

(No Model.)

J. M. YOUNG.

MANUFACTURE OF METALLIC RAKES.

No. 267,640.

Patented Nov. 14, 1882.

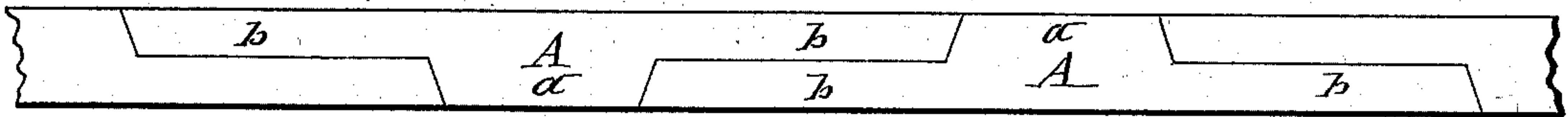


FIG-1-

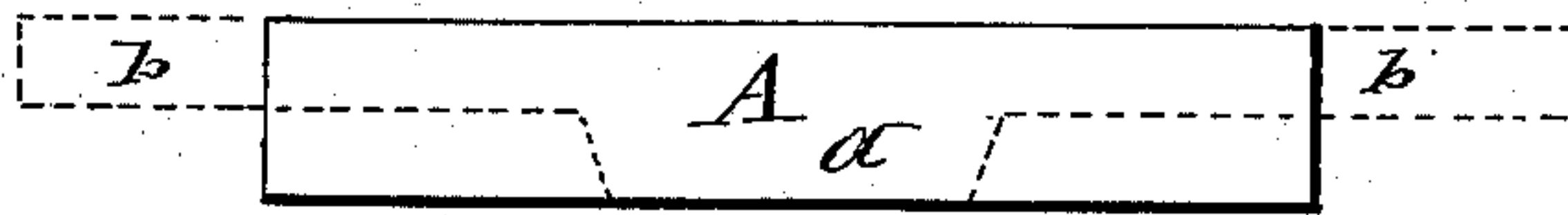


