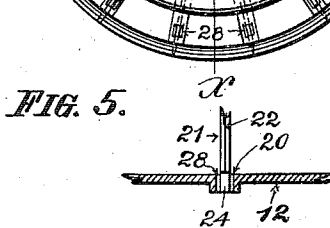
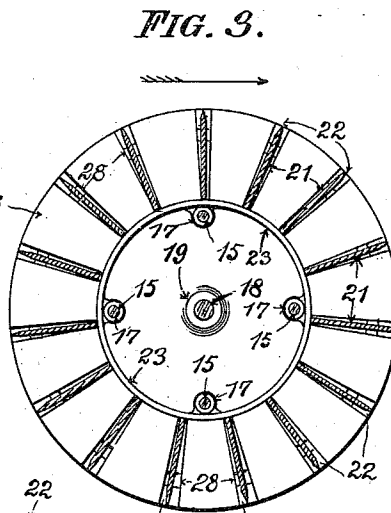
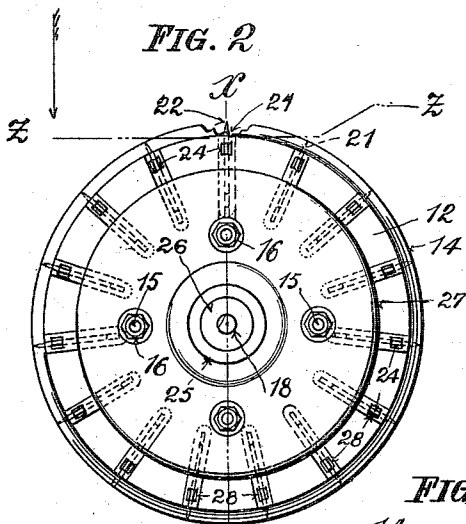
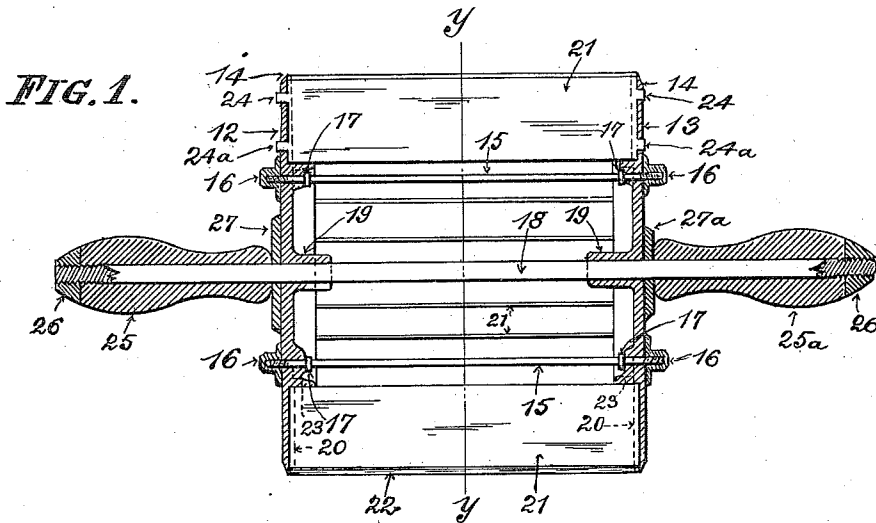


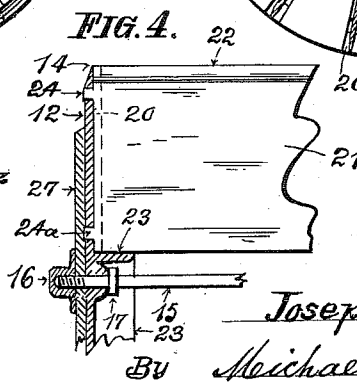
J. HARTMANN.
BISCUIT CUTTER.
APPLICATION FILED JUNE 22, 1910.

973,192.

Patented Oct. 18, 1910.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH HARTMANN, OF CHICAGO, ILLINOIS.

BISCUIT-CUTTER.

973,192.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed June 22, 1910. Serial No. 568,281.

To all whom it may concern:

Be it known that I, JOSEPH HARTMANN, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Biscuit-Cutters; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to biscuit cutters; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claim.

In the drawings already referred to, which serve to illustrate this invention more fully, Figure 1 is a longitudinal sectional elevation in line *x x* of Fig. 2. Fig. 2 is an end elevation. Fig. 3 is a transverse sectional elevation in line *y y* of Fig. 1. Fig. 4 is a sectional elevation of a portion of one of the cutters and one of the end plates, drawn on an increased scale. Fig. 5 is a sectional plan of a fragment of one of the end plates taken in line *z z* of Fig. 2, and a portion of one of the cutters.

Like parts are designated by corresponding symbols of reference in all the figures.

