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BLADE SPINE SURFACE EXTENSION DEVICE

FIELD OF INVENTION

The present invention relates to blade tools, specifically to a surface extension device to be mounted on the spine of the blade such as a knife.

BACKGROUND OF THE INVENTION

A typical cutting apparatus such as knife, chopper, parang and et cetera include parts such as the tip, blade, spine, handle, tang, heel and butt. These cutting, slicing or chopping apparatus are different in design such as length of blade, thickness of the blade, curvature or bend of the blade etc. For example, a slicing knife has a typically longer blade while a chopper is lengthier in depth. Different choppers also have many variations in the spine's dimensions.

The blades' back also known as the spine, which is the top of the blade directly opposite the sharpened edge is usually not sharpened or hone. It is known that the palm, or any parts of the hand or other physical objects are used to strike, hit, smack, knock et cetera the spine. This direct force applied onto the spine of the cutting apparatus is to assist the in chopping, cutting or severing the foodstuff or objects to be separated such as meat, fruit, fish et cetera.

It is commonly know there is more pressure when constant force is applied to a smaller area compared to a broader surface area. An action also creates an opposite reaction, hence a reverse force and pressure is rebound back into the palm or any parts of the hand used to applied the impact on the spine. This can create stress or pain for the user since the spine has a relatively small surface area.

Users are also known to use physical items such as a hammer, block of wood or other hard objects to knock or smack the spine instead of their palm or hand. By using a physical object to smack or knock the spine, the user has to hold the object; when the meat or foodstuff need to alter its position, this physical object has to be release from the

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hand so that the user can use this uninhibited hand to align the foodstuff. This is inefficient, as the user has to constantly pick up and drop the physical object.

Another consideration is the surface of such device has to be sufficiently long to cater for the various size of the palm and do not obstruct the visibility from a top-down view.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a broaden area of impact, is easily attached and detached on the spine, maintain firm fit and is able to mount onto cutting apparatus with different spine thickness.

It is an object of the present invention to provide variable length for different palm sizes with easy of use during mounting and removing; attaching and detaching the different parts together and when adjusting its position along the spine of the blade when handled with wet or greasy fingers.

It is an object of the invention to provide a small top profile so as not to obstruct visibility of the object when striking of the device with the palm.

It is an object of the invention to present an easy to clean façade without crevices where tiny objects can be trap.

It is an object of the invention to present a method to adapt to less obstructive form to be positioned at the tip or end of the blade when the blade need to cut through a big object such as a chicken.

It is a further object of the present invention to provide convenient to have different colours for the different piece during production.

DESCRIPTION OF THE INVENTION

One aspect of the invention is the topmost surface of the device where the palm or parts of the hand can smack or hit upon, the broaden structure will decrease the rebound pressure of the impact. The lateral dimension is also reasonably sized that it will not obstruct visibility.

Another aspect of the present invention provides a method to extend the length of the impact surface by attaching a second piece. The second piece is aligned behind the first piece and is secured to the first piece through a fastening method.

Another aspect of the present invention provides a fastening method to secure the second piece to the first piece. The first piece includes at least an aperture on the side. At least one knob is present on the second piece. The knob is positioned on the extension arm on the second piece. The knob and aperture work in conjunction to provide the fastening method.

Another aspect of the present invention provides an ergonomic method to fix it onto the spine of the spine by means of an oblique edge at the bottom tip of the sides.

Another aspect of the present invention provides a firm fitting method on the spine by means of v-shape sides, which arc angled against the blade plane and a grip to clasp against the blade plane.

Another aspect of the present invention provides a fitting method for spine of various thickness by means of step-like grooves on the underside. The step-like grooves with suitable dimensioning, provides the fitting where the spine resides.

Another aspect of the present invention has at least one deep-set cavity on the sides. This provides finger grip for handling of the present invention with wet or greasy fingers when adjusting its position along the spine; attaching or detaching the second piece from the first piece along the spine; fixing on or removing the present invention from the spine. The cavity have a circular sloping gradient towards the base which prevent tiny objects from been trap in the cavity.

