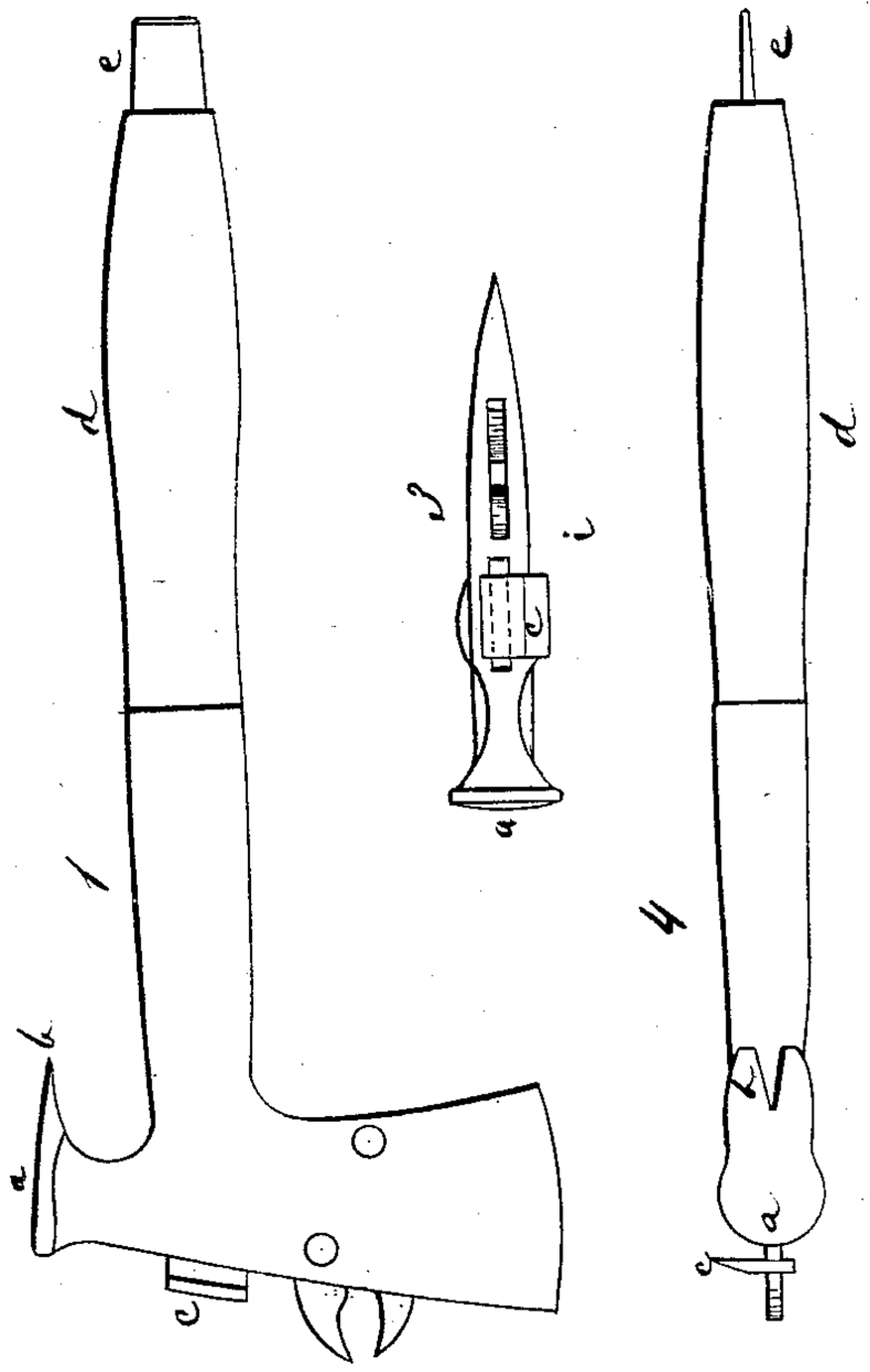
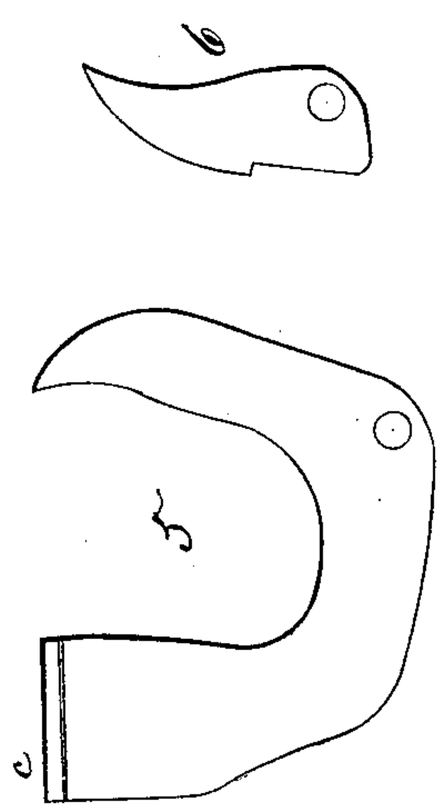
