

(Model.)

A. F. & J. H. CLINCH.

RIVET SET.

No. 245,057.

Patented Aug. 2, 1881.

Fig. 1

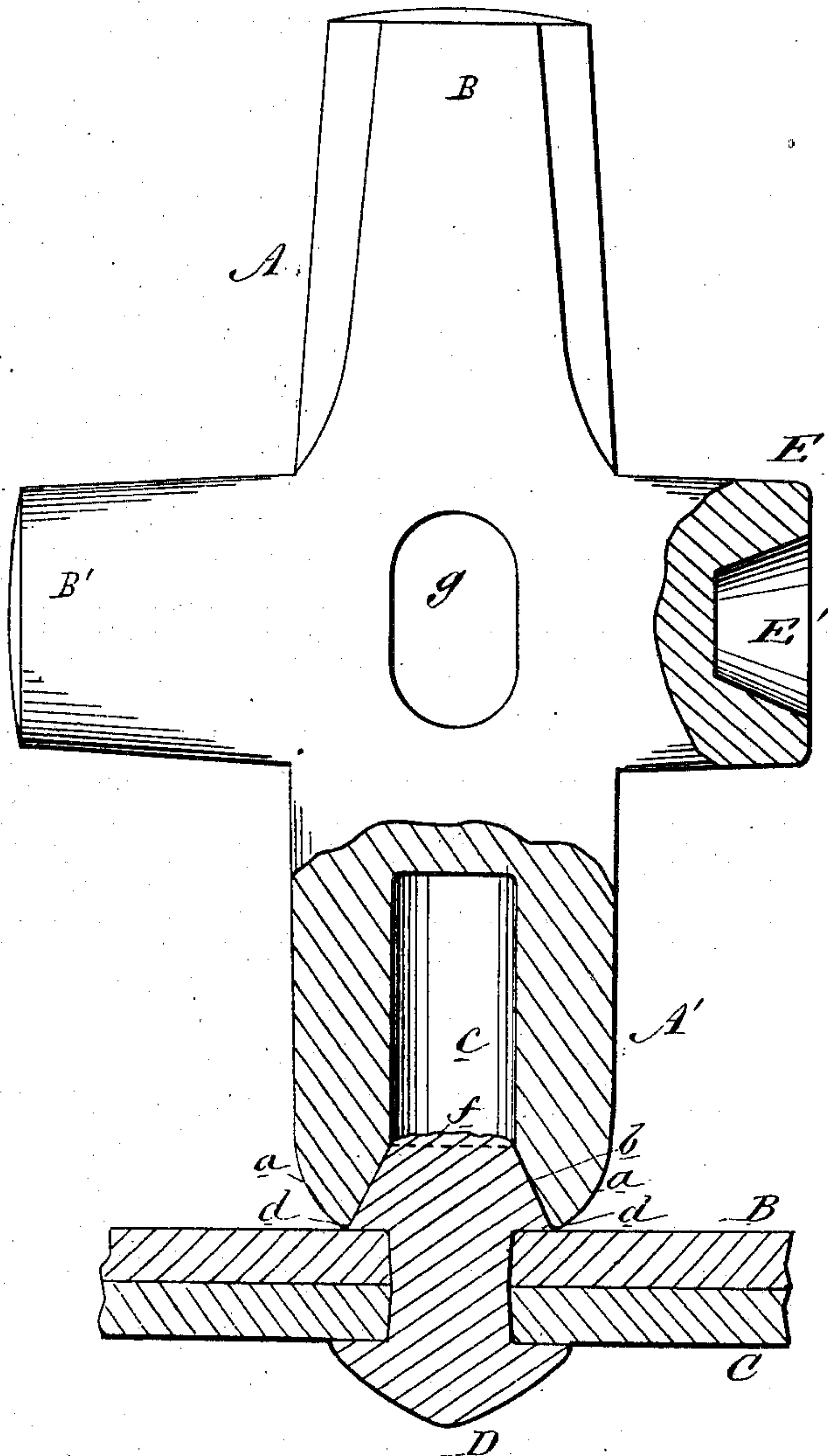
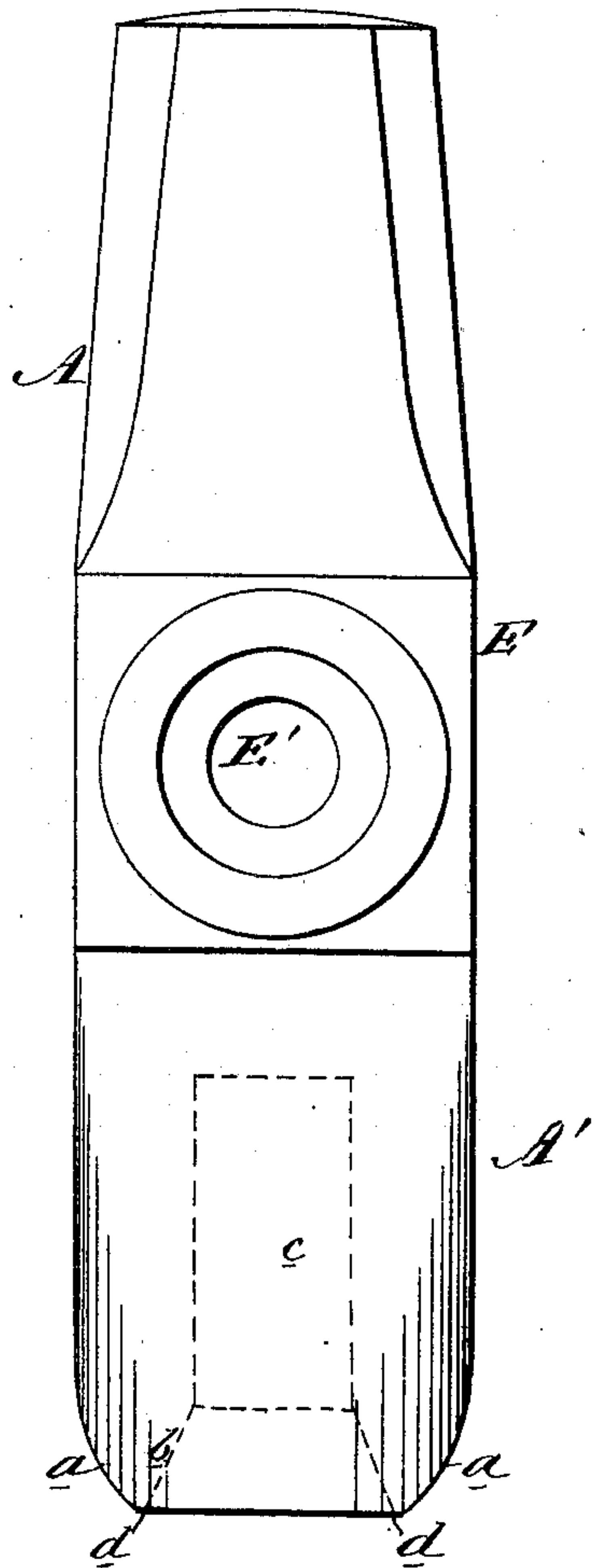


