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PATENT SPECIFICATION



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456,542

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PROVISIONAL SPECIFICATION

Improvements relating to Slicing Machines

We, BERKEL & PARNALL'S SLICING MACHINE MANUFACTURING COMPANY LIMITED, of Aden Road, Ponders End, Middlesex, England, a British Company, do hereby declare the nature of this invention, which has been communicated to us by Maatschappij van Berkel's Patent N.V., of 33, Boezemsingel, Rotterdam, Holland, a body corporate organised under the laws of Holland, to be as follows:—

This invention relates to machines for cutting bread, meat and other edible substances into slices and of the type including a rotatable knife.

The most generally known machines of the foregoing type have a circular knife mounted to rotate solely about its own central axis, which axis is stationary. Machines of the same type are also known, especially bread slicers, which likewise have a circular knife rotatable about its central axis, but this axis is embodied in a crank, the arrangement being such that the crank also is rotated during slicing operations—the knife then receiving a planetary motion—and such that the crank is fixed for knife-sharpening operations—the knife then rotating about a stationary axis; such machines are however comparatively complex and correspondingly costly as regards manufacture of the means for supporting and driving the knife. It is also known to provide slicing machines of the type stated with so-called sickle-shaped knives—i.e. knives with an approximately involute or spiral convex edge—but these machines although advantageous as regards efficiency and cheapness nevertheless are subject to the disadvantage that the sharpening of the edge is difficult operation.

The object of this invention is to provide, in a slicing machine of the type specified, a knife arrangement which will have the advantages of the last-mentioned known machines, and which also will have the advantage that the knife can be sharpened in the same simple and effective manner as in the first and second mentioned known machines.

In accordance with the invention, a slicing machine of the type specified has a circular knife adapted to be rotated about either of two stationary axes, one of which is the knife's own central axis and the other of which is eccentric. More specifically, the machine has a circular knife which is arranged to rotate for slicing operations about a stationary eccentric axis and which is provided with means whereby an adjustment can be made in order that the knife can be rotated for sharpening operations about its own central axis, this axis then being stationary.

For example, the said means may comprise or include spaced holes in the knife, one or other of which receives the knife-rotating shaft or other driving means; or such holes may be replaced by a radial slot to one or other end of which the driving means is displaceable.

Alternatively, the body of the knife may include an inside circular portion whose centre is disposed midway between the knife's central axis and the eccentric axis. The said portion is attached to a driving shaft, and the arrangement is such that by turning the knife relative to said portion the shaft can be made to coincide with one axis or the other.

Provision may be made whereby the knife can be adjusted about its central axis relative to the eccentric axis of rotation during slicing so as to cause a different portion of the circular edge to contact with the substance to be sliced. For example, a plurality of eccentric holes or of radial slots may be provided, the arrangement being such that the knife-driving means can be attached to any selected hole or slot.

If desired, the nature of the aforesaid adjustment provision may be such that the adjustment takes place automatically in the operation of the machine so that the effective portion of the circular edge is progressively varied and uniform wear of the entire edge is substantially ensured. Such provision may take the form of a slip coupling or friction drive.

[Price 1/-]

[This Drawing is a reproduction of the Original on a reduced scale.]

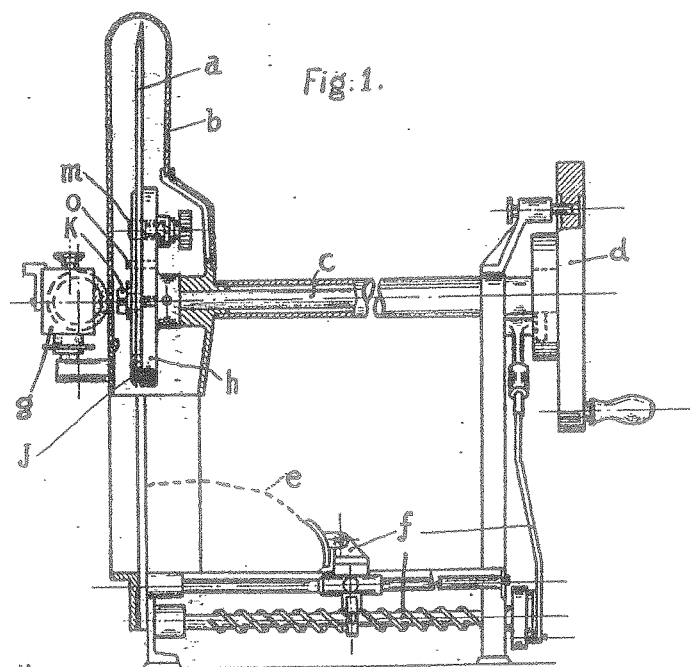


Fig. 1.

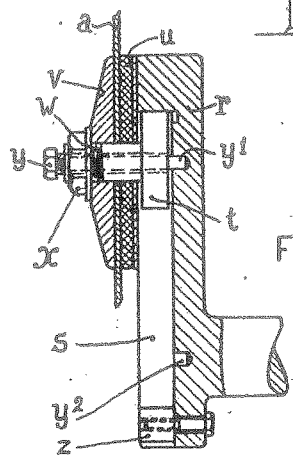


Fig. 3.

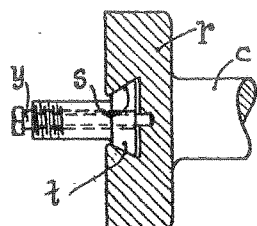


Fig. 4.

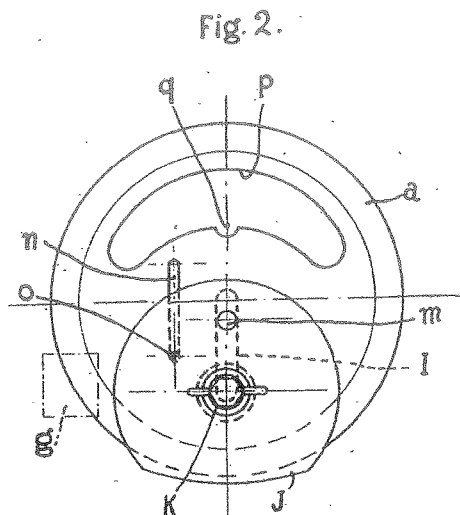


Fig. 2.