

G. MOORE.

DIES FOR THE MANUFACTURE OF SHOVEL-BLOCKS.

No. 176,667.

Patented April 25, 1876.

Fig. 1.

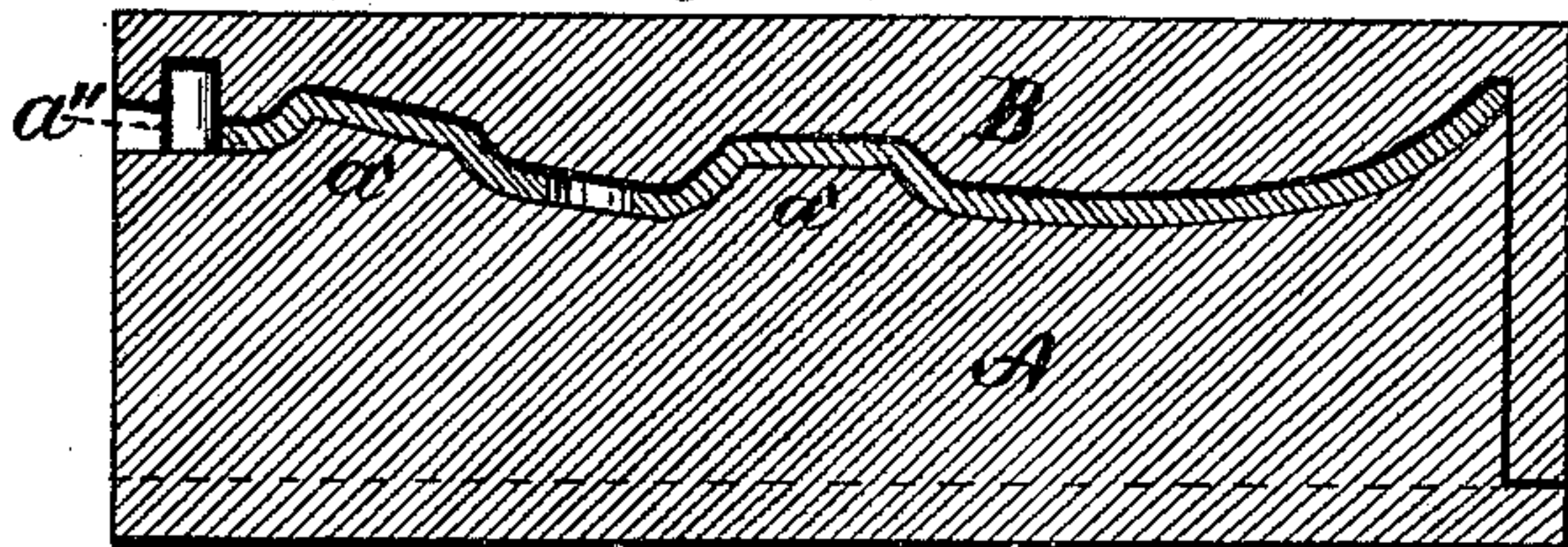


Fig. 2.

