

(No Model.)

E. W. BRETTELL.

KEY.

No. 318,861.

Patented May 26, 1885.

Fig. 1.

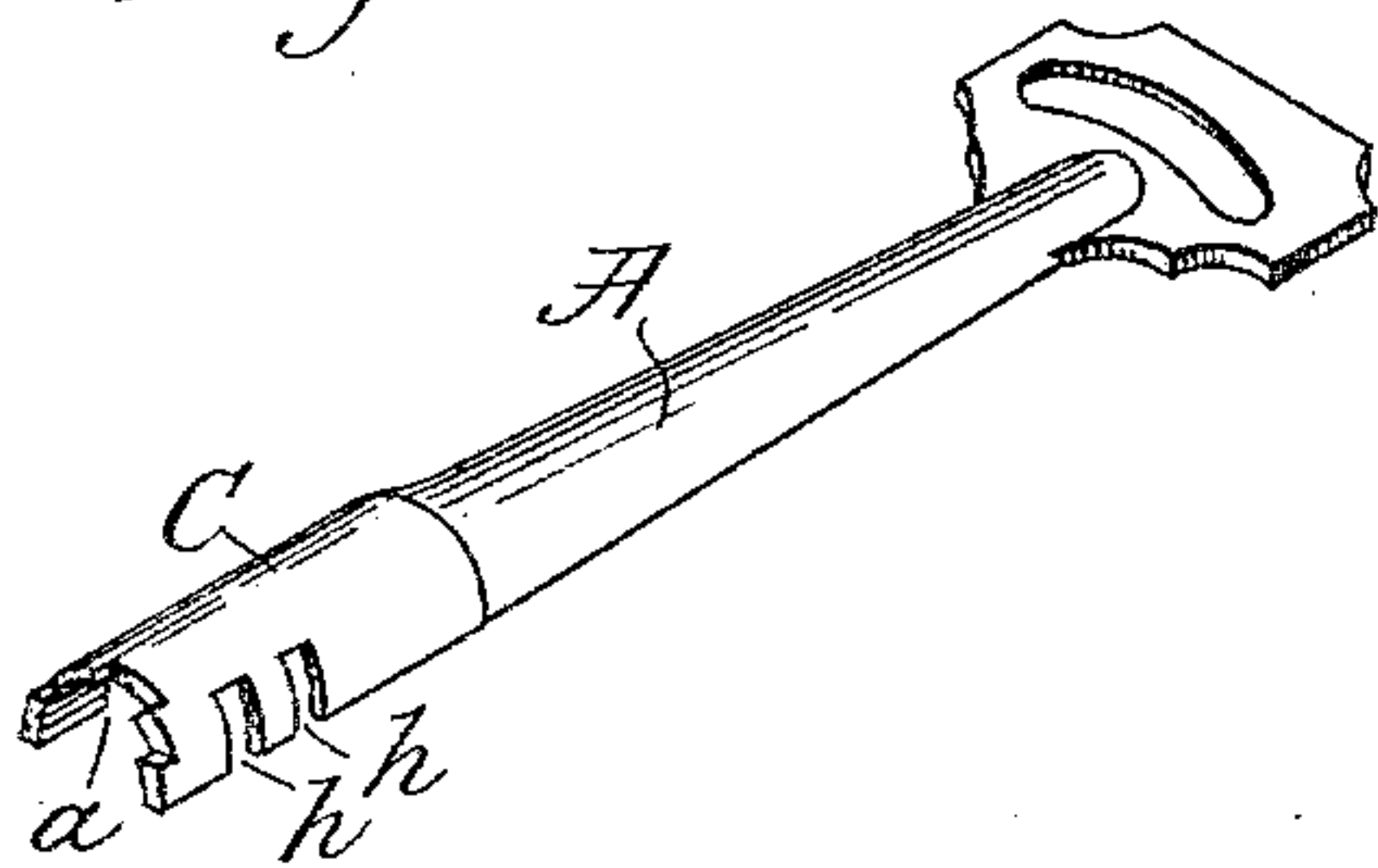


Fig. 2.



Fig. 3.



Attest:

H. H. Schott

Fred E. Parker.

Inventor:

Edward W. Brettell
Per John C. Tasker atty.

UNITED STATES PATENT OFFICE.

EDWARD W. BRETTELL, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO CHARLES W. A. ROMER AND JOHN H. WILKINS, BOTH OF SAME PLACE.

KEY.

SPECIFICATION forming part of Letters Patent No. 318,861, dated May 26, 1885.

Application filed April 25, 1885. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. BRETTELL, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Keys; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in keys for locks; and it consists in an improved construction of a key of semicircular form, whereby it is rendered simpler and more convenient for use, the object being to provide a key for use with all such locks as are furnished with a semicircular key-slot as a safeguard against picking. In my former application for Letters Patent for lock, Serial No. 159,140, filed March 17, 1885, I made mention of this semicircular key, which forms the subject-matter of the present application, but did not therein claim it.

In the annexed drawings illustrating my invention, Figure 1 is a perspective of the key, and Fig. 2 is a cross-section of the same. Fig. 3 is a similar section showing notches on each side.

Fig. 1 shows the form of constructing the key, A being the shank, concaved on one side along its length at *a*, and convex along the opposite side, thus making the key of a uniform thickness, the inner and outer sides being approximately parallel, as shown by the section in Fig. 2. The end C, to be inserted in the key-way, is preferably made somewhat larger than the remaining portion of the key, though without any essential difference in form of construction, the increased size being effected by a mere tapering enlargement of the key-handle into the semicircular barrel which enters the lock. This is advantageous, for the keys may have their parts C made of different sizes for different locks, while the shank A preserves substantially the same dimen-

sions. The part C is bitted or notched as at *h h*, transversely to the length of the key, and on one or both edges. The arrangement of these bits or notches must obviously depend in every instance upon the arrangement of the wards and tumblers of the key mechanism, which they are adapted to operate, and they may be of any number and size. The end of the key may also be notched or bitted to correspond with any peculiarities in the construction of the key mechanism.

It will be seen that my improved key may be constructed in various ways and of one or more pieces of metal, as desired. It may be cast or struck up or stamped from a single piece of sheet metal, or it may be formed by the welding of several pieces, any desired metal being used in these different operations.

A semicircular key possesses many advantages over the flat-plate keys and also over the round-stemmed keys. Its semicircular form insures as thorough a guiding and support during its insertion and rotation as does the circular round-stemmed form, and with the advantage of dispensing with the circular key-way, which affords every facility for picking the lock, and the substitution therefor of the semicircular slot, which is an effectual antagonist of the picking-tool. The ordinary flat-plate key does not obviate the disadvantages of a circular key-hole. This is done by the semicircular form wherein the convexity of the hub or plate in the key-way projects inward, even beyond the central line of the key-way, and does not allow a sufficient tilting of the picking-tool for it to accomplish its purpose.

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

A semicircular metal key notched or bitted on its sides, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD W. BRETTELL.

Witnesses:

JOHN H. WILKINS,

HORACE F. BALDWIN.