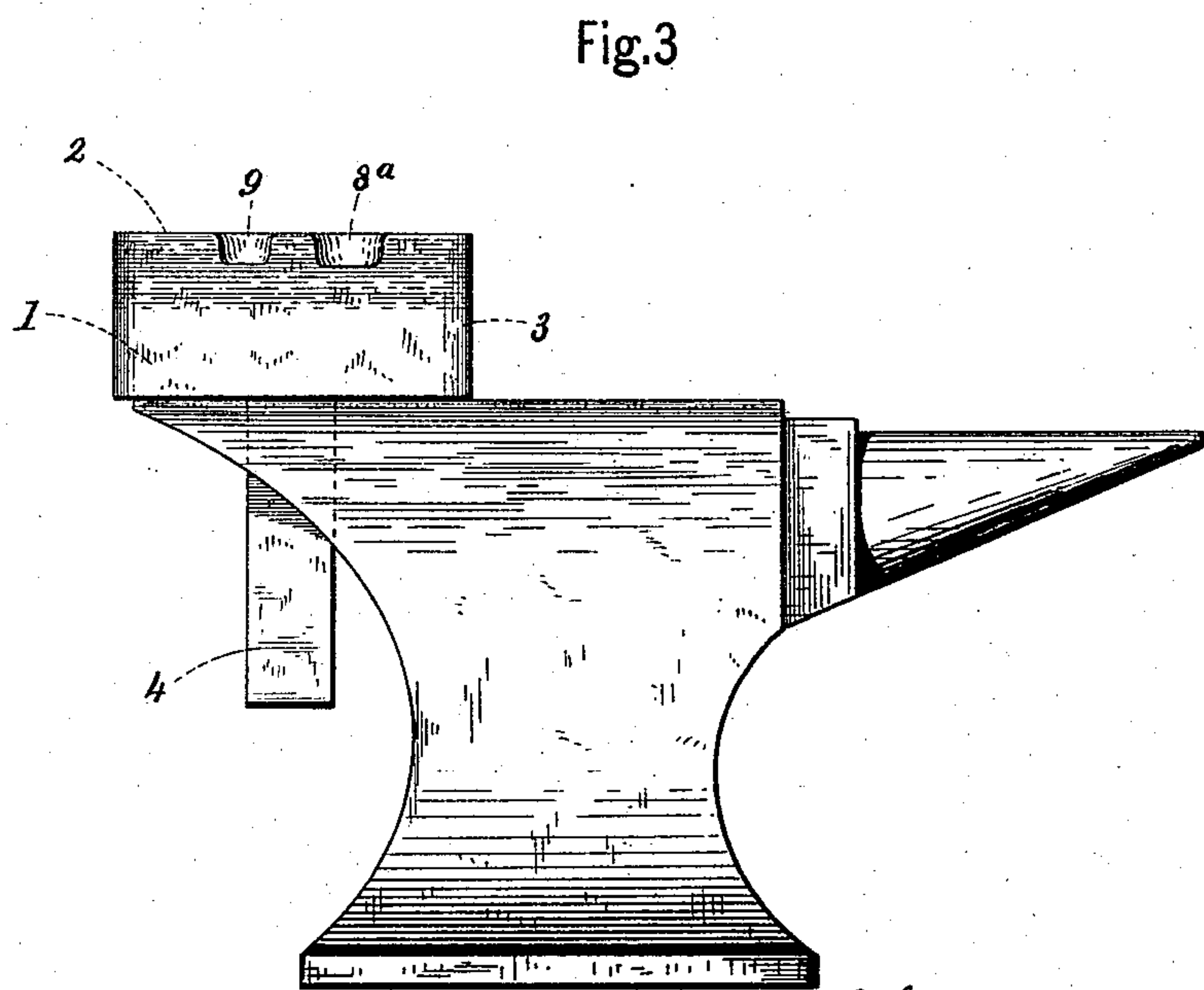
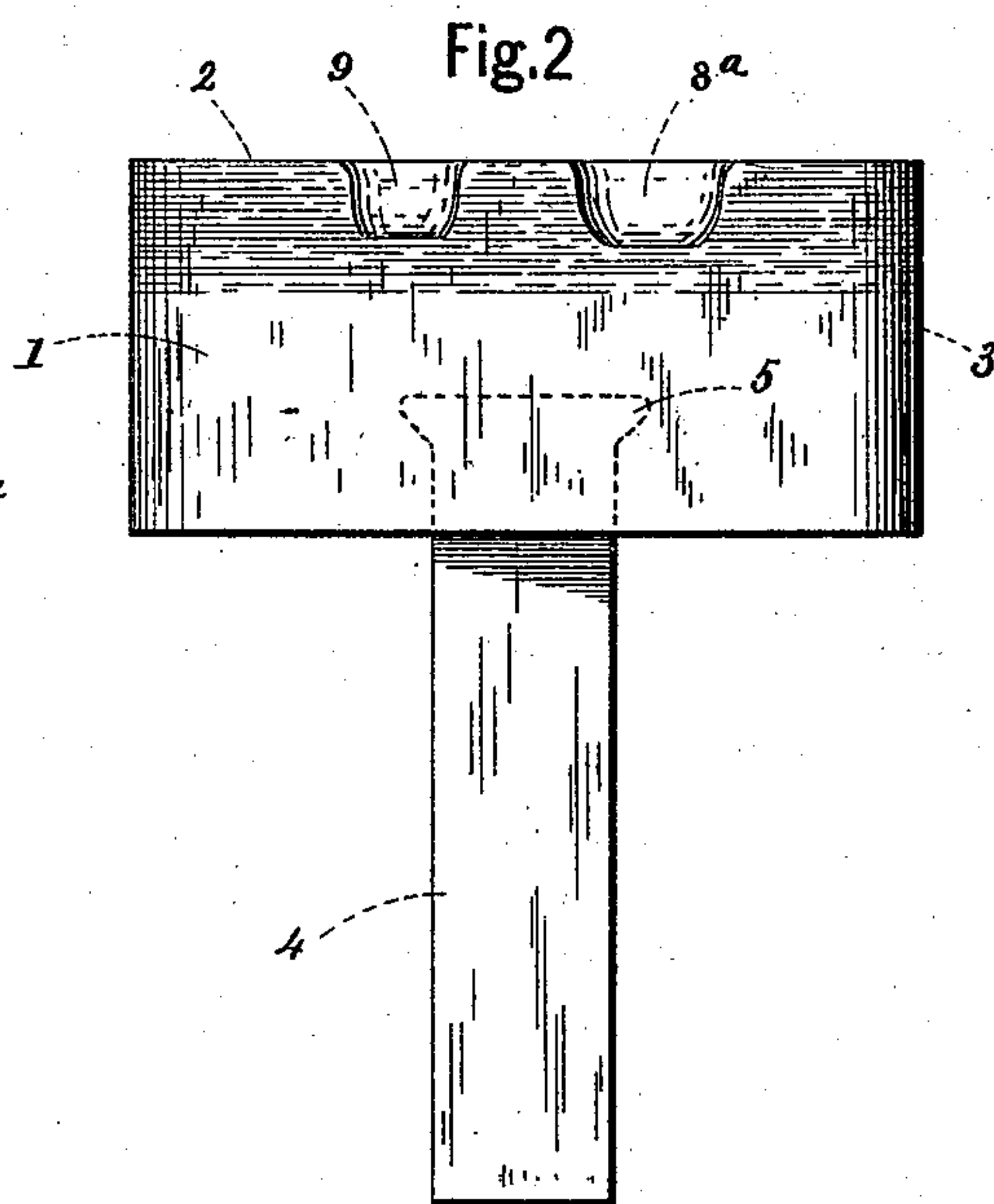
