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(54) **Striking mat for golf simulator and/or practicing strokes from the rough.**

(57) A brush mat for simulating a grass rough and on which golf balls are placed for practice hitting by a golfer. The mat includes numerous upstanding fibers, simulating grass, in which the upper surface defined by the upper ends of the fibers is generally planar, except for one or more hollows formed in the upper surface. The hollow or hollows have selected depths to receive and hold golf balls, from which location or locations the ball would be hit. Providing different depths for the hollows in which the balls are placed, allows for simulating different rough conditions since the golf ball will protrude above the upper generally planar surface different distances for the different depth hollows.

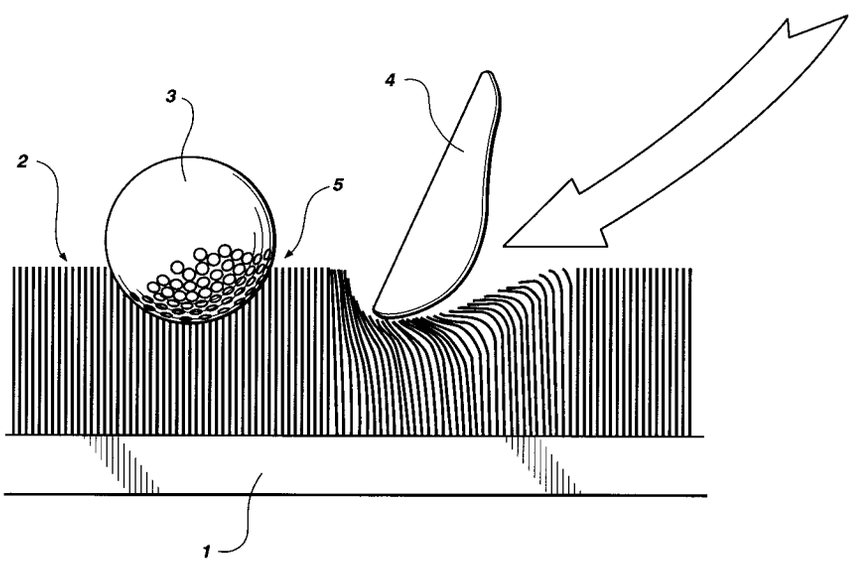

Fig. 2

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The object of the invention is a striking mat for use in a golf simulator and/or for practicing strokes from the rough, and which is also suitable for practicing bunker strokes, with an artificial grass surface made from raised material substituting for grass, on which surface the golf ball is placed for striking. The invention is intended to create realistic conditions, especially for simulating and practicing strokes from the rough.

The golf simulators and/or golf stroke practicing mats at present in use primarily use a thick mat or so-called Tee Grass, which has densely placed erect plastic fibers, so that when the golf ball is placed on the fibers, it does not in practice sink into the fibers at all. This corresponds to the situation on the so-called fairways, which provide a far better base for striking than the rough with its longer grass. For this reason, in modern simulators, an effort is made to "penalize" strokes made from the rough by restricting the choice of clubs by special rules, or the machine deducts a percentile amount of the length of the stroke from shots made from the rough. In this case, however, the player does not encounter the same difficulties as when striking from the rough on a real golf course, and the feel of striking and practicing remains unsatisfactory. When the ball is in the rough, it is in deeper grass, and before hitting the ball, the club has to travel through a larger amount of grass than in fairway conditions. The travelling of the club head through the grass slows down its speed, impairs the functioning of the shaft and thus makes it difficult to get a proper strike at the ball. All these factors impair the length and accuracy of the stroke. Thus the object of the present invention is to achieve a solution that offers a natural-feeling striking base, which enhances the realistic feel when using a simulator, and in general when practicing strokes from the rough.

In order to achieve this aim, it is characteristic of the present invention that a suitable hollow for the ball has been formed in the grass surface of the mat, so that, before hitting the ball, the club has to push aside the above-mentioned grass material in front of the ball in the path of the club.

