

March 12, 1946.

H. SINGER

2,396,443

MULTIPLE SLICING DEVICE

Filed Aug. 3, 1944

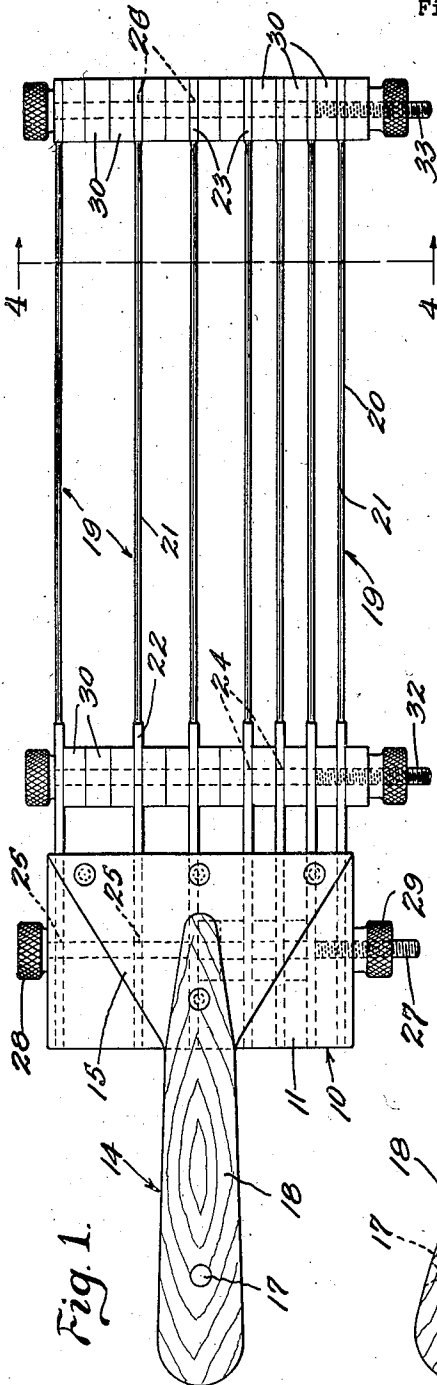


Fig. 1.

Fig. 2.

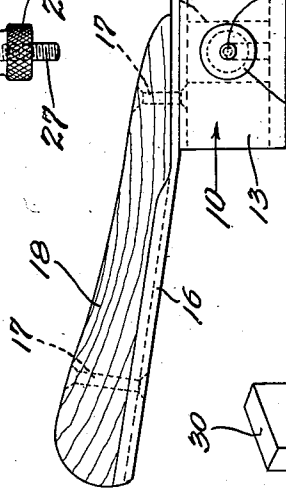


Fig. 3.

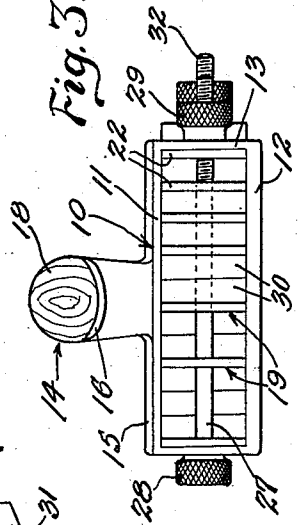


Fig. 4.

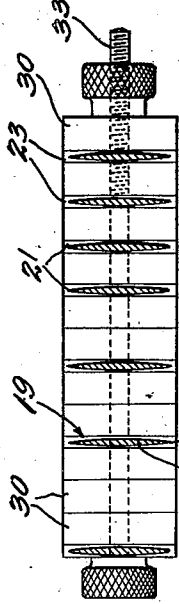
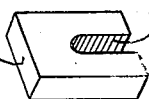


Fig. 5.



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UNITED STATES PATENT OFFICE

2,396,443

MULTIPLE SLICING DEVICE

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Application August 3, 1944, Serial No. 547,842

9 Claims. (Cl. 30—304)

This invention relates generally to the class of cutlery and pertains particularly to an improved cutting device designed for the making of a number of cuts at one operation.

A principal object of the present invention is to provide a cutter or slicer for hand use which is constructed to facilitate the cutting of a number of slices of material at one operation and in which the cutting blades are relatively adjustable so that they may be set to make cuts of different widths or they may be set so that a number of cuts of different widths may be made in the one cutting operation.

