

S.E. Blake,
Bread Cutter,

Patented Jan. 3, 1865.

No. 45,689,

Fig. 1

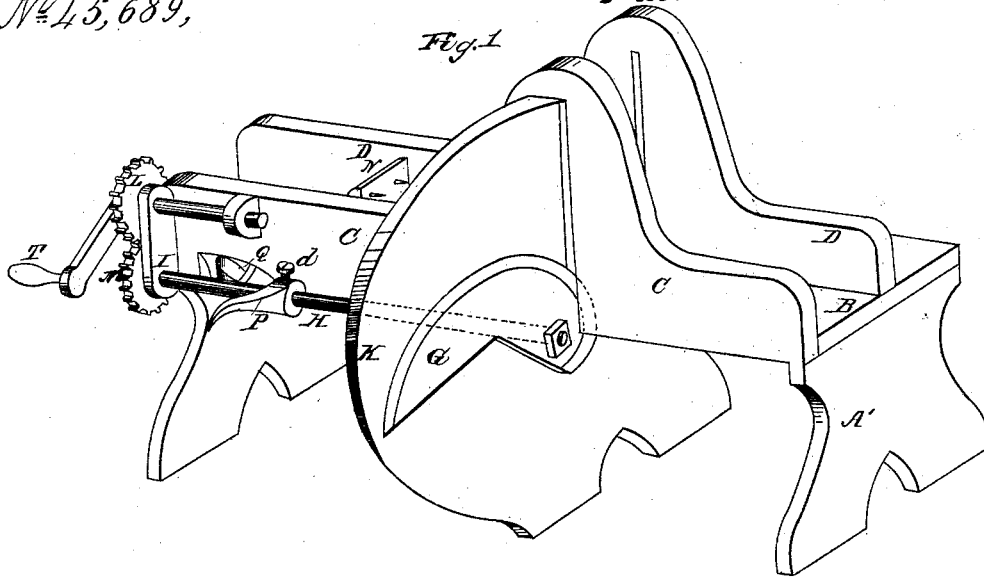
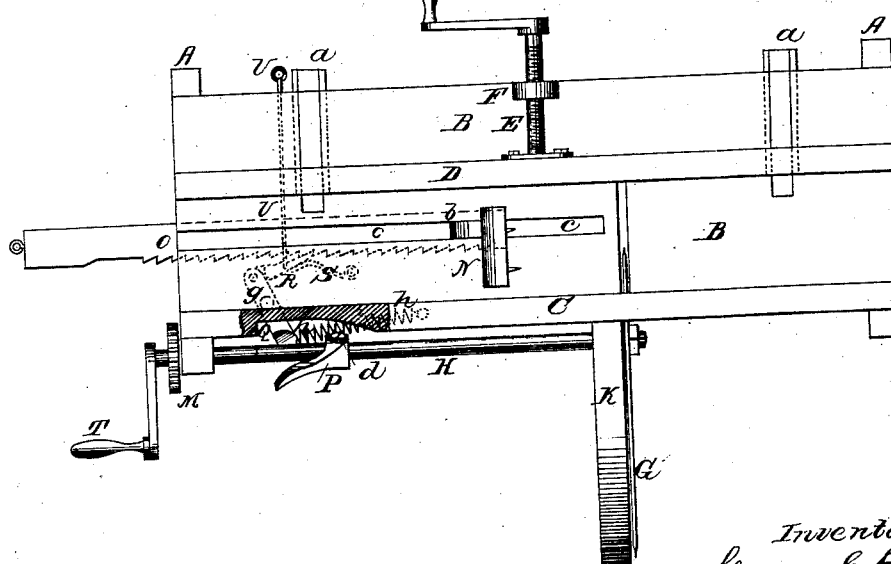


Fig. 2.



Witnesses

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IMPROVED BREAD AND VEGETABLE SLICER.

Specification forming part of Letters Patent No. **45,689**, dated January 3, 1865.

To all whom it may concern :

Be it known that I, SOLOMON E. BLAKE, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Machines for Slicing Bread and Vegetables; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of said bread and vegetable slicer. Fig. 2 represents a top view of the same.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A A' represent the supports of the machine on which the table or bed B rests, the latter supporting the sides C D of the box into which the articles to be sliced are placed. The side C is permanently secured to the table B, but the side D is laterally adjustable thereon, so as to adjust the width of the box according to the size of the articles which are placed therein. For this purpose I secure the side D to guide-pieces *a*, which are dovetailed in suitable grooves of the table B, in which they can slide, and I use a screw-shaft, E, which works in a standard, F, of the table and whose inner end is swiveled in the side D. Thus, by turning the screw-shaft D, the side D is moved transversely to or from the stationary side C, and I thus increase or decrease the width of the box.