Another aspect of the present invention is the curve shape joint of the first and second pieces. The curve joints form a mutual supporting structure, which transfer some of the impact away from the connection joint. This will prevent the force of the impact from the palm or other parts of the hand from splitting the joint between the first and second piece.

Another aspect of the present invention is the length must be sufficient to cater to different palm size but not overly lengthy. During cutting objects relatively big like a chicken, the chopper will need to cut through it; hence, the invention may present an

obstruction. In a preferred embodiment, the present invention should be able to separate into two parts.

Another aspect of the present invention can have different colors. This can be conveniently produced using two separate moulds for the different piece during production.

Reference will now be made in detail to the preferred embodiments of the invention, examples of which are illustrated in the accompanying drawings. Furthermore, in the following detailed description of embodiments of the present invention, numerous specific details are set forth in order to provide a thorough understanding of the present embodiment.

A typical embodiment of the present invention is illustrated in Fig 1, Fig 2 and Fig 6. The surface extension device has a longitudinal base 1 and base 2 consisting of non-rigid material, which forms v-shape arc sides 4 that can be repeatedly stretch open without fracturing. The base 1 and base 2 has a leveled topmost surface. The base 2 is can be attached and detached from base 1.

The arc sides 4 terminates in grips 5 as illustrated in Fig 3. At the bottom tip of the base 1 and base 2 leads to oblique longitudinal edges 6. At the underside of base 1 and base 2, steps-like groove 8 run along in the middle.

The base 1 as illustrated in Fig 4, Fig 6 and Fig 7 consists of apertures 9 with inlay. The base 2 as illustrated in Fig 5 and Fig 6 consists of arms 12. At the end of the arm 7 is a knob 12 with a indentation as illustrated in Fig 5, Fig 6 and Fig 7 which is suitably dimensioned to fit apertures 9.

The base 1 and 2 consist of cavities 3 as illustrated in fig 1, 4 and 5. The cavities 3 forms convex or incline gradient leading towards the base.

The base 1 as illustrated in Fig 2 and Fig 6 leads to a curve shape like joint 10 on the tail end. The base 2 leads to a curve like joint 11 on the head end. The joint 10 and joint 11 is suitably dimensioned to fit aptly.

The base 1 as illustrated in Fig 4 leads to an inverse step like offset structure 13 at the tail extremity. The base 2 as illustrated in Fig 5 leads to a step like structure 14 at the head extremity.

FIGURES

In order that the invention might be more fully understood, embodiments of the invention will be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 shows the side view of the first and second base of the surface extension device.

Figure 2 shows the top view of the first and second base of the surface extension device.

Figure 3 shows the front view of the first base of the surface extension device.

Figure 4 shows the side view first base of the surface extension device.

Figure 5 shows the side view second base of the surface extension device.

Figure 6 shows the side elevation view of the surface extension device.

Figure 7 shows the top view of the surface extension device having aperture and knob.

OPERATION OF THE INVENTION

Reference will now be made in detail to the operation of the preferred embodiments of the invention.

The base 1 is fitted onto the blade's spine by inserting it with edge 6 towards the spine. The oblique edge 6 allows easy fitting onto the spine. The arc sides will widen as consists of flexible material. The grip 5 will provide a firm clasp on the blade's plane.

The base 1 is mounted onto the spine of the blade by selecting the corresponding grooves 8 that provides the best fit to the dimension of the spine's thickness. The suitably dimensioned width of the groove will provide a snug fit to the spine. The base 2 is mounted onto the blade in the same method.

The base 2 is connected to the first device by means snap lock of the knob 12 located along the end of the extension arm 7 of the base 2 to the aperture 9 situated on the side of the base 1.

The present invention has curve shaped joints 10 on the base 1 and joint 11 on the base 2. It forms a level surface when base 1 and base 2 is attached to each other. The joint 11 and joint 10 are suitably dimensioned to flush on each other. The joint 10 and joint 11 provides a mutual supporting impact-bearing structure which inhibit the splitting of the first and second piece when the palm is strike on the level surface.