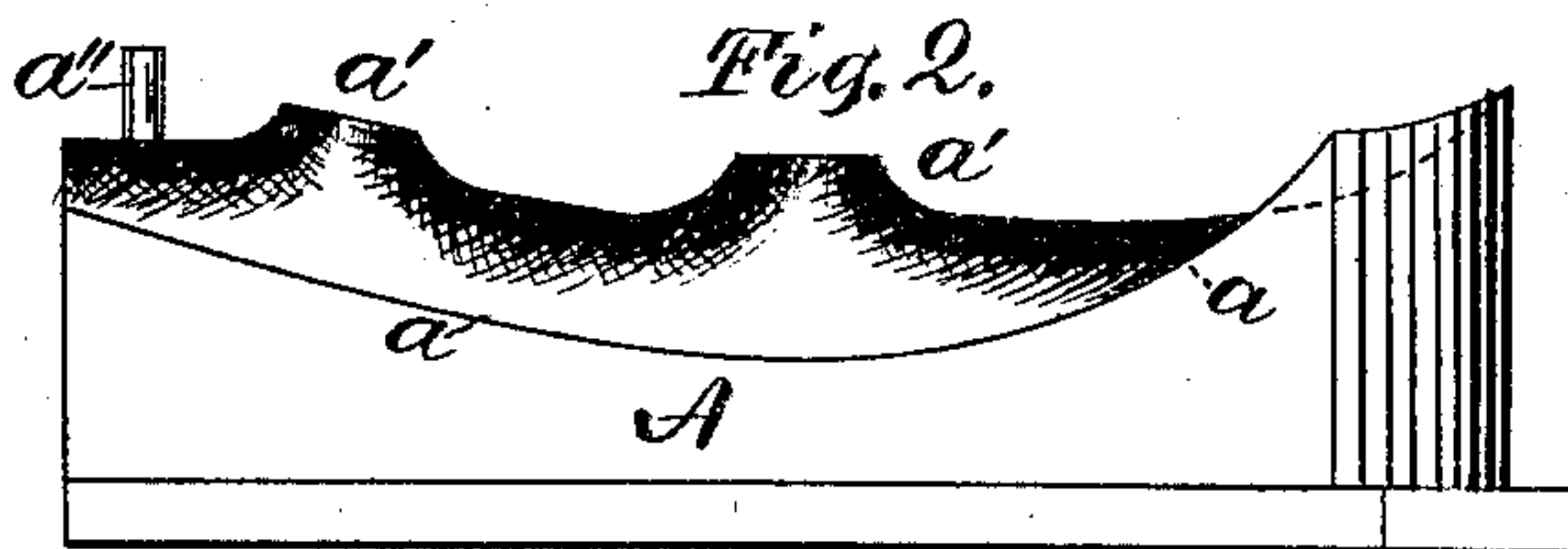


Fig. 3.

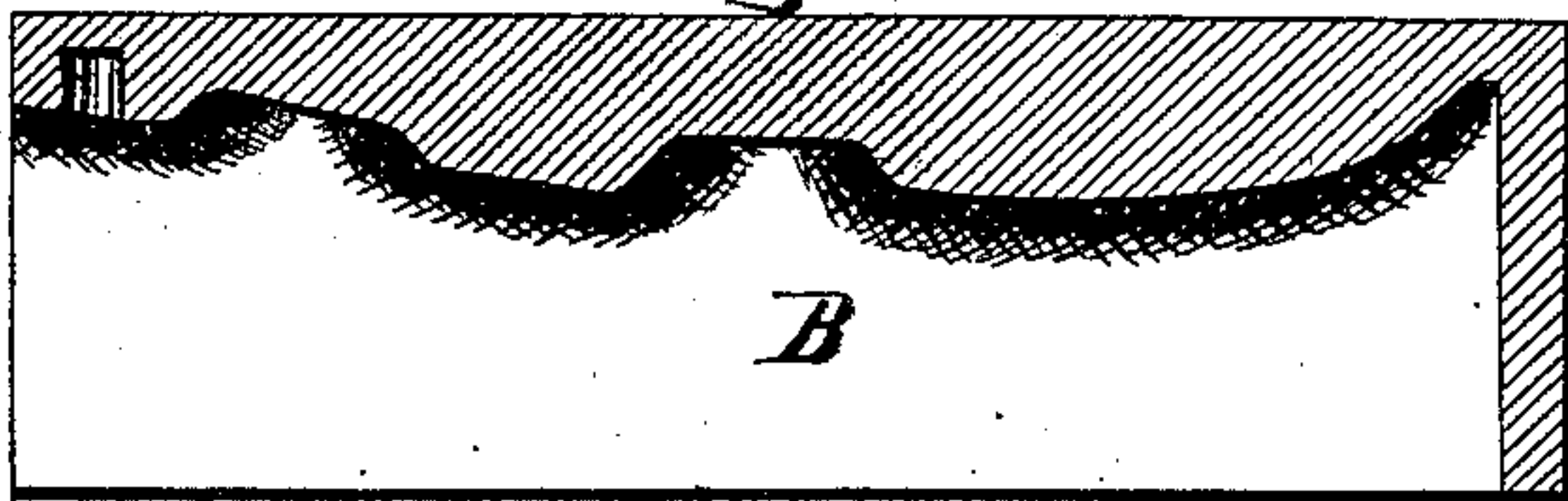


Fig. 5.

