This invention relates to improvements in a golf practice brush mat.

Every golfer, professional or amateur, finds it imperative to do a certain amount of practice driving with his woods and irons. This may be done on a standard golf course or on a special driving range set up for that purpose. These latter facilities usually have some form of structure whereon to set the golf balls. Often these are in the form of brush mats embedding an arrangement of bristles presenting an exposed surface somewhat simulating the turf of a standard course tee or fairway. In general practice golf practice brush mats in use today have no provisions for fast on the spot repair by the owner of the golf practice range. Normally, the practice brush mat has to be returned to the manufacturer for repair and replacement. Also golf brush mats of this general type shifted when in use because the brush mat normally was only set into the normal rectangular opening in the rubber mat proper, thus easily displaced and requiring constant repositioning. It was to overcome these deficiencies that the present invention was conceived.

The main objects of this invention are: to provide an improved and highly practical structure of brush mat simulating the turf on tees and/or fairways, of a standard golf course, for use in driving golf balls; to provide a brush mat of this kind wherein a planar element has rows of relatively stiff bristles firmly anchored thereto with the exposed upper ends of the bristles in a common plane parallel above the element; to provide an element of this kind formed with a plurality of cavities in the under face thereof whereby the element upon being placed on a flat stable surface will acquire such a suction-like grip on the surface as to firmly fix the position of the brush mat thereon during its use and prevent movement of the mat; to provide improved means for securing the groups of bristles to the element which allow for facile replacement of deteriorated groups of bristles; to provide an element of this kind which is structured from elastomeric substance such as rubber or one of its synthetic substitutes with a stabilizing plate embedded therein; to provide in combination with a normal rubber golf mat having the usual rectangular opening for a brush mat, a brush mat having enlarged perimetremetrical flanges set below the rubber mat and interiorly of the rectangular opening to prevent shifting of the brush mat when struck by a golf club; and to provide a golf-ball driving brush mat of this kind of such simple and practical structure as to make highly economical the manufacturing and marketing thereof and extremely gratifying the use thereof by any normal golfer.

In the adaptations shown in the accompanying drawings:

FIGURE 1 is a reduced-size perspective of a golf driving brush mat constructed in accordance with this invention;

FIG. 2 is an enlarged side elevation of the brush mat shown in FIG. 1;

FIG. 3 is a bottom plan view of the brush mat shown in FIG. 2;

FIG. 4 is a further enlarged cross-sectional view taken on the line 4—4 of FIG. 2;

FIG. 5 is a similarly enlarged cross-sectional view taken on the line 5—5 of FIG. 2;

FIG. 6 is a view similar to FIG. 2 but involving a modified means for securing the groups of bristles to the brush mat;

FIG. 7 is a bottom view of the brush mat shown in FIG. 6;

FIG. 8 is an enlarged cross-sectional view taken on the line 8—8 of FIG. 6;

FIG. 9 is a similar cross-sectional view taken on the line 9—9 of FIG. 6; and

FIG. 10 is an enlarged perspective of one of the brackets used in the adaptation of FIGS. 7—9 for securing the groups of bristles to the brush mat.

FIG. 11 is a perspective view, partly in section, illustrating the positioning of my brush mat in combination with a rubber golf mat.

The essential concept of the invention involves a golf practice brush mat mounting a series of upwardly-disposed groups of fairly-stable bristles to simulate the turf of conventional golf-course tees and/or fairways and which element has a series of elongated parallel grooves in its upper surface to snugly receive a bristle element and has a series of cavities formed in the under face thereof for effecting a suction grip of the element to a flat stable surface, and means for removably anchoring the bristles to the brush mat.

A golf-driving brush mat embodying the foregoing concept comprises an element 11 including a piece elongated rubber plate 17 having an upstanding elongated integrally formed portion 16 containing a series of parallel grooves 19 therein for mounting the lower ends of a plurality of groups of bristles 12 anchored thereto by a plurality of rods 13 secured in place by upstanding apertured lugs 14 formed by upsetting portions of the stabilizing plate 15. The rods 13 are headed at one end and threaded at the other end.