By using a hollow of this kind, the ball can be placed in the desired way in the grass, depending on the size and shape of the hollow, which makes the situation of striking from the rough realistic. In addition to practicing striking from the rough, a striking mat such as this is also suitable for practicing strokes from a bunker, for example by making the grass surface slightly less dense than that used for practicing strokes from the rough.

In the following, the invention is explained with reference to the attached drawings, in which:

FIG. 1 shows a striking mat according to the prior art; and

FIGS. 2-5 show different embodiments of the striking mat in accordance with the invention.

In accordance with FIG. 1, present striking mats are usually formed of a base 1, on which a dense, synthetic grass surface 2 has been formed of erect plastic fibers. When the ball 3 is placed on the dense grass surface 2, it hardly sinks into the grass at all, so that the club blade 4 hits the ball almost unobstructed. This kind of mat corresponds fairly well to real fairway conditions, but it is not suitable as such as a mat for practicing strokes from the rough or from a bunker.

The rough mat relating to the invention is formed, correspondingly, of a grass surface 2 made from raised fibers of plastic or other suitable material on a base 1. A hollow 5 has been formed in the grass surface 2, for example, by cutting or forming, in which hollow the golf ball 3 is placed for the stroke. When hitting the ball 3, the club 4 touches the grass surface 2 around the hollow 5 (FIG. 2), thus corresponding closely to the situation when striking from the rough. FIGS. 3A and 3D show certain alternative cross-sectional shapes of the hollow 5. Hollow 5 may, for example, for formed to extend partly or wholly across the grass surface 2 (FIG. 4) or only to surround the golf ball 3 to the appropriate extent (FIG. 5). By using, for example, a less dense grass surface and appropriate hollows, the rough mat can be made suitable for practicing bunker shots.

In the context of this application, the term "grass surface" has been used only to describe that surface of the striking mat, on which the ball is placed for the stroke, so that the same term has been used in connection with the striking mats for rough and bunker shots. This grass surface is formed from appropriate, raised material, such as, for example, various fiber or thread materials which can be straight or shaped in an appropriate way, for example, to form the desired hollow.

Claims

1. A striking mat for use in a golf simulator and/or for practicing strokes from the rough, which is also suitable for practicing strokes from a bunker, with an artifical grass surface, (2) made from a raised material substituting for grass, on which surface the golf ball (3) is placed for striking **characterized in that** a suitable hollow (5) for the ball (3) has been formed in the grass surface (2) of the mat, so that the club (4), before striking the ball (3), has to push aside the said grass material in front of the ball (3) in the path of the club (4).

2. A striking mat according to claim 1 **characterized in that** said hollow (5) extends at least

partly across said grass surface (2) and substantially perpendicular to the direction of stroke.

3. A striking mat according to claim 1 or 2, **characterized in that** said hollow (5) is formed like a spherical segment open for placing the golf ball (3).

4. A striking mat according to claim 1 or 2 **characterized in that** said hollow (5) has a square cross-section open for placing the golf ball (3.

5. A striking mat according to claims 1 or 2 **characterized in that** said hollow (5) has a triangular cross-section open for placing the golf ball (3).

6. A striking mat according to one of the former claims, **characterized in that** said hollow (5) extends to the base (1).

7. A striking mat according to claims 3 or 4 **characterized in that** the width of a cross-section of the hollow at the top of the grass surface (2) is less than the diameter of the golf ball (3).

8. A striking mat according to claim 5 **characterized in that** the width of a cross-section of the hollow (5) at the top of the grass surface (2) is larger than the diameter of the golf ball (3).

9. A striking mat according to one of the former claims **characterized in that** the hollow (5) is formed by cutting the grass surface (2).

10. A striking mat according to one of the former claims **characterized in that** a fiber density of said surface (2) is variable for practising different strokes.