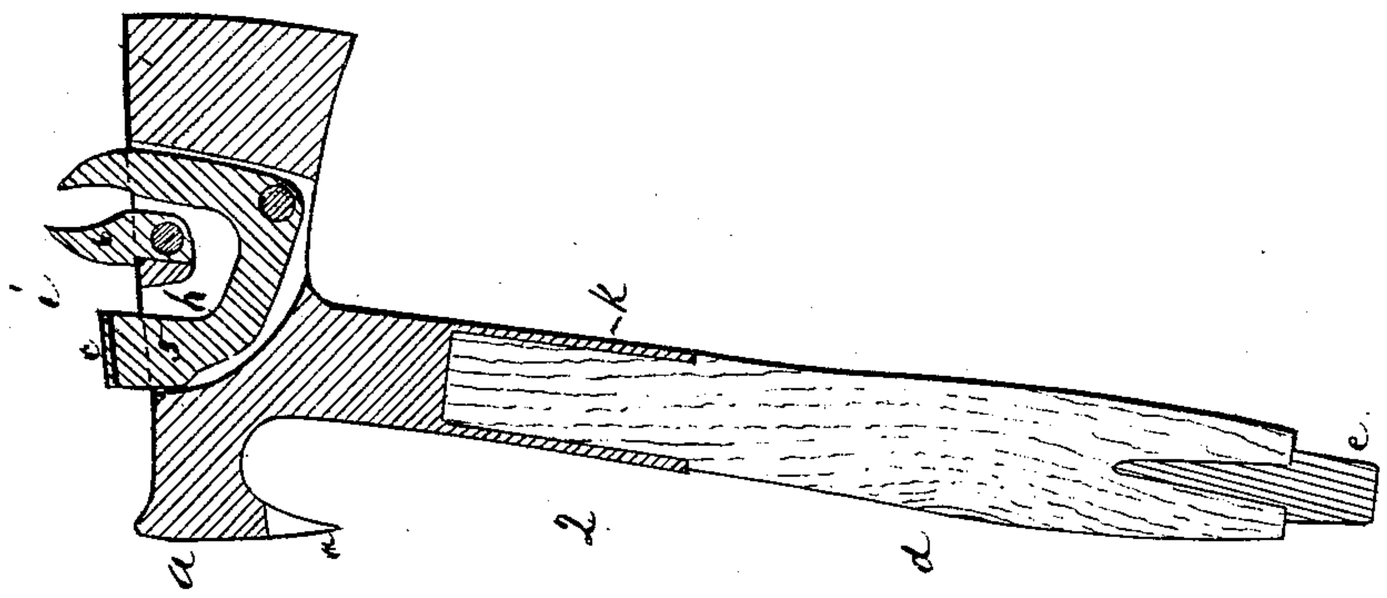
J. W. CALEF.