FIG-2-

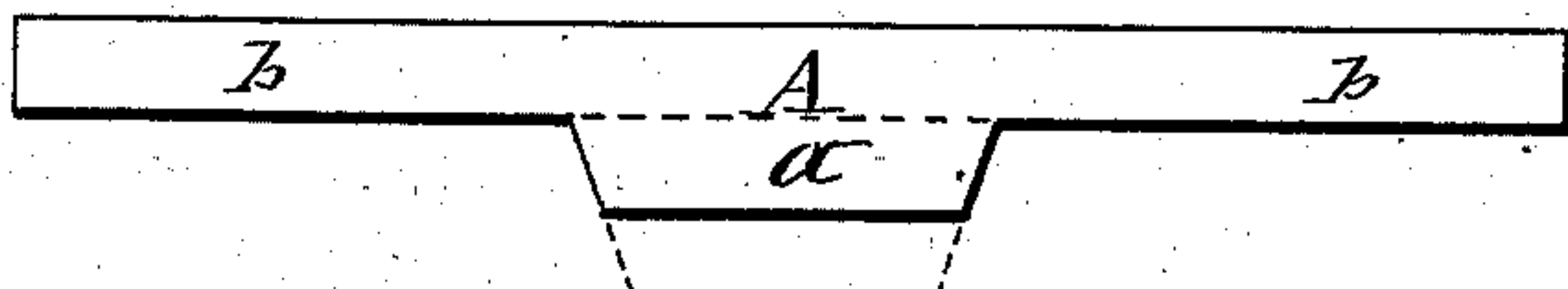


FIG-3-

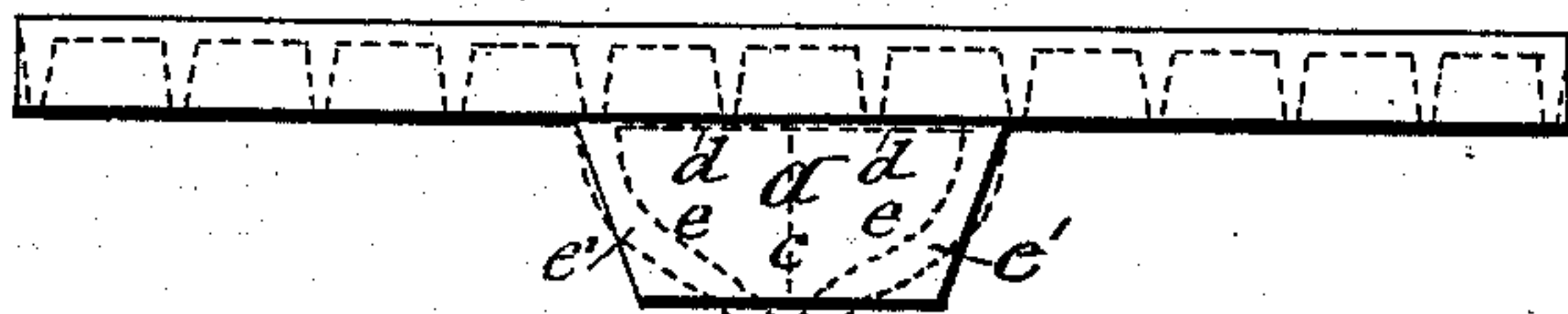


FIG-4-

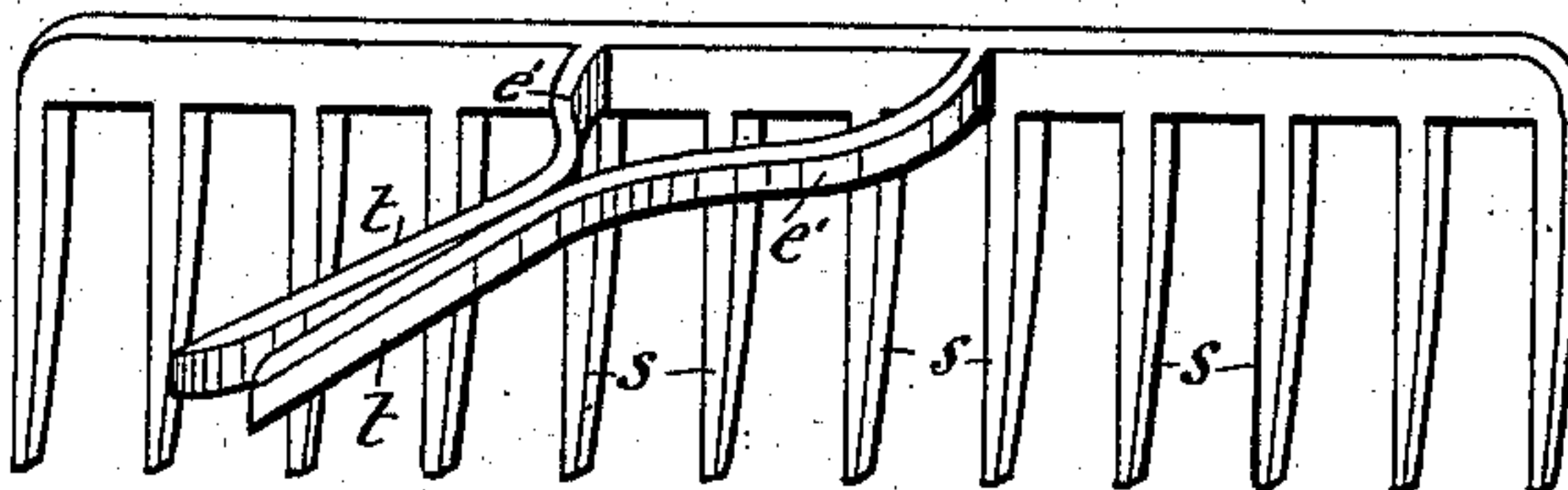
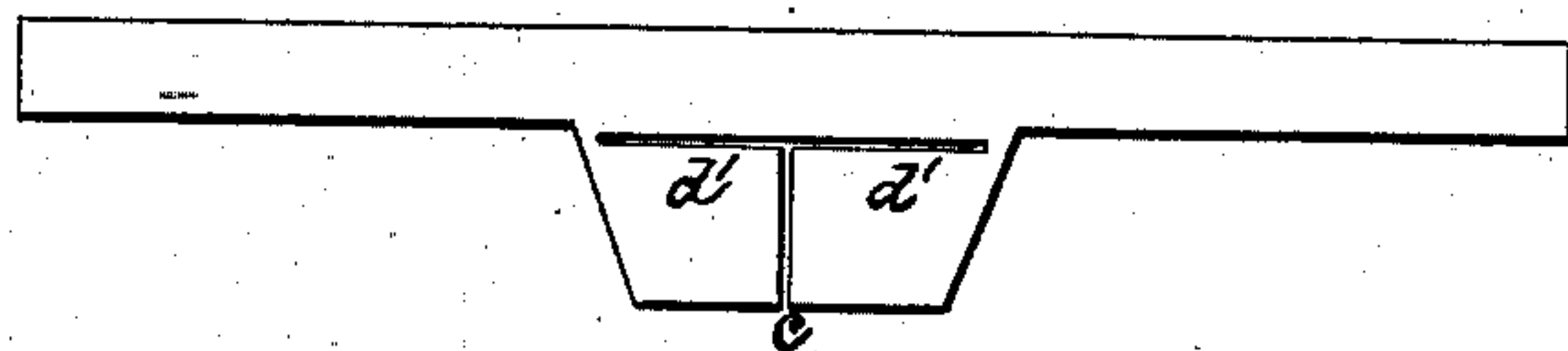


