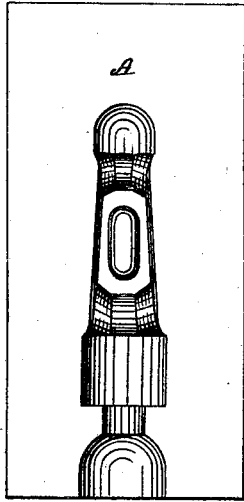


H. HAMMOND.

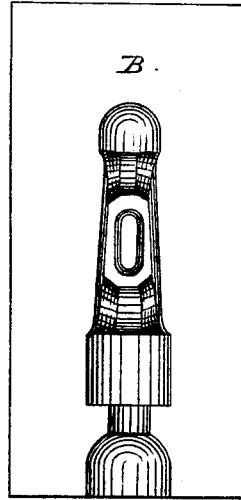
DIES FOR FORMING MACHINISTS' HAMMERS.

No. 183,761.

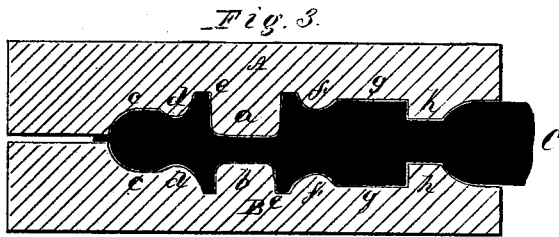
Patented Oct. 31, 1876.



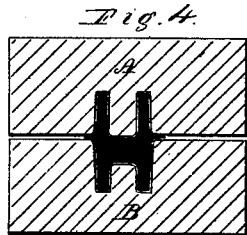
*Fig. 1*



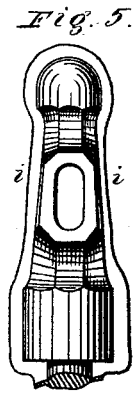
*Fig. 2*



*Fig. 3*



*Fig. 4*



*Fig. 5*

Witnesses.

Wendell B. Smith  
John J. Peters

Inventor.

Henry Hammond  
by Theo. S. Ellis atty.

# UNITED STATES PATENT OFFICE.

HENRY HAMMOND, OF HARTFORD, CONNECTICUT.

## IMPROVEMENT IN DIES FOR FORMING MACHINISTS' HAMMERS.

Specification forming part of Letters Patent No. **183,761**, dated October 31, 1876; application filed April 15, 1876.

*To all whom it may concern:*

Be it known that I, HENRY HAMMOND, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Dies for Forming Machinists' Hammers; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My invention relates to a method of forming machinists' or blacksmiths' hammers by means of dies. It consists in a pair of inclosed dies, to be used under a drop-hammer or press, for giving the exterior form to a hammer-blank prepared by a previous forging in forging-dies of a suitable form, so that the amount of metal in the blank will a little more than fill the hollow space inclosed by the upper and lower dies.

In the accompanying drawing, Figure 1 is a view of the under side of the upper die. Fig. 2 is a view of the upper side of the lower die. Fig. 3 is a longitudinal section through the middle of the two dies, showing the hammer between them in the position when struck. Fig. 4 is a cross-section through the middle of the socket of the hammer. Fig. 5 is a view of the hammer as it comes from the dies.

A is the upper die, and B is the lower. C is the bar of steel or iron upon the end of which the hammer is formed in the dies. *a* is

a projection from the upper die, which enters the metal and partially forms the eye or socket. *b* is a similar projection upon the lower die. *c* is a recess in the dies for forming the rounded small end of the hammer. *d* is a polygonal recess for giving the shape to the neck between the small end and the socket. Its form is shown in Figs. 1 and 2. *ee* are recesses around the projections or tongues *a b*, to give shape to the exterior of the socket. *f* is a recess for giving shape to the neck, between the socket and part next the face. *g* is a recess for forming the cylindrical part next to the face. *h* is a narrow opening for the neck or "sprue," which connects the hammer to the bar.

These dies strike out and partially perfect the external form of the hammer, but leave it attached to the bar for subsequent operations, and do not entirely finish the eye or socket for the handle, which is finished in a subsequent operation by dies of my invention.

The metal of the blank is intended to be slightly in excess of what is required to fill these dies, so that a web, *i*, is left around the hammer after it is struck out.

What I claim as my invention is—

The dies A B, with the parts *a b c d e f g*, for inclosing and giving form to the hammer-blank, substantially as herein described.

HENRY HAMMOND.

Witnesses:

THEO. G. ELLIS,  
EVERETT S. WARNER.