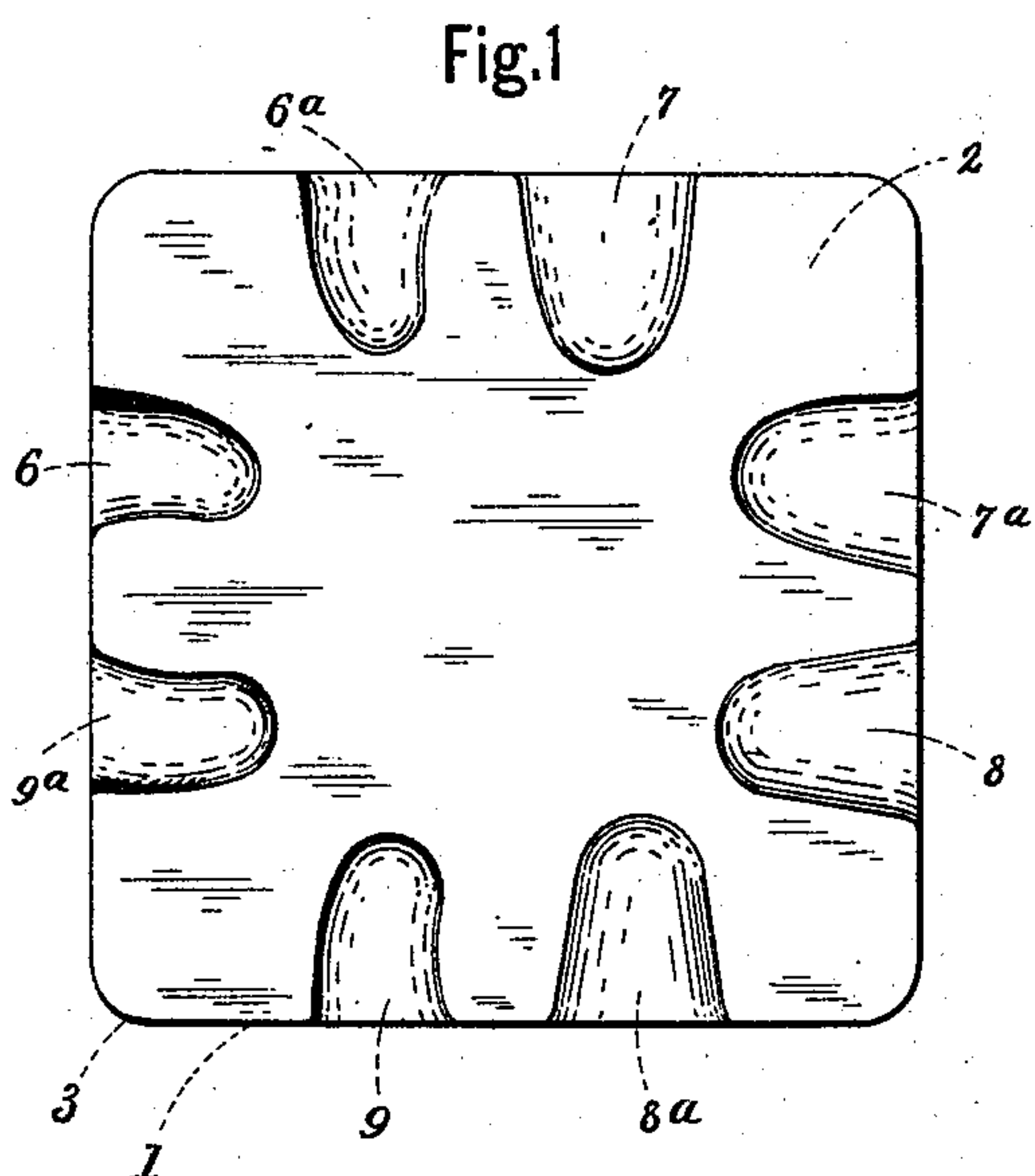


