S. L. KIMMEL.

METAL WORKING PROCESS.

APPLICATION FILED DEC. 8, 1915.

1,183,466. Patented May 16, 1916.

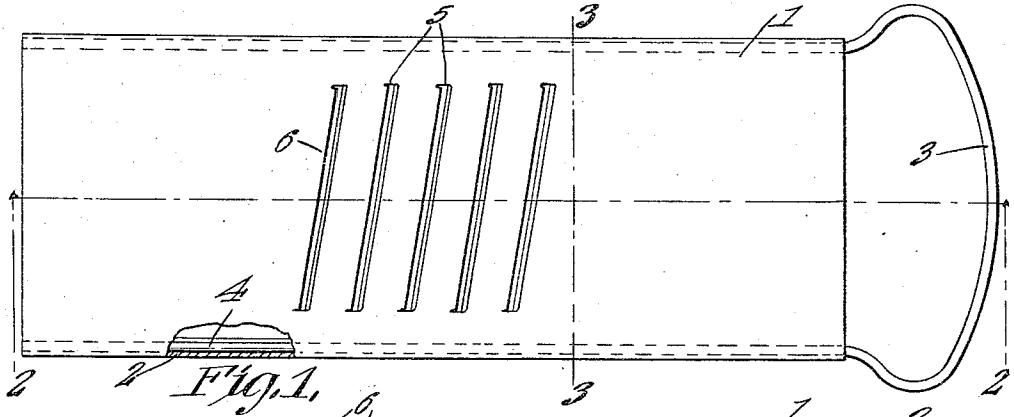


Fig. 1.

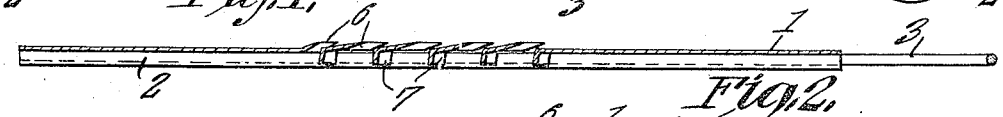


Fig. 2.



Fig. 3.

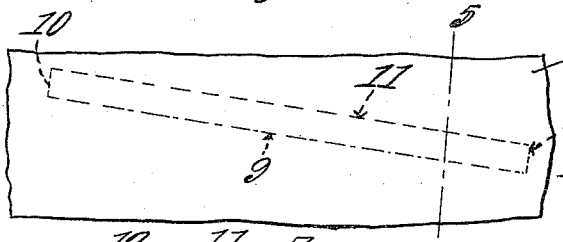


Fig. 4.

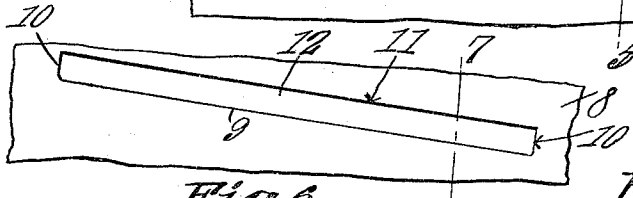


Fig. 6.



Fig. 5.

Fig. 7.

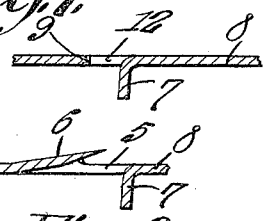


Fig. 9.

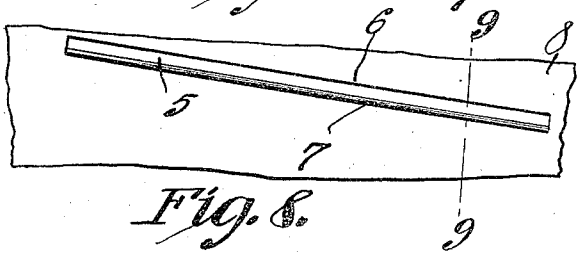


Fig. 8.

Witnesses

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UNITED STATES PATENT OFFICE.

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METAL-WORKING PROCESS.

