April 27, 1948. J. W. HUGHES 2,440,473 TEE FOR GOLF BALLS
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By [Signature] his ATTY.
This invention relates to improvements in the construction of tees for golf balls.

A golf tee having an inverted truncated conical head and an integral cylindrical stem which terminates in a point is already known but such tees are solid and made of wood or plastic material with the result that they are easily broken.

Now, the object of the present invention is to provide an improved construction of tees for golf balls which is resilient and practically unbreakable whilst having the advantages of the design and ease of use of the form of golf tee described above.

To this end, according to the present invention, the improved golf tee consists of a length of wire closely coiled to form a cone of diminishing diameter tapering to a cylindrical portion which terminates in a point with the largest diameter turns of wire and those at the point joined together.

The point on the end of the cylindrical portion or stem may be formed by reducing the diameter of the end turns of the wire down to the point and then making them rigid by joining them together, or by providing a spike or equivalent member having a shank which is received in the end turns of wire and there retained by being joined to the wire during the joining together of the terminal turns of the wire. The joining of the turns of wire at the pointed end of the stem and at the end of the largest diameter portion of the truncated conical head is conveniently effected by soldering although welding or brazing may also be used for this purpose.

The joining together of the end few turns at the largest diameter portion of the head ensures non-expansion of that portion and provides a stable rest on which to place the golf ball, whilst the joining of the turns of wire at the pointed end provides a smooth robust point for penetrating the ground. The close colling of the wire gives rigidity to the tee and its stem may be pushed into the ground as easily as with known tees yet the tee is resilient and its stem, and even its head, will bend and flex thereby making it practically indestructible.

The wire used may be steel, copper, brass, aluminum or other suitable metal or alloy and such metal may be left in its natural state or polished or plated or otherwise treated to give a bright metallic finish. Alternatively the tee may be brightly coloured as by painting or coating it with a suitable pigment, for example, a cellulose dope.

Now, in order that the invention may be clearly understood and readily carried into effect, the same is hereinafter more fully described with reference to the accompanying drawings which are given for purposes of illustration only and not of limitation.

In these drawings:
Figure 1 is an elevation of a golf tee in accordance with the invention,
Figure 2 is a section through Figure 1 taken on the line II—II looking in the direction of the arrows, and
Figure 3 is similar to the lower part of Figure 2 showing an alternative way of constructing the pointed end of the tee.

Referring now to the said drawings and in particular to Figures 1 and 2 thereof, the golf tee is formed of a single length of wire which is closely coiled to form an inverted truncated conical portion 1 which tapers down to an integral cylindrical portion 2 and terminates in a point 3. The end of wire at 4 is flattened down so that the base of the cone lies in a flat plane at right angles to the axis of the stem portion 2. The largest diameter turns of wire, for example, the end three turns, are joined by solder 5.

The point 3 on the end of the stem 2 is formed by reducing the diameter of end turns down to a point and then soldering the turns of wire together to form a smooth rigid tip 6.

An alternative way of forming the point 3 is illustrated in Figure 3. Here a spike 1 or similar member with a shank 8 has its shank pushed or screwed into the end turns of the cylindrical stem with the spike head butting onto the extremity of the coil and is secured in position by solder 9 which also joins together some of the end turns of wire.

The pointed end will readily penetrate the ground and the tee may easily be positioned for use by applying pressure to the end of the head as the close colling of the wire makes the stem rigid enough to avoid bending during positioning whilst giving flexibility to permit bending to obliquely applied loads. The tee may be pushed into the ground to any desired extent to give a required height of tee and after driving off the player may easily extract it from the ground or find it if it has been driven along with the ball when it has a bright metallic finish or is brightly coloured.

The wire used for making a tee of normal dimensions is conveniently of 22 S. W. G. and the tee may be economically formed by being wound onto an appropriately shaped former, for ex-
ample, in a specially designed automatic machine.

I claim:

1. A golf tee comprising a helical coil consisting of a single length of wire, adjacent turns of said coil being disposed in contact with one another and a few turns at each end of the coil being joined together, said coil including a number of turns the diameters of which decrease gradually from one end of the coil to form a frusto-conical cup, and, emerging from the smallest turn of said cup, a number of turns of a uniform diameter not exceeding that of said smallest turn of said cup to form a cylindrical stem, and a pointed tip at the free end of said stem.

2. A golf tee comprising a helical coil consisting of a single length of wire, adjacent turns of said coil being disposed in contact with one another and a few turns at each end of the coil being joined together, said coil including a first number of turns the diameters of which increase gradually from one end of the coil to form a frusto-conical cup, a second number of turns of a uniform diameter not exceeding the diameter of the smallest turn of said cup to form a cylindrical stem, integral with and adjoining at one of its ends the smallest turn of said cup, and a third number of turns integral with said stem at the other end thereof and having diameters which decrease gradually to the other end of the coil to form a pointed tip at the free end of the stem.

3. A golf tee comprising a helical coil consisting of a single length of wire, adjacent turns of said coil being disposed in contact with one another and a few turns at each end of the coil being joined together, said coil including a number of turns the diameters of which decrease gradually from one end of the coil to form a frusto-conical cup, and, emerging from the smallest turn of said cup, a number of turns of a uniform diameter not exceeding that of said smallest turn of said cup to form a cylindrical stem, the free end of which constitutes the other end of said coil, and pointed means telescoping partly into and joined to the turns at the free end of the cylindrical stem.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>662,368</td>
<td>Wetzel</td>
<td>Nov. 20, 1900</td>
</tr>
<tr>
<td>697,574</td>
<td>Walenta</td>
<td>Apr. 15, 1902</td>
</tr>
<tr>
<td>1,066,095</td>
<td>Falk</td>
<td>July 1, 1913</td>
</tr>
<tr>
<td>1,436,222</td>
<td>Walker</td>
<td>Nov. 21, 1922</td>
</tr>
<tr>
<td>1,599,207</td>
<td>Capen</td>
<td>Sept. 7, 1926</td>
</tr>
<tr>
<td>1,696,627</td>
<td>Glaser</td>
<td>Jan. 8, 1929</td>
</tr>
</tbody>
</table>

FOREIGN PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Country</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>401,453</td>
<td>Great Britain</td>
<td>Nov. 16, 1933</td>
</tr>
<tr>
<td>427,478</td>
<td>Great Britain</td>
<td>Apr. 13, 1933</td>
</tr>
<tr>
<td>781,297</td>
<td>France</td>
<td>Feb. 18, 1935</td>
</tr>
</tbody>
</table>