ABSTRACT

A relatively separable, bipartite golf ball heating device is provided having confronting upper and lower sections. Each section includes: (a) a heat conductive tray having a plurality of hemispherically shaped receptacles, (b) a closure overlying the back side of the tray in spaced relationship to the receptacle with the end of the closure in abutment with the underside of the outer peripheral portion of the tray and (c) an insulative band overlying the peripheral portion of the tray and insulatorsely engaging the closure. The insulating bands of the upper and lower sections are provided with cooperatively engaging insulating means such as a tongue and groove combination. This cooperative combination also aligns the sections during the assembly thereof whereby corresponding receptacles of the upper and lower sections are brought into golf ball encapsulating alignment. Means, such as an electrical resistance heating element, are disposed about the back side of one of the heat conductive trays for directly heating such tray; and means, such as a spring biased, push button key and lock slot combination are provided for removably securing the upper and lower sections.
GOLF BALL HEATING DEVICE

BACKGROUND OF THE INVENTION

This invention relates to a golf ball heating device and, more particularly, to an insulated, portable golf ball heater.

Since it is known that a warm golf ball will travel farther than a cold golf ball when similarly struck with the same club, it would, therefore, be advantageous to provide a simplified and inexpensive portable golf ball heater which could be employed to effectively and efficiently warm golf balls to an appropriate temperature in order to improve their performance and thereby enhance the game for the average player.

OBJECTS

An object of this invention is to provide a relatively separable, bipartite golf ball heating device with upper and lower sections and having a pair of overlying heat conductive trays provided with a plurality of reversibly aligned receptacles for separately encapsulating golf balls to be warmed.

Another object of this invention is to provide a golf ball heating device of the character described wherein a closure overlies the back side of each tray in spaced relationship to the receptacles thereof with the underside of the outer peripheral portion of the tray.

A further object of this invention is to provide a golf ball heating device of the character described wherein an insulating band overlies the peripheral portion of each tray and insulatingly engages the closure.

A still further object of this invention is to provide a golf ball heating device of the character described wherein the insulating bands are provided with cooperatively engaging insulating means.

Yet another object of this invention is to provide a golf ball heating device of the character described wherein means are provided for directly heating at least one of the heat conductive trays.

Yet a further object of this invention is to provide a golf ball heating device of the character described wherein a positive latching system is employed for removably securing the two parts of the bipartite device.

SUMMARY OF THE INVENTION

In accordance with this invention, there is provided a relatively separable, bipartite golf ball heating assembly having upper and lower confronting sections.

The lower and upper sections include, respectively, first and second heat conductive trays. Each tray has a front side and a back side and each tray is provided with a plurality of hemispherically shaped receptacles which open to the front side. The first and second heat conductive trays laterally terminate, respectively, in first and second peripheral portions with each peripheral portion having a front wall, depending side wall and back wall. A first open-ended, hollow closure overlies the back side of the first tray in spaced relationship to the receptacles of the first tray with the open end of the closure engaging the back wall of the first peripheral portion. A second open-ended, hollow closure overlies the back side of the second tray in spaced relationship to the receptacles of the second tray with the open end of the closure engaging the back wall of the second peripheral portion. A first insulating band perimetrically abuts the front wall and depending side wall of the first peripheral portion and insulatingly engages the first closure and a second insulating band perimetrically abuts the front wall and depending side wall of the second peripheral portion and insulatingly engages the second closure.

The first and second insulating bands are provided with cooperatively engaging insulating means for effecting insulative engagement between the bands when the upper and lower sections are in the assembled position. The cooperatively engaging insulating means also function as guide means for aligning the upper and lower sections in a predetermined assembled position whereby the front sides of the first and second trays are in confronting relationship and the reversibly disposed receptacles are in golf ball encapsulating alignment.

Means are provided for heating at least one of the heat conductive trays to an effective ball-warming temperature and means are provided for removably securing the upper and lower sections.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the bipartite golf ball heating device in the assembled position.

FIG. 2 is a plan view of the lower section showing the location of the insulated electrical heating element in dashed lines.

FIG. 3 is a transverse section along lines 3—3 of FIG. 2.

FIG. 4 is a transverse section along line 4—4 of FIG. 1 and shows the insulative engagement between the adjoining insulating bands and between each band and the adjacent closure wall and, additionally, shows the push button key and lock assembly.