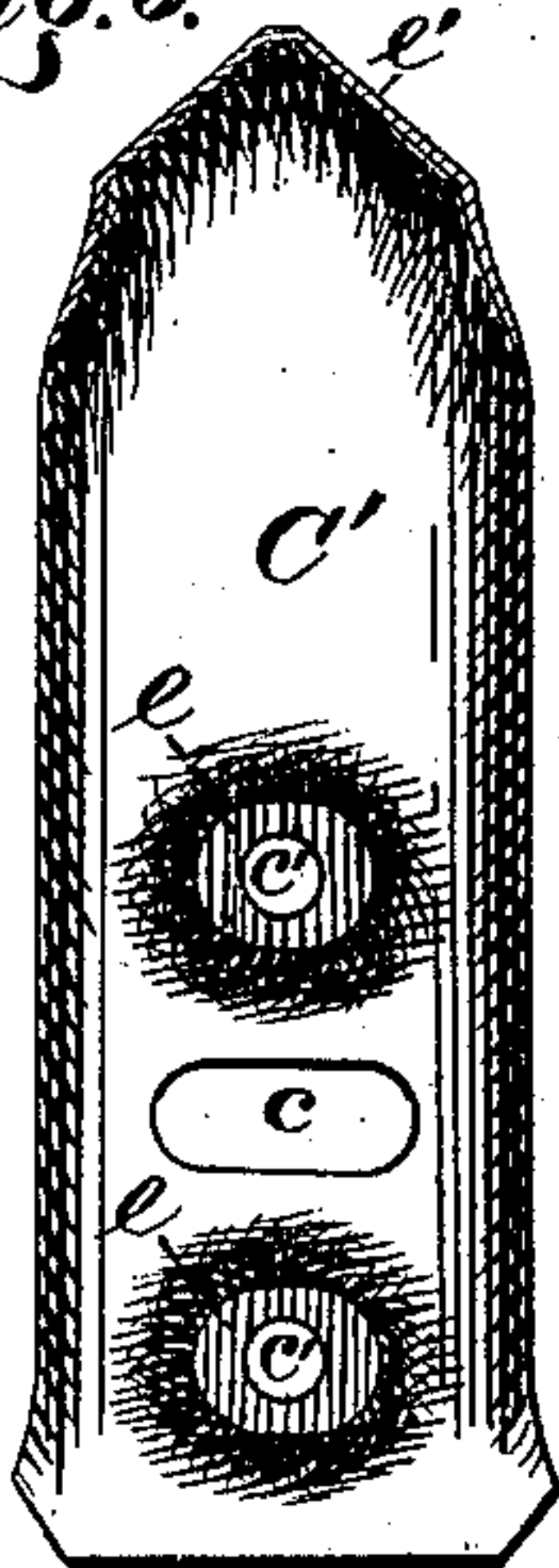


Fig. 4.

