S. P. Chapin,

Can Opener,

No. 56,368, Patented July 17, 1866.

Fig. 1.

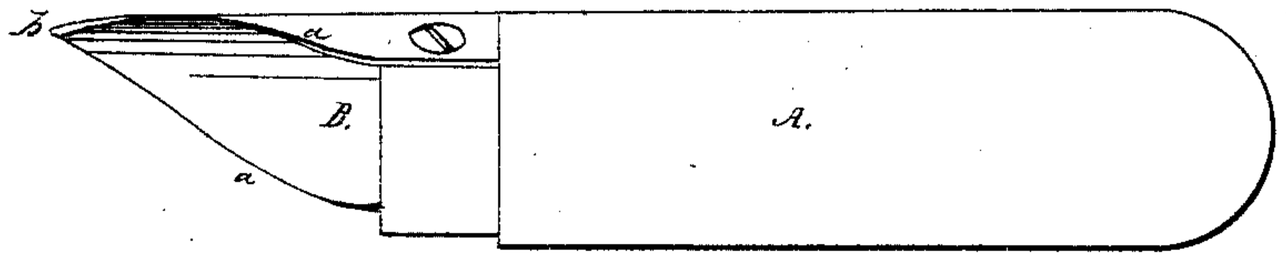


Fig. 3.

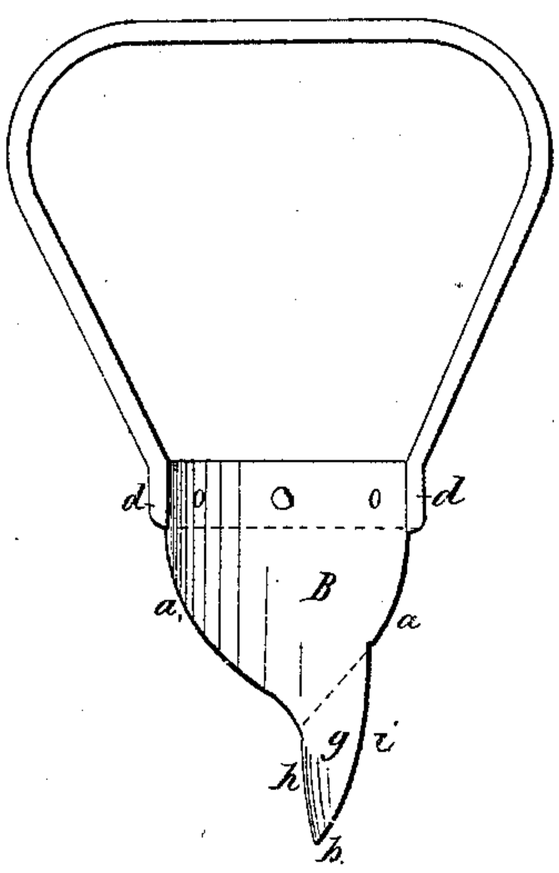


Fig. 4.

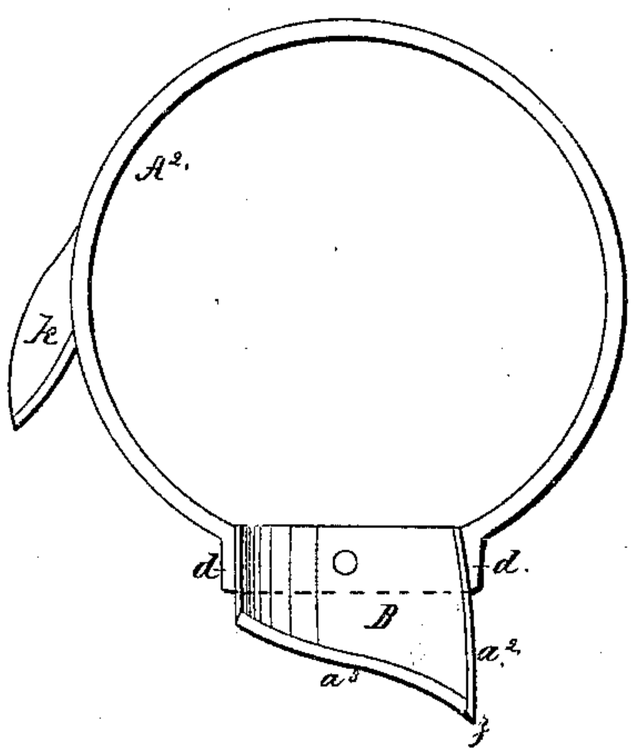


Fig. 5.

