Sept. 17, 1929. J. L. WELLINGTON 1,728,192

METHOD OF MAKING SLICING KNIVES

Filed Nov. 2, 1927

Fig. 1

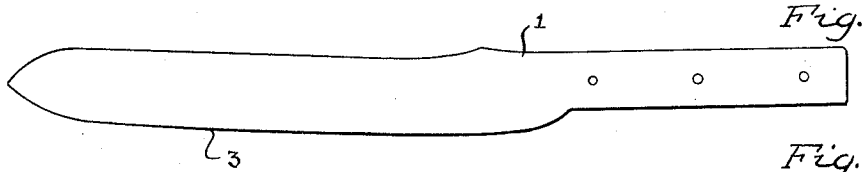


Fig. 2



Fig. 3

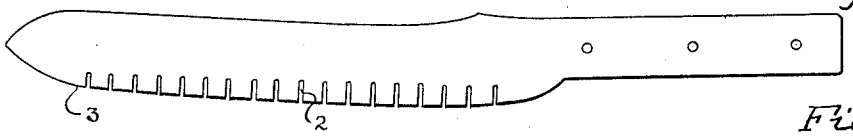


Fig. 4



Fig. 5

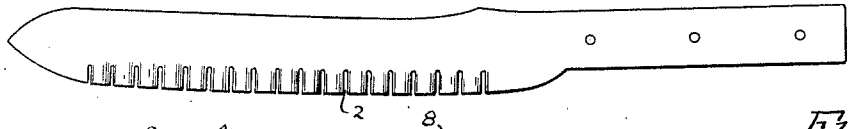


Fig. 6



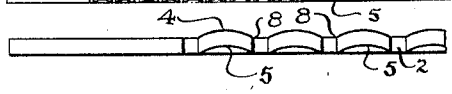


Fig. 7

Fig. 8

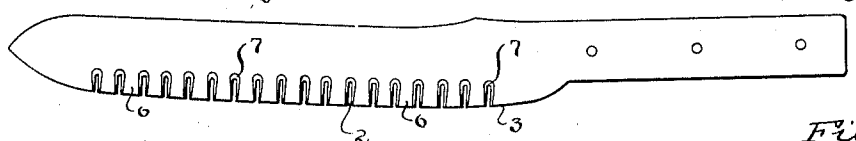


Fig. 9



Fig. 11

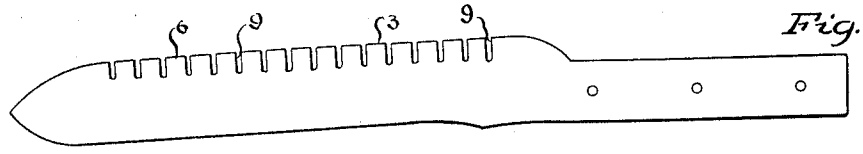


Fig. 12



Fig. 10

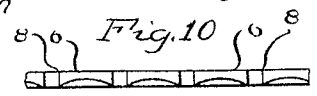
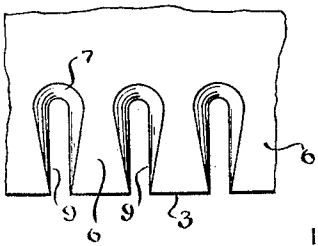


Fig. 13



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UNITED STATES PATENT OFFICE

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METHOD OF MAKING SLICING KNIVES

Application filed November 2, 1927. Serial No. 230,425.

The present invention relates to a method of making slicing knives of the type in which the knife is provided with slots intersecting the cutting edge and having cutting edges formed on their opposite walls. An object of this invention is to provide a method which renders it possible to produce such knives economically and with less danger of removing the temper from a knife in providing cutting edges on opposite walls of the slots.

To this and other ends, the invention consists of certain parts and combinations of parts all of which will be hereinafter described: the novel features being pointed out in the appended claims.

In the drawings:

Fig. 1 is a plan view of a knife blank from which the knife is formed;

Fig. 2 is an edge view of the same blank;

Fig. 3 is a plan view of the blank after the slots are provided therein;

Fig. 4 is an edge view showing the blank illustrated in Fig. 3;

Fig. 5 shows the blank after the portions between the slots have been bent to concave each portion on one side and convex it on the other side;

Fig. 6 is an edge view of the blank shown in Fig. 5;

Fig. 7 is a large fragmentary edge view of the same blank;

Fig. 8 is a plan view of the blank after it has been ground on one side;

Fig. 9 is an edge view of the blank as illustrated in Fig. 8;

Fig. 10 is an enlarged fragmentary edge view of the same blank;

Fig. 11 is a plan view of the opposite side of the knife showing the latter after it has been ground on said side;

Fig. 12 is a transverse section through the blade; and

Fig. 13 is an enlarged fragmentary view from the opposite side of the knife.

The preferred method of carrying out this invention comprises providing a blank 1 substantially in the form illustrated in Fig. 1. This blank is then cut to provide slots 2 with parallel walls intersecting the proposed cutting edge 3 of the knife, as illustrated in Figs. 3 and 4. The blank is then subjected to a bending operation to bend those portions between the slots 2 longitudinally or parallel with the slots so that each portion is convex on one side, as at 4, and concave on the opposite side, as at 5. At this time, the blank is tempered. The next operations consist in grinding the two sides of the knife to provide the cutting edges. Either side may be ground first but it is preferred to grind the side having the convex surface, as at 4 so as to provide flattened surfaces 6 between the slots which incline slightly toward the cutting edge of the knife and provide about the slots 2 depressions 7 which gradually increase in depth and width from the cutting edge of the knife toward the inner ends of the slots. Thereafter, the opposite face of the knife is ground to remove the concave surfaces 5 and entirely flatten such side of the knife between these slots to provide inclined surfaces which incline slightly to the plane of the knife body. The grinding on this side of the knife is continued until the center portions 6 are even with the corners 8 on the convex side of the knife, with the result that not only is the knife provided with a main cutting edge 3 but cutting edges 9 are provided on opposite sides of each slot.

This method makes it possible to manufacture in an economical way, a knife having slots intersecting its main cutting edge with the walls of the slots forming cutting edges. Such a knife when used for cutting cake, bread and the like does not produce any crumbs.

What I claim as my invention and desire to secure by Letters Patent is:

A method of producing slicing knives which consists in providing slots with parallel side walls in a blade blank to intersect a proposed cutting edge on the blank, bending the material between and parallel with the slots to provide concave surfaces on one side of the blank between the slots and convex surfaces on the opposite side, and grinding the two sides of the blank to provide a main cutting edge and cutting edges on opposite sides of the slots.

JOHN L. WELLINGTON.