

H. Thompson. Dies for Forming Beefsteak Cutters.

116372

PATENTED JUN 27 1871

Fig. 1.

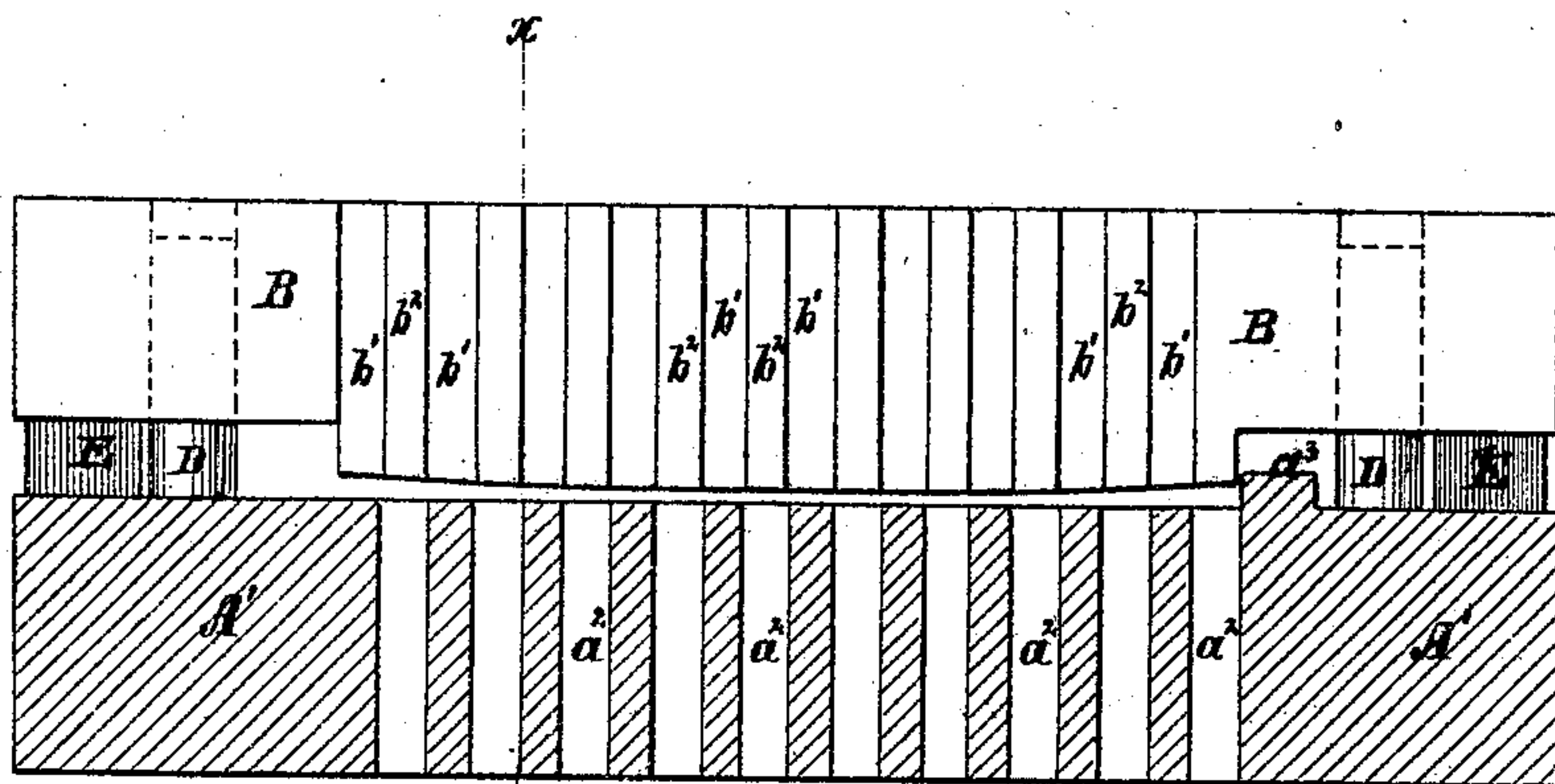


Fig. 2.