Fig. 2



WITNESSES:

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ANDREW F. CLINCH, OF YORK, AND JAMES H. CLINCH, OF PITTSBURG, PA.

RIVET-SET.

SPECIFICATION forming part of Letters Patent No. 245,057, dated August 2, 1881.

Application filed January 31, 1881. (Model.)

To all whom it may concern:

Be it known that we, ANDREW F. CLINCH, of York, in the county of York and State of Pennsylvania, and JAMES H. CLINCH, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Rivet-Set, of which the following is a full, clear, and exact description.

The object of this invention is to provide a simple and convenient tool that will set and finish the rivets and draw the sheets tighter together in boiler-work than any other set now in use.

The boiler-rivet sets of the usual construction have a conical socket to receive the rivet end and form it while drawing the boiler-plates together; but when the rivet end that projects through the boiler-plates exceeds a given length there is no room for the excess of metal in the said set-socket, and consequently the plates are not properly drawn together and a burr is formed around the edge of the head made by the set, and if the rivet be too short it cannot be properly upset by the ordinary set, nor the boiler-plates be tightly drawn together by it.

This invention consists of a set having four limbs, two being hammer-limbs, and one of the other limbs having a socket for upsetting the rivet, (which socket is prolonged or deepened beyond its conical section for the reception of the surplus metal of a long rivet,) and the remaining limb having a finishing-socket for shaping the upset ends of the rivets, which finishing-socket may be applied with proper effect to the drawing of short rivets.

Figure 1 is a side elevation of the improved set applied to a boiler-rivet, with parts broken away to exhibit other parts. Fig. 2 is an end elevation of the same.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the rivet-set, preferably of cruciform shape, having four limbs, two of said limbs, B B', for hammer ends, and the other two limbs, A' and E, for upsetting and finishing ends, the limb A' having one face or head rounded off at the edge, as shown at *a*. In this face or head A' is a conical socket, *b*, for upsetting the rivet end, said socket *b* being prolonged or deepened, as shown at *c*, in circular form, to make room for rivet

ends of too great length. The rounded edge *a* and edges of socket *b* form an annular lip, *d*, that bears upon the outer boiler-plate, B, and presses it down on the plate C, and at the same time defines the limit of the upset end of the rivet D, while the conical socket *b* gives a general shape to the said upset end of the rivet D.

Any excess of metal in the rivet D is forced up into the socket-extension *c*, as shown at *f* in Fig. 1. The set A is operated by being driven by sledge or hammer on the rivet D.

It will be seen that with a set provided with an extension-socket, *c*, no burr can be formed around the periphery of the upset portion of the rivet D, and that consequently the lip *d* will always bear upon the outer plate, B, and hold it tightly down while the rivet D is drawn up. After the rivet D has been properly upset the set A is disengaged and turned, and the finishing conical socket E', which is in another head or face, E, of the set A, is applied to the said upset rivet, and the said set A is then driven down with the effect of giving a suitable shape and finish to said rivet D.

The set A is provided with central eye, *g*, in which a handle is fixed when said set A is in use.

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

1. As an improvement in riveting-tools, a rivet-set composed of a hammer end, B, a head, A', provided with an upsetting-socket, *b*, a hammer end, B', and a head, E, provided with a finishing-socket, E', substantially as herein shown and described.

2. As an improvement in riveting-tools, a rivet-set composed of a hammer end, B, a head, A', provided with an upsetting-socket, *b*, having a tubular prolongation, *c*, a hammer end, B', and a head, E, provided with a finishing-socket, E', substantially as herein shown and described.

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