The object of this invention is the production of an efficient, serviceable, and convenient, hand-operating, device for cutting a sheet of dough into suitably-sized pieces for biscuit, crackers, cakes and similar bakery products. To accomplish this result, I construct this device of two circular disks 12, 13, forming end-plates for this device, the outer periphery of these disks being beveled to a cutting edge, as indicated at 14 in Figs. 1, 2, and 4. These two disks are placed a distance apart and they are retained in parallel spaced relation by a series of rods 15, the outer ends of which are screw threaded and pass through the end-plates to receive nuts 16; collars 17, being provided on said rods 15 to prevent the end-plates from moving toward each other.

The end-plates 12, 13, are mounted upon a central rod or axle 18, there being on the opposing sides of said end-plates, and centrally thereon, tubular bosses 19, affording long bearings for said axle 18. In these op-

posing sides of said end-plates there are a series of equally spaced grooves 20, which are radially arranged and are adapted to receive the ends of an equal series of cutters or knives 21, which cutters are thin blades of suitably tempered steel, the outer longitudinal edges of which are sharpened, as shown at 22, while the inner longitudinal edges of said knives bear against annular inwardly-projecting ledges 23. On these knives, and on both ends thereof there are formed tenons 24, 24^a, which engage suitably arranged apertures in the grooves of the end-plates to retain the knives in proper position.

The axle 18 is of sufficient length to project from the end-plates to receive at the projecting ends handles 25, 25^a, which are held upon said axle by nuts 26.

Upon the outer faces of the end-plates 12, 13, there are located reinforcing disks 27, 27^a, which latter disks are provided for the purpose of stiffening the end-plates, which, in the preferred embodiment of my invention, I shall make from sheet aluminum in the process of stamping, such end-plates being illustrated in Figs. 2, 3, and 5, in order to secure lightness and sufficient strength, but I may also produce these end-plates from aluminum castings as shown in Figs. 1 and 4. When these end-plates are made from castings they will, of necessity, be thicker than those made from sheet metal, so that the reinforcing plates 27, 27^a, need not be as large in diameter as those adapted to reinforce the sheet metal stamped plates. Thus in Figs. 2 and 4, I have illustrated the reinforcing plates rather large in diameter, reaching almost to the periphery of the end-plates, while it is assumed that the end-plates shown in Fig. 1, are made in cast metal and, therefore, the reinforcing plates 27, 27^a, are shown of small diameter, in fact, if desired, these reinforcing plates may be dispensed with in case the end-plates are made from cast-metal.

The grooves 20 in the inner opposing faces of the end-plates are taperingly arranged, being widest at the periphery of the end-plates, and the slotted apertures 28, for the reception of the tenons 24 are elongated as shown in Figs. 2, 3, and 5, so as to permit of a slight rocking movement of the knives 21, the tenons 24^a forming, as it were, pivots for said knives. I have discovered that in

practice, fixed knives will cause the cut pieces of dough to pile one upon the other when the device is rapidly moved over the sheet of dough, which will be avoided when the knives are slightly yielding as described.

In operation, the dough to be cut into smaller pieces is spread upon a level surface and the device rolled over the sheet of dough by grasping it by the two handles, the width of the cut pieces being determined by the spacing of the knives and their length by the spacing of the end-plates. Should it at any time, be desirable or necessary to dismount this device, for the purpose of repairing or renewing a knife or for other purposes, one of the nuts 26 on the rod 18, and with it the corresponding handle 25 is removed; then by removing the nuts 16 on one of the end-plates the proper end-plate may be removed and the knife or knives withdrawn and replaced in an obvious manner.

I prefer aluminum for the end-plates owing to the lightness of this metal, and in fact I shall produce, when desired, the entire apparatus, excepting the handles and the knives, in this metal which is now comparatively cheap and well adapted for the object in view.

I am aware that many of the minor details of construction of this apparatus may be changed and varied without departing from the scope of my invention, and while

I have heretofore described the preferred embodiment of my invention, I do not wish to confine myself to the precise arrangement of parts.

Having thus fully described this invention, I claim as new and desire to secure by Letters Patent of the United States—

A rotating biscuit cutter comprising, in combination, two circular end-plates the peripheries of said end-plates being beveled to a knife-edge, said end-plates being spaced apart, there being in the opposing sides of said end-plates a series of tapering grooves the wider part of which is at the periphery of each plate, there being in each groove two apertures one of which is elongated, a series of knives located with their ends in said grooves, said knives having tenons at both of their ends adapted to engage the apertures in said grooves, a central bearing on each of said end-plates, an axle around which said end-plates are adapted to revolve, and a handle at each end of said axle.

In testimony that I claim the foregoing as my invention, I have hereunto set my hand in the presence of two subscribing witnesses, at Chicago, Ill., the 18th day of June, 1910.

JOSEPH HARTMANN.

Witnesses:

MICHAEL J. STARK,
FRANK TERKOVITSH.