

E. PARKER.
Key.

No. 239,668.

Patented April 5, 1881.

Fig. 1

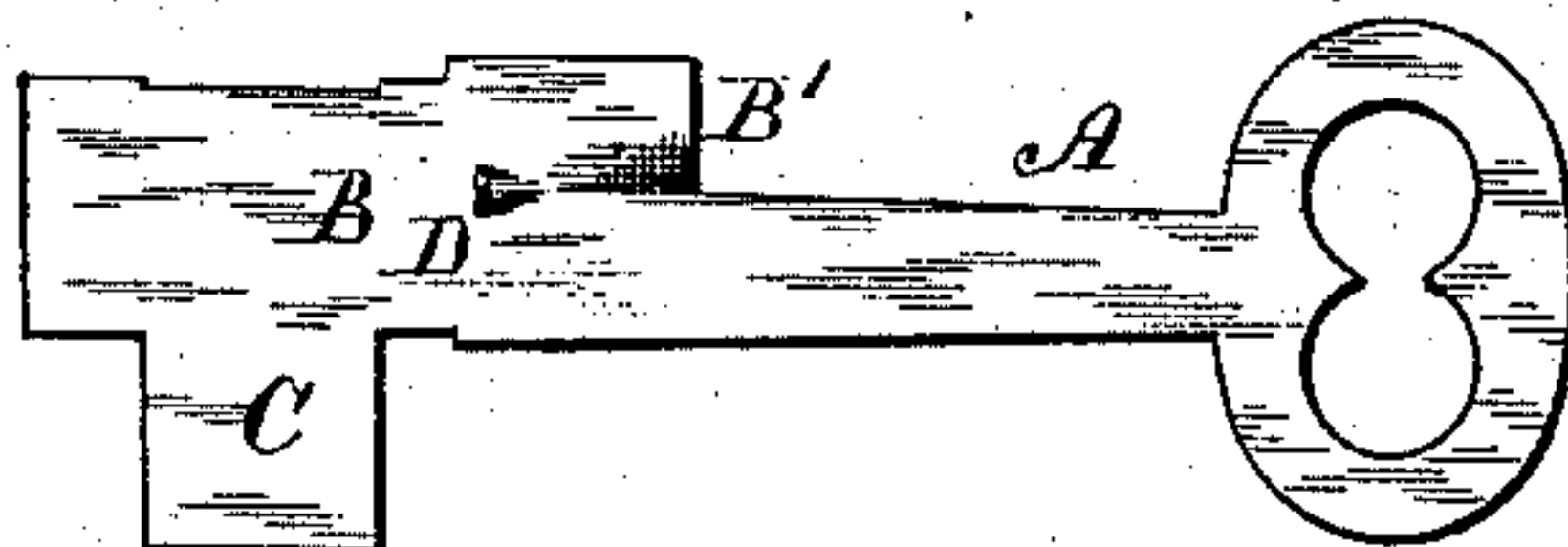


Fig. 2