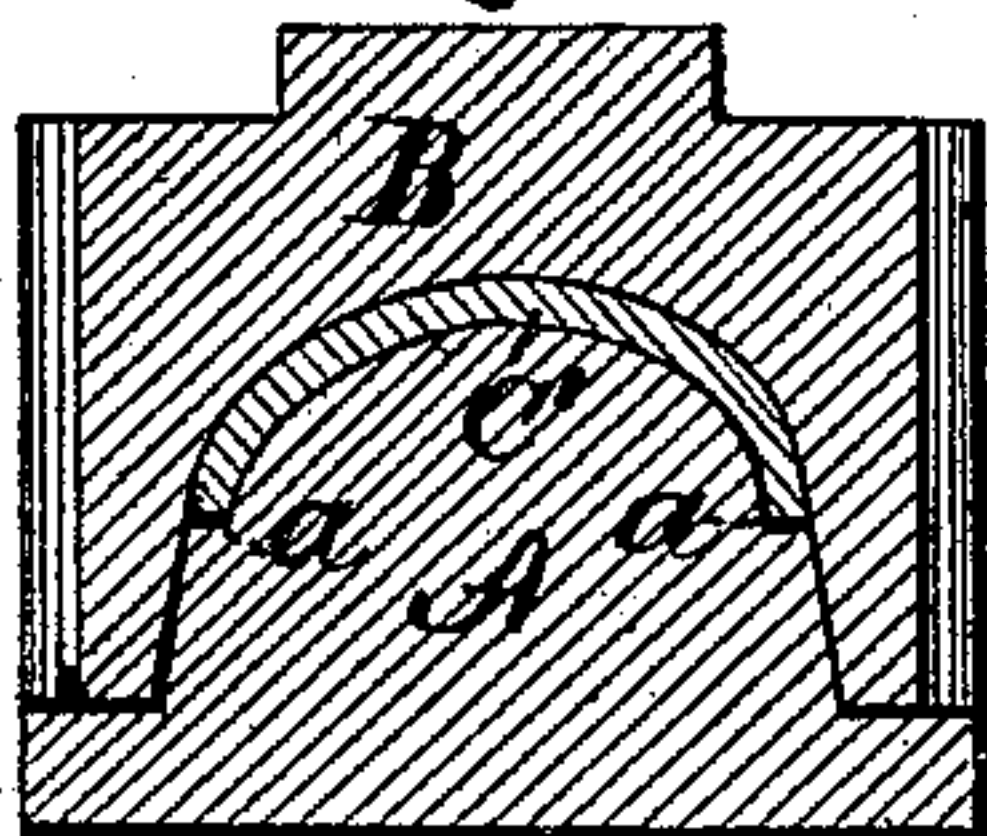
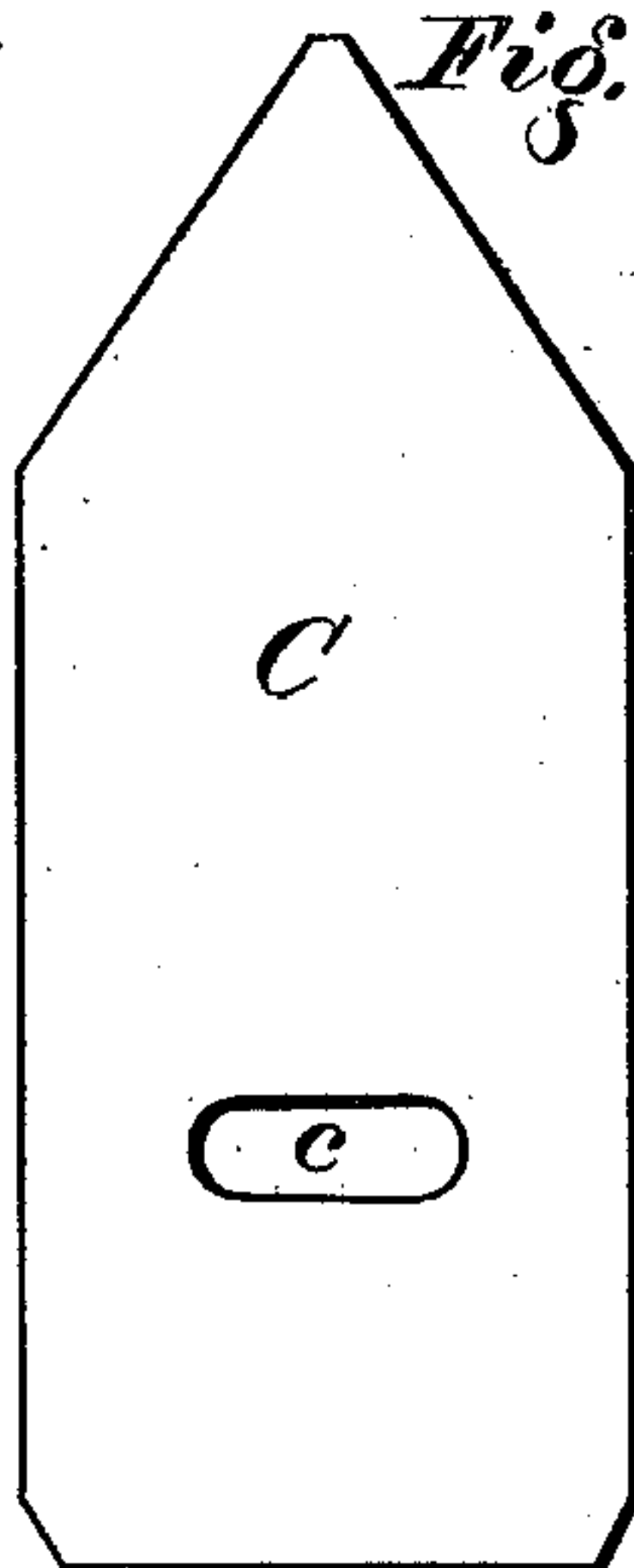


Fig. 6.



