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A. J. TURNER

2,446,622

METHOD FOR PRODUCING GRIPS FOR HANDLES

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Fig. 1

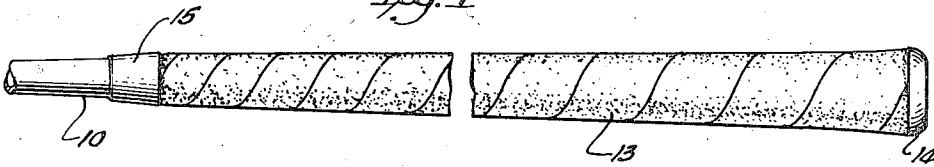


Fig. 2

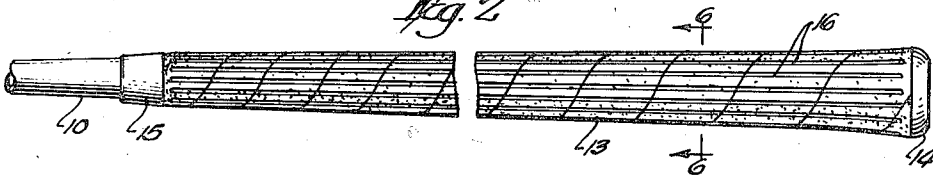


Fig. 3

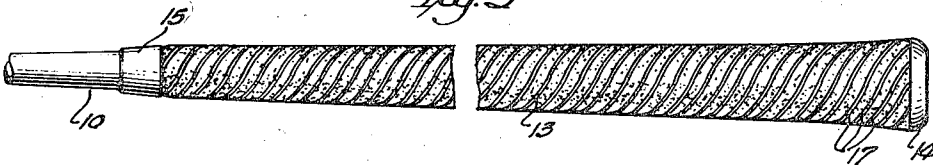


Fig. 4

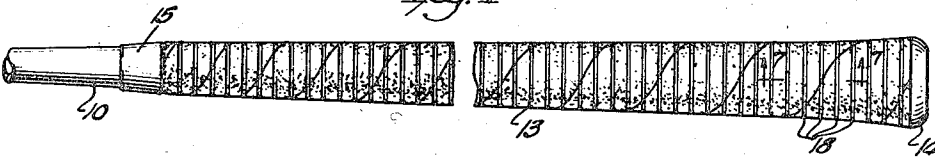


Fig. 5

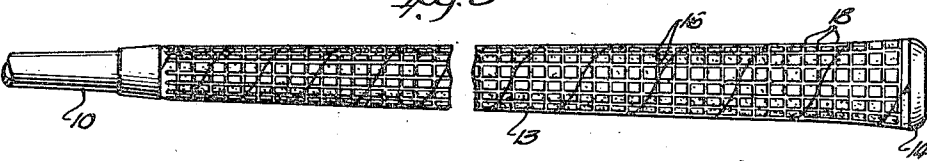


Fig. 6

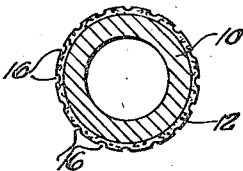
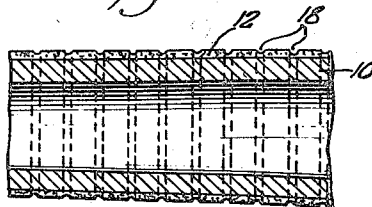


Fig. 7



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METHOD FOR PRODUCING GRIPS FOR HANDLES

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3 Claims. (Cl. 69—21)

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This invention relates to grips adapted to use on a variety of articles including golf clubs, tennis rackets and the like, as well as to the method of producing said grips.

One of the primary objects of my invention is to provide a grip for use on sporting goods, such as golf clubs, tennis rackets and the like which not only has an attractive appearance, but also provides an effective gripping surface presenting a regular pattern of grooved and elevated areas differing in texture as well as surface level and sharply defined so as to be conducive to a firm hand hold.

My present invention further has within its purview the provision of grips for tapered handles wherein the grips are wrapped with a layer of adjacent turns of a flexible material, such as leather, the successive portions of which material vary in width to suit the taper of the handle, and the outer surface of which grip is provided with an externally gouged pattern unrelated to the variations of width of the successive portions of the wrapped material.

As another object of the invention contemplates the provision of a grip smoothly covered with a layer of flexible material upon the outer surface of which is gouged a regular pattern suited to the contour of the handle and presenting a surface upon which a firm hold is readily attainable.

It is a further object of my invention to provide a method of producing grips by which the said grips may be made in a manner such that a regular or symmetrical and sharply gouged external gripping surface is consummated.

For a further object the invention effects the provision of a method whereby a handle of varying surface contour and having a wrapped gripping surface may be provided with a sharply defined gouged pattern of desired and effective configuration.

Other objects and advantages will be apparent from the following description and the accompanying drawings in which similar characters of reference indicate similar parts throughout the several views.

Referring to the drawings, of which there is one sheet:

Fig. 1 is a fragmentary side elevational view depicting a step in the application of a preferred form of my grip to the handle of a golf club;

Figs. 2, 3, 4 and 5 are side elevational views of grips having various exemplary forms of gripping surface patterns adapted to be produced by my preferred method;

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Fig. 6 is an end sectional view of the grip shown in Fig. 2 with the section taken substantially on a line 6—6 of Fig. 2; and

Fig. 7 is a fragmentary side sectional view wherein the section is taken substantially on a line 7—7 of Fig. 4.

Grips for golf clubs, rackets and the like have been previously made and used which embodied a wrapping of a flexible material, such as leather or a rubber-impregnated cloth providing a firm but relatively soft and nonslippery gripping surface. Such grips in some instances have been spirally wrapped with leather or other flexible material. In such previously known wrapped grips, however, irregularities or surface patterns have been produced in such a way they were symmetrical with or conformed to the wrapped spiral and the dimensions of the surface material.

