(No Model.)

R. R. PACE.

AX.

No. 294,144. Patented Feb. 26, 1884.

Fig. 1.

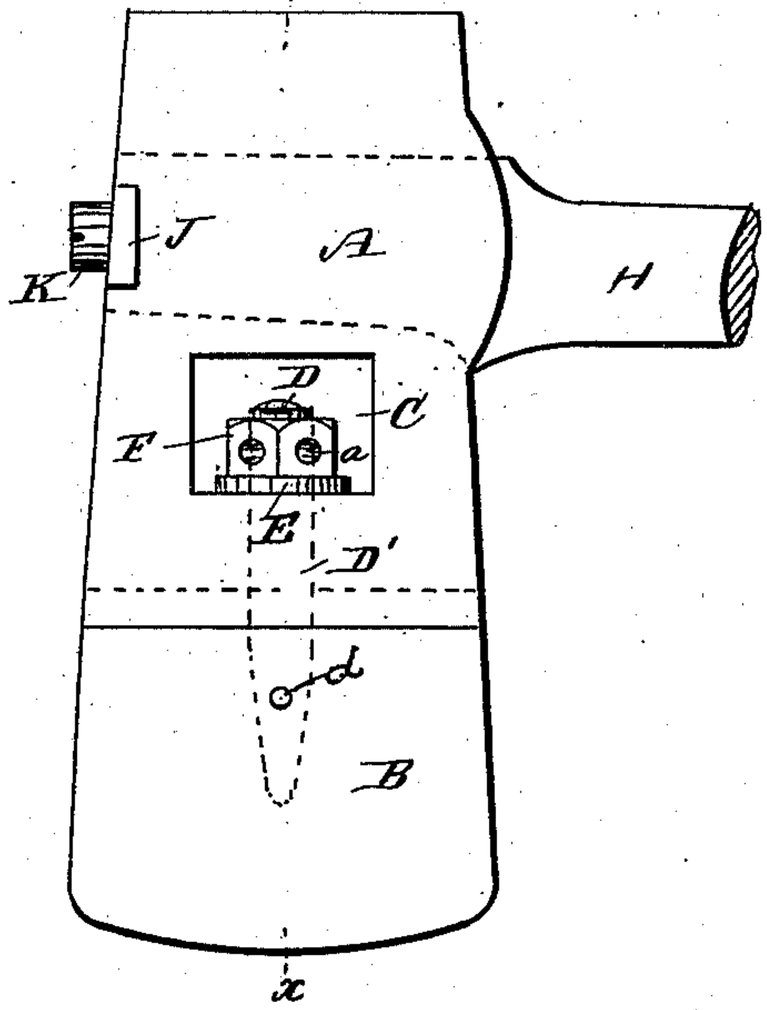


Fig. 2.

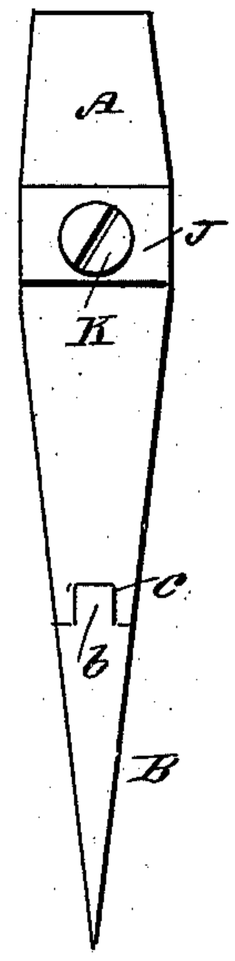


Fig. 3.

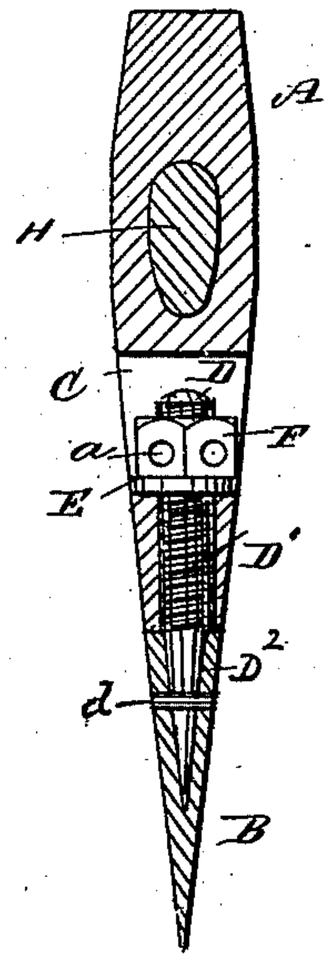


Fig. 4.