Another object of the invention is to provide a hand slicing or cutting device employing a number of spaced blades; wherein novel means is employed for adjusting the spacing between the several blades for the cutting of different types of material such as bread, cheese, sausages and the like, in different widths as desired.

A still further object of the invention is to provide a hand cutting implement employing a series of straight blades, in which the blades are adjustably held in spaced parallel relation and are double edged so that they may be reversed or inverted when desired and as may be found necessary.

Another object of the invention is to provide in a hand operated cutting device of the character stated, a plurality of adjustably assembled cutting blades wherein separable spacer members are employed between the blades, which may be used singly or in groups to change the spacing between the blades.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming a part of the specification, with the understanding, however, that the invention is not confined to a strict conformity with the showing of the drawing, but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:

Figure 1 is a view in top plan of a cutting device constructed in accordance with the present invention.

Figure 2 is a view in side elevation of the device.

Figure 3 is a rear end elevation.

Figure 4 is a transverse section taken on the line 4—4 of Figure 1.

Figure 5 is a view in perspective of one of the spacer elements used between a pair of blades.

Referring now more particularly to the drawing, the numeral 10 designates a box or holder in which an end of each of the blades of the group of blades is disposed and secured as hereinafter described. This box or holder is of substantially rectangular form and has the relatively wide top and bottom walls 11 and 12, respectively, and the side walls 13. The front of the box is open to receive the rear ends of the cutting blades and the back of the box may be left open as shown or may be closed by a rear or back wall if desired.

Secured to the top wall is the handle unit which is generally designated 14. This unit preferably comprises a metal attaching plate 15 having an integral rearward extension 16 to the top of which is secured by rivets 17 or in any other suitable manner, the wood body 18. Of course, any other type of handle construction may be employed but the one here shown is preferred and as shown, the extension 16 of the plate 15 extends upwardly at a slight inclination from the plane of the plate 15 so that ample room is provided beneath the handle for the fingers of the user of the device so that the knuckles will not be brought into engagement with an underlying surface when the cutter is in use.

The cutting device is provided with a plurality of straight cutting blades, each of which is generally designated 19. Each of the cutting blades comprises an edged section or portion 20 which forms the blade proper and which is sharpened on each of its longitudinal edges as indicated at 21, a relatively long flat rear end shank portion 22, and a short flat head portion 23. The height of the shank portion 22 is substantially equal to the interior height of the box 10 into which it is extended in the assembled structure and it has formed therethrough two longitudinally spaced bolt receiving openings 24 and 25. The head end 23 has a single bolt opening 26 formed therethrough.

The knives are assembled in spaced parallel relation with their shank ends or portions 22 disposed within the handle attached box or holder 10 with the bolt apertures 25 in alignment transversely of the box and there is extended through suitable apertures in the side walls 10 of the box and through the openings 25, the bolt 27 which has a head 28 upon one end and receives the threaded nut 29 upon its other end as shown in Figure 1.

The knives are maintained in proper spaced re-

lation by the employment of suitable spacer blocks 30 which are of a height not greater than the shanks and heads of the knives and each of which has a bolt receiving slot 31 formed therein from one edge. These spacer blocks 30 are preferably all of the same width or thickness as, for example, each may be approximately one-quarter of an inch thick and by using them singly or in multiple between the blades, the blades may be spaced a quarter, half or three-quarters of an inch or more apart as illustrated. Obviously the invention is not to be understood as being limited to the use of blocks of a quarter inch thickness as they may be of greater or less thickness as found most desirable.

When the knives are in assembled parallel relation all of the openings or apertures 24 will be in alignment and all of the apertures 26 will be in alignment and there are extended through these apertures the bolts 32 and 33, respectively, which are of duplicate construction with the bolt 27, each having a head upon one end and a removable nut threaded upon the other end.

As will be readily obvious when the blades are assembled with the spacer blocks between the heads and between the portions of the shanks through which the apertures 24 are formed and the bolts 32 and 33 have been passed through and secured, the blades will be rigidly held in the desired spaced relation.

While it is not required that any specific procedure be followed in assembling the device, a preferred method is to first connect the head ends of the blades by passing the bolt 33 through the apertures 26 thereof, and placing the desired spacer blocks 30 in position to separate the blades in the manner desired. The shank ends of the blades are next assembled in the same manner by the use of the bolt 32 and the spacer blocks, the screws of the bolts 32 and 33 being drawn up to tightly secure the blades together.