FIG-5-

Fig. 3 1/2.



WITNESSES—

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UNITED STATES PATENT OFFICE.

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MANUFACTURE OF METALLIC RAKES.

SPECIFICATION forming part of Letters Patent No. 267,640, dated November 14, 1882.

Application filed May 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. YOUNG, of Baldwinsville, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in Methods of Manufacturing Metallic Rakes, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention relates to a novel method of forming a rake-head and its tang in one piece of metal, as hereinafter fully described, and set forth in the claim.

The annexed drawings illustrate the successive steps necessary to carry out the aforesaid method or process, in which Figures 1 and 2 illustrate the method of obtaining from a crude bar of metal the blank from which the rake is formed. Figs. 3, 3½, and 4 are inverted plan views of the aforesaid blank, showing the manner of forming from the same the rake-head and its tangs; and Fig. 5 is a perspective view of the rake complete.

Similar letters of reference indicate corresponding parts.

A represents the blank from which the rake-head and its tangs are formed. Said blank, having its central portion, *a*, wider than its end portions, *b b*, may be obtained either by
30 shearing or punching it out of a square or rectangular bar of metal, as illustrated in Fig. 1 of the drawings, or by drawing or swaging out the end portion of a bar shorter than the rake-head to be formed, but otherwise of sufficiently increased dimensions to admit of forging it
35 into the shape of the blank A, as represented in Fig. 2 of the drawings. The projecting part of the central portion, *a*, I compress vertically toward that portion of the blank which forms the top of the rake-head, thereby distending
40 said enlarged portion *a* laterally, as shown in Figs. 3 and 4 of the drawings. I then make in the center of said distended portion an incision, *c*, reaching to a point nearly or quite
45 on a line with the adjacent face of the end por-

tions, *b b*, and from the end of the incision *c* I cut in opposite directions part way the length of the central portion, *a*, as indicated by dotted lines (marked *d*) in the drawings. The portions
50 *e e* thus severed I draw or swage out into two long prongs, and bend the same outward from the blank and bring them together at the proper point to form the braces *e' e'* and the tangs *t t*, the extremities of which are separated sufficiently to admit of inserting between
55 them a wedge for securing the shank in the socket of the rake-handle H, as illustrated by dotted lines in Fig. 4 of the drawings. The teeth *s s* are forged or drawn out of the blank A in the usual manner.

I do not claim broadly the method of forming the shank of metallic rakes integral with the head thereof by cutting into a metal blank and drawing out the cut portions into the requisite shape, as I am aware the same has
60 been carried out in various ways; but

What I do claim as new, and desire to secure by Letters Patent, is—

The within-described mode of forming a rake-head and its tang of one piece of metal—*i. e.*, by first forming a blank, A, having its central portion, *a*, wider than its end portions, *b b*, then shearing the center of the said enlarged portion, as at *c*, and from said center in
70 opposite directions, as at *d' d'*, part way the length thereof, and then drawing out lengthwise the sheared parts and bending the same into the requisite shape to form the braces and tangs of the rake, substantially as specified and shown.

80 In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 15th day of May, 1882.

JOHN M. YOUNG. [L. S.]

Witnesses:

W. L. FRAZER,
CHARLES GARLICK.