Sept. 7, 1943. R. J. ARNEY 2,328,887

SLICING DEVICE

Filed July 13, 1942

Fig. 1

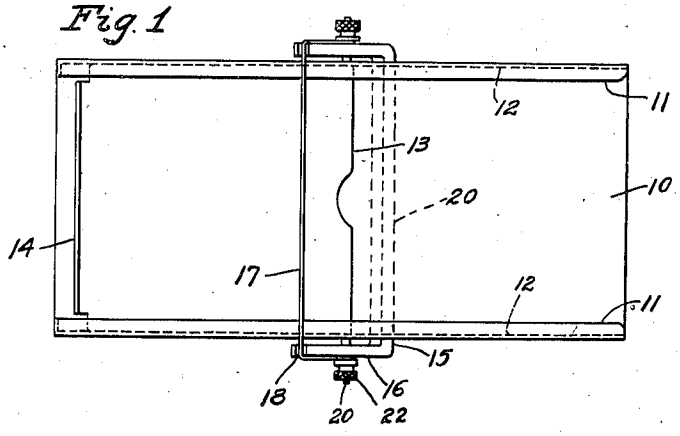


Fig. 3.

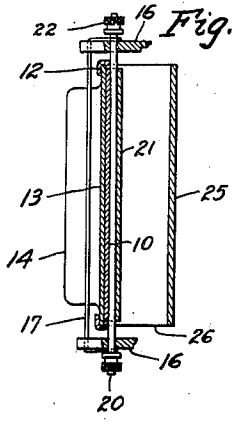


Fig. 2.

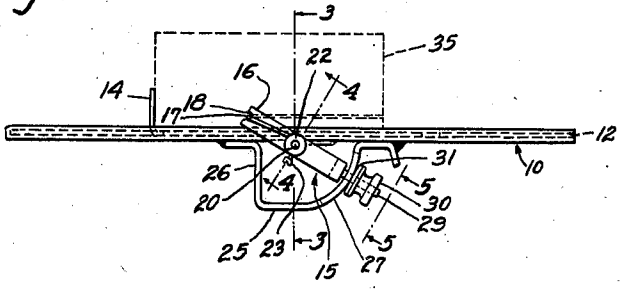


Fig. 6.

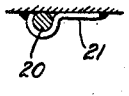


Fig. 5.

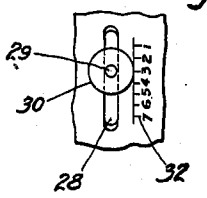


Fig. 4.

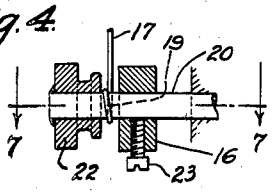
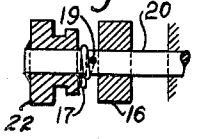


Fig. 7.



INVENTOR

BY Raymond J. Arney

Robt. D. Pearson

ATTORNEY

Patented Sept. 7, 1943

2,328,887

UNITED STATES PATENT OFFICE

2,328,887

SLICING DEVICE

Raymond J. Arney, Los Angeles, Calif.

Application July 13, 1942, Serial No. 450,724

7 Claims. (Cl. 31—22)

This invention relates to a slicing device.

The slicing device provided by this invention may be used to slice up many different kinds of soft or semi-solid materials but is more particularly intended for slicing cheese.

Among the objects of the invention are: to provide improved means for mounting, adjusting and tensioning a wire cutting element; to provide a slicer that can be held in the hand in a more convenient manner during operation; and to improve upon the construction of slicing devices in respect to simplicity and durability of construction and ease of operation.

Other objects, advantages and features of invention will hereinafter appear.

Referring to the accompanying drawing, which illustrates what is at present deemed to be a preferred embodiment of the invention,

Fig. 1 is a plan view of the complete device.

Fig. 2 is a side elevation thereof.

Fig. 3 is a cross section on line 3—3 of Fig. 2.

Fig. 4 is an enlarged sectional detail on line 4—4 of Fig. 2.

Fig. 5 is a fragmental detail on line 5—5 of Fig. 3.

Fig. 6 is an enlarged sectional detail of the shaft bracket.

Fig. 7 is a fragmental sectional detail taken on line 7—7 of Fig. 4.

Referring in detail to the drawing, the bed plate 10, by preference and as shown, is of an elongated, generally rectangular shape. Along each side edge said bed plate has an inwardly directed flange 11 which is spaced slightly above the upper face of the plate, thereby providing guide grooves 12 to receive with a working fit the side edge portions of a slidable plate 13 which may be termed the work carrier, because it supports the cheese or other material being sliced. As viewed in Figs. 1 and 2 said plate 13 has at its left end an upwardly directed flange 14, against the right hand face of which abuts the material being sliced while said material is supported by said plate 13. Said flange 14 also aids the hand of the operator in reciprocating the slide 13 in relation to the aforesaid bed plate 10.

A U-shaped member or yoke 15 consisting of a single bar having deflected extremities is swingably fastened to the bed plate 10 with the extremities of its arms 16 at all times projecting varying predetermined distances above the face of said bed plate, a wire 17, or other attenuated cutter being carried by said arms and bridging the space between their extremities. Each arm 16 has a notch 18 cut across its free end, said wire passing over these notches and being secured in a tensioned condition to a shaft 20 whereby said yoke 15 is swingably mounted, the end portions of said shaft projecting through apertures for them in the arms of said yoke. A bracket plate 21, welded or otherwise held in place, is shown whereby said shaft is turnably fastened to the bed plate 10. Each end of the wire 17 passes through a suitable hole 19 in the shaft 20 and is windable around said shaft. Milled nuts 22 are shown secured to the end portions of shaft 20 to use in turning said shaft in relation to the yoke arms 16 to tension the wire 17. A set screw 23 carried by one of the yoke arms serves to secure said shaft in its adjusted relation to the yoke.

