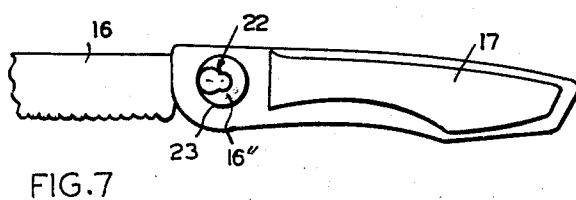
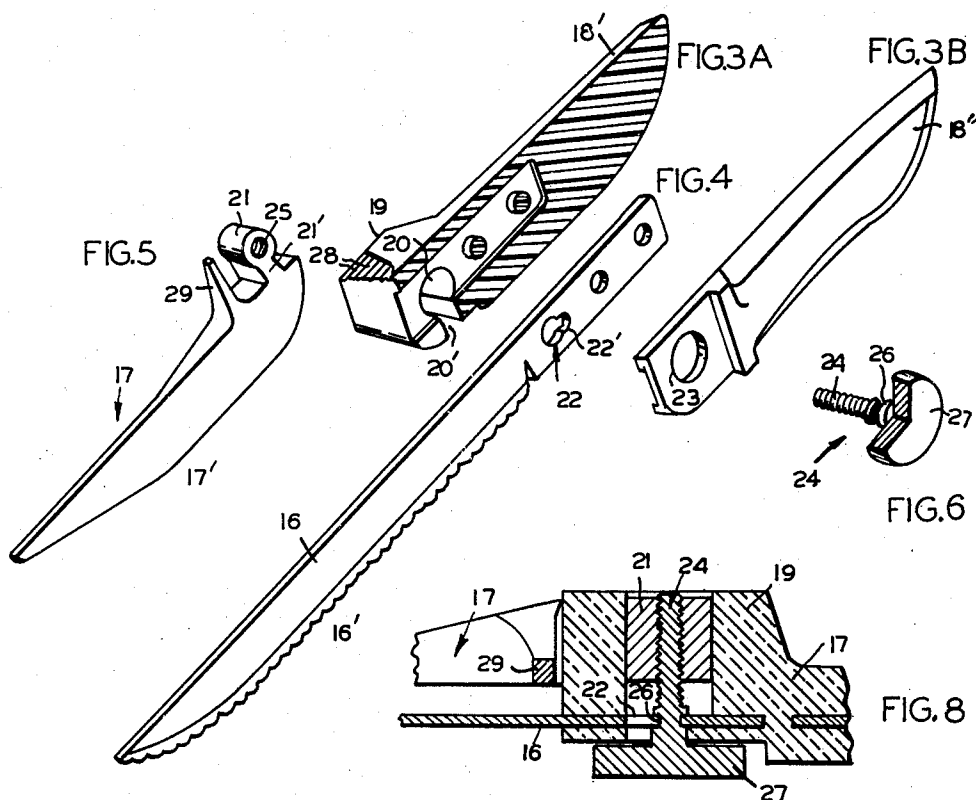
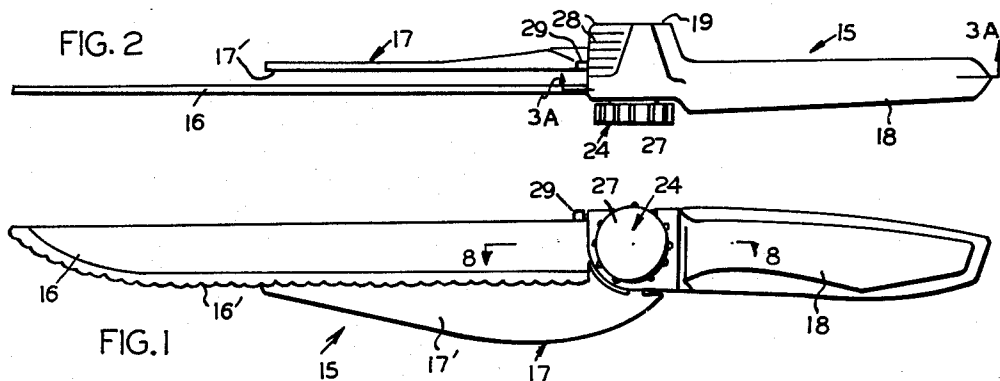


June 29, 1965

J. RUBINSTEIN
CUTTING IMPLEMENTS AFFORDING ADJUSTMENT
FOR THICKNESS OF SLICE
Filed July 3, 1963

3,191,301



INVENTOR,
JOSEPH RUBINSTEIN,
BY *Joseph Rubinstein*
ATTORNEY.

