCRIPTION

FIG. 1 is an elevational view of the rear side of a club head;

FIG. 2 is a section on lines 2—2 of FIG. 1;

FIG. 3 is a section on lines 3—3 of FIG. 1;

FIG. 4 is a view like FIG. 1 showing a modification;

FIG. 5 is a view like FIG. 1 showing another modification.

FIG. 6 is a view like FIG. 1 of an added modification; and

FIGS. 7 and 8 are enlarged sections on lines 7—7 and 8—8 of FIG. 6.

DETAILED DESCRIPTION

In FIGS. 1—3 a heavy club head or "iron" 10 has a heel 11 integral with a club hosel 12, a toe 13, a ball striking front face 14 which is inclined for desired loft, a rear side 15 and upper and lower edge portions 16 and 17. The rear side 15 contains a longitudinally elongated recess or cavity 18 which typically includes two or more sections 18a and 18b. The latter are located at longitudinally opposite sides of ribbing defining a symbol 19 (or symbols) which extends within the recess generally mid-way between the toe and heel. The club head may be cast, forged, die cast, or made by other techniques, as for example powdered metal sintering. It may alternatively be made of a heavy material other than metal, or only partly metal.

In that form of the invention seen in FIGS. 1—3, the ribbing includes end extents or extensions 19a and 19b which are integral with the thickened top and bottom edge portions 16 and 17, respectively, of the head. Accordingly, the symbol or symbols 19 extends generally crosswise of the recess. Portions 16 and 17 extend generally longitudinally to meet and merge with toe and heel rib portions 13a and 11a interconnecting with rib portions 16 and 17 at the backside of the club head; and, the provision of the reinforcing symbol 19 strengthens the club head so that the recess or cavity sections 18a and 18b may extend over all but the peripheral portions of the head defined by ribbing 11a, 13a, 16 and 17 as referred to.

The symbol may take the form, for example, of a pair of letters or initials (such as those of the player's or manufacturer's name), or the complete name in capitals, lower case, or script, and may be cast or formed integrally with the club head or may be separate and fastened thereto by brazing, welding, bonding, etc., as is clear from FIG. 2. Note that the rear face 19c of the symbol is co-terminous with a plane 20 defined by the rear face of the club head (as by ribs 13a, 11a and 17, for example); or may be below plane 20 so as to prevent nicking by other clubs in the bag; also, the overall thickness X of the club head between the rear face 19c of the symbol (in plane 20) and the front face 14 exceeds twice the thickness Y of the club head between front face 14 and the plane defined by the interior walls 21 and 22 of the recesses 18a and 18b. This construction also enables provision of substantially longer and wider than normal thin-walled sections of the club at 22a and 23 forward of recesses 18a and 18b to aid the golfer in hitting a desired shot even though the ball does not consistently strike the same central spot of the club face. At the same time, a low-handicap player whose club head face centrally strikes the ball (frontwardly of the reinforcing symbol 19) thereby obtains the feel of a club head which has not been recessed.

FIG. 1 shows the symbolic letters S and I to be superposed and legibly upright with their top portions closest to the bottom edge or sole portion 17 of the club head or inclined or inverted thereto. As a result, the clubs in the golf bag will display the symbol or symbols legibly.

FIG. 4 shows central stiffeners 25 in the form, for example, of the name "John Jones," with ribbing 25a and 25b extending lengthwise of the rear recess 26, whereby five recess sections 26a—26e are formed. Ribs 25a and 25b merge with thickened portions 11a and 13a.

3

FIG. 5 shows a central symbol 28 in the form for example, of the letters "B" and "P," with ribbing 28a-28d extending angularly to merge with thickened portions 16 and 17, as shown. Recess sections 29a and 29b are thereby formed.

In FIG. 6 a club head 110 as described in FIG. 1 has upper and lower edge portions 116 and 117, above and below the recess 118, which have local rearward thickening defining plateaus, as for example at 119 and 120, and of indicated thickness t_1 and t_2 . Such plateaus may have labeling (formed as by casting or indentation) with the words PRO-HI and PRO-LO, as shown. This enables the club finisher to grind or otherwise remove one or the other of the plateaus, or parts thereof, to raise or lower the center or gravity of the club which together with suitable change in loft provides a relatively low or high trajectory of the ball in flight. The ends of the plateaus may be curved as indicated at 119a and 120a.

I claim:

1. In a golf club iron, the combination comprising
 - a. a club head having a heel, a toe, a front face to strike a ball, a rear side, and upper and lower edge portions,
 - b. the rear side containing a recess which is longitudinally elongated between the heel and toe and which is located between the head upper and lower edge portions, said recess being defined by the interior bounding walls of the club head,
 - c. ribbing means including at least one rib and an alphabet letter type symbol on said at least one rib and integral therewith, said ribbing means being integral with the club head and extending within the recess centrally thereof intermediate the bounding walls at the toe and heel, said at least one rib extending within and completely across the recess from the upper edge to the lower edge portions and centrally thereof and intermediate the bounding walls at the toe and heel and dividing the recess into longitudinally spaced hollow sections, said letter type symbol having portions which extend longitudinally beyond the sides of said at least one rib and limited in longitudinal extent to the central portion of said recess, and
 - d. the symbol having a rear face defining a plane

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which is co-terminous with a plane defined by the rear faces of said heel and toe, the head thickness between the rear face of the symbol and the front face of the club exceeding twice the thicknesses of the club head between said front face and the interior walls of the recess sections adjacent said ribbing means.

2. The combination of claim 1 wherein the symbol comprises at least one letter which is legibly upright to have its top portion closest to the bottom portion of the club head.

3. In a golf club iron, the combination comprising
 - a. a club head having a heel, a toe, a front face to strike the ball, a rear side, and upper and lower edge portions,
 - b. the rear side containing a recess which is longitudinally elongated between the heel and toe and which is located between the head upper and lower edge portions,
 - c. ribbing means including a letter type symbol integral with the head and extending cross-wise of and within the recess generally mid-way between the toe and heel and between said upper and lower edge portions thereby dividing the recess into longitudinally spaced sections,
 - d. the symbol having a rear face defining a plane which is proximate a plane defined by the rear faces of said heel and toe, the head thickness between the rear face of the symbol and the front face of the club exceeding twice the thicknesses of the club head between said front face and the interior walls of the recess sections adjacent said ribbing, and
 - e. said upper and lower edge portions above and below the recess having local rearward thickening defining upper and lower plateaus.

4. The combination of claim 3 including labels on said plateaus, the label on the upper plateau defining the words "PRO-LO" and the label on the lower plateau defining the words "PRO-HI."

5. The combination of claim 3 wherein said ribbing means also includes ribbing extending lengthwise of the recess between the heel and toe of the club head.

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