

**HOLDER DEVICE FOR TOOTHBRUSH, TABLE KNIVES, FORKS AND
SPOONS AND THE LIKE**

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The present invention relates to a holder device for toothbrushes, razors, table knives, forks and spoons and the like. In particular the present invention relates to a holder device for holding and protecting portion of an elongate members such as toothbrush, razors, forks, knives and spoons. More particularly the invention relates to a
10 holder device to protect a portion of an elongate member such as toothbrushes, razors, forks and knives ad spoons, from being exposed to insects such as houseflies and other pests.

It is common to find toothbrushes, knives, spoons and forks left exposed on
15 trays, shelf, drawers, etc. after use. Toothbrushes in particular are often left exposed on top of shelves in the bathroom or are suspended from slots in trays in the bathroom. Similarly knives, spoons, forks etc. are stored in trays, on specially designed shelves with slots. Such utensils are exposed to household pests such as insect, like cockroaches. Cockroaches do crawl over brushes, knives, razors, forks and spoons
20 especially at night, thus soiling the utensils. Thus it is an object of the invention to provide a container for elongate domestic utensils such as toothbrushes, razors, knives, forks and spoons.

Is another object of the present invention to provide a container for toothbrushes
25 which encapsulates the brush portion of the toothbrushes, whilst exposing the handle portion of the toothbrushes.

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SUMMARY OF THE INVENTION

5 A holder device for holding encapsulating a portion of a hand holdable elongate member comprising of a mounting bracket with a base and two side walls and a pair of side flaps partially rotatable about a common axis. The said flaps when in a closed position forms an enclosed chamber with an aperture at one end to accommodate the elongate member. The side flaps are mountable onto the mounting bracket. The edge of
10 the side walls pivotable about the bottom portion of the side flaps. To close the side flaps from an open position, force is applied onto the base of the side flaps from the elongate member or force is applied on either one or both the side flaps in the direction perpendicular to the common axis. To open the side flaps from a closed position the side flaps are partially rotated by the removal of the elongate member away from the
15 common axis. In other words when force is applied onto the base of the side flaps, it will automatically trigger the side flaps to close or open.

 The base of each of the side flaps includes at least two jaws. The jaws allow partial rotation of the side flaps when the side flaps are assembled together but prevents
20 the side flaps from being displaced along the common axis. The jaws are disposed below the base of the side flap and extends in a substantially horizontal direction perpendicular to the common axis. The side flaps includes a shaft. The base on the outside includes a rib pivotable about the mounting bracket.

25 Each of the side flap include a cut-away portion so that when the side flaps are in a closed position, an aperture is formed. The holdable elongate member is selected from a tooth brush, table forks, table spoons, table knives, kitchen scissors an the like.

DETAILED DESCRIPTION OF THE INVENTION

5 The invention will now be described in detail by way of reference to a preferred embodiment of the invention and with reference to the following drawings in which: -

 Figure 1 illustrates a perspective view of a holder device in an open position with the toothbrush.

10 Figure 2 illustrates a perspective view of a holder device shown in Figure 1 in a closed position with the brush portion of the toothbrush housed thereon.

 Figure 3 illustrates a perspective view of a holder device when the brush portion of the toothbrush is removed from the holder device.

 Figure 4 is an exploded view of the side flaps and the mounting bracket.

15 Figure 5 is an exploded view of the features on the side flaps.

 Figure 6 is an exploded view of the features on the mounting bracket.

 Figure 7 illustrates a perspective view of a holder device in an open position.

20 Referring now to Figure 1,2,3 and 4, there is illustrated a holder device (10) for a tooth brush (12). In one aspect, the holder device (10) consists of two separable side flaps (14,16), a plurality of jaws (44) and a mounting bracket (20).

25 Each side flap (14,16) is substantially a mirror image of the other, (Figure 5). The side flap identified by the numerical (14) will be described in detail, the features of the side flaps identified by numerical (16) corresponds and will be denoted by an (') to the numerical used of the side flap (14). The side flap (14) is four sided and the sides are integrally connected, (Figure 5). The lateral side plate (22,22') of the side flap includes a plurality of small apertures (24,24') to facilitate ventilation of the interior of the holder device (10) when in use.

30 The upper plate (26,26'), front plate (28,28') and base plate (30,30') are integral with the lateral side plate (22,22') and are dimensioned and configured to form a

completely enclosed conical shape when the side flaps (14,16) are in a closed position, (Figure 2). The base plate (30,30') of the side flap (14,16) includes a cut-away (32,32') to accommodate a handle of the toothbrush (12) and a frictional point surface (17) to enable opening of the side flaps (14,16), (Figure 5).

The size of the cut-away (32,32') is such as to accommodate the portion of the handle of the toothbrush. A shaft (34,34') is provided and positioned in each side flap (14,16) in a manner that when both the side flaps are in a closed position, the shaft (34,34') are immediately adjacent to each other.

The mounting bracket (20) includes a base (36) and two side walls (38), (Figure 6). The edge of the side walls (38) of the mounting bracket (20) is pivotable about the bottom portion of the side flaps (14,16). A rib (19) is provided at the edge of the flap (22) which is configured to pivot about the edge of the side walls (38), (see Figure 1). The base (36) includes two slot (40) at the terminal end of the mounting bracket (20) where a mounting means (42) is attached. An elongate ledge (21) is also provided at each edge of the side walls (38). The said ledge (21) is configured to receive the said rib (19). The function of the said rib (19) and ledge (21) is to avoid or prevent the side flaps (14,16) being disposed from its position when in use.

