## D. MAYDOLE. Mode of Forging Hammers.

No. 213,766. Patented April 1, 1879. Fig. 2. Try. 5.2 Fig. 6. Triventor: David Maydole: per Kright Brog Attest: Geo. T. Smallwood fr.

## UNITED STATES PATENT OFFICE

DAVID MAYDOLE, OF NORWICH, NEW YORK.

## IMPROVEMENT IN MODES OF FORGING HAMMERS.

Specification forming part of Letters Patent No. 213,766, dated April 1, 1879; application filed February 21, 1878.

To all whom it may concern:

Be it known that I, DAVID MAYDOLE, of Norwich, in the county of Chenango and State of New York, have invented a certain new and useful Mode of Forging Hammers, of which the following is a specification:

My invention consists, first, in the mode of forging a straight peen-hammer upon the end of a bar while attached by its peen only, as hereinafter described.

My invention further consists in a special construction of impressing and swaging dies for forging the hammers, as above set forth.

In the accompanying drawings, Figure 1 is a perspective view of a pair of dies employed for producing the first impressions in the bar. Fig. 2 is a longitudinal section, showing the action of the said dies on the bar. Fig. 3 is a perspective view of a portion of one of a pair of shaping-dies; and Fig. 4 is a side elevation of the said dies, representing them as giving finishing shape to the hammer. Figs. 5 and 5° are longitudinal sections of the said forming-dies. Fig. 6 is a perspective view of the end of a bar with a hammer formed on the end thereof, and ready to be removed.

A and A' represent the bar and blank at two stages of the operation. H is the hammer forged on the end thereof. B B are a pair of dies, provided with plates b b, formed, as shown, with straight backs and oblique faces, for producing depressions in the bar, as shown in Fig. 2, preliminary to forming the peen.

C C' are swaging-dies, used successively in pairs, the portions C C being employed to bring the peen to the shape illustrated in dotted lines in Fig. 4, and the portions C' C' to approximately complete the formation of the peen, as shown in full lines in Fig. 4 and in perspective view in Fig. 6.

In Figs. 6 and 4, H represents the blank or hammer virtually completed by the action of the dies C C C' C' and the ordinary flattening or face-forming dies.

Operation: The dies B B and swaging-dies C C C' C' are inserted in a press or drop in the usual manner. A hole is first punched in the end of the bar for the eye of the hammer. The bar is then submitted to the action of the dies BB, which produce the depressions shown in Fig. 2, then to the successive action of the swaging-dies C C C' C', and of the customary flattening-dies, and dies for imparting the required octagon or other shape to the face end h of the hammer. A hammer of any desired shape is thus completely forged on the end of the bar, leaving a thin body of metal to be cut at the end of the peen to separate the finished hammer. The series of operations upon the end of the bar are then resumed, as before.

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

1. The method herein described of forging straight-peen hammers—that is to say, by punching the eye, forming the face on the end of the bar, and shaping the peen, by means of the dies B B C C C' C', while the hammer-blank is still attached to the bar by its peen end, substantially as described.

2. The successive dies B B C C C' C', formed and operating substantially as shown, for the purposes explained.

DAVID MAYDOLE.

Witnesses:

W. B. GUERNSEY, C. L. FERRY.