(No Model.)

C. H. LUTGEN.  
SWAGE BLOCK FOR HORSESHOE HEELS.

No. 497,329.

Patented May 16, 1893.



Witnesses.

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# UNITED STATES PATENT OFFICE.

CHARLES H. LUTGEN, OF DUNKIRK, NEW YORK.

## SWAGE-BLOCK FOR HORSESHOE-HEELS.

SPECIFICATION forming part of Letters Patent No. 497,329, dated May 16, 1893.

Application filed November 15, 1892. Serial No. 452,042. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. LUTGEN, a citizen of the United States, residing at Dunkirk, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Heel-Forming Swage-Blocks, of which the following is a specification.

The object of my invention is to provide a simple and convenient device for facilitating and at the same time more perfectly forming the heels on flat horse shoes, and it will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of the device. Fig. 2 is a side elevation of the same. Fig. 3 represents a side elevation of an ordinary blacksmith's anvil showing my invention in position thereon for operation.

Referring to said drawings—the swage block 1 is made, preferably, of chilled malleable cast iron. The face, 2, is made flat and of a substantially square form with rounded corners, 3. The shank, 4, is constructed of square wrought iron and is provided with an enlarged head 5, shown by dotted lines in Fig. 2. This shank is put in the mold at the time the swage is cast so that the molten iron entirely surrounds the head, 5, and as the metal cools it shrinks around it and thus holds it rigidly in place. The face of the swage block is provided with a double series of concave depressions 6, 6<sup>a</sup>—7, 7<sup>a</sup>—8, 8<sup>a</sup> and 9, 9<sup>a</sup>. These depressions are made of the exact form required for the heel of a flat horse shoe and are made, as will be noticed, in pairs, rights and lefts, the pairs being designated as 6 and 6<sup>a</sup>, 7 and 7<sup>a</sup>, 8 and 8<sup>a</sup>, and 9 and 9<sup>a</sup>. The object of this

is to allow for finishing both the right and left heel of the shoe, and the pairs of depressions or dies are located at the corners of the swage, so as to be convenient to be got at by the operator while finishing a horseshoe. The face of the swage and the depressions therein being cast upon a metal chill are thus made very hard. This swage is adapted to be used on any blacksmith's anvil, see Fig. 3, and is a very useful device for the purpose, as the work is very much more quickly done and the shape and finish are superior to anything that can be made by hand. It will be noticed that each pair of dies or depressions is adapted for a different size horse shoe so that as many different sizes of horse shoes can be finished as there are pairs of depressions, the heels of the horse shoes being held in the die while being finished by the blacksmith, which is done by a few blows of the hammer all being formed alike and made truer in shape and finish than could otherwise be done.

I claim as my invention—

A swage for forming the heels of flat horse-shoes, consisting of a swage block having a square shank by which it is held on a blacksmith's anvil, and having a face of chilled cast iron provided with a series of pairs of dies or depressions, as 6 and 6<sup>a</sup>, and 7 and 7<sup>a</sup>, being located right and left of each corner of the swage block, whereby the operator is enabled to conveniently finish and form the right and left heels of a horseshoe substantially as described.

CHARLES H. LUTGEN.

Witnesses:

JAMES SANGSTER,  
JENNIE M. CALDWELL.