G represents a revolving cutter or slicer. It is made in an eccentric shape, as represented in Fig. 1, for the purpose of causing it to operate with a draw cut, which, as is well known, is the most effectual and easy method of cutting, and which is absolutely necessary if a clean and sharp cut is desired in cutting soft substances, such as bread or vegetables. The knife G is secured to the shaft H, which runs in the bearing I and in a bearing within the shield K. It may be operated by a crank attached directly to its end or to the shaft of a pinion, L, which meshes with the pinion M on the cutter-shaft H.

K represents a shield which protects the operator against being injured by the revolving cutter. It is in the shape of a half-circle of a radius a trifle larger than the greatest

radius of the cutter-blade, so that the point of the latter shall in revolving remain inside the edge of the shield. The knife G is adjusted on its shaft in such a manner as to operate in as close proximity to the shield K as a free operation will permit, and the operator is thus effectually protected. The shield may be extended downward to the floor on which the machine rests, and thus serves as a central support to the same.

N represents the feed-block, by means of which the article to be sliced is fed, after each cut, a length which is equal to the thickness of the slices to be made. The block N is secured to the sliding rack O by means of the piece *b*, which passes through the slot *c* of the table B, and thus serves as a guide to insure a rectilinear motion of the block N. The outer end of the rack O passes through the support A and is held by it in its true position.

P represents a cam, which is secured to the shaft H by means of the set-screw *d*. Its position can be adjusted thereon longitudinally and it can be secured in any desired position by means of said set-screw. The cam lever Q is pivoted at *g* to the lower side of the table B, and has the pawl R pivoted to its inner end. The pawl R is pressed against the teeth of the rack O by the action of the spring S, and when the shaft H is turned the cam P at each revolution strikes the outer end of the lever Q, which latter feeds the rack O and block N forward a certain length equal to the thickness into which the bread is to be sliced, and when the cam P releases or has passed the end of the lever Q the recoil spring *h* springs the outer end of the lever Q back, to bring it in proper position for the next stroke.

The length of stroke of lever Q and pawl R, and, consequently, the length of the feed, can be readily adjusted by adjusting the cam P longitudinally on its shaft H, and then securing it in the desired position by means of set-screw *d*.

The operation of the machine is as follows: The length of feed of the rack O having been properly adjusted, the bread or vegetables to be sliced are inserted into the box formed by the sides C D. The screw-shaft E is then turned so as to bring the side D in contact with the bread, to prevent the latter from moving while being sliced, and the shaft H is then turned by means of crank T, and the ma-

chine is kept in operation until the feed-rack has arrived at the end of its course.

By pressing upon the outer end of the rod U, which is connected with the pawl R, the latter is disengaged from the rack, and the rack O and feed-block N can be withdrawn to renew the operation.

This machine is a highly useful article for every household, as it saves a great deal of labor and as the slices of bread or vegetables made by it are all exactly of the same thickness and of an even and smooth cut, which can never be attained in cutting by hand. In hotels, where large quantities of bread are sliced daily, this machine will be particularly of great advantage, as there the saving in labor is a large item, and the slices in their uniform size and smooth cut, when served at the table, add to make them attractive.

Having thus fully described the nature of my invention, what I claim herein as new, and desire to secure by Letters Patent, is—

1. The combination of the eccentric slicer G, adjustable feed-box, feed block N, and rack

O, when constructed and operated substantially as and for the purposes described.

2. The combination of the adjustable cam P with lever Q, pawl R, rack O, and springs *h s*, for the purpose of adjusting the length of the feed, substantially in the manner herein described.

3. The combination of the lever Q, pawl R, rack O, and rod U, for the purpose of disengaging the pawl from the ratchet, substantially as herein described.

4. In combination with the revolving eccentric slicer G, feed-box, and feed, the protecting shield K, substantially as and for the purposes described.

5. The combination of the revolving slicer, adjustable feed-box, and adjustable feed, when the several devices are constructed and arranged substantially as and for the purposes described.

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Witnesses:

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