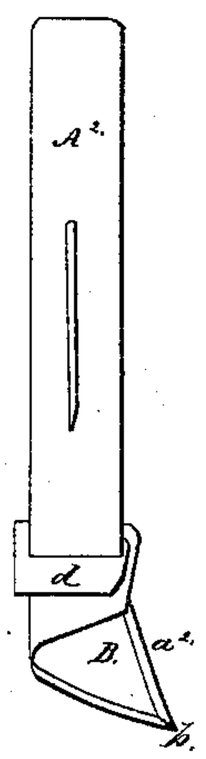
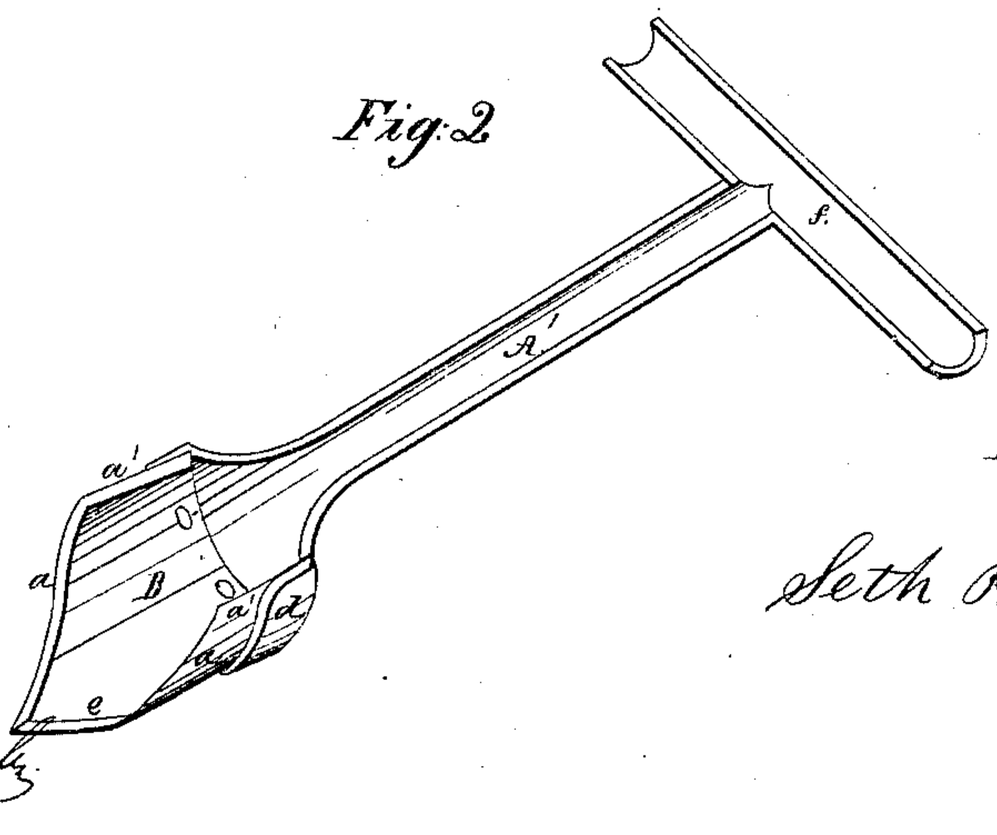


Fig. 2.



Inventor.

Seth P. Chapin,

Attest.

Henry T. Brown

J. M. Crosby

UNITED STATES PATENT OFFICE.

SETH P. CHAPIN, OF ATLANTIC, NEW JERSEY.

IMPROVED IMPLEMENT FOR OPENING SHEET-METAL CANS.

Specification forming part of Letters Patent No. **56,368,** dated July 17, 1866.

To all whom it may concern:

Be it known that I, SETH P. CHAPIN, of Atlantic, in the county of Monmouth and State of New Jersey, have invented a new and Improved Implement for Opening Sheet-Metal Cans and Boxes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figures 1, 2, 3, and 4 are perspective views, showing different forms or modifications of my invention; and Fig. 5 is a side view of one of the said modifications, taken at right angles to Fig. 4.

Similar letters of reference indicate corresponding parts in all the figures.

This invention is designed for opening tin or other sheet-metal boxes, either by cutting a circular hole therein or by cutting in straight or irregular lines through the sheet metal of which they are composed; and it consists in a cutter secured upon a suitable handle and made semicircular in its cross-section, so as to enable it to cut a circular disk from the metal, and thus form a hole therein, and provided with oblique or sloping cutting-edges terminating in a point, by which means the cutter is readily forced into and through the metal.

