Feb. 1, 1927. 1,616,388

E. H. PHILADITAKIS

ROTARY DISK CUTTER CLEANER

Filed May 18, 1926

Fig. 1

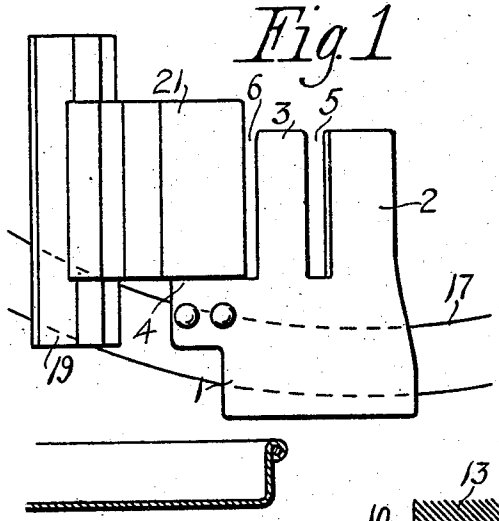


Fig. 2

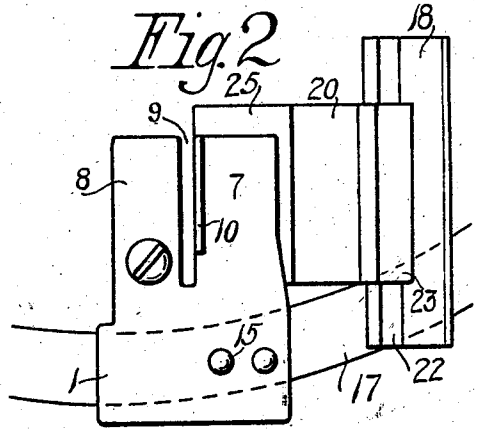


Fig. 3

Fig. 4

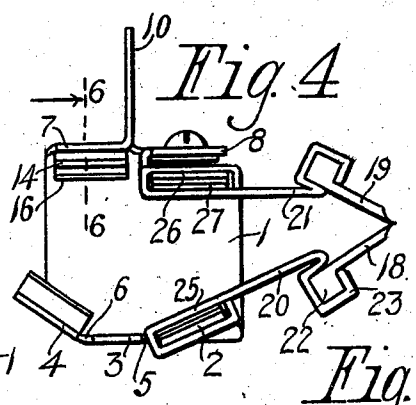


Fig. 7

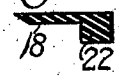


Fig. 5

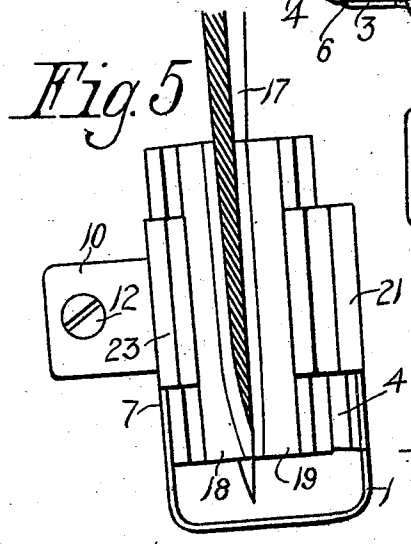


Fig. 6

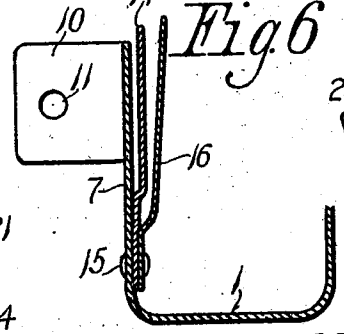


Fig. 8

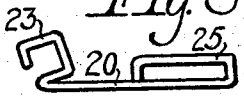


Fig. 9



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UNITED STATES PATENT OFFICE.

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ROTARY DISK-CUTTER CLEANER.

Application filed May 18, 1926. Serial No. 109,950.

