United States Patent

[11] **3,552,460**

[72] Inventor **Leighton H. Cooney**
1042 Cherokee Road, Wilmette, Ill. 60091

[21] Appl. No. **795,909**
[22] Filed **Feb. 3, 1969**
[45] Patented **Jan. 5, 1971**

[54] **APPARATUS FOR CUTTING BLOCK OF CHOCOLATE OR THE LIKE**
6 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** **146/60,** 241/95, 241/274
[51] **Int. Cl.** **B02c 18/00,** B02c 19/20
[50] **Field of Search** 146/60, 125, 128, 177; 241/95, 274

[56] **References Cited**
UNITED STATES PATENTS

1,025,513	5/1912	Craven	146/60
1,518,676	12/1924	Serre	146/60
2,627,377	2/1953	Fletcher	146/125X

Primary Examiner—Willie G. Abercrombie
Attorney—Stanley Hoods

ABSTRACT: A tubular housing having fixed blades in the bottom thereof, a rotatable, noncylindrical barrel within said housing having a follower therein for rotating said barrel and also for urging a block of material into contact with said blades.

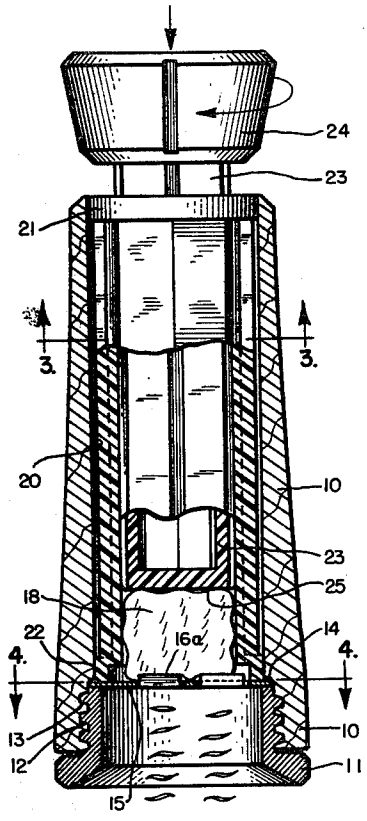


FIG. 1

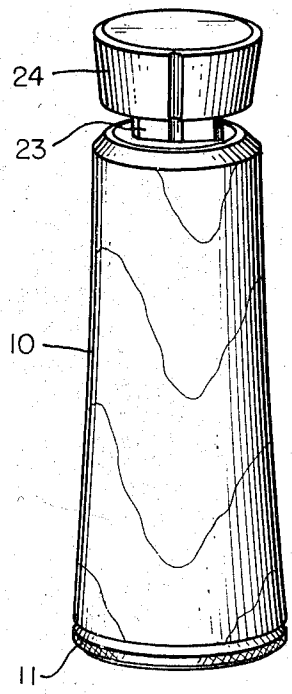


FIG. 2

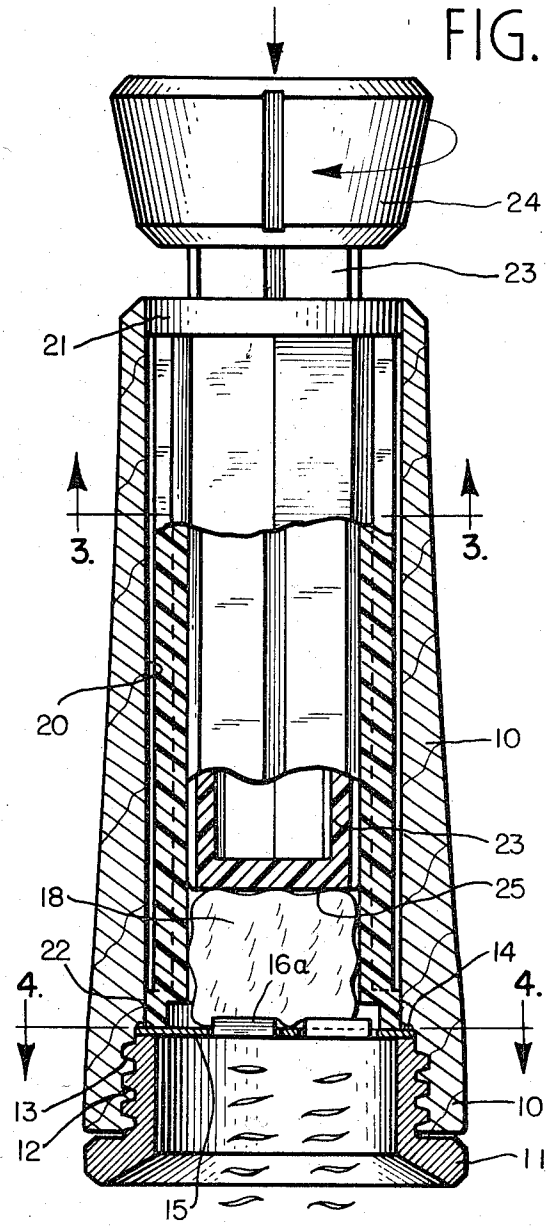


FIG. 3

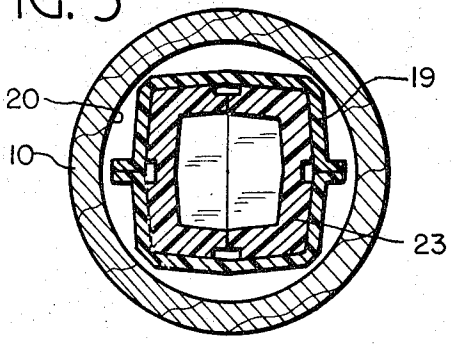


FIG. 4

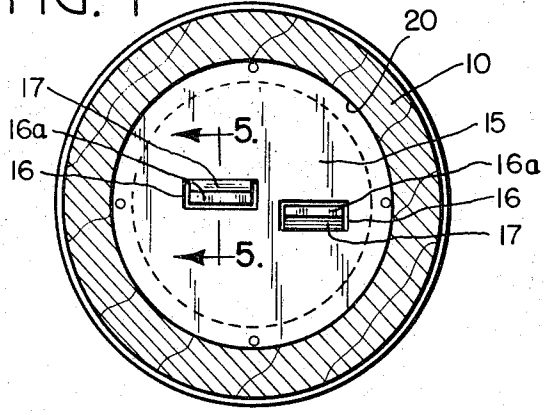
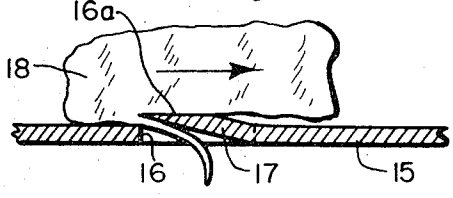


FIG. 5



Inventor
Leighton H. Cooney
By Stanley Hoos
Attorney

APPARATUS FOR CUTTING BLOCK OF CHOCOLATE OR THE LIKE

This invention relates to a novel and improved apparatus for cutting a block of chocolate or the like into smaller pieces or shavings.

It is an important object of this invention to provide a chocolate shaving apparatus which is simple in construction and easy to use.

Other objects are to provide an article of the character indicated that is easily and economically produced, which is sturdy and which is highly efficient in operation.

With these and other objects in view, as will be apparent to those skilled in the art, the invention resides in the combination of parts set forth in the specification and covered by the claims which are appended hereto.