1

2

3,191,301

CUTTING IMPLEMENTS AFFORDING ADJUSTMENT FOR THICKNESS OF SLICE

Joseph Rubinstein, Newburgh, N.Y., assignor to General Slicing Machine Co., Inc., Walden, N.Y., a corporation of New York

Filed July 3, 1963, Ser. No. 292,613

1 Claim. (Cl. 30-293)

The present invention relates to a knife for cutting foods by hand and more particularly to a hand knife of the type having a gage blade along the knife blade and spaced therefrom whereby the slices effected are of uniform thickness and further, there is provision for the adjustment of slice thickness.

An object of this invention is to provide a novel and improved hand knife of the character mentioned, which is comprised of a minimum of parts affording easy assembly to be in use condition and which is just as easy to be dismantled so that the parts can be cleaned.

Another object thereof is to provide an improved hand knife construction in which the parts are operatively associated in a novel manner, and which is simple in structure, reasonable in cost and efficient for carrying out the purposes for which it is designed.

Other objects and advantages will become apparent as this disclosure proceeds.

For one practice of this invention, the implement comprises a knife blade having a handle extending from one end thereof and there is a gage blade parallel to the knife blade, carried at one end at one side of the handle, for movement towards and away from the knife blade; such movement being effected by turning a screw whose head or knob is at the other side of the handle.

There is a hole through the handle from side to side near its inner end, which end is thickened to form a boss extending away from one face of the knife blade. There is a key-hole-shaped slot through the knife blade end part which is within the handle and exposed by said hole. The screw lies in said hole and through the slot in the knife blade. Said screw engages the knife blade in an annular channel or groove provided in said screw near the knob; it being the marginal edge of the reduced portion of said key-hole that sets into said annular groove. Said screw is in threaded engagement with a threaded hole in a boss at the mentioned end of the gage blade. The hole through the handle's boss serves as a track for the boss on the gage blade, to slide along upon the turning of said screw. The screw can be turned to release the gage blade and thereupon the screw can be removed by shifting it laterally to enter the larger part of the key-hole slot in the knife blade and then longitudinally out of the handle. It is evident that the implement can be re-assembled by reverse operations of the several parts.

In the accompanying drawing forming part of this specification, similar characters of reference indicate corresponding parts in all the views.

FIG. 1 is a longitudinal view of a cutting implement embodying the teachings of this invention.

FIG. 2 is a top plan view thereof.

FIG. 3A is a perspective view of one part of the handle included in FIG. 1, in which embodiment, the whole handle is a one-piece molded plastic structure in which the inner end of the knife blade is imbedded. This FIG. 3A may be deemed to show a section taken at lines 3A-3A in FIG. 2.

FIG. 3B is a perspective view of the other part of the handle.

FIG. 4 is a perspective view of the knife blade.

FIG. 5 is a perspective view of the gage blade.

FIG. 6 is a perspective, partly sectional view of the screw structure which is used to assemble the implement

of FIG. 1 and to adjust the distance between the knife blade and gage blades.

The FIGS. 3A-6 as a group, may be deemed an "exploded" view of the components constituting the implement shown in FIG. 1.

FIG. 7 is a fragmentary longitudinal view of the knife blade and its handle. This unitary structure is a hand knife in which some special provisions are included.

FIG. 8 is an enlarged fragmentary section taken at lines 8-8 in FIG. 2.

In the drawing, the cutting implement designated generally by the numeral 15, comprises a knife blade 16 and a gage blade 17, both extending from one end of a handle 18. The knife blade is fixed to the handle but the gage blade is laterally slidable thereon to change the distance it is from the knife blade. Said gage blade 17 is along the knife blade 16, but most of it is below the cutting edge 16' of said knife blade; the surface 17' of the gage blade which is opposite the knife blade, being parallel to said knife blade. The handle 18 may be of two parts as 18' and 18'', suitably secured together to fixedly hold the inner end of the knife blade between them, or the handle as herein shown, may be a one-piece molded structure in which said knife blade end is imbedded. At that side of the knife blade where the gage blade is, the handle 18 is enlarged at its inner end to provide the boss 19 which extends away from said knife blade. This boss has a channel 20 extending across the handle, ending at the knife blade 16, to serve as a track for guided movement of the track follower 21 which extends from the gage blade 17, to slide in away from and towards the knife blade 16. At the inner end of said channel 20, the imbedded part of the knife blade end, has a region thereof exposed, in which region 16'', said knife blade 16 has a key-hole-shaped slot 22 therethrough. Said region 16'' is also exposed at the other side of the handle, for there is an opening 23 through the handle part which is at the other face of the knife blade 16. There is an adjustment screw indicated generally by the numeral 24, which extends through the opening 23, through the key-hole slot 22 and into the track channel 20 where it releasably engages the threaded hole 25 in the track follower 21.