To the lower side of the base plate 10 is secured a plate 25 which forms a shield or housing for the swingable yoke 15, as well as forming a part of the means for releasably securing the yoke in various positions to which it may be adjusted. Said plate 25 has end flanges whereby it is secured to the lower face of the base plate 10 and has a vertical wall 26 and an arcuate wall 27, the latter wall having through it a segmental slot 28. Through said slot projects a threaded stud 29 carried by said yoke 15. Onto the projecting part of this stud screws a milled clamping nut 30, a washer 31 being shown underlying said nut. The outer surface of the arcuate plate portion 27 is preferably provided with numbered graduations 32 alongside the slot 28 to guide the user in swinging the yoke to the desired adjusted position preparatory to clamping said yoke in place by tightening the nut.

By preference and as shown the flanged portion 14 of the slide is made narrower than the space between the flanges 11 of the bed plate. Any suitable conventional stop means may be provided to limit the outward movement of the slide.

In Fig. 2 a body 35 of material being sliced is shown in broken lines supported upon the bed plate 10 with its left end abutting against the bed plate flange 14.

Although the drawing shows a tensioned wire mounted in a position to form a cutter (preferably a piano wire), yet it is to be understood that the claimed invention is not limited to the particular kind of cutter shown. The angular position to which said yoke is adjusted determines the height of the cutter in relation to the upper face of the slide, and hence regulates the thickness of each slice cut from the body being sliced.

In using the device the operator will hold it in one hand by grasping the housing 25 which projects laterally from the bed plate, and with the other hand will grasp the lump of cheese resting upon the slide 13, preferably holding the thumb of the latter hand against the backside of the flange 14 which upstands from the slide. While supporting the device in this manner he will move the body of cheese thereacross in a reciprocating manner in relation to the bed plate, which will cause the wire cutter 17 to slice a layer of cheese off each time the cheese body and slide are moved to the right end of the bed plate, viewing the device as seen in Figs. 1 and 2.

At the end of each cutting movement flange 14 is brought into contact with the wire, causing a slice to be completely severed. When the main body of cheese recedes from the wire to the end of its movement in that direction, the operator will remove the main body of cheese from the device. The sliced off piece will then be found to have adhered either to the slide 13 or else to the main piece, and in either case will be manually removed before another slicing operation. The device may be regarded as a tool to be held in one hand of the operator and moved (as a plane), across a body of material to be sliced held in the opposite hand; or the material to be sliced may be thought of as being moved across the tool.

I claim:

1. A slicing device comprising an elongated generally rectangular bed plate having a guide along each of its side edges, a U-shaped member consisting of a single bar having deflected extremities, said bar underlying said bed plate and swingably secured thereto for adjustment with the extremities of its arms at all times projecting varying predetermined distances above the face of said bed plate, an attenuated cutter carried by said arms and bridging the space between their extremities, and a reciprocatory work-carrier movable along and between said guides, to support the work while being sliced in the under part by said cutter.

2. A slicing device comprising an elongated generally rectangular bed plate having a guide along each of its side edges, a U-shaped member underlying said bed plate and swingably secured thereto for adjustment with the extremities of its arms at all times projecting varying predetermined distances above the face of said bed plate, an attenuated cutter carried by said arms and bridging the space between their extremities, a reciprocatory work-carrier movable along and between said guides, to support the work while being sliced from the underside by said cutter, and an arcuate combined shield and hand-hold plate, secured to the under side of said bed plate, said hand-hold plate having a segmental slot and said U-shaped member carrying a clamping device which projects through said slot and is manually operable to releasably maintain said member and cutter in adjusted position.

3. A slicing device comprising a bed plate having a guide along each of opposite sides, a U-shaped member underlying said bed plate and swingably adjustable with the extremities of its arms at all times projecting varying predetermined distances above the face of said bed plate, a cutter consisting of a wire carried by said arms and bridging the space between their extremities, a turnable shaft carried by said bed plate in a transverse subjacent relation thereto, the end portions of said shaft extending through the arms of said U-shaped member, said shaft being turnably adjustable in relation to said U-shaped member, clamping means carried by said U-member to clamp said shaft in adjusted relations thereto, the end portions of the aforesaid wire being secured to and windable upon the end portions of said shaft, and a reciprocatory work-carrier movable along and between the aforesaid guides to support the work while being sliced by said cutter.

4. In a slicing device, a bed plate or support, a shaft turnably carried by said support, a yoke having arms through which end portions of said shaft loosely pass, a cutter consisting of a tensioned wire which passes across end portions of said yoke and has its end portions secured to end portions of said shaft, and clamping means carried by said yoke to maintain the yoke and shaft in adjusted rotational positions relative to each other.

5. The subject matter of claim 4, and the arms of said yoke having notches across their extremities to receive said wire.

6. In a slicing device, an elongated bed plate, a U-shaped member underlying said bed plate and swingably secured thereto for adjustment with the extremities of its arms at all times projecting varying predetermined distances above said bed plate, a cutter carried by said arms and bridging the space between their extremities, a work-carrier mounted upon the upper side of said bed plate to reciprocate longitudinally thereof, a downwardly extending hand-hold member secured to the lower side of said plate, and a clamping device carried by said U-shaped member in a cooperative relation to said hand-hold member to releasably maintain the U-shaped member and cutter in adjusted position.

7. The subject matter of claim 6, and said hand-hold member having an arcuate slotted part through which a portion of said clamping device projects thereby rendering it manually accessible for adjustment.

RAYMOND J. ARNEY.