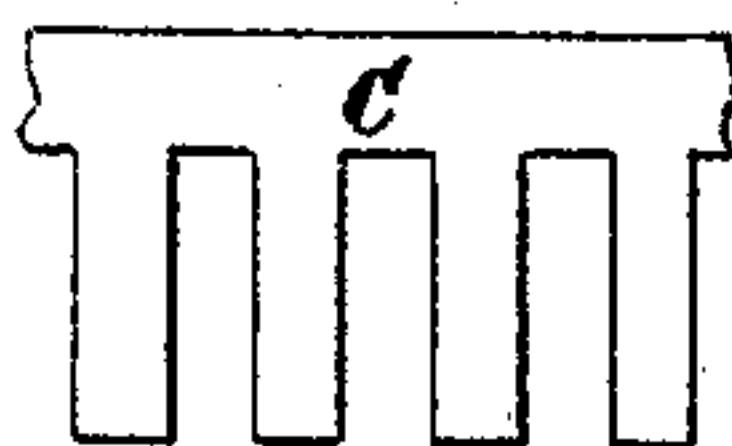


Fig. 3.

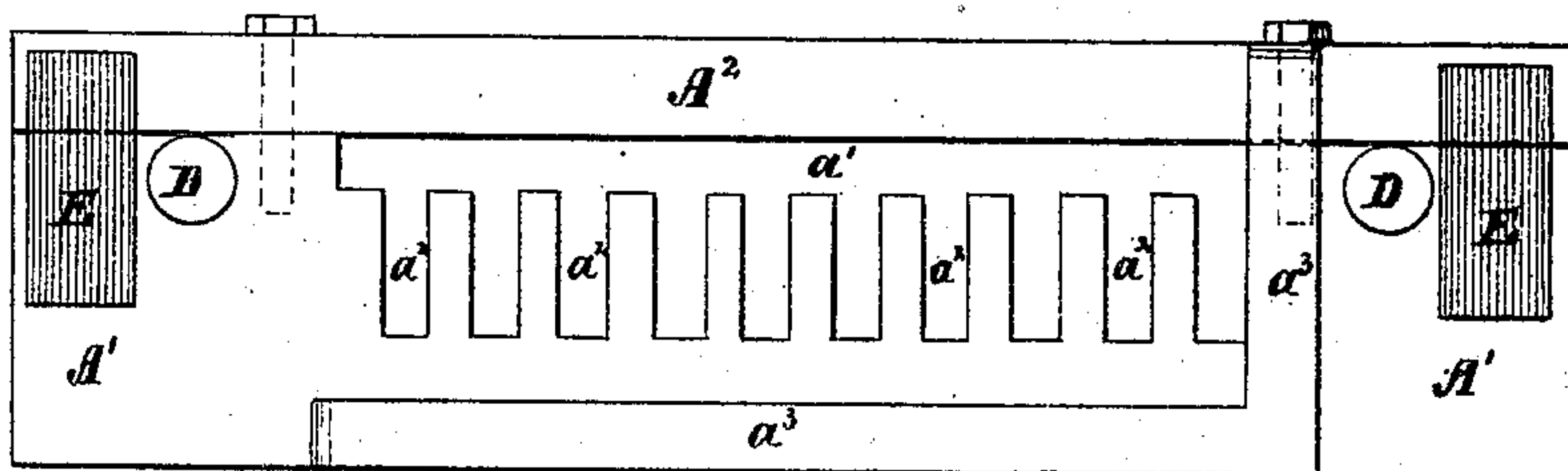


Fig. 4.