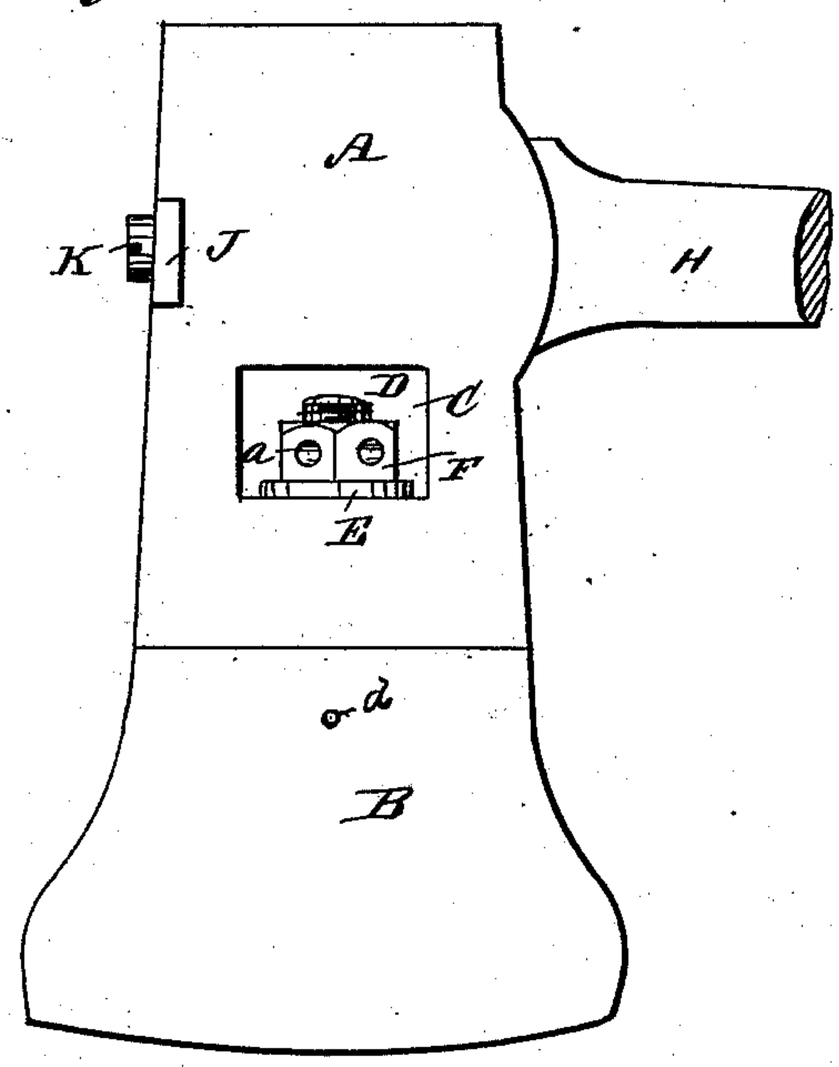
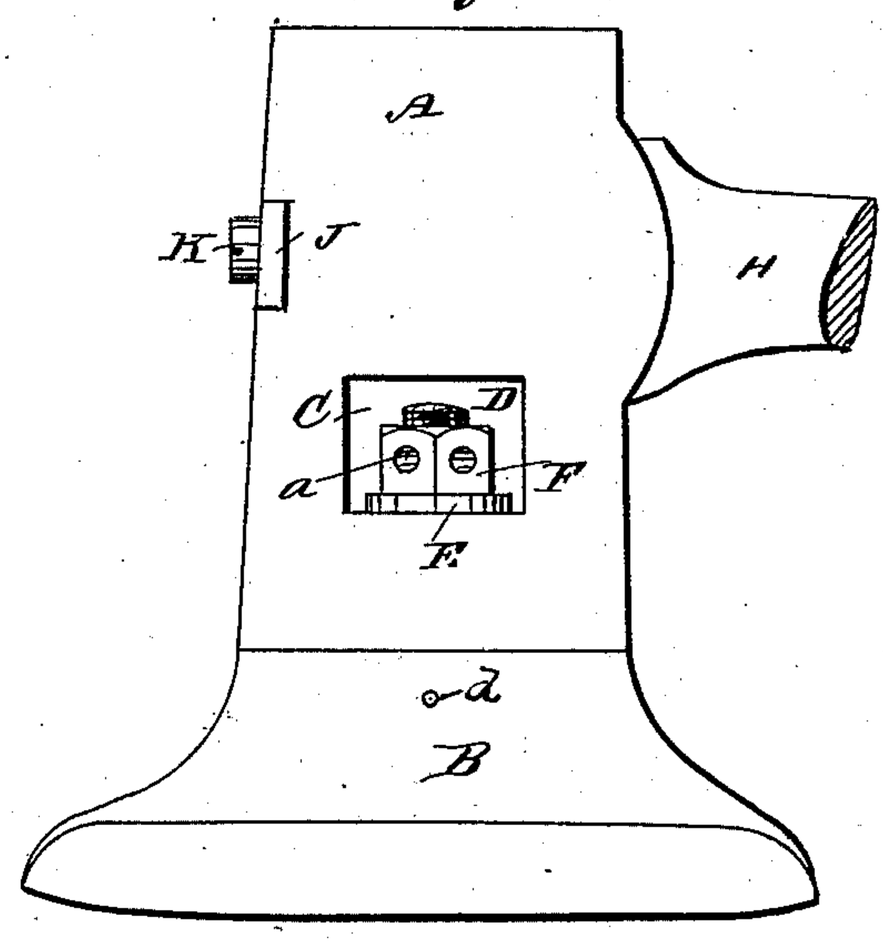