This invention relates to rotary disk cutter cleaners, such cutters forming a part of apparatus for slicing meats, sausage, or cheese, or any food substance desired to be cut into thin slices.

The object of this invention is to produce a cleaner that may be applied to any make of slicing machines, and which will remove from both sides of the knife all the particles of material which may adhere to it during any single slicing operation, in order that such particles may not become attached to the body of the material being cut or to the slices as each is removed by the knife.

This invention comprises the special construction and arrangement of the parts believed to be particularly effective for the stated purpose, and which parts and their disposition are illustrated in the accompanying drawings.

Fig. 1 of the drawings represents a side view of this invention as applied to a rotary disk cutter, and Fig. 2 is a view of the same parts set out in Fig. 1 showing the opposite side of this invention. Fig. 3 is a top plan view of the parts as arranged in Fig. 1. Fig. 4 is a top plan view of the parts arranged to show the holders and scrapers in their second or alternative operating positon with respect to the main portion or body of this invention. Fig. 5 shows a rotary knife partly in section with this invention applied thereto and operating against both the outside and the inside surfaces of the knife. Fig. 6 is a fragmentary sectional view on the broken line 6—6 of Fig. 4 showing the means of securing the holder sleeves removably and frictionally in place on the body. Fig. 7 is a cross section of one of the scrapers removed. Fig. 8 is a top plan view of one of the scraper holders removed. Fig. 9 is a modified form of one of the scrapers shown in cross section with sheet celluloid covering the scraping side of the blade of the scraper, and one side of the stiffening edge portion thereof.

Throughout the description and drawings the same number is used to refer to the same part.

Considering the drawings, the body 1 of bendable metal, has the upright tongues 2, 3 and 4 separated by recesses 5 and 6, and located upon one face or forming parts of one leg of the U-shaped body 1. On the other side or forming the other leg of the U are the upright tongues or members 7 and 8 with a recess 9 between them.

The body is provided with a laterally projecting plate 10 having a bolt hole 11, through which may be passed the bolt or screw 12 to support the body 1 upon any portion 13 of a slicing apparatus. The construction of the apparatus, or of the disk cutter forms no part of this invention, which may be applied to any make now commonly sold.

As best shown in Fig. 6 the upright 7 has attached to it by rivets 15, or in any convenient manner, the upright member 14, and the spring 16, which will be again mentioned.

Reference number 17 refers to any disk cutter, in this instance one of the dished or concave form, and in Fig. 5 it will be noted that the scrapers 18 and 19 clasp both the outside and the inside of the dished knife 17, and scrape the knife at the edge and for some distance beyond the edge towards the center of the knife. The scrapers are usually made of rubber, but this invention is not limited to that material.

The scrapers are held in holders 20 and 21, each of which has a socket such as the socket or channel 23 of te holder 20, and in the channel 23 is placed removably the longitudinally extending squared edge 22 of the scraper 18. The scrapers are thus readily removed and new ones substituted when worn, and it is the purpose of this applicant to sell the scrapers separately to the users of his invention. The preferred form of the scrapers is illustrated in Figs. 1, 8 and 9. It is found advantageous and improves the operation of this invention to apply a piece of sheet celluloid 24 to the scraping face of the scraper and to the squared edge portion as shown in Fig. 9. It will be understood that the celluloid as well as the squared edge portion of the scraper passes through and fritcionally engages the channel 23 of the holder 20.

Each holder is constructed with a terminal sleeve-like portion such as the sleeve 25 of the holder 20, and in the operation of this invention the sleeve 25 engages both the

upright tongue or member 14, and the spring 16, as best shown in Figs. 3 and 6. The holder is thus held in place sufficiently and yet is readily removable without the necessity for unscrewing or taking out or off any other part. Each of the upright members forming the legs of the U-shaped body 1 may be provided with a spring such as the spring 16, but that construction is not intended in any manner to limit this invention and other connecting devices may be substituted. It will be observed in Fig. 4 that the scrapers, which are normally arranged inclined to each other with their scraping edges together, are positioned upon the opposite side or end of the body 1 and the holders engage the uprights 2 and the auxiliary upright 26. This alternative positioning of the scrapers is to provide for machines where the most convenient supporting part is on the opposite side from the support illustrated in Fig. 3, or for any reason it is desired to change the point of support for the body 1.

