DEVICE FOR CLEANING GOLF TEES

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Filed Dec. 19, 1960, Ser. No. 76,822
3 Claims. (Cl. 15—21)

This invention relates generally to brushing and cleaning devices, and more particularly it relates to a device for cleaning golf tees.

Generally speaking, this invention includes a pair of levers pivotally connected for angular movements with respect to one another, one of the levers defining a golf tee holder adapted to receive and support a golf tee in position to be brushed and cleaned by the brush carrying housing defined by the other of the levers.

An object of this invention is the provision of a device for cleaning golf tees in which the golf tee to be cleaned may be easily held in position to be cleaned by the gripping action of one hand while the cleaning brushes are manually actuated by the user's other hand.

Another object of this invention is the provision of a cleaning device for golf tees in which the brushes and other moving mechanism are generally enclosed within a housing so as to greatly reduce the possibility of any scuffing contact with the hands of the user.

Another object of this invention is the provision of a cleaning device for golf tees which is compact and may therefore be easily carried by the person of the user, which is easy to use, and with which an effective cleaning action is obtained.

A still further object of this invention is the provision of a device for cleaning golf tees which is of extremely simple construction and which is capable of functioning efficiently for quickly cleaning golf tees.

The foregoing and other objects and advantages of this invention will become apparent from the following detailed specification, appended claims and attached drawings.

Referring to the drawings wherein like reference characters indicate like parts or elements throughout the several views:

FIG. 1 is a view in side elevation of my invention, some parts being broken away and some parts shown in section;

FIG. 2 is a view in end elevation thereof as seen from the right end of FIG. 1 and showing a portion of my invention in another position by broken lines;

FIG. 3 is a sectional view taken on the line 3—3 of FIG. 1 and also showing a portion of my invention in another position by broken lines;

FIG. 4 is a view in section taken on the line 4—4 of FIG. 1, some parts being broken away; and

FIG. 5 is a view in section taken substantially on the line 5—5 of FIG. 2, some parts being broken away.

Referring with a greater particularity to the drawings, the reference numeral 1 represents generally a golf tee 1 which comprises a head portion 2 and a depending shank portion 3, and the reference numeral 4 represents in its entirety the cleaning device which comprises the present invention. The cleaning device 4 comprises a first lever 5 and a second lever 6. The first lever 5 defines a slotted end 7 which is adapted to engage the tab defining end 8 of the second lever 6, the same being pivotally connected together by means of the pivot pin 9 for angular movements thereof about the pivotal connection therebetween.

The other end of the first lever 5 defines a generally flat tongue 10 which is generally perpendicular to the axis of the pivotal connection between the first and second levers 5, 6. Also, the first lever 5 defines adjacent its tongue defining end a holder portion 11 which is adapted to receive and dispose a golf tee 1 with its longitudinal axis in general parallelism with the axis of the pivot pin 9. The holder portion 11 comprises a circular generally frusto-conical aperture 12 which is adapted to so receive the golf tee 1 that the lower shank portion 3 thereof will be disposed on the lower side of the first lever 5 and the head portion 2 of the golf tee will be disposed on the upper side of the first lever 5. It is noted that the terms upper and lower are used for ease of explanation, and are not intended to be limitation upon the disclosure of my invention since the same may obviously be used in any desired position.

In accordance with my invention, a generally box-like housing, represented generally by the reference numeral 13, is defined at the free end of the second lever 6 in generally spaced relation to the holder portion 11 defined by the first lever 5. It is noted that the first and second levers 5, 6 and the housing 13 may be formed from a rigid material such as metal or plastic, and are preferably formed by a molding process, in which case the housing 13 may be integrally formed with the second lever 6. The housing 13 comprises spaced generally parallel side walls 14, 15 which extend generally transversely on opposite sides of and generally normal to the longitudinal axis of the second lever 6. The housing 13 also comprises a top wall 16, and a bottom wall 17, the front and back of the housing 13 being open so as to define a recess therein. Referring particularly to FIGS. 4 and 5, a cross-sectionally generally square lower shaft 18 is journalled within the lower portion of the housing 13 for rotation about an axis generally parallel to and spaced in a downward direction from the longitudinal axis of the second lever 6. The lower shaft 18 is provided with bearing inserts 19, and a crank 20 rigidly secured to one end of the shaft 18 adjacent the side wall 14 of the housing 13, the shaft 18 being held in position by means of a cap screw 21 and a nut 22 disposed on the opposite ends of the shaft 18. A pair of cooperating wheel brushes 23, 24 are secured to the lower shaft 18 in axially spaced relation to one another for rotation with the lower shaft 18. The wheel brushes 23, 24 are separated by a spacing tube 25, and also define generally square axially extending apertures 23', 24' which receive the square shaft 18. The wheel brushes 23, 24 also define opposed inwardly directed bristles 28.