FIG. 5 is an exploded, disassembled, transverse sectional view of the insulating bands and peripheral portion of each tray.

FIG. 6 is a perspective view of the push button key.

DETAILED DESCRIPTION

Referring now to the drawings, there is shown a rela-
tively separable, bipartite golf ball heating device hav- ing an upper section 2 and a lower section 4. The lower section includes a first heat conductive tray 6 having a front side 8 and back side 10 and is provided with a plurality of hemispherically shaped receptacles 12 which open to the front side. The first tray laterally terminates in a recessed first peripheral portion 14 which includes a channel section 16, front wall 18, depending side wall 20 and an under cut bottom wall 22 contiguous with a rearwardly and vertically disposed shoulder portion 24.

A first open-ended, hollow closure 26 having an outer end wall 28 and depending perimetal side wall 30 overlies the back side of the first tray in spaced relationship to the receptacles of this tray with the open end 32 of the closure engaging the under cut bottom wall 22 of the peripheral portion and the adjacent closure side wall 34 abutting the shoulder portion 24 thereof.

A first insulating band 36 perimetically abuts the front wall of the first peripheral portion and is provided with an outer depending leg 38 and an inner depending leg 40. The outer depending leg, which extends along the peripheral portion side wall 26, insulatingly engages the first closure side wall and is, advantageously, adhesively secured thereto. The inner depending leg is disposed within the channel section 16 of the peripheral portion. The top wall of the insulating band is provided with a tongue member 42.

An electrically insulated heating element 44, which is adapted to reach a temperature of about 120° F., is disposed about the back side of the first tray and, preferably, is in abutment with the outer surfaces of the several receptacles. The ends of the heating element are in contact with a pair of electrical prongs 46 which are supported by an electrical insulated 48. The insulator is adapted to engage a slot 50 in an electrical prong orifice housing 52 secured to the side wall of the first closure. Although a two-prong electrical contact is shown, the drawings, the electrical inlet may have any suitable structural configuration.

The lower section, first tray 6 is also provided with a lock slot 54 to releasably engage a push button key as will hereinafter be more fully described.

The upper section of the bipartite golf ball heating assembly includes a second heat conductive tray 56 having a front side 58 and a back side 60 and is provided with a plurality of hemispherically shaped receptacles 62 which open to the front side and which are adapted to align with the receptacles of the first tray upon assembly of the sections. The second tray laterally terminates in a second recessed peripheral portion 64 which includes a channel section 66, front wall 68, depending side wall 70 and an under cut bottom wall 72 contiguous with a rearwardly and vertically disposed shoulder portion 74.

A second open-ended, hollow closure 76 having an outer end wall 78 and depending perimetal side wall 80 overlies the back side of the second tray in spaced relationship to the receptacles of this tray with the open end 82 of the closure engaging the under cut bottom wall 72 of the second peripheral portion and the adjacent closure side wall 84 abutting the shoulder portion 74 thereof.

A second insulating band 86 perimetrically abuts the front wall of the second peripheral portion and is provided with an outer depending leg 88 and an inner de- pending leg 90. The outer depending leg, which extends along the peripheral portion side wall 70, insulatingly engages the second closure side wall and is, advantageously, adhesively secured thereto. The inner leg is disposed within the channel section 66 of the second peripheral portion. The top wall of the second insulating band is provided with a groove 92.

The insulating bands and the closures are, advantageously, fabricated from appropriate insulating materials while the trays can be fabricated from a heat conductive material such as aluminum.

The upper section of the bipartite assembly is provided with an appropriate transverse key-aperture 94 which extends through the outer end wall of the second closure and through the second tray and which is adapted to align with the lock slot 54 in the first tray. A spring biased, push button key 96 is disposed within the key-aperture and is provided with a pair of laterally and oppositely disposed projections 98 for releasably engaging the lock slot.

In order to use the bipartite golf ball heating device, the spring biased, push button key is rotated until the lateral projections disengage from the lock slot. The upper and lower sections are manually separated and golf balls are placed in the hemispherically shaped receptacles of one of the sections as, for example, the lower section. The upper section is then alignably engaged with the lower section by placing the front sides of the first and second trays in abutment such that the tongue of the first insulating band insulatingly and alignably engages the groove in the second insulating band. At the same time, the push button key is rotated so that the lateral projections are in alignment with and can traverse the lock slot. This assembly step also aligns the corresponding receptacles of the first and second trays whereby the golf balls are separately and completely encapsulated by the heat conductive receptacles. The spring biased, push button key is then pressed and rotated to releasably secure the upper and lower sections.

