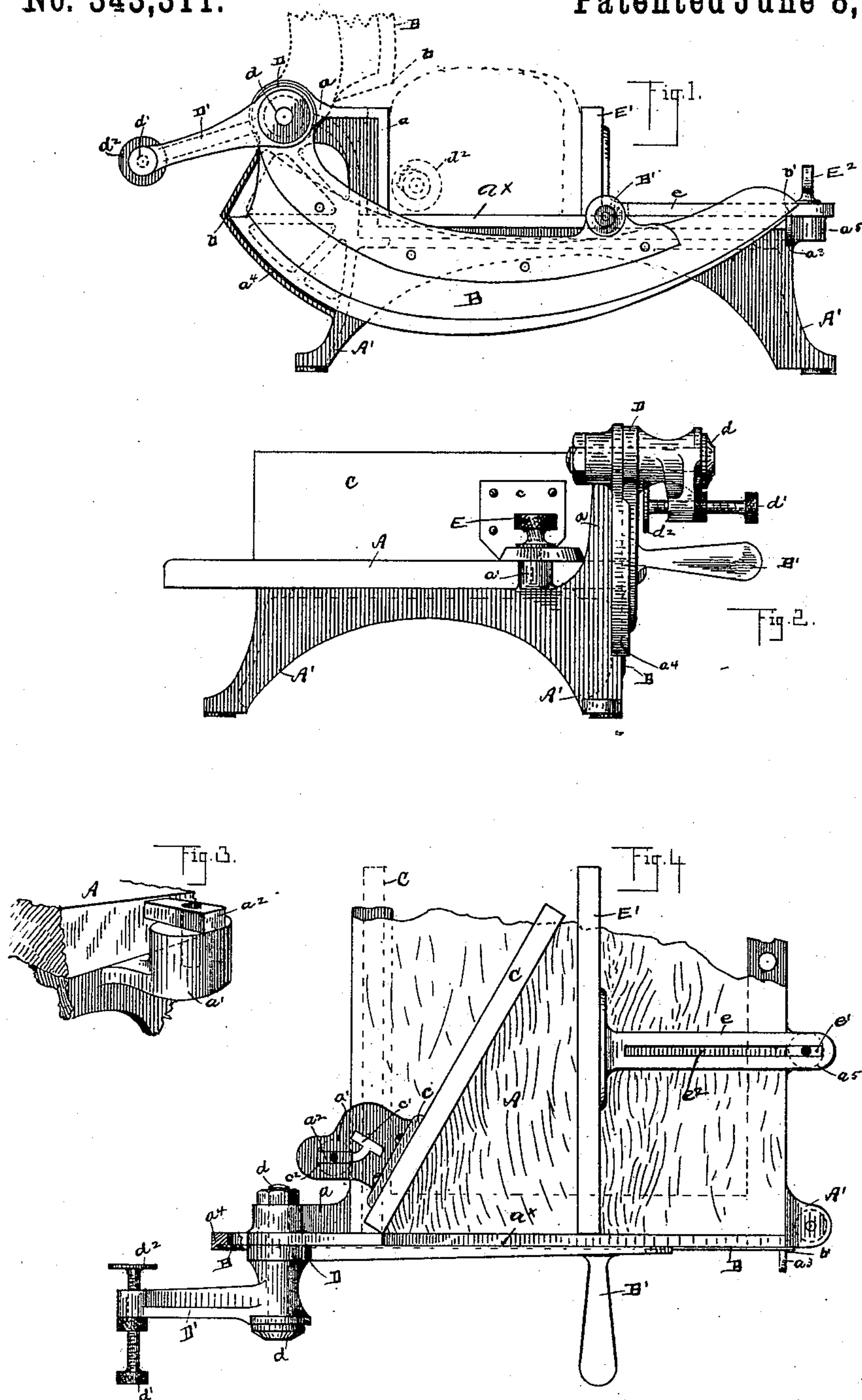


(No Model.)

H. V. HARTZ.  
BREAD CUTTER.

No. 343,311.

Patented June 8, 1886.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

HENRY V. HARTZ, OF CLEVELAND, OHIO.

## BREAD-CUTTER.

SPECIFICATION forming part of Letters Patent No. 343,311, dated June 8, 1886.

Application filed October 12, 1885. Serial No. 179,596. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY V. HARTZ, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Bread-Cutters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in so-called "bread-cutters," designed for slicing bread and other articles; and it consists in certain features of construction and in combination of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is an end elevation of a bread-cutter embodying my invention, showing the knife in its depressed position, and showing also in dotted lines the elevated position of the knife. Fig. 2 is a side elevation of the cutter, showing also the supporting-frame and guide mechanism. Fig. 3 is a view in perspective of the device for supporting the guide hereinafter more fully described. Fig. 4 is a plan view showing in solid lines the guide in a position oblique to the line of the knife, and in dotted lines showing the guide at right angles to the knife.

A represents a supporting frame or table, on which the bread or other article is placed for slicing. The frame has suitable legs, A', for elevating the same, and has an upwardly-projecting arm, a, to which the knife B is pivoted, and a laterally-projecting lug, a', to which the guide C is attached.

