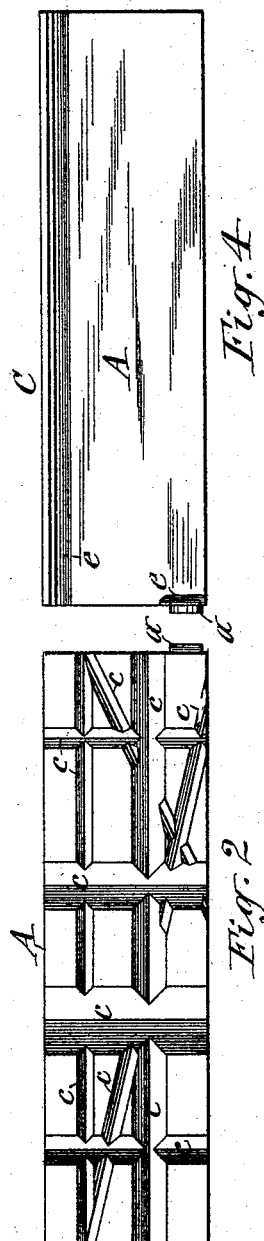
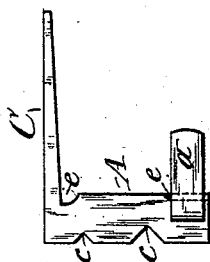
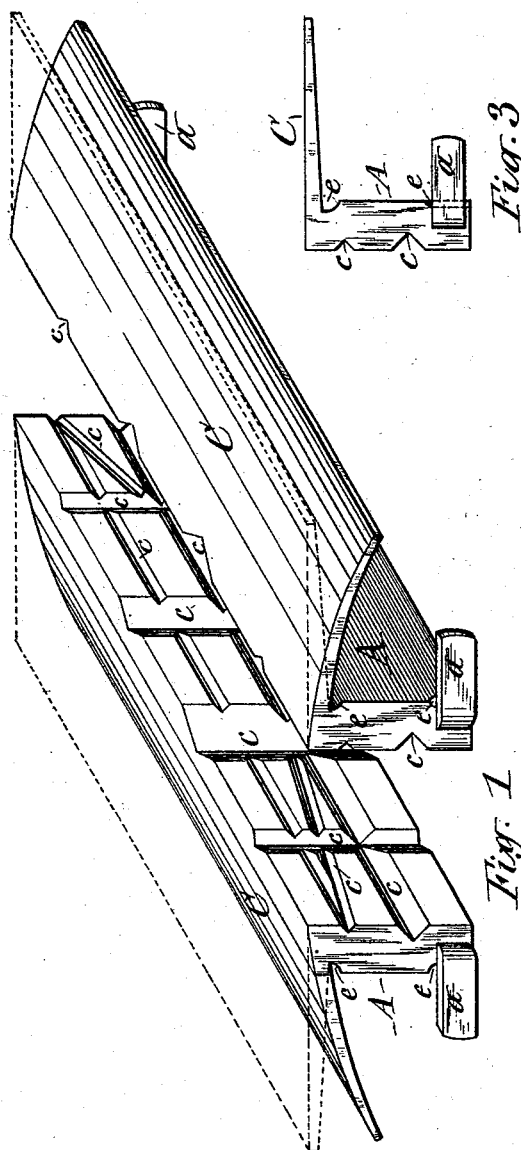


(No Model.)

C. D. BINGHAM.  
VISE JAW CAP.

No. 455,651.

Patented July 7, 1891.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES D. BINGHAM, OF WATERTOWN, NEW YORK.

## WISE-JAW CAP.

SPECIFICATION forming part of Letters Patent No. 455,651, dated July 7, 1891.

Application filed June 4, 1888. Serial No. 276,028. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES D. BINGHAM, of Watertown, in the county of Jefferson, in the State of New York, have invented new and useful Improvements in Vise-Jaw Caps, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to caps or linings applied to the faces of vise-jaws for the purpose of protecting finished surfaces of articles gripped between said jaws from injury incident to the grip of the jaws. Such caps have hitherto been formed of sheet metal, usually copper, by cutting out a blank to the required size and shape, clamping a portion thereof between the vise-jaws, and bending the top portion of the blank over the top of the jaw, and in some instances said caps have also been cast of metal and of a shape to fit the vise-jaw. In either case, however, the gripping-face of the cap was smooth or comparatively smooth, and in consequence thereof incapable of securely holding in the vise a cylindrical body, so that it would resist any great strain exerted on it in a direction parallel to the plane of the face of the vise-jaw while operated on.

My invention consists in a novel construction of a vise-jaw cap which effectually overcomes the aforesaid difficulty and possesses other advantages, as hereinafter fully described, and specifically set forth in the claim.

In the annexed drawings, Figure 1 is an isometrical perspective view of two vise-jaw caps embodying my improvements, and Figs. 2, 3, and 4 are respectively front, end, and rear elevations of the same.

Similar letters of reference indicate corresponding parts.

A represents the portion of the cap which rests against the face of the vise-jaw and serves as a lining for the same, and C is the flange by which the cap is hung upon the top of the said jaw. The gripping-face of said cap I provide with grooves or recesses *c c*, some of which are disposed parallel with the top edge of said face and others are diagonal at various angles across the face. By means

of these grooves the face of the jaw is afforded a secure hold on the article gripped between the vise-jaws.

The described vise-jaw cap I cast of malleable metal and with the flange C nearly or quite at right angles to the face portion A, as represented by dotted lines in Fig. 1 of the drawings. A pattern made of this form is more easily drawn from the mold. The flange C is subsequently bent to the shape of the top of the vise-jaw by clamping the portion A between the jaws and applying the requisite pressure or strokes to the top of the said flange. In casting articles having internal angles it is difficult to produce such angles perfectly, owing to the breaking of the corners in the mold, and where articles thus imperfectly cast are designed to fit closely to an external angle of another article it is necessary to file or cut out the imperfect portions of the internal angle. To obviate this defect I form the vise-jaw cap with a recess *e* along the internal corner at the junction of the flange C with the portion A of the cap.

In a vise-jaw cap formed with closed ends, as has frequently been the case heretofore, it is necessary to employ caps of different lengths to suit the different sizes of vise-jaws. To obviate this I leave the ends of the cap open and provide one end thereof with a stop or projection *a*, by which it abuts against the corresponding end of the vise-jaw, and in order to bring coinciding grooves *c c* of the two caps opposite each other I affix the aforesaid stops *a a* to the caps at coinciding ends thereof, as shown in Fig. 1 of the drawings. Caps formed in this manner may be used in vises with jaws of different widths.

At the inner corner, at the junction of the stop *a* with the portion A of the cap, I provide a recess *e*, for the purpose hereinbefore explained.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A removable vise-jaw cap comprising a vertical portion having its clamping-face provided with grooves or recesses disposed at va-

rious angles across the same and an integral top flange curved to fit the vise-jaw, and the stop *a*, adapted to abut against the end of the vise-jaw, substantially as specified.

5 Intestimony whereof I have hereunto signed my name, in the presence of two witnesses; at Watertown, in the county of Jefferson, in

the State of New York, this 31st day of May, 1888.

CHAS. D. BINGHAM. [L. S.]

Witnesses:

JOHN A. BLAKE,  
LOUIS GORMANN.