IMPLEMENT.

No. 110,199. Patented Dec. 20, 1870.







Witnesses E. F. Hodges
D. S. Miller.

Joseph W. Calef
Inventor

UNITED STATES PATENT OFFICE.

JOSEPH W. CALEF, OF BOSTON, MASS., ASSIGNOR TO HIMSELF, HARVEY KING, AND AUGUSTUS PEABODY HUTCHINSON, OF SAME PLACE.

IMPROVEMENT IN IMPLEMENTS.

Specification forming part of Letters Patent No. **110,199**, dated December 20, 1870; antedated December 10, 1870.

I, JOSEPH WARREN CALEF, of Boston, in the Commonwealth of Massachusetts, have invented a useful and new Combination of Implements in one compact body, of which the following is the specification:

Nature and Objects of the Invention.

The object of my invention is to provide in one compact instrument various single instruments or tools useful and convenient in opening and fastening boxes, packages, barrels, and other like work.

The manufacture of my invention consists in so combining a hammer, a hatchet, a screw-driver, a scraper, a common forked claw for drawing nails, and a pair of forceps so constructed as to seize and draw nails that have been driven home into the wood, as to make one convenient and useful tool having all the above qualities.

Description of the Drawing.

Figure 1 is a full front view of the implement. Fig. 2 is a view of a section, showing one-half the implement divided longitudinally. Fig. 3 is an end view of the head of the implement. Fig. 4 is a rear view. Fig. 5 is the lever-jaw of the forceps. Fig. 6 is the fixed jaw of the forceps.

General Description of the Instrument.

The body of this instrument I cast of malleable iron, as being preferable; but any material of sufficient strength and stiffness will be sufficient. The various members of the combination should be proportioned to each other as in the drawing, but the proportions may vary according to the use for which it is designed. The hatchet is cast in substantially the usual form. The end of the handle, as cast, has in it a socket, *k*, Fig. 2, or some other device to which a wooden extension, *d*, may be adjusted. In the extreme end of this wooden extension is fixed a screw-driver, *e*. The head of the hatchet is formed into a hammer-face, *a*, from which projects a common forked nail-claw, *b*, at right angles.

Within the blade of the hatchet and parallel to its face is formed a flattened orifice or slot, *h*, which enters about on the lines of the handle on the outer or upper side, where the handle-eye is in the common hatchet, and passes down through the whole width of the blade and opens out on the inner or lower side just forward of the handle. The rear line of said slot is curved forward in the direction of the edge. From this opening said orifice or slot again passes upward through the width of the blade by a second branch, and opens on the upper side, leaving between the two branches of said slot a brace or block, *i*, uniting the two sides of the blade at that point. As this orifice *h* is made only to receive the two jaws of the forceps 5 and 6, the opening thereof on the inner or lower side is not required for the working of the instrument, but the casting is more economically made when the orifice so opens, and hence I deem it necessary to state it. The said jaws 5 and 6 of the forceps are made of steel, with the jaws curved inward to a blunt point. One jaw, 6, is made fast in said orifice by a rivet or other suitable means, having its shoulder resting upon and the lower part of the back bearing against said brace *i*. The other jaw, 5, is in the form of a bent lever, nearly in the shape of the letter U, and is intended to be inserted point foremost in said orifice *h*, opposite the handle, and passed through the same and out opposite the jaw 6, inclosing the said jaw 6 within its horns. This jaw is hung upon a rivet passing through it near the first curve below the point, as shown in the drawing, and passing through the blade of the hatchet at such a point therein as will bring the two points of the forceps together when the jaw 5 is pressed downward at the rear end.

When the jaws 5 and 6 of the forceps are in position and any object is placed between them, it will be seen that pressing down the rear end of the jaw 5 will bring the points of the jaws together, securing the object with more or less vigor, according to the pressure. When, then, the points of the forceps are forced into the wood into which a nail has been driven, pressing back the handle will bring the rear end of the jaw upon the box or package, which will, in turn, force said jaw 5 down, and the nail will be grasped between the points of the forceps; the pressure con-

tinued will increase the rigor of the grasp and draw the nail upward.

Upon the rear end of said jaw, and at right angles to it, is fastened an edged scraper, *c*, of steel, designed to erase marks.

The handle may be cast with the hatchet, and of full length, not designed for any wooden extension, and I have made some of that description; but I prefer them with the extended wooden handle.

If made without the wooden handle, the screw-driver is omitted. Also, I have made the forceps without the edged scraper *c* attached; but I think the instrument made in all things according to the foregoing specification is the best.

I claim and desire to secure by Letters Patent the following, viz:

The implement composed of a hatchet, a hammer with a forked nail-claw, a screw-driver, a pair of forceps, and a scraper, constructed substantially as and for the purposes described.

JOSEPH WARREN CALEF.

Witnesses:
E. F. HODGES,
WILL ASPINWALL.