A face structure of golf club comprising club face (11) which is a hitting portion and an uneven face (20) which corresponds to the shape of the club face, having innumerable minute and uniform projection to the shape of the club face (11) in point-contact mode, and being manufactured with said club face as one body. The club face decreases the crash loss through point contact with ball and thereby increase repulsive power in portion to the decreased crash loss to give an improved driving distance.
FACE STRUCTURE OF GOLF CLUB

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a face structure of golf club, particularly said face has an uneven shape with innumerable minute and uniform projections. The face structure is attached to the head of a driver or a fairway wood to improve repulsive power at the moment when ball is impacted by the club face. The face structure according to the present invention thus can improve the driving distance under the situation where long hit is required.

[0002] Generally, a golfer tries to make long-distance hit by using a golf club which is accustomed to his (her) body shape or habit and taking optimum address or pose. In addition to these efforts, many golfers prefer golf clubs having a big head, a long shaft or a small loft angle to make long-distance hit. However, these golf clubs rather make a proper hit difficult. Especially, as a driver or a fairway wood has an even face, the contacting area of said club face with ball is increased at the impacting moment. Therefore, said club has a structural problem that repulsive power is decreased.

[0003] In order to improve repulsive power, a club face with a bumper which has innumerable minute and uniform projections on one face of metal is suggested by the present applicant. This club face increases the driving distance through the impact of ball to projections formed thereon. Since the bump is attached to the club face via a tape having a superior adhesiveness or an adhesive, however, it is often detached from the club face due to the shock added at the impact moment. Also, the golf club with the bump causes an opposite effect that clashing power is absorbed, if the elastic strength of club head material is not identical with that of the bump.

SUMMARY OF THE INVENTION

[0004] The present invention is designed to solve the aforesaid problems of conventional golf club having a flat face or of club with bump made in a different material. Thus, the objective of the present invention is to provide a face structure of golf club having an improved repulsive power by minimizing contacting area of ball with the club face.

[0005] The face of a driver or a fairway wood according to the present invention to accomplish said objective is manufactured to have innumerable minute and uniform projections thereon. Said club face provides increased driving distance through improved repulsive power resulted from the crash of ball to unspecified projections formed thereon. Specifically, the club face decreases the crash loss through point contact with ball and thereby increases repulsive power in proportion to the decreased crash loss to give an improved driving distance.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The face structure of golf club according to the present invention will be hereinafter explained in detail with the reference to the accompanying drawings.

[0007] FIGS. 1a and 1b are a perspective view of showing a face structure of the golf club and a cross-section view of showing a part of said face structure according to the present invention, respectively.

[0008] FIG. 2 is a front view of said golf club.

[0009] FIG. 3 is an illustrative view of showing a using state of golf club according to the present invention.

[0010] FIGS. 4a and 4b are a perspective view of showing other face structure embodiment of the club and a cross-section view of showing a part of said face structure according to the present invention, respectively.

[0011] FIGS. 5a and 5b are a perspective view of showing another face structure embodiment of the club and a cross-section view of showing a part of said face structure according to the present invention, respectively.

DETAILED DESCRIPTION OF THE INVENTION

[0012] As shown in FIGS. 1 to 3, the face structure of the golf club comprises club face (11) which is a hitting portion, and an uneven face (20) which corresponds to the shape of the club face and has innumerable minute and uniform projections (21) on all portion so that ball (B) may be crashed to the club face (11) in a point-contact mode. The uneven face (20) and the club face are manufactured as one body when club head (10) of a driver or a fairway wood is made. As said projections (21) on said uneven face (20) are formed in a minute and uniform size, more than one projection (21) are contacted with ball (B) in a point-contact mode when club face (11) is crashed with ball (B). Thus, such point-contact mode reduces crash loss when compared to the conventional face-contact mode and thus, increases repulsive power in proportion to the reduction amount of crash loss to improve driving distance.

[0013] As mentioned above, FIGS. 4 and 5 illustrate types of projections (21) to be formed on club face (11) according to the present invention. Said projections are preferred to be made in protrusions of which the height is the same as that of the club face surface. However, as shown in FIGS. 4a and 4b, the projections (21) may be protruded over the club face surface. Alternatively, as shown in FIGS. 5a and 5b, the projections (21) may be made by caving in the club face surface (11).

[0014] According to the present invention, the club face (11) with an uneven face (20) having innumerable minute and uniform projections (21) is crashed with ball (B). That is, club face (11) is crashed with ball (B) in a point-contact mode and thereby crash loss is reduced and repulsive power is increased in proportion to the reduction amount of crash loss to improve driving distance.

1. A face structure of a golf club comprising:
   a club face which forms a hitting portion, and
   an uneven face formed on said club face as one-piece with said club face and which corresponds to a shape of the club face, said uneven face having numerous minute and uniform projections on substantially all portions of said club face so that a ball impacts on the club face in a point-contact mode.

2. The face structure of a golf club according to claim 1, in which said club face has a club face hitting surface, and said projections are formed as protrusions having a height in which free outer ends of said projections have the same height and form the club face hitting surface.

3. The face structure of a golf club according to claim 1, in which said club face has a club face hitting surface, said club face has numerous minute and uniform cut-out portions, and said projections are formed by portions of said club face between said cut-out portions and which form the club face hitting surface.

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