Witnesses:

O. R. Richards.
J. E. Hamblin.

Inventor:

Gilpin Moore,
By O. R. Richards, atty.

UNITED STATES PATENT OFFICE

GILPIN MOORE, OF MOLINE, ILLINOIS, ASSIGNOR TO DEERE & CO., OF
SAME PLACE.

IMPROVEMENT IN DIES FOR THE MANUFACTURE OF SHOVEL-BLOCKS.

Specification forming part of Letter Patent No. 176,667, dated April 25, 1876; application filed
August 30, 1875.

To all whom it may concern:

Be it known that I, GILPIN MOORE, of Moline, county of Rock Island, and State of Illinois, have invented certain new and useful Improvements in Manufacture of Shovel-Blocks, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a longitudinal vertical central sectional view of the upper and lower dies and the shovel-block as pressed between them. Fig. 2 is a side elevation of the bed or punching die. Fig. 3 is a vertical central sectional view of the upper die or former. Fig. 4 is a transverse sectional view of the dies and shovel-block on the line *xx* in Fig. 1. Fig. 5 is a plan view of a shovel-block, and Fig. 6 is a blank from which it is formed.

Heretofore shovel-blocks have always been made by hand or by casting.

The object of my invention is to do this work by machinery, which I accomplish by the use of dies of peculiar form and construction—dies which will at one operation stamp or strike up from plate-metal blanks shovel-blocks having one or more projecting bearing-surfaces for the shovel on one side, and their other sides curved backward to adapt them to the plow-standard.

My invention further consists in constructing the lower die with projecting shoulders, upon which the sides of the shovel-block abut when they are first curved downward, for the purpose of preventing drawing, thinning, and weakening the central parts of the shovel-block in the finishing operations between the dies, all as hereinafter fully described.

In the accompanying drawings, A represents the punch or bed-die, and is a metal block with its upper surface convex and semi-circular in its cross-section, and with a projecting shoulder, *a*, along each side, as shown more plainly at Fig. 4, and is curved upward at its ends longitudinally, as shown at Fig. 2, and is provided on its central upper part with two larger projections, *a'* *a'*, and a smaller projection, *a''*. B represents the upper die or former, and is adapted to fit over and correspond with the bed-die A, and is provided with recesses which correspond with

the projections *a'* *a'*, plus the thickness of the plate to be stamped between them, and is also provided with a recess to correspond with the projection *a''*. C represents the blank of plate metal from which the shovel-block is formed, and is pierced with a hole or slot, *c*, through which the bolt may pass, for securing it in place on the cultivator plow-standard. C' represents the finished shovel-block as pressed into shape between the dies A B by a blow or by simple pressure, the perforation *c* being made before stamping, and the perforations *c'*, through which it is to be riveted to the shovel, preferably after stamping. The projections *e e* on the shovel-block C', and which are formed by the projections *a'* *a'* on the punching-die, and the upwardly-curved end *e'*, serve as rests or points of support for the shovel.

The dies, in operation, are placed in any ordinary drop-press, and the blank being heated to the necessary degree, its proper position on the lower die may be secured by placing its end against the projecting pin *a''*, when a stroke from the upper die will stamp the block into shape.

When the blank C is bent over the lower die by the approaching upper die its side edges will rest upon or abut upon the projections *a* of the lower die, and thus prevent stretching and thinning the upper central part of the shovel-block as the dies approach closer to complete the stamping of the block into finished shape.

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

1. The dies A B, curved in their cross-section, and otherwise shaped so as to produce upon the shovel-block one or more bearing-surfaces, substantially as described, and for the purpose specified.

2. The dies A B, curved in their cross-section, and otherwise shaped so as to produce upon the shovel-block one or more bearing-surfaces, and provided with projecting shoulders *a*, substantially as described, and for the purpose specified.

GILPIN MOORE.

Witnesses:

C. O. MASEN,
CHARLES H. PERRIN.