Fig. 3

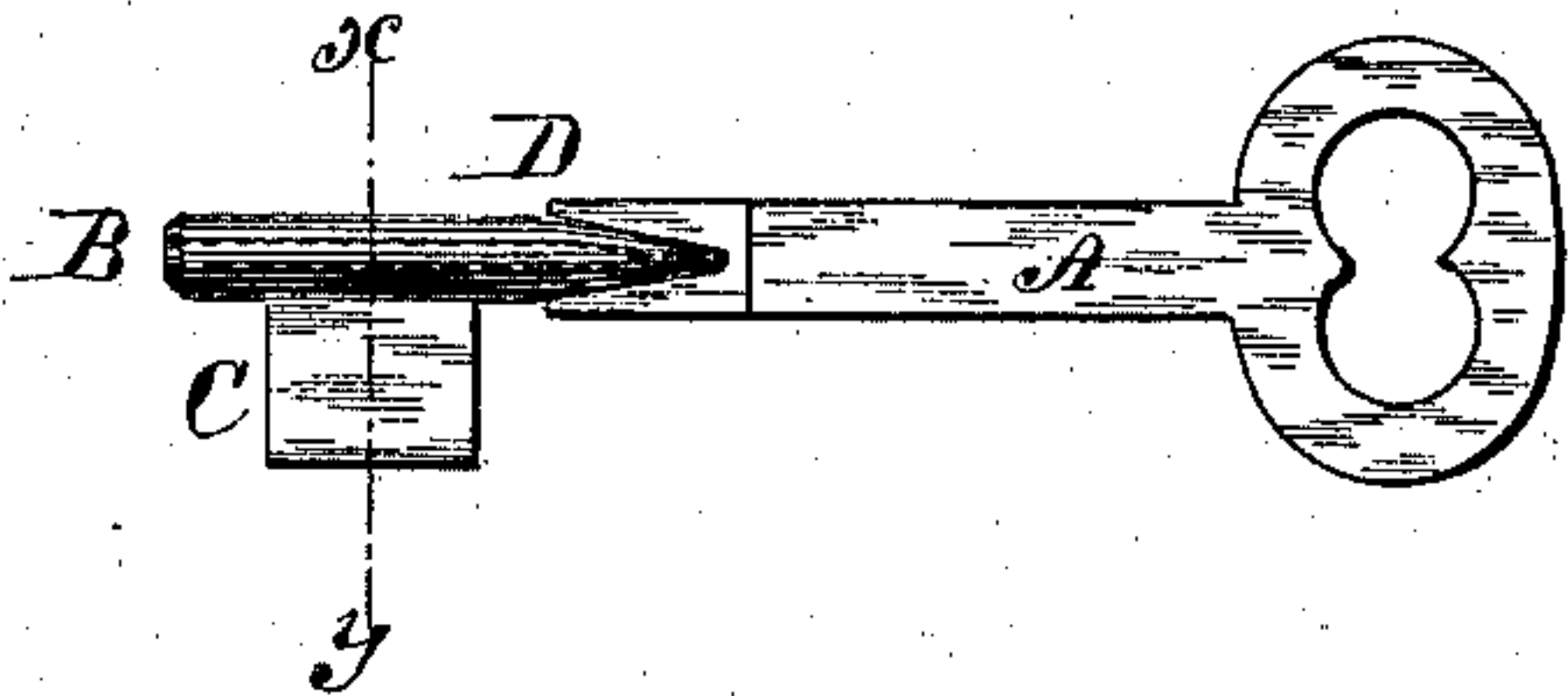


Fig. 4

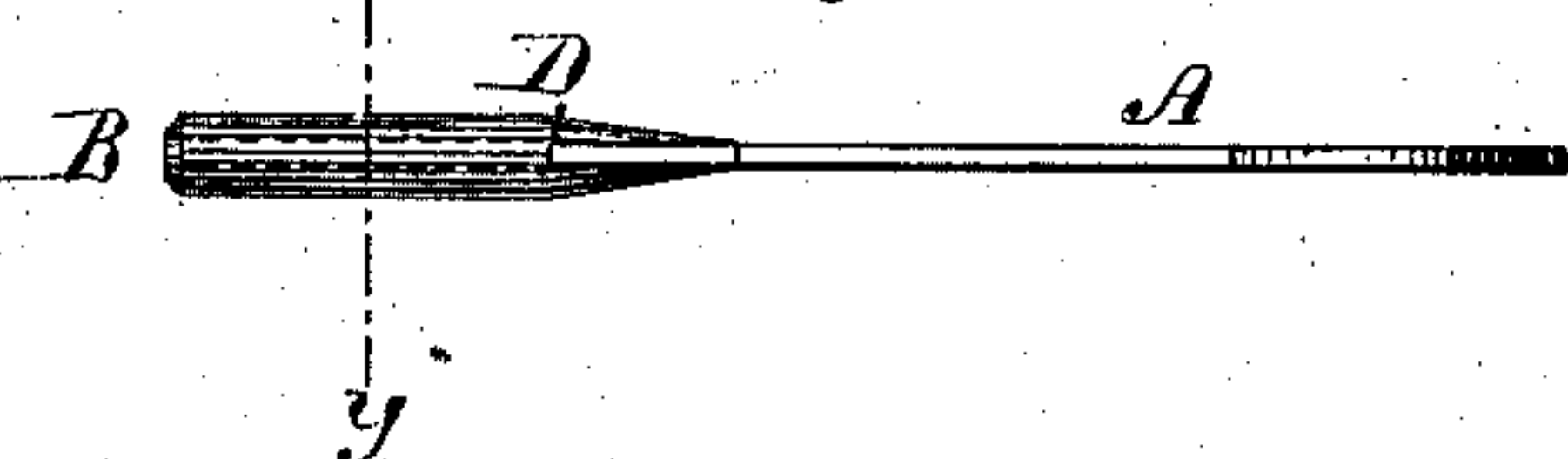


Fig. 5



Witnesses:

