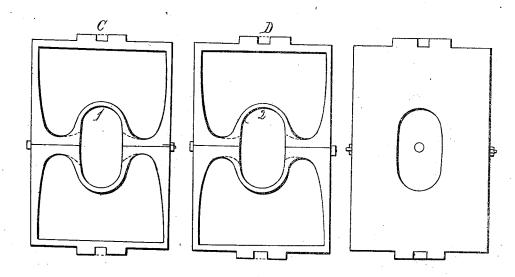
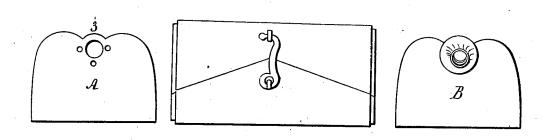
## J. Alloll, Making Hoes,

Nº 5,417.

Patented Jan. 25, 1848.





Witnesses. Slephyn MMlson. D.W. Fettingib. Inventor. Ishn Abbott.

## UNITED STATES PATENT OFFICE.

JOHN ABBOTT, OF BOSTON, MASSACHUSETTS.

## MAKING HOES.

Specification of Letters Patent No. 5,417, dated January 25, 1848.

To all whom it may concern:

Be it known that I, John Abbott, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and useful Improvement in the Mode of Constructing Hoe-Eyes and Attaching Them to the Plate; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in preparing the plate of the hoe, by punching a hole of suitable dimensions to receive the socket and handle, around which three or more small holes as represented in Figure

15 A of the accompanying drawing for the passage of the metal of which the eye is composed from one flange to the other (see drawing marked B). I then take the plate, place it in a flask or mold constructed with 20 two jaws, the one in the cope, the other in the nowel of the flask, as represented at 1 and 2, Figs. C and D of the drawing, which,

when the flask is closed upon the plate, holds

position, as may be deemed most suitable and cast an eye or socket upon the plate, the metal passing through the small holes and inclosing the bar seen at 3 at the top of the plate (see Fig. A) and forms a flange on both sides of the plate, and becomes firmly brazed to the same.

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

The casting of hoe eyes or sockets upon the plates by means of molds or flasks so

the plates by means of molds or flasks so constructed as to hold the plate firmly 40 around the eye as represented by the accompanying drawings.

it around the eye firmly like a vise, leaving

when expanded by the heated metal. Having

prepared my plate, and adjusted the molds

or flasks, I take brass or other metallic com-

the plate outside the jaws free to spring 25

JOHN ABBOTT.

Witnesses:

STEPHYN F. WILSON, J. M. PETTENGILL.