It also consists in the combination, with the said cutter, of a guard or shoulder so formed or secured upon its upper end as to act as a guide to keep the cutter in proper position while cutting circular holes in the box, as just mentioned, and also as a stop to prevent the cutter from inclining or being pushed too far inward during such operation.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

The simplest form of my invention is shown in Fig. 1, which embraces only the main feature thereof.

A is a wooden handle, of cylindrical or other suitable shape, and to one end of which is riveted or otherwise secured the cutter B. The said cutter B is curved in its cross-section into the arc of a circle, and has its edges *a* sloping inward toward each other, so that the cutter tapers to a point, *b*, at the junction of the two edges *a*. The said edges *a* are beveled upon their inner side to make them sufficiently sharp, and the implement is used for cutting circular holes in the tin box by forcing it, point first, into and through the sheet metal nearly up to the end of the handle A, and then turning or twisting the cutter around by means of the said handle, which causes the foremost of the edges *a* to cut the thin metal in a circular line corresponding to the circle of which the back or convex side of the cutter forms an arc, and thus, by removing a circular disk from the box, forming a hole or opening therein.

This instrument may be modified by extending the edges of the cutter at its widest part, so that a larger portion of a circle or part of an oval will be cut by a single thrust, making it unnecessary to rotate the instrument, the portion of the can thus cut nearly out being easily bent over.

As shown in Fig. 2, the implement differs from the form represented in Fig. 1 in embracing the second feature of my invention; also, in the flattened form given to a portion of one of the cutting-edges *a*, as indicated at *e* in the said Fig. 2, and by which it is adapted to opening sardine-boxes; also, in having the upper portions of its cutting-edges *a* slope upward and backward, as shown at *a'*, and in the substitution in place of the wooden handle A of a metallic one, A', provided at its upper end with a cross-piece, *f*, by which it is more easily rotated.

The aforesaid second feature of my invention consists in a guard or shoulder, *d*, formed upon or secured to the upper end of the cutter B, and, by preference, around the outer side or circumference thereof. When the cutter B is forced into the sheet metal, as just set forth, this guard or shoulder not only prevents it from being pushed through too far, but by resting upon the metal supports the cutter in proper position as it is turned around to cut the circular disk from the box, as hereinbefore explained. The most convenient way of applying this shoulder *d* to the cutter B is by forming it upon the extremity of the metallic handle to which the said cutter is secured, or when the cutter B is attached to a wooden handle, A, as in Fig. 1, the flat end of the handle performs the same function.

In Fig. 3 the three several features of my invention are shown combined in one implement. The third feature consists in a supplementary cutter, *g*, formed by extending the extremity of the cutter B, and making one edge of the said extended portion straight and sharp, as shown at *h* in the said figure, while the opposite edge, *i*, thereof is made sloping, its curve joining the contiguous sloping edge of the cutter B, the said cutter *g* terminating in a point, *b*, in the same manner as the cutter B, as shown in the other figures. This supplementary cutter, with its straight cutting-edge *h*, is designed for cutting through the sheet metal of the boxes, either in straight or more or less irregular lines, as required in opening sardine-boxes. The cutter *g* is thrust in near the edge of the box as far as the dotted red line shown in the drawings, the concave side of the cutter B being toward and the curved edge *a* resting across the edge of the box. Then the handle is pressed down, causing the edge *h* to rise and cut its length through the metal.

In the modification shown in Figs. 4 and 5 the cutter B is secured upon an annular handle, A^2, on which is formed the guard or shoulder *d*, in the same manner as in Figs. 2 and 3. The lower edge, a^3, of the cutter B in this modification runs from the point *b* backward and a little upward. It cuts when the instrument is pushed into the can. The other edge, a^2, runs from the point *b* more upward and less backward than a^3, and cuts when the instrument is rotated. This cutting-edge a^2 is sloped backward (and also the cutting-edges a^2, Fig. 2) for the purpose of causing the lip of a can cut by it to turn a little outward, which will allow the last drops of fluid to drip from the can.

A small cutting-blade, *k*, is secured upon the annular handle A^2, and used, when desired, for opening sardine-boxes by cutting through their sides, thrusting the point through the tin, and rolling the annular handle either backward or forward and alternately sliding the cutter forward and rolling the handle.

What I claim as new, and desire to secure by Letters Patent, is—

The cutter B, curved in its cross-section and provided with sloping cutting-edges a' or a^2, as described, when secured upon a handle or stock provided with a shoulder, *d*, to operate substantially as herein set forth, for the purpose specified.

SETH P. CHAPIN.

Witnesses:
HENRY T. BROWN,
J. B. NONES.