The lengthwise opening of the track channel 20 is constructed as shown at 20' and the shape of its cross-section may be a T-form, a dove-tail-form, or as here shown, it is of key-hole-form in which slide fits the track follower 21 and its integral reduced neck 21'; the latter fitting for slide movement in said constricted opening 20'. When the gage blade 17 is set to be slightly entered into the track means as mentioned, its threaded hole 25 is in position to be engaged by the screw parts 24' when the reduced part 22' of the keyhole slot 22 is in engagement in the annular groove 26 which is in the screw body near its head or knob 27. It is evident that the screw 24 is thus swivelly mounted, and when engaged in the threaded hole 25, has its axis of rotation fixed and thereby effects sturdy and proper assembly for the implement 15 to be used. By turning the knob 27, the gage blade 17 is moved laterally thereby adjusting the distance between the blades. Upon release of the screw 24 from said threaded hole 25, the gage blade 17 is free. Then upon lateral shift of said screw to enter the larger part of the keyhole slot 22, it is withdrawable by a longitudinal movement by pulling on the knob 27 thereof. The separate parts can now be cleaned and thereupon reassembled.

In the preferred embodiment shown, the keyhole part 22' is a semi-circle or ends to act as a proper positioning means for the screw which when against the end of such part 22' in the annular groove 26, will be definitely located to be coaxial with the threaded hole 25, and there will require no fumbling to have such screw enter the threaded hole by a mere rotary movement. It is desirable

3

to have the graduations 28 across the handle, for a pointer 29 on the gage blade 17 to indicate the setting for thickness of slice.

This invention is capable of numerous forms and various applications without departing from the essential features herein disclosed. It is therefore intended and desired that the showing herein shall be deemed merely illustrative and not restrictive and that the patent shall cover all patentable novelty herein set forth; reference being had to the following claims rather than to the specific description herein, to indicate the scope of this invention.

I claim:

In a cutting implement, a hand knife comprising a knife blade joined to a handle at one end thereof, a track means on the hand knife, positioned at the junction of said knife blade and said handle, to one side of said knife blade and substantially perpendicular to its plane, a gage blade positioned along said one side of the knife blade, a track follower extending from said gage blade, releasably held by said track means for sliding movement therealong towards and away from said knife blade; said track follower having a threaded hole therethrough parallel to the direction of said movement; the hand knife having a keyhole-shaped slot, a rotatable screw positioned through the smaller portion of said keyhole slot, releasably threadedly engaged in said threaded hole; said track follower holding the screw against lateral movement into the larger portion of said keyhole slot when said screw is in said threaded hole; said screw having an annular groove; the marginal edge region of the smaller portion of said key-

4

hole slot being positioned within said annular groove and holding the screw against longitudinal movement while said screw is through the smaller portion of said keyhole slot; said screw upon being rotated, will cause the gage blade to move laterally of the knife blade while said screw is engaged in said threaded hole; said screw being laterally movable into the larger portion of said keyhole slot when moved out of said threaded hole and is then removable from the hand knife by a longitudinal movement; the gage blade being free for removal from the track means when said screw is disengaged from said threaded hole; the end of the knife blade which is joined to the handle being within the handle; said keyhole slot being through that part of the knife blade which is within said handle; said track means being on the handle and said handle having openings therein, extending from each side thereof, exposing said keyhole slot; said slot being inward of said openings, and including a hand knob fixed on said screw, accessible at that side of the handle which is most remote from the track means.

References Cited by the Examiner

UNITED STATES PATENTS

2,134,839	11/38	Perkins	30—293 X
3,091,854	6/63	Mannerberg	30—283
3,110,964	11/63	Szekely	30—283

WILLIAM FELDMAN, *Primary Examiner*.

MILTON S. MEHR, *Examiner*.