The element 11, as here shown, is molded from an elastomeric substance such as rubber or one of its synthetic substitutes. As the drawings make clear, the element preferably is of rectangular form. The upstanding portion 16 is of much greater thickness than the bordering portions 17 which have their upper perimetrerical edges tapered as shown at 18. Of course the portions 16 and
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3 are preferably molded in one piece with the plate 15 molded therein. Such central thicker portion 16 has a series of grooves 19 formed therein parallel with the longer edges of the elements 11 and wherein the groups of bristles 12 are anchored. The bristles 12 are preferably of synthetic material. They may be of a length that permits their being doubled over for securing by rods 21 in substantially U-shaped clamps 22 secured in the grooves 19 by the rods 13 spanning the apertures in the lugs 14 as will be described presently. The bristles 12 are of a length to extend a material distance above the element 11 with their exposed ends lying substantially parallel with the plane of the element 11. Such an arrangement of these bristles tends to simulate the turf of a conventional well-kept standard golf course.

A plurality of the rods 13—three are shown in the figures—extend transversely through the bristle clamps 22 to secure them firmly in the grooves 19. It is understood that the clamps 22 are apertured so that the apertures are in alignment with the apertures in the lugs 14 whereby the rods 13 may be inserted therethrough to anchor the unit as a whole in firm relationship part to part.

In the adaptation shown in FIGS. 6–10 the U-shaped anchoring members 20 are preferably narrow strap steel with the ends 24 upset normal to the main part thereof. These brackets 20 are of a length somewhat less than the lateral dimension of the central portion 16 of the element 11. The stabilizing plate 15 in FIGS. 1–6 is preferably a comparatively thin but rigid piece of material, preferably metal. It is of a length and width larger than the respective perimeters of the upstanding portion 16, as shown in the several figures of each adaptation.

The under face of this elastomeric element 11 is recessed to form several parallel series of shallow cavities or pockets 25. These series extend longitudinally and transversely of the elements 11 over the greater area thereof. These pockets 25 perform the function of securing the brush mat firmly in position of any planar and stable base mounting. The reason for this is that the very weight of the brush mat, when placed on such a base mounting, tends to pressure most of the air from within these pockets. A slight pressure on the elements 11 would ensure most if not all of these pockets having substantially all the air exhausted therefrom. Such a large number of suction-like spots ensure the brush mat being held securely in a nearly vertical position, on a reasonably flat surface. Moreover, it can be removed only by deliberately lifting up one corner thereof to effect the successive release of these vacuum pockets. Hence, under these circumstances, once this brush mat is so placed in use position it will not normally be altered during the practice driving therefrom. When a person strikes the brush mat with his golf club, when practicing the pressure, in the main, downwardly but also partially forward, thus the pockets 25 being under this influence tends to prevent movement of the brush mat.

The mat of the brush mat, embodying the above-explained structural features, has many advantages.

When the base mounting, wherein the brush mat is placed, is fairly planar the grip effected by even a few of the cavities or pockets 25 so stabilizes the brush mat that there is little likelihood of itself being shifted out of position. However, where no rough may be the treatment to which the mat is subjected by a golf club, hitting the brush mat in normal usage.

In the event there is a deterioration of any of the group of bristles 12 normally only from use, the replacement of one or more in any row is effected easily. It only requires the removal of the nuts 26 on each of the threads 13. This permits withdrawal of the rods 13 so as to allow one or more rows of bristles to be lifted out of their respective groove 19. One or more new rows of bristles 12 may be readily inserted in the respective groove 19 and the rods 13 then may be reinserted and secured in place by the return of the nuts 26. Thus, one or more rows of bristles may be removed and replaced on the spot in a few minutes, instead of returning the brush mat to manufacturer to do the same as is the present practice, thus shutting down the spot location for lack of a golf practice tee.