The shank ends of the assembled blades are then inserted into the handle box 10 and the bolt 27 is passed through the box and through the aligned openings 25, the nut 29 being screwed up until the assembly is tightly secured.

It is not necessary to use spacer blocks upon the ends of the blade shanks which are within the box 10. However, the spaces between the shanks of the blades where the bolt 27 passes through may be used for holding extra spacer blocks as shown in dotted outline, in Figure 1.

Obviously, the cutting device may be supplied with any number of blades so that when all of the blades are to be spaced apart a distance equal to the width of one block, additional blades may be inserted.

It will also be readily seen that with the present device much longer use may be made thereof before it becomes necessary to re-sharpen the blades due to the use of the double edged blade and it will be apparent too that while the blades may be equi-distantly spaced, the spacing may also be varied or irregular, as shown in Figure 1, so that at each operation of the device, there may be obtained some thin slices and other slices of greater thickness.

I claim:

1. A multiple slicing device, comprising a handle, means forming a part of the handle and comprising a receiver having a top wall, a bottom wall and end walls, a plurality of straight knives disposed in spaced parallel relation, means coupling said knives together as a group, and means

securing one end of the group of knives in the handle receiver between the end walls thereof.

2. A multiple slicing device as set forth in claim 1, with removable spacers between the knives for maintaining the knives in the selected spaced relation.

3. A multiple slicer of the character stated, comprising a plurality of knife units, a longitudinal edge of each knife unit comprising a sharpened blade portion and unsharpened end portions, the parts of the units having the unsharpened end portions having apertures formed transversely therethrough, said knife units being assembled as a group in spaced parallel relation, the apertures of the end portions of the assembled units being aligned, bolts extending through the aligned apertures, means interposed between the end portions of the units to maintain the units in spaced parallel relation, and a handle forming means connected with the assembled group of units at one end of the group.

4. A multiple slicer of the character set forth in claim 3, in which said spacing means comprises flat bodies removably supported upon said bolts.

5. A multiple slicer of the character stated, comprising a flat box-like body open upon one side, a handle secured to said body, a plurality of knife units each having a portion sharpened to form a cutting blade and an end portion at each end of the sharpened portion, said end portions being transversely apertured, the knife units being assembled in spaced parallel relation to form an integral group, bolts passing through the apertures of the grouped knife units, spacer members carried by the bolts between the knife units, said group of knife units being inserted at one end into the open side of said box-like body, and means for securing the inserted end of the group in the body.

6. A multiple slicer as set forth in claim 5, in which the last mentioned means comprises a bolt member extended transversely through the body and through the inserted adjacent end portions of the knife units.

7. A multiple slicer as set forth in claim 5, in which each blade unit comprises a relatively long flat strip of metal and in which the blade portion is sharpened along each of two opposite longitudinal edges.

8. A multiple slicer of the character stated, comprising a plurality of knife units, each knife unit comprising a blade portion and unsharpened end portions, said end portions having apertures formed transversely therethrough, said knife units being assembled as a group in spaced parallel relation, the apertures of the end portions of the assembled units being aligned, bolts extending through the aligned apertures, means interposed between the end portions of the units to maintain the units in spaced parallel relation, and a handle forming means connected with the assembled group of units at one end of the group, the said spacing means comprising flat bodies each having a slot formed to receive a bolt when the body is in position between a pair of knife units.

9. A multiple slicer of the character stated, comprising a relatively flat box-like body open upon one side, a handle secured to said body, a plurality of knife units each having a portion of a longitudinal edge sharpened to form a cutting blade, the unsharpened edge portion of each unit at one end being of substantial length and adapted for introduction into the box-like body through the open side thereof, the said relatively

long end portion of each unit having two spaced apertures therethrough and each unit at the opposite end of the cutting blade having a single aperture therethrough, the apertures of the several units being aligned transversely of the slicer when the units are assembled in the body, a bolt member passing transversely through the box-like body and through the aligned apertures of the inserted ends of the units, a pair of bolt

members extending transversely of and through the other aligned apertures of the units, and spacer members supported upon the bolt of said pair for maintaining the units in spaced parallel relation, the spacer members being constructed and arranged to be applied to and removed from the bolt without withdrawing the bolts from the units.

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