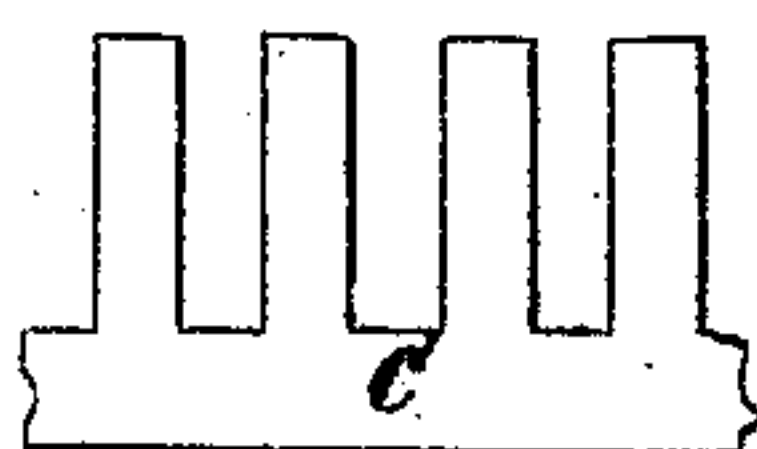
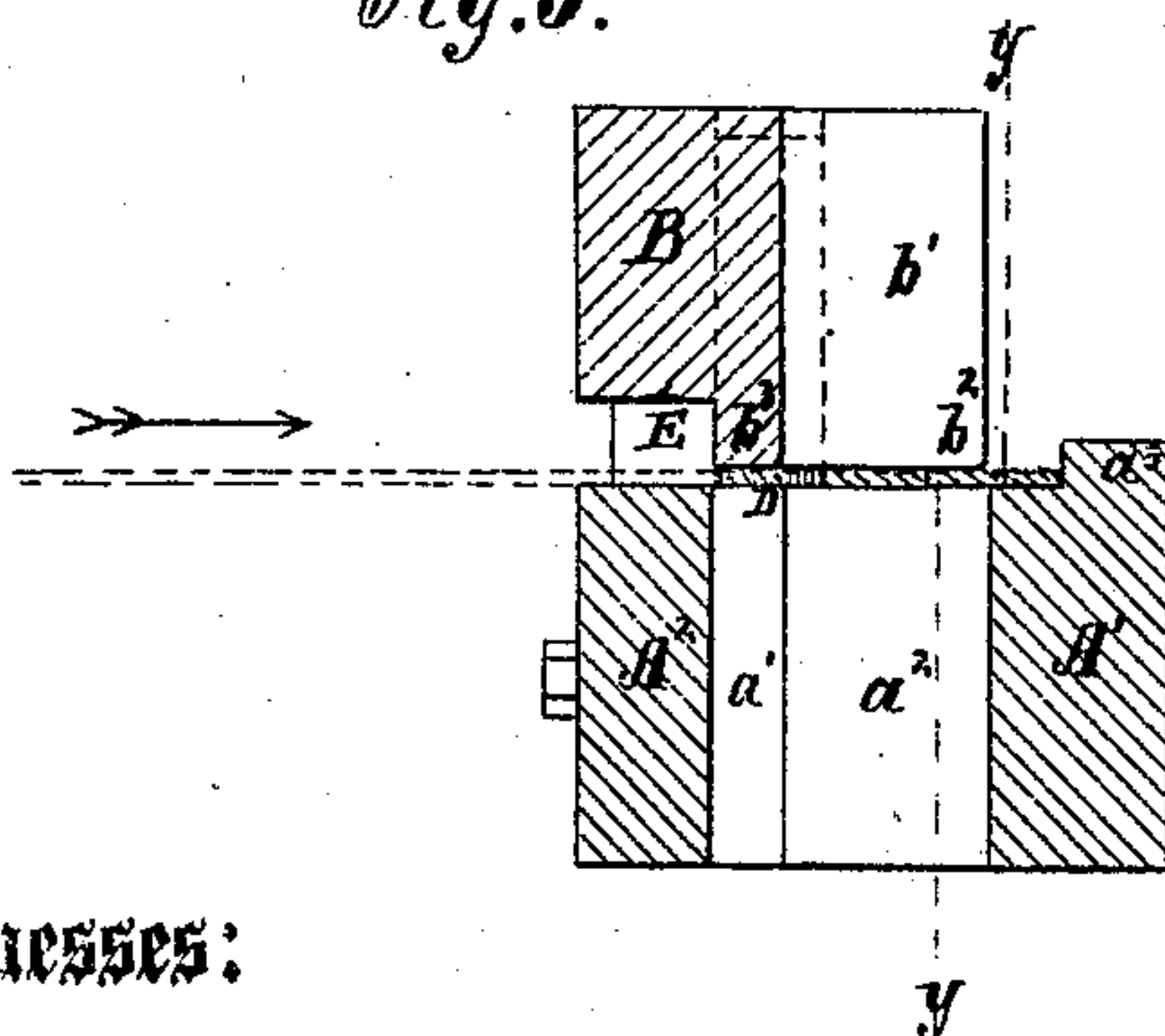