Fig. 5.



WITNESSES:

Thos. G. Hoster

C. Sedgwick

INVENTOR:

R. R. Pace

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

RICHARD R. PACE, OF LINEVILLE, ALABAMA.

AX.

SPECIFICATION forming part of Letters Patent No. 294,144, dated February 26, 1884.

Application filed October 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, RICHARD R. PACE, of Lineville, in the county of Clay and State of Alabama, have invented a new and Improved Ax, of which the following is a full, clear, and exact description.

My invention relates to improvements in axes; and it consists in the peculiar construction and arrangement of the parts, as hereinafter more fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of my improved ax. Fig. 2 is an end view of the same. Fig. 3 is a longitudinal sectional elevation of the same on the line *x x*, Fig. 1. Figs. 4 and 5 are side views of the same, showing it provided with different blades or bits.

The ax-body A is provided in its lower edge with a longitudinal groove, *c*, into which a longitudinal tongue, *b*, fits, which is formed on the upper edge of a bit or blade, B. The ax-body A is provided with an opening, C, from which an aperture, D′, extends down to the lower edge of the ax-body. A screw-spindle, D, is inserted in the aperture D^2 in the blade B, (see Fig. 3,) which aperture, when the blade B is in place on the ax-body A, registers with the aperture D′ in the ax-body A. The screw-spindle D is removably secured to the blade B by a pin, *d*, passing through the blade B and near the lower end of the screw-spindle D in the aperture D^2 in the blade. The spindle is passed through the aperture D′ until its upper end projects into the opening C, and then a washer, E, is placed over the upper end of the spindle, and a nut, F, is screwed on the spindle, which nut is provided with apertures *a* for securing a key. By drawing the nut F up tightly the bit or blade is held firmly on the ax-body.

By this construction it will be seen that when a blade, B, is worn out or injured, it may be replaced by another of similar construction by driving out the pin *d*, removing the worn-out blade, and replacing it with a new blade, the screw-spindle D being inserted in the aperture D^2 of the new blade, and secured to it by the pin *d*, whereby different blades may be secured to the ax-body by the same screw-spindle, D, and pin *d*, and the formation of screws on the upper edge of the blade, as heretofore employed, entirely dispensed with, thereby cheapening the construction materially.

Another advantage of the construction over that in which screws are formed integral with the blade and inserted in corresponding threaded holes in the ax-body is that when a screw is broken off in the latter construction, which may often occur, the blade becomes inoperative and useless, whereas if the screw is broken in my construction it may be replaced without affecting the usefulness of the blade. The ax-body is provided with an aperture for receiving the handle H. A cross-piece, J, is placed on the edge of the ax-body and over the end of the handle, and a screw, K, is screwed through the cross-piece into the handle. The cross-piece is countersunk in the edge of the ax and in the end of the handle. A bit can easily be fastened in the ax-body or removed from the same, and can be replaced by another. The bit or blade can be of any desired suitable shape either for a chop ax or broad-ax.

I am aware that the cutting-bit of a hatchet has heretofore been detachably fastened to a skeleton blade by screw-threaded studs integral with the cutting-bit, and nuts; and I am also aware that an ax-eye provided with dovetail grooves in its opposite sides, adapted to receive tenons on the inner ends of two opposite ax-blades, is old; and I therefore lay no claim to such inventions.

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

The combination, with the ax-body A, having a groove, *c*, extending entirely across its lower end, and provided with an opening, C, and an aperture, D′, extending from said opening to the lower end of the ax-body, of the blade B, having the aperture D^2, adapted to register with the aperture D′, and provided with the tongue *b*, extending entirely across the upper end of the blade, and adapted to fit into the groove *c*, screw-spindle D, removably secured in the aperture D^2 of the blade and adapted to fit in the aperture D′, and the pin *d* and nut F, substantially as described, and for the purpose set forth.

Witnesses:
ISAIAH F. COLE,
D. A. WOOD.

RICHARD R. PACE.