A cross-sectionally generally square upper shaft 29 is journalled within the upper portion of the housing 13 for rotation about an axis which is generally parallel to the axis of the lower shaft 18 and which is spaced in an upward direction from the longitudinal axis of the second lever 6. The upper shaft 29 is also journalled within a pair of bearing inserts 30 and is secured within the housing 13 against axial displacement by means of a pair of nut assemblies 31. A generally cylindrical roller brush, represented generally by the reference numeral 32, and having radially outwardly directed bristles 33, is secured to the upper shaft 29 for rotation therewith. The roller brush 32 defines an axial extending generally square bore 34 which receives the upper shaft 29 so as to secure the brush 32 to the shaft 29. For the purpose of imparting rotation to the upper shaft 29 upon the rotation of the lower shaft 18 by means of the manual cranking thereof, a gear train is disposed generally intermediate the upper and lower shafts 29, 18. The gear train comprises a lower circular gear 35 which defines an axially extending square recess 36 therein for reception on a square hub 37 defined on the wheel brush 24 so as to secure the lower gear 35 to the wheel brush 24 for rotation therewith. The gear train further comprises an intermediate gear 38 which is secured to the side wall 15 of the housing 13 by means of a stud 39 for rotation thereon and for meshing engagement with the lower gear 35. Also, an upper circular gear 40 is disposed in meshing engagement with the intermediate gear 38 and is re-
ceived on the upper shaft 29 for imparting rotation there-
upon the rotation of the lower shaft 18. It is noted
that the upper gear 40 is separated from the roller brush 
32 by means of a tubular spacer 41.
Having specifically described my invention, the op-
erative simplicity thereof should be easily understand-
able; however, the operation of my invention might be
briefly set forth. After placing the golf tee 1 which is
to be cleaned within the holder portion 11 of the first
levers 5, 6 are pivotally moved with respect to one
another between an open position in angularly
spaced relation to one another and a closed cleaning
position wherein the golf tee 1 is received within the
recess defined by the housing 13. It is noted that when
said levers 5, 6 are disposed in said closed position, the
tongues 10 defined by the first lever 5 is received within a
slot 42 defined in the side wall 14 of the housing 13.
Thereupon, the lower shank portion 3 of the golf tee 1 is
received intermediate the bristles 28 of the wheel brushes
23, 24 so as to be in brushing contact therewith, and the
upper head portion 2 of the golf tee 1 is disposed below
the upper shaft 29 in brushing contact with the roller
brush 32 so as to clean the golf tee 1 upon the manual
rotation of the lower and upper shafts 18, 29 upon the
cramping of the crank 26. It should be obvious that the
golf tee 1 may be held in brushing contact with the
brushes 23, 24, 32 by the manual gripping of the first
and second levers 5, 6 with one of the user's hands while
the cleaning device 4 is being operated by the rotation of
the crank 26.

This invention has been thoroughly tested and found
to be completely satisfactory for the accomplishment of
the above objects; and while I have shown and described
above a preferred embodiment thereof in which the prin-
ciples of the present invention have been incorporated; I
wish it to be specifically understood that the same may
be modified without departure from the scope and spirit of
the appended claims.

What I claim is:
1. A device for cleaning golf tees comprising a pair
of cooperating levers pivotally connected at one end for
angular movements thereof about said pivotal connection,
one of said levers defining a holder portion adjacent its
other end which is adapted to receive and dispose a golf
tee with its longitudinal axis in general parallelism with
the axis of pivotal connection between said levers and
with its lower shank portion disposed on the lower side
of said lever and its head portion disposed on the upper
side thereof, a generally box-like housing defined at the
other end of the other of said levers in spaced relation to
said holder portion of said one of said levers, said hous-
ing defining a recess which opens on the side of said
housing adjacent said one of said levers, a first shaft
mounted within said housing for rotation about an axis
generally parallel to and spaced in a downward direction
from the longitudinal axis of said other lever, means for
imparting rotation to said first shaft, a pair of cooperating
wheel brushes secured to said first shaft in axially spaced
relation to one another for rotation of said brushes upon
the rotation of said first shaft, said wheel brushes having
opposed inwardly directed bristles, a second shaft mount-
ed within said housing for rotation about an axis gener-
ally parallel to said first shaft and spaced in an upward direc-
tion from the longitudinal axis of the said other lever, a
generally cylindrical roller brush secured to said second
shaft for rotation thereof and having radially outwardly
directed bristles, and gear means disposed generally in-
termediate said first and second shafts for imparting ro-
tation to said second shaft upon the rotation of said first
shaft, said levers being pivotally movable with respect
to one another between an open position in angularly
spaced relation to one another and a closed cleaning
position wherein said golf tee is so received within the recess
defined by said housing that said wheel brushes are in
contact with the face of said tee and said roller brush is in
contact with the head portion of said tee upon the rotation of
said first shaft.

2. The structure defined in claim 1 in which said means
for imparting rotation to said first shaft comprises a man-
ually operated crank rigidly secured to one end of said
first shaft and disposed on the opposite side of said hous-
ing from the pivotal connection between said levers.

3. The structure defined in claim 2 in which the holder
portion defined by said one of said levers comprises an
enlarged boss on said lever which defines an aperture
therein for receiving and holding said golf tee.

References Cited in the file of this patent

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