

(No Model.)

M. COWLES.
KNIFE.

No. 382,591.

Patented May 8, 1888.

Fig. 1.

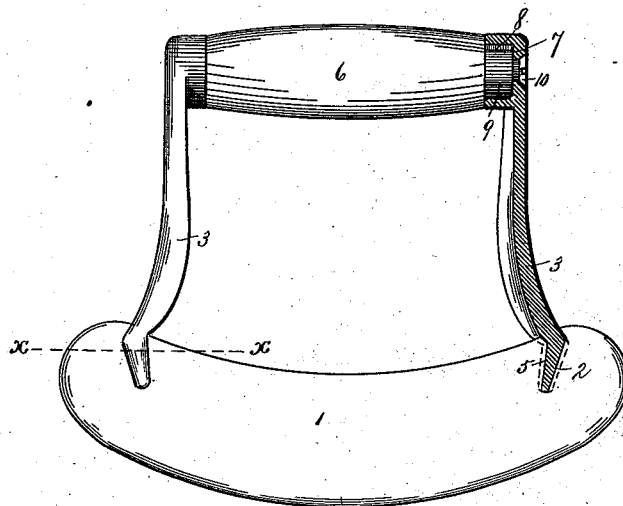


Fig. 2.

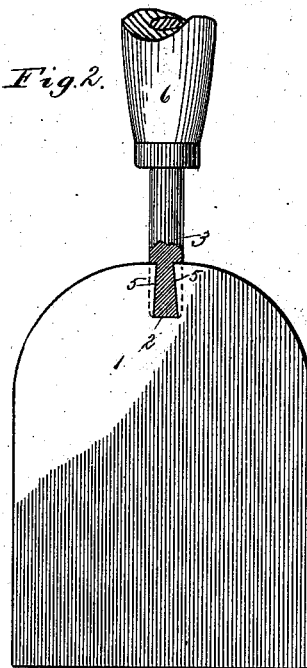


Fig. 3.

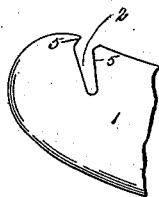


Fig. 4.

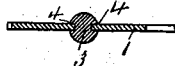


Fig. 5.

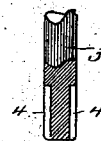
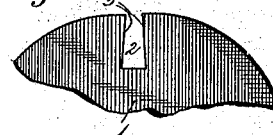


Fig. 6.



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UNITED STATES PATENT OFFICE.

MARTIN COWLES, OF BRIDGEPORT, CONNECTICUT.

KNIFE.

SPECIFICATION forming part of Letters Patent No. 382,591, dated May 8, 1888.

Application filed May 23, 1887. Serial No. 239,044. (No model.)

To all whom it may concern:

Be it known that I, MARTIN COWLES, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Knives; 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 appertains to make and use the same.

My invention relates to the manufacture of chopping-knives, pancake-turners, and similar culinary implements, and has for its object to simplify and cheapen their construction, while at the same time the attachment of the blades to the handles shall be greatly strengthened and the use of rivets and pins shall be wholly avoided.

With these ends in view I have devised the simple and novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to indicate the several parts.

Figure 1 is an elevation, partially in section, of a chopping-knife embodying my invention; Fig. 2, an elevation, also partially in section, illustrating my invention as applied to a pancake-turner; Fig. 3, a detail view of one end of a chopping-knife blade detached, showing one form of slot which I have used; Fig. 4, a detail section on the line *xx* in Fig. 1; Fig. 5, a detail view of the shank of a pancake-turner detached; and Fig. 6 is a detail view of the top of the blade of a pancake-turner detached, showing another form of slot which I have used.

1 denotes a blade, which may be of any suitable or preferred form or size, and 2 a slot or slots made in the metal of said blade at the top. The size, shape, and location of these slots are not of the essence of my invention, the gist of which lies in so forming these slots that the metal at or near the outer ends thereof shall overhang the inner portion of the slot. This may of course be accomplished in various ways. In Figs. 2 and 6 I have shown a straight slot widest at the bottom and tapering inward toward the top. This form I preferably use in any article having a straight shank or shanks. In Figs. 1 and 3 I have shown the slot as made angular—that is, inclined first in one direction and then in the other—so that the metal at or

near the outer end of the slot shall overhang the slot on both sides.

3 denotes the metallic shanks of the handles. These shanks may either be made curved, as in Fig. 1, or straight, as in Figs. 2 and 5. Where two shanks are used, as in chopping-knives, I preferably make the shanks curved, substantially as shown, in order to give a more finished appearance to the completed article. The lower ends of the shanks are provided with grooves 4, to receive the metal of the overhanging outer ends of the slots in the blades. It will of course be understood that the ends of the shanks should be so shaped and grooved as to correspond with the slots in the blade—that is to say, if the slot is made angular, as in Figs. 1 and 3, the shanks should correspond therewith, as shown—the same being true if the shanks are made straight, as in Figs. 2 and 5.

In assembling, the overhanging portions of the metal of the blades, which are designated by 5, enter slots 2 in the shanks, when the latter are pressed down upon the blades. The shanks are then firmly secured in place by being placed between suitable dies and struck a heavy blow, the effect of which is to press out the metal of the shanks, so that slots 2 under the overhanging portions 5 are filled by the metal of the shank. At the same time the metal of the shanks at the opposite sides of slots 2 is pressed down firmly upon the blades, thereby locking the shanks and blades so firmly together that it is impossible to detach them in use. I thus dispense entirely with pins and rivets and attach the shanks and blades together by a single blow.

6 denotes the handles, which may be made of wood or any suitable material.

In chopping-knives and other implements in which two shanks are used I preferably provide the upper ends of the shanks with sockets 7, having inwardly-projecting ribs or splines 8, and provide tenons 9 upon the ends of the handles, the splines being forced into the wood or into grooves made for them, so that the handles are prevented from turning in use. The handles and shanks are then secured together by screws 10, which pass through holes provided therefor in the shanks from the outer side and engage the wood of the handle.

It will of course be understood that the details of construction may be varied within reasonable limits without departing from the spirit of my invention.

5 I claim—

1. The improvement in the art of attaching shanks to blades, which consists in forming slots in the blades and grooves in the shanks, then inserting the ends of the shanks into the
10 slots with the edges of the slots resting within said grooves, and, finally, applying lateral pressure to the metal of the shanks on lines perpendicular to the plane of the blade, thereby forcing said metal against the inner faces
15 of the slots, and by the same operation compressing it against the lateral faces of the blade in proximity to the slots.

2. The method of attaching shanks to blades, which consists in forming slots in the blades
20 having overhanging portions 5, and forming grooves on opposite sides of the shanks, then

inserting the ends of the shanks into the slots with the edges of the overhanging portions resting in the groove, and, finally, applying lateral pressure to the metal of the shanks on
25 lines perpendicular to the blade, thereby forcing said metal against the inner faces of the slots and beneath said overhanging portions, and at the same time compressing it against the lateral faces of the blade in proximity to
30 the slots.

3. The combination, with a blade having a slot with overhanging portions 5, of a malleable shank having grooves on opposite sides and a solid central compressed portion between
35 said grooves, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN COWLES.

Witnesses:

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JOHN KEPPY.