The base plate (30) of each of the side flaps (14,16) includes a plurality of jaws (44), (Figure 5). Both sides of the flaps contains three jaws each so as to form a series of six interlocking jaws along a common longitudinal axis. The function of the jaws (44) is to allow partial rotation of the side flaps (14,16), when the side flaps (14,16) are assembled together but prevents the side flaps (14,16) from being displaced along the common axis. The configuration of the assembled jaws (44) is analogises to the outstretched fingers of the right hand interlocking with the fingers of the left hand outstretched. The jaws (44) are disposed below the base plate (30) of the side flap (14,16) and extends in a substantially horizontal direction perpendicular to the common axis, (Figure 5).

The working of the holder device (10) and other features of the holder device (10) not described earlier will be described now. The holder device (10) is secured to a vertical surface by any suitable means. The back surface of the base plate (30) can be pivoted or glued to a receiving surface. Alternatively the back surface of the base plate (30) can be secured to a receiving surface by screw or nails means (not illustrated). If the holder device (10) is closed without the toothbrush housed therein, the side flaps (14,16) are pulled open by both hands.

In an open position, the side flaps (14,16) are inclined at an angle from the vertical axial plane of the holder device (10), (Figure 7). The side flaps (14,16) cannot be further inclined because any such further downwards movements is resisted by the plurality of jaws (44) at the base plate (30).

A rigid plastics part (46) of the brush portion of the toothbrush (12) is introduced into the holder device (10), (Figure 1). As the rigid plastic part (46) is pressed downwards against the plurality of jaws (44) at the base plate (30), the plurality of jaws (44) will move downwards while simultaneously the side flaps (14,16) will move towards the vertical axial plane of the holder device (10) into a close position by the cam action of the plurality of jaws (44), (Figure 2). At this closed position the brush is encapsulated by the holder device (10). It will be appreciated that the handle portion of the toothbrush (12) will be suspended vertically from the holder device (10).

To remove the toothbrush (12) from the holder device (10), the toothbrush (12) is removed away from the common axis of the holder device (10), (Figure 3). As the rigid plastics part (46) of the toothbrush (12) moves away from the common axis, it pushes against the shafts (34,34') and the frictional point surface (17). The shafts (34,34') will move away from the vertical axial plane of the holder device as the side flaps (14,16) open up to a open position by a cam action of the plurality of jaws (44) and by application of upwards force of the toothbrush (12).

Thus, if the holder device (10) is opened by hand, subsequent closing and opening of the holder device (10) is effected by the placement and removal of the toothbrush (12) respectfully. The opening and closing of the side flaps (14,16) is assisted by the cam action of the side flaps (14,16) against the plurality of jaws (44) providing a snap opening and closing system.

Although, the invention has been described in relation to an embodiment for a holder device (10) for a toothbrush (10), the principles enunciated in the embodiment can be used to design a holder device (10) for other utensils such as forks and spoons,

knives, scissors, and etc. in such cases, the portion of the utensils to be protected from insect pests is encapsulated in the holder device (10).

The size and shape of the holder device (10) can be varied to accommodate different types and sizes of the utensils. The holder device (10) has been described by the reference to a pair of shaft (34,34'), the invention can include another pair of shaft at the opposite side of the holder device (10).

In the present embodiment, the holder device (10) is made of a rigid plastics material, but it can also be replaced by any other kind of rigid material known to the art.

CLAIMS

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1. A holder device (10) for holding encapsulating a portion of a hand holdable elongate member comprising of:-

a mounting bracket (20) with a base (36) and two side walls (38);

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a pair of side flaps (14,16) partially rotatable about a common axis, said flaps (14,16) when in a closed position forming an enclosed chamber with a cut-away (32) at one end to accommodate the elongate member

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wherein the side flaps (14,16) are mountable onto the mounting bracket (20), the edge of the side walls (38) pivotable about the bottom portion of the side flaps (14,16) and wherein to close the side flaps (14,16) from an open position, force is applied onto the base (30) of the side flaps from the elongate member (14,16) or force is applied on either one or both the side flaps (14,16) in the direction perpendicular to the common axis, and to open the side flaps (14,16) from a closed position the side flaps (14,16) are partially rotated by the removal of the elongate member away from the common axis.

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2. A holdable device as claimed in Claim 1 wherein the base plate (30) of each of the side flaps (14,16) includes at least two jaws (44), and wherein the jaws (44) allow partial rotation of the side flaps (14,16) when the side flaps (14,16) are assembled together but prevents the side flaps (14,16) from being displaced along the common axis.

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3. A holder device as claimed in Claim 2 wherein the jaws (44) are disposed below the base plate (30) of the side flap (14,16) and extends in a substantially horizontal direction perpendicular to the common axis.

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4. A holder device as claimed in Claim 1 wherein the side flaps (14,16) includes a shaft (34).

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5. A holder device as claimed in Claim 1 wherein the base plate (30) on the outside includes a rib (19) pivotable about the mounting bracket.

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6. A holder device as claimed in Claim 1 wherein each of the side flap (14,16) include a cut-away (32) portion so that when the side flaps are in a closed position, an aperture is formed.

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7. A holder device as claimed in any of the Claims 1-6 wherein the holdable elongate member is selected from a tooth brush, razors, table forks, table spoons, table knives, kitchen scissors and the like.

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8. A holder device as claimed in any of the Claims 1-6 wherein the holdable elongate member can be of any shape and can be housed in any direction in the holder device (10)

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