The character of the invention, however, may be best understood by reference to one of its structural forms as illustrated in the accompanying drawings in which:

FIG. 1 is a perspective view of a shaving apparatus for chocolate or the like embodying the principles of this invention.

FIG. 2 is an enlarged axial cross-sectional view of the article shown in FIG. 1, with portions thereof in elevation.

FIG. 3 is a cross-sectional view taken along line 3–3 of FIG. 2.

FIG. 4 is a similar view taken along line 4–4 of FIG. 2.

FIG. 5 is a fragmentary enlarged view of the blade showing its shaving action on a block of chocolate when applied thereto.

As shown in the drawings, the apparatus of this invention includes an outer tubular housing 10 of wood, synthetic resin or other suitable material. The housing 10 is preferably of such size and shape as to allow the fingers of the hand of a person operating the apparatus to be comfortably flexed into holding position about the outer wall of the housing. The lower end of the housing 10 is provided with a relatively short tubular extension 11 which is externally threaded as at 12 to provide for intermeshing engagement with internal threads 13 defining the inner surface of the lower end of the housing whereby said extension 11 is readily applied to or detached from the housing 10. A downwardly facing shoulder 14 at the lower end of the housing 10 and the surface of the extension 11 facing said shoulder cooperate to clamp a metal disc 15 in fixed position across the open area of the housing 10 where it joins the extension 11 when the latter is in fully upwardly turned position on the threads 13 of the housing. The disc 15 completely closes the open end of the housing facing the extension 11 except for elongated openings 16 formed in the disc 15 by means of tongues 17 sheared and bent upwardly from the area of the disc surrounding said openings. The edges of the tongues 17 are sharpened to form blades 16*a* with which a block of chocolate 18 facing said blades have engagement to shave said block when the latter is turned about an axis in upright relation to said disc 15.

