use of different pieces of equipment. There therefore exists an inherent need to achieve a more efficient method of swiftlet nest cleaning process so as to increase the productivity and efficiency of each labourer as well as the yield, quality and cleanliness of the swiftlet nests.

It is an object of the present invention to overcome, or at least alleviate one or more of the aforementioned problems.

SUMMARY OF THE INVENTION

In accordance with a first aspect of the present invention there is a device for cleaning and processing natural extracts ~~such as edible swiftlet nest~~ comprising a ~~pair of~~ tweezers ~~with hollow internal cores, the hollow internal cores permitting the passage of air and/or water such that the process of cleaning may be targeted~~ formed using two hollow rods; each hollow rod comprising a first end portion and a second end portion;~~.~~

Wherein each first end portion is bent at an angle with respect to the longitudinal axis of the respective hollow rod such that in use the first end portions move towards each other to contact the natural extract; and each second end portion is operable to be connected to a cleaning solution source; a vacuum suction source; or an air blower.

Preferably, for processing raw swiftlet nest, one of the second end portion is adapted to be operably connected to a water source and the other of the second end portion is adapted to be operably connected to a vacuum suction source. In such instance, preferably, the preferred pressure from the water dispenser is set at 2 bar and the vacuum pressure (negative pressure) from the vacuum suction source is set at -85 kPa.

Preferably, the hollow rods are made of stainless steel.

Preferably, the device is operably coupled with a base machine, the base machine comprises a work table, a cleaning solution source; a vacuum suction source; and an air blower.

Preferably, the device comprises grips affixed to a portion near the central region of each hollow rod.

In accordance with a second aspect of the present invention there is a method for cleaning and processing swiftlet nest comprising connecting the device of the first aspect to a water source and a vacuum suction source;

moving the first end portions of the tweezer towards each other until each first end portion contact the target region of the swiftlet nest;

wherein upon contact, water flows out from one of the first end portions to soften the swiftlet nest to loosen the bond between the siwftlet nest and any impurities, while the vacuum suction via the other first end portion sucks/extracts the impurities which have been loosened.

BRIEF DESCRIPTION OF THE DRAWINGS

The following invention will be described with reference to the following drawings of which:

Fig. 1 is a perspective view of the device for cleaning and processing natural extract in accordance with an embodiment of the invention;

Fig. 2 is a side view of the device for cleaning and processing natural extract in accordance with an embodiment of the invention;

Fig. 3 is an end view of the device for cleaning and processing natural extract in accordance with an embodiment of the invention;

Fig. 4 is a perspective view of the base machine for use with the device for cleaning and processing natural extract in accordance with an embodiment of the invention;

Fig. 5 is a front perspective view of the base machine for use with the device for cleaning and processing natural extract in accordance with an embodiment of the invention;

Each second end portion 18 is adapted to operably attach to one of the following:-

a water/cleaning solution source 20;

a vacuum suction source 22; or

an air blower (air pressure outflow).

End portion 18 may be operably attached to the source 20, 22, or air blower via rubber or PVC tubes.

To form the pair of tweezers 12, biasing means 26 is disposed between the two hollow rods 14. In this preferred embodiment, biasing means 26 may be a y-shaped or v-shaped metal piece. One side of the v-shaped biasing means 26 is attached to one of the hollow rods 14 while the other side of the v-shaped biasing means 26 is attached to the other hollow rod 14, in a way where the converging end of the v-shaped biasing means 26 faces the second end portion 18 while the diverging ends of the biasing means 26 faces the first end portion 16.

For ease of usage by a user, grips 28 may be affixed to a convenient portion near the central region of each hollow rod 14.

In the embodiment, the v-shaped biasing means 26 may be attached to the hollow rods 14 via the grips 28.

When pressure is applied to the formed tweezers 12 via pressing the grips 28 towards each other, the edge of first end portion 16 of each hollow rod 14 contacts and faces each other forming a 'closed' loop position with minimal gap between the contacted surface 30.

When pressure is removed, biasing means 26 act to move the first end portion 16 of a hollow rod 14 away from the first end portion 16 of the other hollow rod 14.

In use, ~~T~~the device may be coupled with ~~comprise a preferred~~an apparatus 40. ~~for use with the tweezers 12.~~ Fig. 3 to 7 shows a preferred apparatus 40 in the form of a base machine for use with the tweezers 12.

CLAIMS

1. A device for cleaning and processing natural extracts ~~such as edible swiftlet nest~~ comprising

a ~~pair of~~ tweezers formed using two ~~with~~ hollow rods~~internal cores,~~; each~~the~~ hollow rod comprising a first end portion and a second end portion; ~~internal cores permitting the passage of air and/or water such that the process of cleaning may be targeted.~~

wherein each first end portion is bent at an angle with respect to the longitudinal axis of the respective hollow rod such that in use the first end portions move towards each other to contact the natural extract; and each second end portion is operable to be connected to a cleaning solution source; a vacuum suction source; or an air blower.

2. The device according to claim 1, wherein one of the second end portions is adapted to be operably connected to a water source and the other of the second end portions is adapted to be operably connected to a vacuum suction source.

3. The device according to claim 1 or 2, wherein water flows out from one of the first end portion to soften the natural extract.

4. The device according to claim 3, wherein the bond between the natural extract and any impurities is loosened.

5. The device according to claim 4, wherein vacuum suction on the other first end portion sucks/extracts the impurities which have been loosened.

6. The device according to any of the preceding claims, wherein the hollow rods are made of stainless steel.

7. The device according to any of the preceding claims, wherein the preferred pressure from the water dispenser is set at 2 bar and the vacuum pressure (negative pressure) from the vacuum suction source is set at -85 kPa.

8. The device according to any of the preceding claims, wherein the device is operably coupled with a base machine, the base machine comprises a work table, a cleaning solution source; a vacuum suction source; and an air blower.

9. The device according to any of the preceding claims comprising grips affixed to a portion near the central region of each hollow rod.

10. The device according to any of the preceding claims wherein the natural extract is a raw swiftlet nest.

11. A method for cleaning and processing natural extracts comprising

connecting the device as claimed in claim 2 to a water source and a vacuum suction source;

moving the first end portions of the tweezer towards each other until each first end portion contacts the natural extract;

wherein upon contact, water flows out from one of the first end portion to soften the natural extract to loosen the bond between the natural extract and any impurities, while the vacuum suction via the other first end portion sucks/extracts the impurities which have been loosened.

12. The method according to claim 11 wherein the natural extract is a raw swiftlet nest.