It has been stated that the body 1 is of bendable metal, and the upright members thereof may be bent in any manner to permit the arrangement of the scrapers in the best locations with respect to the knife to be cleaned. As the particles drop from the knife 17 they fall upon the bottom of the body 1, from which they may be brushed into any convenient pan or other receptacle. The construction of this invention is not limited to any particular metal, but aluminum is very well suited for the purpose. The body 1 and the holders 18 and 19 do not have to be renewed, but the scrapers after being worn to a certain extent are withdrawn and new ones substituted. It is found in the practice of this invention that the knife is always kept free of particles from the materials acted upon and subsequent slices are not rendered unattractive by the presence of small particles thereon caught from the cutter, as results from the operation of numerous machines within the knowledge of this applicant.

Having now described this invention, and explained the manner of its operation, what I claim is:—

1. In a disk cutter cleaner, the combination with a U-shaped body, of removable resilient scrapers, removable scraper holders, and means for connecting the said holders and said body in detachable relation.

2. In a disk cutter cleaner, the combination with a U-shaped body, of removable resilient scrapers, removable scraper holders, and bendable means for connecting the said holders and the said body.

3. In a disk cutter cleaner, the combination with a body portion, of removable scraper holders, means for connecting the said holders and body in detachable relation, and scrapers removably carried by the said holders inclined to each other and having their scraping edges normally together.

4. In a disk cutter cleaner, the combination with a body portion, of removable scraper holders, means including a bendable member for connecting the said holders and the said body in detachable relation, and scrapers removably carried by the holders and adjustable towards or from each other in correspondence with the position of the bendable member.

5. In a disk cutter cleaner, the combination with a body portion, of a removable resilient scraper, a scraper holder, means whereby the scraper may be frictionally and removably held in the holder, and means whereby the said holder may be frictionally held in connection with the said body and in detachable relation thereto.

6. In a disk cutter cleaner, the combination with a body portion, of removable resilient scrapers, scraper holders having terminal sleeves, and the said body having upright members adapted to engage the said sleeves and to hold the said holders and scrapers in operative positions.

7. In a disk cutter cleaner, the combination with a body portion, of removable resilient scrapers, scraper holders having terminal sleeves, and the said body having upright members of bendable material adapted to engage the said sleeves and to hold the said holders and scrapers in operative positions.

8. In a machine of the character described, a scraper holder formed of a single piece of metal having a rectangular socket at one end and a scraper socket at the other end.

9. In a machine of the character described, the combination with a scraper holder having a rectangular socket at one end and a rectangular scraper socket at the other end, of a scraper having a portion of rectangular cross-section and adapted to fit removably the said scraper socket of the holder.

10. In a disk cutter cleaner, the combination with a body, of removable resilient scrapers, removable scraper holders, and means for connecting the said holders and the said body in detachable relation whereby the holders and scrapers may be positioned at will on either side of the said body.

11. In a disk cutter cleaner, the combination with a body, of removable resilient scrapers, removable scraper holders, and means including a bendable portion for connecting the said holders and the said body in detachable relation whereby the holders and scrapers may be positioned at will on either side of the said body.

12. In a disk cutter cleaner, the combination with a U-shaped body, of removable resilient scrapers, removable scraper holders, and means for connecting the said holders

and the said body in detachable relation whereby the holders and scrapers may be positioned at will on either side of the said body.

13. In a disk cutter cleaner, the combination with a U-shaped body, of removable resilient scrapers, removable scraper holders, and a plurality of bendable devices whereby the said holders and the said body may be connected in detachable relation permitting the holders and scrapers to be positioned at will on either side of the said body.

In testimony whereof I affix my signature.

EFSTRATIOS H. PHILADITAKIS.