In the present invention the perimeters of the bordering portions 17 of the brush mat are tapered as at 18 and has additional advantage. If any edge of the bordering portion 17 of the brush mat should be struck by a swinging club or by the foot, of one using the brush mat, the blow will be so deflected by the taper 18 as to make very unlikely any disturbance of the brush mat from its intended use position.

The usual golf range mat 30 is normally provided with a rectangular opening 31 of about 5" by 20" into which the brush mat is inserted. These brush mats are readily and easily displaced since nothing anchors them to the golf range mat. However, to further prevent displacement, in the manner hereinbefore described, the brush mat of this invention is provided with the outwardly extending perimetric flanges or bordering portions 17. Thus when the brush mat of this invention is inserted is opening 31 from the bottom of the range mat 30 part of the bottom areas of the range mat will lie on the upper face of bordering portions 17, thus securing the brush mat to prevent accidental displacement.

It is to be understood that numerous details of this invention may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

1. A driving brush mat comprising a planar element formed of elastomeric substance having a series of parallel grooves extending throughout one dimension of the element, a plurality of groups of doubled-over bristles, clamping means embracing each group of bristles and removably seated in the respective grooves to expose free ends of the bristles in a common plane parallel above the element, a wire means positioned in each double-over group of bristles within each clamping means to retain each group of bristles in place, a U-shaped strap means having its opposite ends extending upward through the elastomer base and disposed outwardly along the opposite outermost grooves, a plurality of rods extending transversely through the grooves and clamping means and the upstanding ends of the strap means to removably secure the groups of bristles in their respective grooves, the under face of the element being recessed to define a plurality of cavities for causing a suction grip to secure the mat against shifting, a stabilizing plate embedded in the element intermediate the cavities and the grooves to maintain the planar form of the brush mat, and said U-shaped strap means being integrally connected to said plate.

2. A golf-driving brush mat comprising a base composed of resilient material, a plate member embedded in said base, said base having a plurality of elongated grooves opening from said plate member through the upper surface of said base, elongated clamps removably positioned in said grooves, said clamps having bottom walls presented to said plate member and opposite disposed side walls, anchoring elements extending longitudinally through said clamps, bristles folded within said clamps about said anchoring elements and gripped between the side walls of said clamps, longitudinally spaced upstanding lugs on said plate extending upward through said resilient base, each of said lugs having a perforation therein, said clamps having spaced perforations along their length, the perforations in said lugs and clamps being aligned with each other, removably secured rod extending through cooperating perforations in said lugs and clamps to anchor said bristles to said base, and the under-
side of said base being provided with a series of cavities for causing a suction grip to secure the mat against shifting.

3. A golf-driving brush mat comprising a base composed of resilient material, said base having a plurality of elongated parallel grooves, elongated clamps removably positioned in said grooves, said clamps having bottom walls positioned in the bottom of said grooves and oppositely disposed side walls, anchoring elements extending longitudinally through said clamps, bristles folded within said clamps about said anchoring elements and gripped between the side walls of said clamps, U-shaped strap members extending across the underside of said base normal to the long axis thereof with the opposite legs of said members extending upward through said resilient base and disposed outwardly along the opposite outermost grooves, the legs of said U-shaped strap members each having a perforation therein, said clamps having spaced perforations along their length, the perforations in said legs and clamps being aligned with each other, removably secured rods extending through the cooperating perforations in said legs and clamps to anchor said bristles to said base, and the underside of said base being provided with a series of cavities for causing a suction grip to secure the mat against shifting.

References Cited

UNITED STATES PATENTS

57,102 8/1866 Early 15—217
366,645 7/1877 Chattaway 15—216 X
2,970,959 8/1934 Gauntlett 273—33 X
2,471,008 5/1949 Pretty 15—215 X
2,790,640 4/1957 Hoag 273—33
2,989,766 6/1961 Hoag
3,194,565 7/1965 Schroer 273—195 X

GEORGE J. MARLO, Primary Examiner

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