Wendell R. Curtis,
Wilmot Horton.

Inventor:

Emery Parker,
by Theo. G. Ellis, attorney.

UNITED STATES PATENT OFFICE.

EMERY PARKER, OF NEW BRITAIN, CONNECTICUT.

KEY.

SPECIFICATION forming part of Letters Patent No. 239,668, dated April 5, 1881.

Application filed February 16, 1880.

To all whom it may concern:

Be it known that I, EMERY PARKER, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Lock-Keys; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to the manufacture of a new form of lock-key, such as is used for the locks of doors, drawers, &c.

The object of my invention is to provide a more easily constructed key than has heretofore been in use, by making it of plate or sheet metal, in the manner described.

In the accompanying drawings, Figure 1 shows the flat side of a blank cut out from plate metal, from which my improved key is formed. Fig. 2 shows an edge view of the same. Fig. 3 shows a side view of my improved key when finished. Fig. 4 shows a top or back view of the same. Fig. 5 shows a section through the key on the line *x y* of Figs. 3 and 4.

In making my improved key a blank is first cut out from a piece of plate metal, as shown in Figs. 1 and 2.

A is the part which forms the ring and handle. This remains flat when the key is finished.

B is the part from which the stem is formed by being bent round into a cylindrical shape by means of suitable tools or machinery. The part B is reduced in thickness and made considerably thinner than the parts of the blank forming the bit and handle. This permits its being bent round into the cylindrical form with greater facility, and also permits a sharper angle between it and the bit, so as to bring the bit exactly into the middle of the key.

C is the part which forms the bit.

D is a projection raised upon the blank by striking it up from below, as shown in Fig. 2. This is for the purpose of forming the projecting shoulder shown at *a* in Figs. 3 and 4. The projection D can be struck up from the blank while it is flat, or when the stem is partially bent round.

When the part B of the blank is bent into

a cylindrical form round a mandrel having a taper point, the edges meet on the lower side along the base of the bit C, as seen in Figs. 3, 4, and 5. The forward or most salient part of the projection D is slightly drawn downward by the curving of the stem, so that it remains in the line of the top edge of the handle and forms the shoulder which prevents the key from being inserted too far into the lock. The corresponding lower shoulder, *a'*, is formed by the lateral projections upon the edges of the blank.

The edge of the blank at B' is thinned down so that it will lie close to the side of the flat handle, and the proper form is given to the whole key by hammering or pressing the metal upon a pointed mandrel inserted into the hollow of the stem. The bit is bent so as to come in the middle of the key, and the whole is finished and made symmetrical upon the two sides by hammering or being struck in suitable dies.

My invention is especially adapted to the production of steel keys, which shall be both strong and light, and which shall, at the same time, have a suitable round stem or barrel, for supporting it, as an axis, when turning in the lock.

My improvement is also adapted to both stem and pin keys. For the former the end of the stem is spun down, or the edges turned over, until they meet in the center and close the opening in the end. For the latter the hole is left open for the reception of the pin attached to the lock. In this case the projecting part of the stem beyond the bit can be dispensed with.

The joint in the metal formed by the union of the edges of the blank bent round to form the stem can be brazed or soldered, or the joint can be made so close as not to be observed. Where the metal used is sufficiently strong, as in the case of steel, the brazing can be omitted.

What I claim as my invention is—

In a blank for a sheet-metal key, the projection D, constructed as described, and forming, in the finished key, a shoulder, *a*, corresponding to the shoulder *a'* upon the opposite side thereof, substantially as described.

EMERY PARKER.

Witnesses:

THEO. G. ELLIS,
WILMOT HORTON.