Means for so propelling a block of chocolate 18 against said shaving blades 16*a* is provided in the form of a barrel 19 of synthetic resinous material or other suitable composition. The lower end portion of the barrel 19, as shown in FIG. 2, rides on the upper surface of the disc 15 along the area of the disc which borders the inner surface of the housing 10. The inner surface 20 of the housing is of cylindrical cross-sectional contour and cylindrical offset rims 21 and 22 at the upper and lower ends respectively of the barrel 19 have sliding engagement with said inner surface of the housing 10 opposite thereto so as to control rotation of the barrel 19 relative to the housing about a relatively fixed axis coincident with the upright axis of the housing 10. The open area within the barrel 19 is of uniform multisided cross-sectional contour throughout the full length thereof so as to define a work engaging area at its lower end effective to have driving contact with a block of chocolate 18 contained therein while the barrel is rotated relative to the housing 10 in a path defined by the rims 21 and 22 of the barrel 19 and the inner surface of the housing 10 opposite thereto. While occupying said work engaging area of the barrel 19, the block of chocolate 18 is forced against the blades 16*a* under downward pressure applied by a plug 23 having entrance to the interior of the barrel 19 via the upper end of the barrel. The plug 23 is a multisided cross-sectional contour matching that of the interior of the barrel 19 so as to cause the latter to be rotated in response to rotation of the plug. The plug is preferably of synthetic resinous composition. Such rotation of the plug 23 is facilitated by a knob 24 defined by an upward extension of the plug which occupies a position above the confines of the barrel 19. It will be noted that pressure against a block of chocolate 18 confined below the end wall 25 of the plug 23 is available until a shoulder at the base of the knob 24 is in downward engagement with the upper rim of the housing 10. As shown in FIG. 2, the dimension of the plug 23 measured along the axis of rotation of the barrel 19 is so restricted as to provide ample work containing space between the end wall of the plug and the blades 16*a* while also allowing advance movement of the plug a distance sufficient to assure shaving action on substantially the total quantity of the chocolate block 18 during rotation of the barrel 19. While thus undergoing shaving action as the chocolate block is turned against the blades 16*a* the shavings are allowed to discharge downwardly through the openings 16 in the disc 15.

In some embodiments of this invention the cross-sectional contour of the barrel and plug may be of multisided shape other than the squarelike design shown in the drawings.

While the present invention has thus been described with a specific embodiment thereof, it should be understood that the invention is not limited thereto. Alternative modifications of the present invention will be apparent from the above description to those skilled in the art and such modifications are considered within the scope and spirit of the present invention even though they may not literally be covered by the language of the claims hereof.

I claim:

1. Apparatus for cutting a block of chocolate or the like into smaller pieces or shavings including a barrel having an internal wall area of multisided cross-sectional contour and external wall portions at opposite ends thereof of uniform cylindrical contour, an outer tubular housing in which said barrel member is receivable, internal wall areas of said housing having cylindrical surfaces with which said cylindrical external wall portions of said barrel have rotary sliding engagement about a relatively fixed axis coincident with the axis of said housing, a disc fixed to said housing in spanning relation to the internal wall areas of said housing, said disc having surface portions bordering the area within said housing with which said barrel has downward sliding engagement when rotated within said tubular housing, means for rotating said barrel relative to said housing including a plug having interfitting engagement with said internal wall area of said barrel and having an end wall facing said disc to provide a work containing space between said end wall and said disc, an opening in said disc defined by a tongue sheared and bent from said disc in the direction of said working space, said tongue having a sharpened edge forming a blade against which a block of chocolate occupying said working space and engaging the walls of the barrel facing said working space has engagement to cut and shave said block of chocolate while the barrel undergoes rotation under control of said plug and said plug is pressed against said chocolate block, said opening in the disc providing an exit for the shavings so produced by said blade.

2. Apparatus according to claim 1 wherein said housing is provided with an extension detachably joined to said housing and said disc is clamped between said housing and a surface of the extension facing said housing when joined to said housing.

3. Apparatus according to claim 1 wherein said housing is of such external size and shape as to allow the fingers of the hand of a person operating said apparatus to be comfortably flexed into holding position about the outer wall of the housing.

4. Apparatus according to claim 1 wherein said plug is provided with an operating knob which occupies a position above the confines of said barrel while the latter is in operative position within said housing.

5. Apparatus according to claim 1 wherein said internal area of the barrel is of squarelike cross-sectional contour.

6. Apparatus according to claim 1 wherein said barrel and plug are of synthetic resinous material.