The cutting-edge of the knife B is of involute form, its heel being cut off radially, or nearly so, to the center of motion, which, as appears more fully hereinafter, is above the plane of the table.

I am aware that a knife having a cutting-edge formed on a circular arc has been pivoted to one side of the center of the said arc and above the work-table; but such is not the equivalent of my knife, which has a cutting-edge of involute form, the object of which is to equalize as nearly as possible the cutting action of the knife from end to end. When the knife is constructed upon the proper curve and pivoted in the proper place relatively to

said curve and to the edge  $a^x$  of the table against which it works, the angle formed at the intersection of the said cutting-edge and the top of the said table will be the same throughout the entire length of the blade. The parts may not be accurately shown in the accompanying drawings, but they are sufficiently accurate to illustrate the principle. I do not desire to limit myself to the precise construction and arrangement of these parts so long as the blade is made with substantially the described involute curve, so as to give a practically uniform draw-cut from end to end.

The heel of the knife, at the upper corner, has a hub, D, attached, through which passes the pivoted stud  $d$ , said stud being secured to the arm  $a$  of the frame. The hub D has an arm, D', with a threaded hole, through which passes the thumb-screw  $d'$ . The point of the thumb-screw has a broad flanged cap,  $d''$ , attached.

When the knife B is in its elevated position, (shown in dotted lines Fig. 1,) the cap  $d''$  is in position to form a stop for the bread or other article, and by adjusting the thumb-screw the thickness of the slices is gaged.

The heel of the knife from the hub downward has a cutting-edge, and the corner  $b$  of the blade first engages the bread and easily penetrates the bread-crust. The knife, at the extreme point, has a blunt edge at  $b'$ , that engages a stop,  $a^3$ , extending from the table, to limit the depression of the knife.

A handle, B', is attached to the knife for operating the same. The lug  $a'$  terminates above in a rectangular block,  $a^2$ , standing usually at right angles to the edge of the table. The block and lug have a vertical central threaded hole for engaging the thumb-screw E. The guide C has an angle-plate,  $c$ , attached, the lateral flange of which is provided with the openings  $c'$  and  $c''$ , that respectively fit the block  $a^2$ . The opening  $c'$  is at right angles to the guide, so that when the block  $a^2$  is in this opening the guide will be in the position shown in dotted lines Fig. 4—that is, substantially at right angles to the knife. By removing the thumb-screw E that holds down the guide, the latter may be lifted off and changed so that the block  $a^2$  enters the oblique open-



ing  $c^2$ , which will bring the parts in the position shown in solid lines Fig. 4, in which position sausage or other articles will be sliced obliquely. When the knife is in its depressed position, the sharp corner  $b$  projects laterally beyond the frame or table, and to prevent accidents the arm  $a$  has a flange,  $a^4$ , that extends beyond and past the heel of the knife and serves as a shield.

10 A second guide,  $E'$ , is provided, which is secured to the table so as to be adjustable transversely thereto and held with its surface at right angles, or thereabout, to the plane of the cutting-blade. To the back of this guide is  
15 secured an angle-plate,  $e$ , having a slot,  $e^2$ , which fits over a rectangular lug,  $e'$ , projecting upwardly from the lug  $a^5$ , the latter being preferably cast integrally with the frame of the cutter. This lug  $a^5$  is provided with a  
20 screw-threaded socket or perforation, with which engages a set-screw,  $E^2$ , whose enlarged head bears upon the upper side of the horizontal arm of the angle-plate  $e$ , and thereby clamps and holds it against movement. Slot  
25  $e^2$  of angle-plate  $e$  permits said plate to have movement upon block  $e'$  and retains guide  $E'$  in a parallel position to the side edges of table.

Guides C and  $E'$  form a guideway in which the material to be cut is held from moving with  
30 the knife while cutting.

What I claim is—

1. In a bread-cutter, the combination, with a lug extending from the table or frame thereof, said lug having an angular block attached  
35 thereto, of a guide having a plate attached, the latter having openings to respectively fit

said rectangular block, said openings being set at different angles to the line of the guide, substantially as set forth.

2. The combination, with the table A and 40 the guide C, of the knife B, pivoted above the table and to one side of the guide, as described, having a sharp cutting-edge throughout its length and a sharpened or cutting edge at its heel, said cutting-edges meeting and forming 45 a sharp corner,  $b$ , which moves in an arc intersecting the vertical plane of the face of the guide, as and for the purpose set forth.

3. In a bread-cutter, the combination, with the table or frame and a lug extending there- 50 from having an angular block, of a guide and a plate to which it is secured having angular openings corresponding to the aforesaid angular block, substantially as set forth.

4. The combination, with the table A, the 55 guide C, and the knife B, pivoted above the table and to one side of the guide C, as described, and having a sharp cutting-edge throughout its length and a sharp or cutting edge at its heel, said cutting-edges meeting and form- 60 ing a sharp corner,  $b$ , of the shield secured to the side of the frame beneath the axis of motion of the knife and protecting the heel of the sharp corner  $b$ , substantially as set forth.

In testimony whereof I sign this specifica- 65 tion, in the presence of two witnesses, this 8th day of October, 1885.

HENRY V. HARTZ.

Witnesses:

G. W. SHUMWAY,  
N. S. AMSTUTZ.