The present invention can attached or detached onto the spine, repositioned along the spine, attached or detached the base 1 and base 2 from each other by griping the deep-set cavity 3 with the fingers.

While the invention will be described in conjunction with the preferred embodiments, it will be understood that they are not intended to limit the invention to these embodiments. On the contrary, the invention is intended to cover alternatives, modifications and equivalents. For examples, the present invention can have only one singe base; the two bases can be connected by hinge or swivel like mechanism; the grip can be of other shapes such as rectangle, oval, etc; the base 2 can be altered to be without the grip and secured to base 1 using a hinge; the groove 8 can have more steps to cater to more spine dimensions, etc.

Thus the scope of the invention should be defined by the appended claims rather than by examples given.

CLAIMS

1. A surface extension device having a horizontal surface, longitudinal body, mount means to attach onto a blade spine of various dimensions and a secure means to clamp, grip the plane of the blade.

2. A surface extension device according to claim 1 wherein the device can extend in longitude by attaching a second piece.

3. A surface extension device according to claim 1 wherein the topmost section of the first piece and second piece is leveled, said topmost surfaced in operation, provides the contact area for the palm or other parts of the hand to strike.

4. A surface extension device according to claim 1 wherein the topmost surface is leveled can be uneven or consist of other materials, which prevents slipping when surface is wet or greasy.

5. A surface extension device according to claim 1 wherein the first and second piece includes arc bendable sides, said sides are v-shape and in operation, provides clamping action against the plane of the blade.

6. A surface extension device according to claim 5 wherein the first and second piece sides ends in a longitudinal grip and in operation, grip against the plane of the blade.

7. A surface extension device according to claim 5 wherein the bottom tip of the arc side includes a longitudinal oblique edge, said oblique edge in operation, assist the arc sides to be forced open when mounting onto the spine of the blade.

8. A surface extension device according to claim 2 wherein the first piece and second piece in operation, aligns with each other along the spine, said second piece can be placed behind the first piece.

9. A surface extension device according to claim 1 wherein the first piece includes at least an aperture on at least one of its sides, said aperture is circular in shape with an inlay.

10. A surface extension device according to claim 2 wherein the second piece includes at least one arm.

11. A surface extension device according to claim 10 wherein the tip of the arm includes at least a knob, said knob is dimensioned to fit the aperture on the first piece, the knob is circular in shape with an indentation.

12. A surface extension device according to claim 2 wherein the first and second piece when fit to the blade spine, provides a secure method to secure to each other by means of the aperture and knob.

13. A surface extension device according to claim 1 wherein the first and second pieces includes a least one deep-set cavity on at least one side, said cavity in operation, provides finger grip to enable grasping when fixing the present invention onto the spine, sliding along the spine, attaching or detaching the first and second piece from each other.

14. A surface extension device according to claim 13 wherein the first and second pieces includes a least one deep-set cavity, said cavity can be convex or incline in gradient leading to the base of the cavity, said cavity in operation, provides a ergonomic, comfortable grip and reduce possibility of trapping of tiny objects.

15. A surface extension device according to claim 1 wherein the first and second piece lead to a curve shape at the extremity of the longitudinal structure.

16. A surface extension device according to claim 15 wherein the curvature of the first piece and second piece is suitably dimensioned to provide a flush fit, said

curvature in operation, avert the attached pieces from disjoining when an impact is applied on the topmost surface.

17. A surface extension device according to claim 1 wherein the first piece at the tail extremity forms an inverse step like offset structure.

18. A surface extension device according to claim 2 wherein the second piece at the head extremity forms a step like offset structure.

19. A surface extension device according to claim 2 wherein the offset structure of the first piece and inverse offset structure of the second piece is aptly dimensioned to provide a flush coupling, said joined coupling structure in operation, provide a mutual supporting structure to avert the attached pieces from disjoining when an impact is applied on the topmost surface.

20. A surface extension device according to claim 1 wherein said longitudinal body and extension piece is colored.