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

HORACE THOMPSON, OF CONCORD, NEW HAMPSHIRE.

IMPROVEMENT IN DIES FOR FORMING BEEFSTEAK-CUTTERS.

Specification forming part of Letters Patent No. 116,372, dated June 27, 1871.

To all whom it may concern:

Be it known that I, HORACE THOMPSON, of Concord, in the county of Merrimac and State of New Hampshire, have invented a new and useful Improvement in Dies for Forming Beefsteak-Cutters; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a rear view of my improved dies, partly in section through the lower die, through the line *y y*, Fig. 5. Fig. 2 is a detail view of a part of one of the cutters. Fig. 3 is a top view of the lower die. Fig. 4 is a detail view of a part of one of the cutters. Fig. 5 is a vertical cross-section of the two dies taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention consists in an improved construction of dies, as hereinafter fully described, and subsequently pointed out in the claim.

$A^1 A^2$ is the lower die, in which, near its forward side, is formed a longitudinal slot, a^1 , of the length and breadth of the back of one of the cutters to be formed. a^2 are cross-slots leading from the slot a^1 toward the forward side of the die A^1 , said cross-slots being of a length and breadth equal to the length and breadth of the teeth of the cutters, and at a distance apart equal to the breadth of said teeth. The lower die is made in two pieces or parts, $A^1 A^2$, the plane of division being the rear side of the slot a^1 , and the faces of said parts being flush with each other. a^3 is a flange or stop extending along the rear side of the face of the die $A^1 A^2$, and across said face, near one end, as shown in Figs. 1, 3, and 5, in such positions as to serve as a stop and gauge to the steel plate when fed in. B is the

upper die, in the rear side of which are formed cross-slots b^1 , of a depth and breadth equal to the length and breadth of the cutter-teeth, and at a distance apart equal to the breadth of the said cutter-teeth. The face of the die B is cut away, leaving the lower end of the metal b^2 between the slots b^1 and a continuous piece, b^3 , of a breadth equal to the breadth of the back of the cutter C, projecting below the rest of the said face to enter the slots $a^1 a^2$ of the lower die in cutting or punching the steel plate to form the cutters C. The cutting-face $b^2 b^3$ of the upper die or punch B is rounded, as shown in Fig. 1, so that it may begin to cut in the center and shear each way toward the ends. D are guide-pins to keep the upper die in proper position when descending. E are rubber blocks attached to the end parts of the lower die $A A^1$ to prevent the dies from striking dead, and also, by their elasticity, to start the die when the pressure is removed and it begins its upward movement. By making the lower die in two parts or pieces, $A^1 A^2$, as shown in Figs. 3 and 5, the entire work of cutting the dies may be done by planing and milling-machines, so that the expense of cutting the dies will be greatly diminished. By this construction of the dies two cutters will be cut from the steel plate at each descent of the upper die, one of said cutters passing down through the die $A^1 A^2$ and the other passing up through the die B, the entire plate being thus cut up without any waste of material.

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

The dies $A^1 A^2 a^1 a^2 a^3$ and B $b^1 b^2 b^3$, constructed and operating substantially as herein shown and described, and for the purposes set forth.

HORACE THOMPSON.

Witnesses:

CHS. S. SMART,
S. B. HADLEY.