G. M. DILLON.

Hammer for Charcoal-Blooms, Cast Billets, &c.

No. 203,008. Patented April 30, 1878.

Fig. 1.

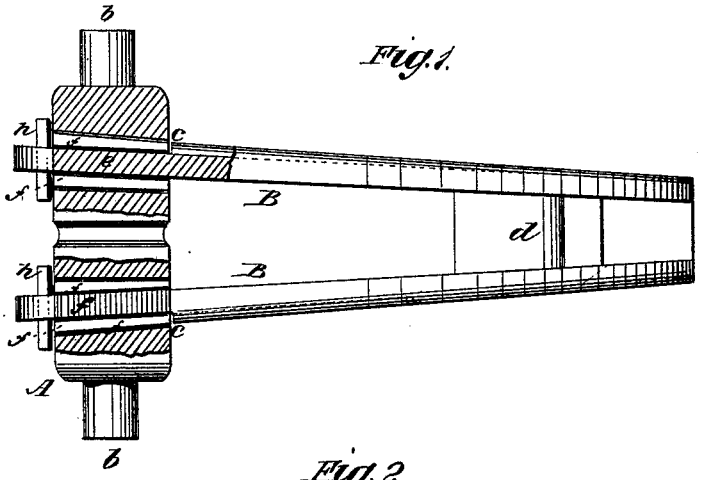


Fig. 2.

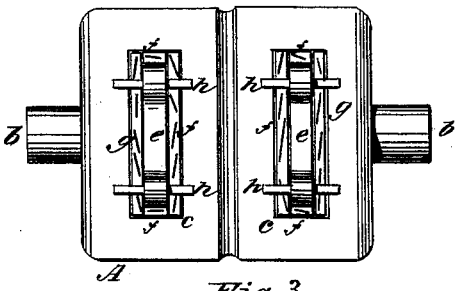
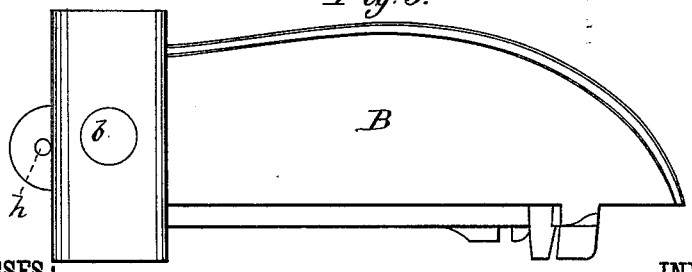


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE M. DILLON, OF CHATEAUGAY LAKE, ASSIGNOR TO GARDNER POPE, OF GLENS FALLS, NEW YORK.

IMPROVEMENT IN HAMMERS FOR CHARCOAL-BLOOMS, CAST BILLETS, &c.

Specification forming part of Letters Patent No. **203,008**, dated April 30, 1878; application filed January 14, 1878.

To all whom it may concern:

Be it known that I, GEORGE M. DILLON, of Chateaugay Lake, county of Franklin and State of New York, have invented a new and useful Improvement in Hammers for Charcoal-Blooms and Billets and other iron, of which the following is a specification:

Figure 1 is a plan view, partly in section, of my improved hammer. Fig. 2 is an end elevation. Fig. 3 is a side elevation.

Similar letters of reference indicate corresponding parts.

My invention relates to the class of power-hammers employed in the manufacture of charcoal-iron blooms and billets and other iron; and it consists in making the hammer in two parts, viz., the arms which carry the breaking, drawing, and smoothing faces, and the husk or rocker into which the arms are fitted, the said arms being secured by wooden wedges, to prevent the breaking of the arms by the impact of the hammer.

Hammers as commonly made for the purpose indicated are of a single casting, and the constant heavy jarring to which they are subjected soon impairs the quality of the cast iron from which they are made, so that the arms break and the expense of a new casting is incurred. To obviate this difficulty is the aim of my invention.

Referring to the drawing, A is the rocker or husk, having gudgeons *b*, one at each end, and having mortises *c* for receiving the arms B. These arms are connected at the outer and working end by a web, *a*, to which the hammer-faces are attached. Tenons *e*, which are smaller than the mortises *c*, are formed on the end of the arms B, and are placed in the mortises, and securely fastened by wooden keys *f*, which are driven into the mortises on all sides of the tenons. Iron or steel wedges *g* are driven into the wooden keys to render the tenons more secure. The tenons project through the husk A, and are apertured transversely to receive the keys *h*, which are driven through the apertures in contact with the husk A. The wooden bushing thus formed in the mortises breaks the metallic contact between the arms and husk, and prevents the jarring and shocks of the hammer from changing the nature of the iron, so that the arms last indefinitely.

In order to give the necessary or greater strength to the arms or hammer-head, I propose forming a rib or web on the side thereof. By casting the hammer in two parts strength is given to the arms or head, and the construction shown also gives the necessary chance for shrinkage in the cooling of the metal, and this without any strain to the casting.

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

1. The arms B B, having tenons extending through and beyond the head A, in combination with pins *h*, that pass through transverse holes near the ends of said tenons, and keys *f* that project from head to form a rest for said pins, as set forth.

2. The mortised husk A, the tenoned arms B, and the wooden keys *f*, in combination, substantially as and for the purpose herein shown and described.

GEORGE MAY DILLON.

Witnesses:
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