The electrical prongs are connected by an appropriate electrical cord device to a source of electrical potential, such as a battery or conventional 110 volt, 60 cycle household current. By employing an electrical resistance heating element adapted to reach and maintain a temperature of about 120° F., it has been found that golf balls can be effectively warmed by heating them at this temperature for at least about 6 hours or longer.

Since the closures are in spaced relationship to the back sides of the heat conductive trays with the side walls of the closures engaging the peripheral portions of the trays and since the second closure is provided with a depending key-aperture rim which abuts the second tray key-aperture wall, the space between the back side of each conductive tray and its overlaying closure defines a contained air space which functions as an effective heat insulator for maintaining the device at golf ball warming temperatures for a significant period of time after the heating element is turned off.

While in the foregoing description and accompanying drawing there has been shown and described the preferred embodiment of this invention, it will be understood, of course, that minor changes may be made in the details of construction as well as in the combination and arrangement of parts without departing from the spirit and scope of the invention as claimed.

That which is claimed is:
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1. A golf ball heating device which comprises:
a bipartite assembly having relatively separable
upper and lower confronting sections,
said lower section including: a first heat conductive
tray, said tray having a front side and a back side
and a plurality of hemispherically shaped receptacles
which open to the front side and said front side
terminating laterally in a first peripheral portion
having a front wall, depending side wall and back
wall; a first open-ended thermally insulating clo-
sure, said closure overlying the back side of said
first tray in spaced relationship to the receptacles
of said tray with the open end of said closure en-
gaging the back wall of said first peripheral portion;
and a first insulating band, said band perimetrically
abutting the front and side walls of said first periph-
eral portion and insatively engaging said first clo-
sure;
said upper section including: a second heat conduc-
tive tray, said tray having a front side and a back
side and a plurality of hemispherically shaped re-
cptacles which open to the front side, said recept-
cacles being adapted to circumferentially engage
corresponding receptacles in the first tray in a golf
ball encapsulating manner, and said front side ter-
minaling laterally in a second peripheral portion
having a front wall, depending side wall and back
wall; a second open-ended thermally insulating clo-
sure, said closure overlying the back side of said
second tray in spaced relationship to the recepta-
cles of said tray with the open end of said closure
engaging the back wall of said second peripheral
portion; and a second insulating band, said band perimetrically abutting the front and side walls of
said second peripheral portion and insatively en-
gaging said second closure;
said first and second insulating bands having cooper-
atively engaging insulating means,
means for aligning the upper and lower sections in a
predetermined assembled position whereby the
front sides of the first and second trays are in con-
fronting relationship and the receptacles of said
trays are in golf ball encapsulating alignment,
insulated electrical heating means disposed within at
least one of said sections for heating said heat con-
ductive trays, and
means for releasably securing the upper and lower
sections in an assembled position.

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2. A device according to claim 1 wherein the first and
second peripheral portions are recessed with respect to
their adjacent first and second front sides and the inner
margins of said peripheral portions are provided with
perimetical channels.

3. A device according to claim 2 wherein the insulat-
ing bands are provided with inner legs adapted to en-
gage the inner margin channels of said peripheral por-
tions.

4. A device according to claim 3 wherein the cooper-
atively engaging insulating means of the first and sec-
ond insulating bands comprises a mating tongue and
groove combination.

5. A device according to claim 4 wherein the mating
tongue and groove combination of the first and second
insulating bands also aligns the upper and lower sec-
tions in a predetermined assembled position.

6. A device according to claim 5 wherein the heating
means is an insulated electrical heating element dis-
posed about the back side of the receptacles in the
lower section.

7. A device according to claim 6 wherein the means
for releasably securing the upper and lower sections is
a rotatable, spring biased, push button key and lock
combination with the lock being an appropriate aper-
ture in the first tray of the lower section and the upper
section being provided with a suitable transverse open-
ing to accommodate the key, said key having lateral
projections for releasably engaging said lock.