1,183,466. Specification of Letters Patent. Patented May 16, 1916.

Application filed December 8, 1915. Serial No. 65,752.

To all whom it may concern:

Be it known that I, SAMUEL L. KIMMEL, a citizen of the United States, residing at Bluffton, in the county of Allen and State of Ohio, have invented a new and useful Metal-Working Process, of which the following is a specification.

The present invention aims to provide a novel process for fashioning an opening in the body of the cutter, for forming a deflecting lip and a knife edge adjacent the opening, and tempering the knife edge simultaneously with the formation thereof.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:—Figure 1 shows in top plan, a slaw cutter made in accordance with the present invention, parts being broken away; Fig. 2 is a longitudinal section of the slaw cutter taken on the line 2—2 of Fig. 1; Fig. 3 is a cross section taken on the line 3—3 of Fig. 1; Figs. 4, 6 and 8 are plan views illustrating the various steps in the process of forming and tempering the knife edges of the slaw cutter; Figs. 5, 7 and 9 are sections taken, respectively, on the lines 5—5 of Fig. 4, 7—7 of Fig. 6, and 9—9 of Fig. 8.

The slaw cutter herein disclosed includes a flat body 1 in the form of a plate of metal, the longitudinal edges of the body 1 being bent to form tubular beads 2. Located at one end of the body 1 is a loop-shaped handle 3 embodying arms 4 received within the beads 2 and tightly clamped therein, the arms constituting means for reinforcing the body 1 along its longitudinal edges.

Intermediate its ends, the body 1 is provided with any desired number of slots 5 preferably disposed obliquely with respect to the longitudinal axis of the body 1. Inclined, sharpened blades 6 project from the body 1 from one of the longitudinal edges of the slots 5, there being downwardly deflecting lips 7 projecting from the body 1 along the opposite longitudinal edges of the slots 5.

In practical operation, the slaw cutter is disposed as shown in Fig. 1 and the cabbage or other article to be sliced is reciprocated along the upper face of the body 1, the blades 6 serving to slice the article, and the material thus loosened passing downwardly through the slot 5, the lips 7 serving to deflect the sliced material in a downward direction.

The novelty in the present invention resides in the process whereby the sharpened blades 6 and the deflecting lips 7 are formed. In Figs. 4 to 9, the numeral 8 may be taken to represent a sheet of metal out of which the body 1 is formed. The lip 7 may be pressed out of the sheet 8, the lip 7 being connected with the sheet along the edge 11, but being freed from the sheet along the longitudinal edge 9 and along the short end edges 10. Fig. 4 is a mere diagrammatic view showing the approximate size of the lip 7 before the same is punched down, Figs. 6 and 7 showing the sheet 8 as the same will appear after the lip 7 and the slot 12 have been formed. After the operation above described has been carried out, the edge 9 of the sheet 8 is drawn out by a wiping operation, under heavy pressure, the sheet being in a cold condition. By this operation, the sharpened blades 6 are fashioned, and the blades, simultaneously with their formation, are given a temper, due to the friction produced during the drawing operation. The slot 12 which is formed by striking out the lip 7 is of larger size than the slot 5 in the finished article, the drawing out of the edge of the metal sheet 8 to form the cutting blade 6 serving to decrease the size of the slot 12, so that, in the finished article, the reduced slot 5 is produced.

Having thus described the invention, what is claimed is:—

1. The process of forming an opening in a plate of metal, and of fashioning a knife edge adjacent the opening and simultaneously tempering the knife edge, which consists in forming in the plate, an opening of larger size than that desired in the finished product, and drawing one edge of the metal out cold toward the opening by a wiping action under heavy pressure.

2. The process of fashioning an opening, a deflecting lip and a knife edge in a plate of metal, and of simultaneously tempering the knife edge, which consists in striking out the lip to form an opening, and drawing out the metal cold along one edge of the opening, by a wiping action under heavy pressure.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

SAMUEL L. KIMMEL.

Witnesses:
CLAIR FETT,
HENRY L. ROMEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."