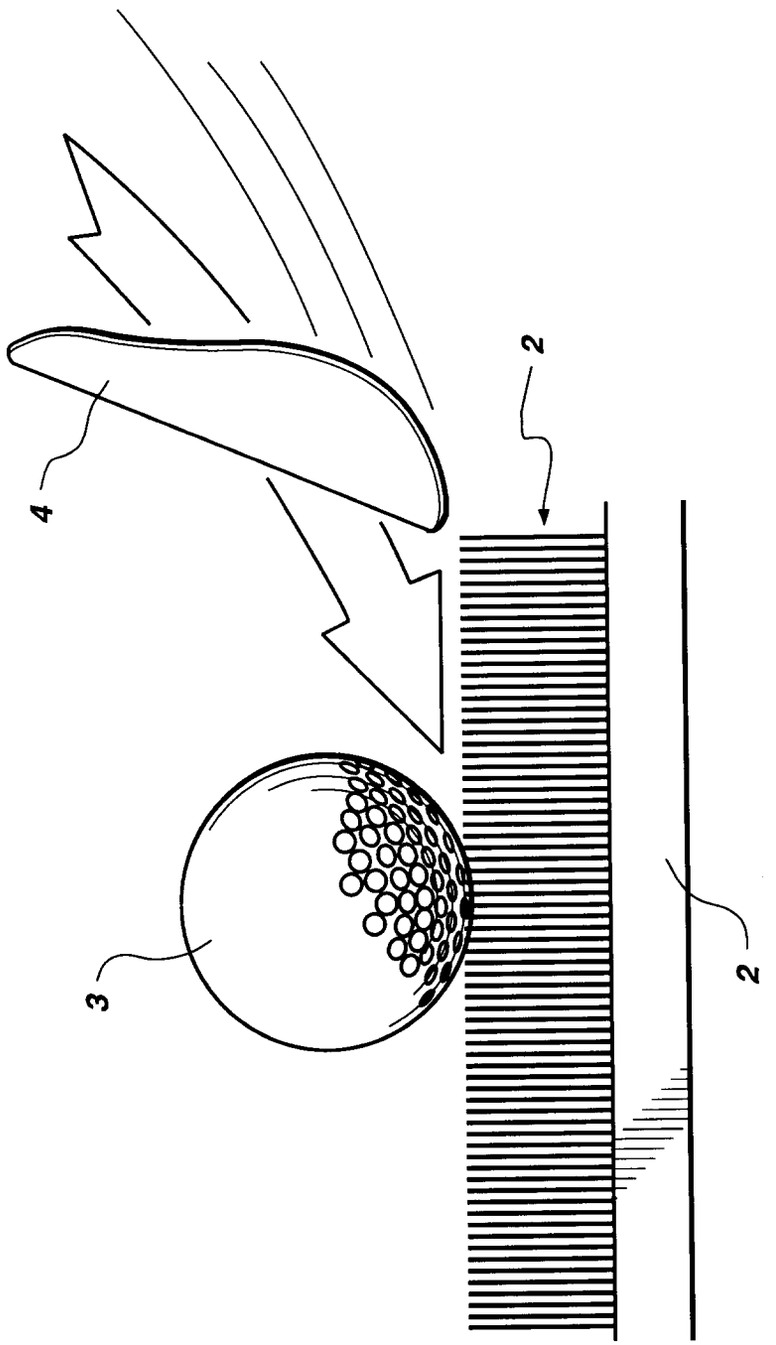

Fig. 1

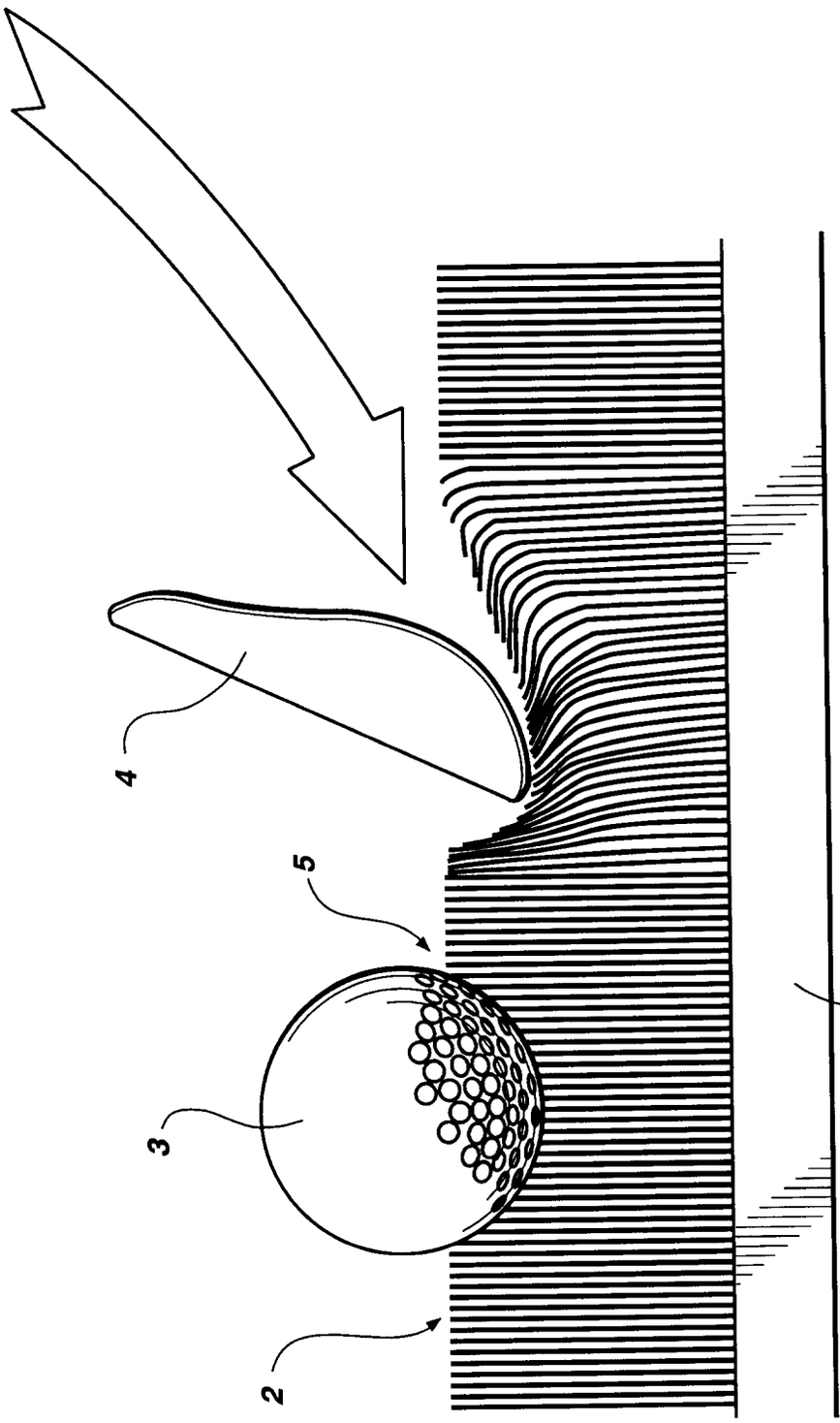

Fig. 2

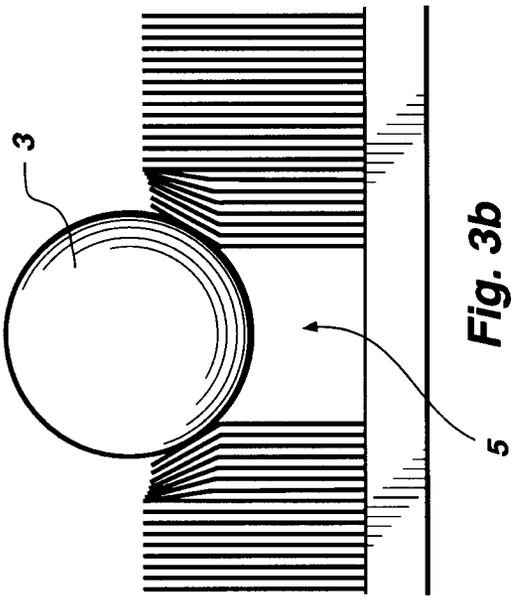

Fig. 3b

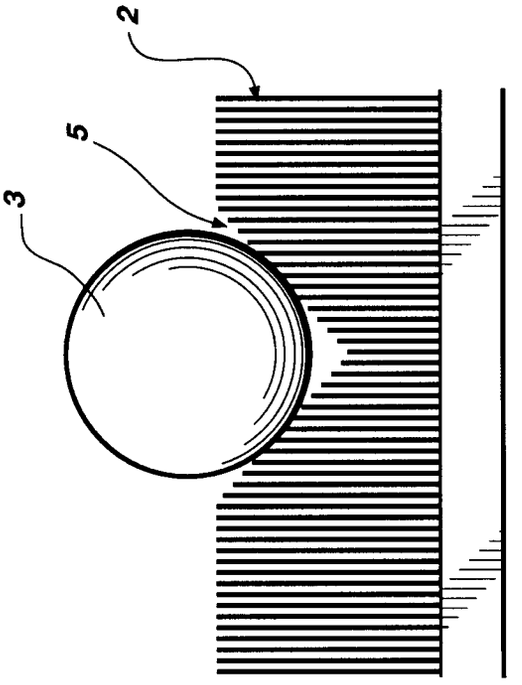

Fig. 3d

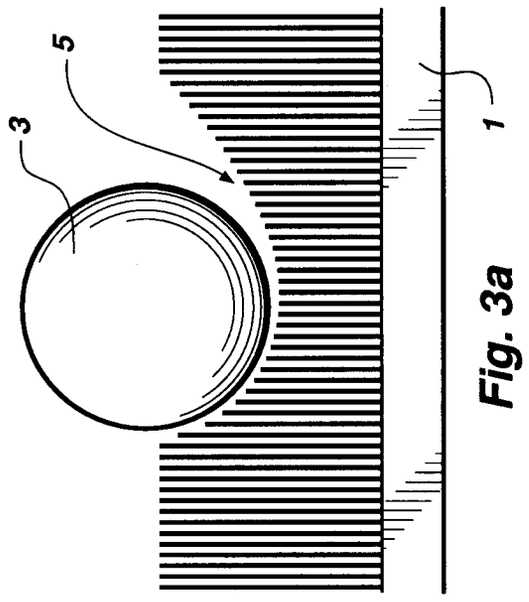

Fig. 3a