By my presently disclosed method, a grip is produced which not only has a sharply defined pattern unrelated to and uncontrolled by the spiral wrapping, but also which may be independently designed to provide a comfortable and effective gripping surface.

In the exemplary illustrations of my grips and the process of their manufacture which are shown in the accompanying drawings for illustrative purposes, the grips are depicted in their application to golf club handles. It may be readily understood that such grips and the method of producing same may well be applied to other things, including tennis rackets and the like.

As depicted in the accompanying drawings, a golf club has a shaft 10 which tapers outwardly toward its free end to provide an inner handle surface 12, as shown in Figs. 6 and 7.

As one step in the provision of an effective gripping surface for the handle portion of the shaft 10, that portion of the shaft is covered with a layer of flexible material such, for example, as top grain leather or rubber-impregnated cloth. When leather is used its gripping characteristics may be improved by treatment of the leather to render its outer surface semi-tacky.

By preference, and as shown in Fig. 1, the surface of gripping material, such as leather, is applied as a spiral wrapping 13, which wrapping is secured in place by suitable cement. In order to effect smooth conformation of the wrapped material to the tapered contour of the shaft, the width of the strip of wrapping material is tapered so as to be wider at the larger end portion of the handle than it is at the narrower end of the handle portion of the shaft. For effecting a finished appearance, an end cap 14 may be secured

to the end of the shaft and a collar 15 utilized to cover the other end of the wrapped portion of the handle.

Although in some instances the edges of the wrapping strip may be beveled or overlapped to provide a spiral grip pattern conforming to the spiral wrapping of the grip-covering material, I have shown in the disclosed embodiments of my invention grips which are provided by a wrapping in which the edges of the strips of adjacent turns lie in closely abutting relationship to one another so that the resultant surface is substantially smooth, as shown in Fig. 1.

After thus providing and applying a layer of a selected grip material, the surface of the material is gouged to provide an improved gripping surface. In the form of my grip which is depicted in Fig. 2, the spiral wound grip material is gouged axially of the shaft to provide series of longitudinally extending and transversely spaced channels 16. In addition to providing a regular and longitudinally extending tread pattern on the surface of the grip, it may be noted that the tread pattern is unrelated to the conformations of the spiral wrappings of the grip material. In the case of grips made with a wrapping of material such as top grain leather, the gouged channels 16 are not only sharply defined to provide an effective gripping surface but the texture of the leather in the channels varies from that on the other surface portions of the grip. In the channels the leather has a suede texture.

In Fig. 3 I have illustrated a grip basically similar to that of Fig. 1, and in which a series of spirally disposed channels 17 have been gouged. The spirally disposed channels, in this instance, are substantially equally spaced axially of the shaft and do not necessarily follow the tapering contour of the tapered wrapping strip.

Fig. 4 illustrates a modified grip utilizing a series of circumferentially gouged channels 18 spaced axially of the shaft over the gripping surface thereof.

In Fig. 5 I have illustrated an exemplary combination of gouged channels wherein the axial channels 16, such as those utilized in Fig. 2, are disposed in intersecting relationship to circumferentially disposed channels 18, such as those utilized in Fig. 4.

It may be readily understood from the accompanying illustrations that many other combinations and patterns might well be provided through the use of the same process.

In the grips shown in Figs. 3, 4, and 5, as well as that shown in Fig. 2, there is no particular relationship between the pattern of the gouged channels and the conformation of the spirally wrapped grip material. Due to factors such as the normal stretching of the strip material as it is wrapped upon the handle portion of the shaft, it would be impractical to attempt to produce a handle embodying a regular pattern unrelated to the conformation of the spiral winding by gouging a pattern upon the material prior to the wrapping operation. The consequent misalignment of any such material gouged before wrapping would result in an unsightly grip having undesirably irregular pattern portions. However, by my pro-

posed process, wherein the turns of the grip material are wrapped and firmly secured in place before the externally gouged pattern is applied, a regular and even pattern results which may be designed to provide an effective gripping surface.

In each instance, the gouging is accomplished by a gouging tool (conveniently a harness makers' patent leather tool) on the order of a chisel to produce a pattern such as that shown in Fig. 2. The gouging tool and handle surface are moved relative to one another axially of the shaft during the cutting of each channel. To effect a spiral pattern such as that illustrated in Fig. 3, the shaft is turned relative to the tool end as it is moved axially. Similarly, the circumferential channels of Fig. 4 are produced by turning the handle relative to the gouging tool for producing each such channel.

While I have illustrated a preferred embodiment of my invention, many modifications may be made without departing from the spirit of the invention, and I do not wish to be limited to the precise details of construction set forth, but desire to avail myself of all changes within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. The method of producing a grip for handles of golf clubs, rackets and the like which comprises the steps of longitudinally tapering the width of a strip of flexible and relatively soft grip material, spirally wrapping the handle with a smooth layer of said material, and then gouging the external surface of said smooth layer with a pattern of external grooves to provide a treaded gripping surface.

2. The method of producing a grip for handles of golf clubs, rackets and the like which comprises the steps of spirally wrapping the handle with nonlaminated leather which has been treated to provide a semi-tacky finish, and then gouging the outer surface of the wrapped leather to provide a regular pattern of sharply defined channels, which channels present a suede finish.

3. The method of producing a grip for handles of golf clubs, rackets and the like which comprises the steps of wrapping the handle with a single smooth layer of flexible grip material, and then gouging the external surface of said smooth layer in transverse directions to provide an external tread pattern including series of intersecting outwardly facing and sharply defined channels.

ARCHIBALD J. TURNER.

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