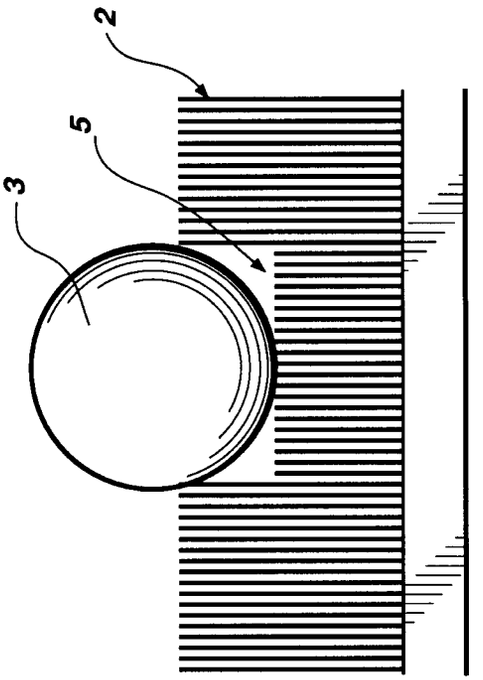

Fig. 3c

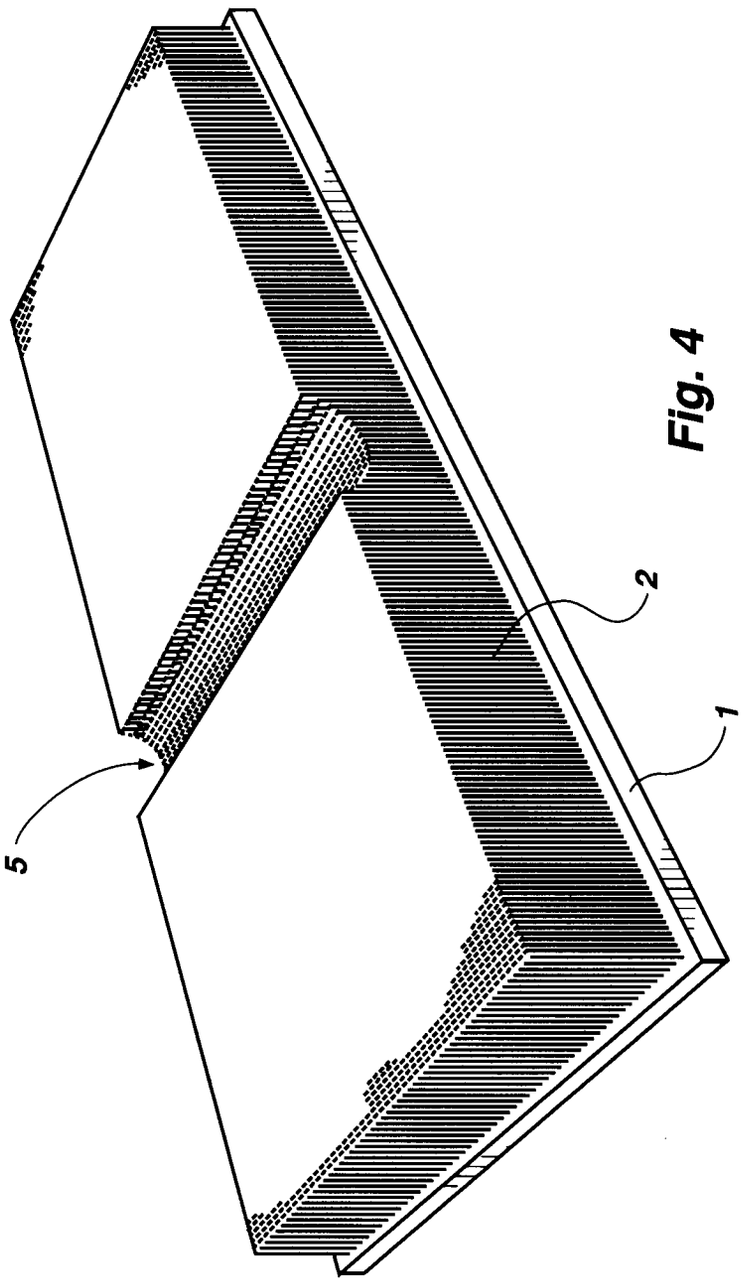

Fig. 4

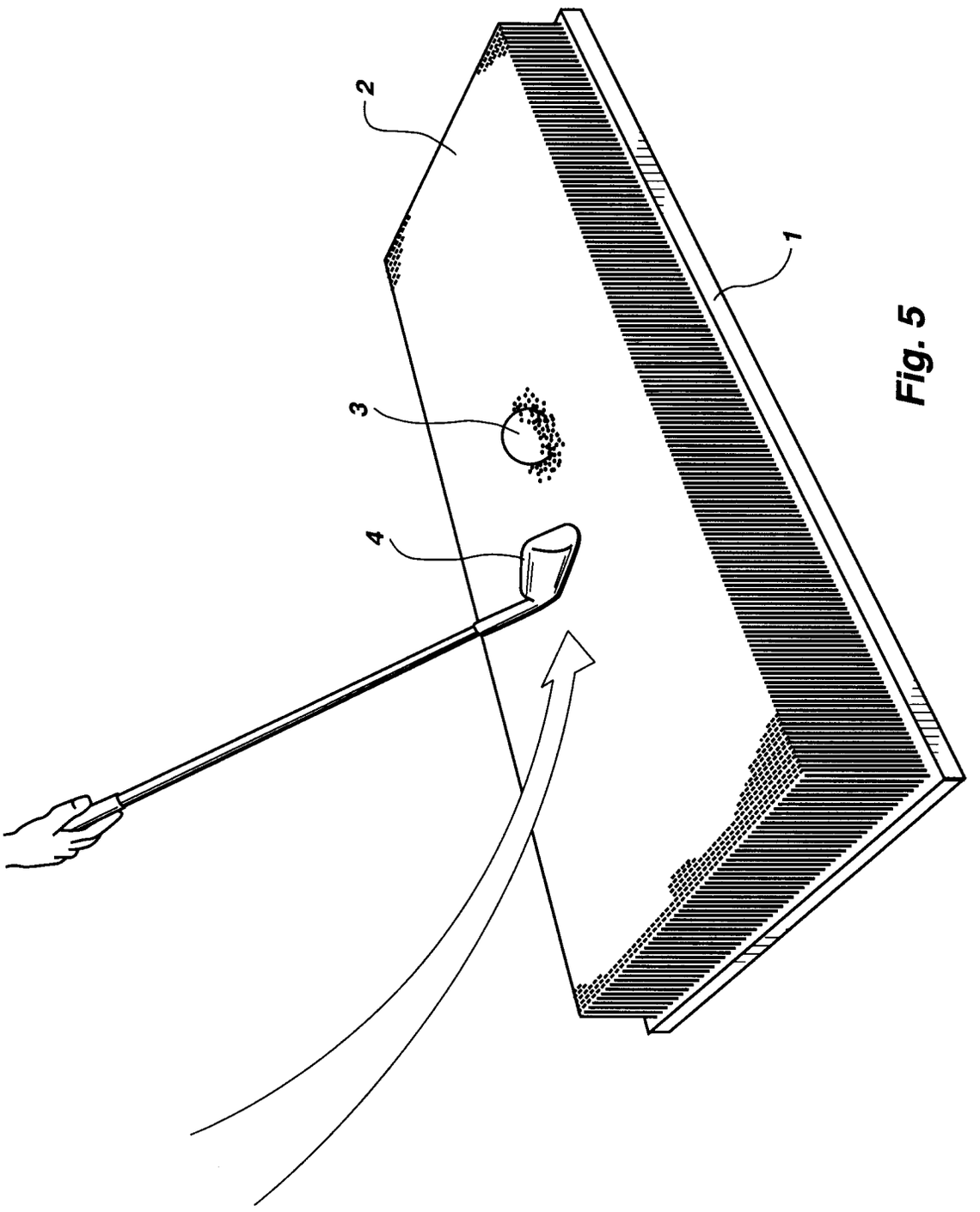

Fig. 5

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 93 10 0421

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	GB-A-930 715 (TEMPLETON) * page 1, line 32 - line 44 * * page 2, line 21 - line 61; figure 2 *	1,3,6-9	A63B69/36
Y	US-A-4 294 450 (GALLIC) * column 2, line 16 - line 19 * * column 3, line 43 - line 52; figures 1-3 *	1,3,6-9	
A	US-A-3 942 801 (MINTZ) * column 1, line 51 - line 58; figure 3 *	1,5	
A	GB-A-1 002 742 (DENDIX) * page 1, line 15 - line 33 * * page 2, line 29 - line 65; claim 1; figures 1A-3 *	1,2,9,10	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A63B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
BERLIN	26 MARCH 1993	MONNE E.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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E : earlier patent document, but published on, or after the filing date
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