(No Model.)

J. W. TOOPS.

KEY.

No. 485,725. Patented Nov. 8, 1892.

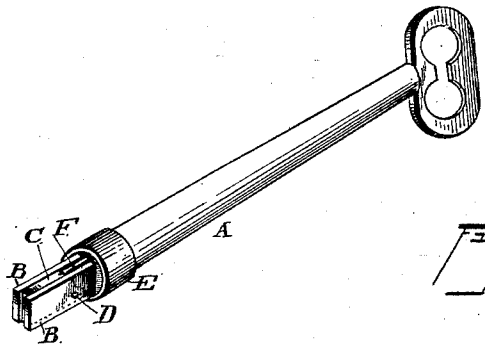

Fig. 1.

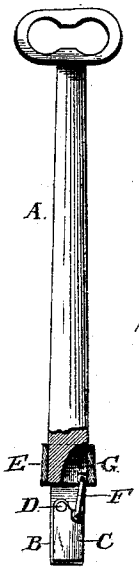

Fig. 2.

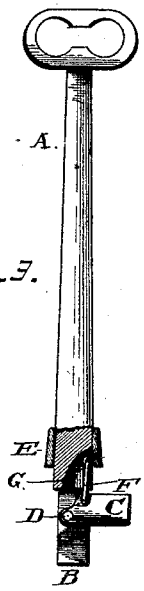

Fig. 3.

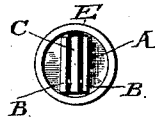

Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

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KEY.

SPECIFICATION forming part of Letters Patent No. 485,725, dated November 8, 1892.

Application filed May 10, 1892. Serial No. 432,418. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. TOOPS, a citizen of the United States, residing at Kiousville, in the county of Madison and State of Ohio, 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 of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of a key embodying my invention. Fig. 2 is a side elevation, partially in section, of the same. Fig. 3 is a similar view with the key in a different operative position. Fig. 4 is an end view of the key.

My invention relates to keys for locks, the object being to provide a hinged swinging tumbler-operating tang, which may be variously shaped to operate the tumblers of any style of lock to which it can be adapted.

For these purposes my invention consists of the following construction and combination of parts, which will first be fully set forth and described, and the features of novelty then indicated in the claim.

In the drawings, A represents the handle or stem of any key to which my improvements may be applied. The end of the stem A, I provide with two projecting pieces B B, parallel with each other and extending in line with the stem, so as to form a channel or slot between them in which I pivot or hinge a tang C by a pivot D. This pivot D passes through the inner end of the tang C, and extends oppositely into each of the parallel pieces B B.

E is a ring adapted to slide longitudinally upon the stem A. This ring has an interiorly-projecting lug, to which is pivotally connected a link F, which extends outwardly and has its other end pivoted to the tang C, as shown, for the purpose hereinafter set forth.

G is a cavity made in the stem to permit the action of the link F. This key is designed to be used in connection with the round or angular keyhole of a lock of substantially the same configuration as the barrel or stem of the key, no provision being made in the lock-casing for the entrance of the tang C.

The operation of my improved key is as follows: The key as shown in Figs. 1 and 2 is ready for insertion in the keyhole of the lock. When the key has been inserted a certain distance, the lock-casing strikes the outer edge of the ring E and forces the same along the stem A. This movement causes the link F to move with ring E, and, being connected to the tang C, it swings the latter out from between the parallel pieces B B into a position at right angles to the key. The key is now ready to be turned, so that the tang C may operate the tumblers of the lock in the usual way. It should be understood that the tang C may be variously fashioned, so that it will operate variously-designed tumblers of any style of lock. Upon withdrawing the key the tang C strikes the inner end of the lock-casing, as shown in Figs. 1 and 2, allowing it to be withdrawn from the lock.

I claim—

In a key for locks, a shank having an arm or bit pivoted in the outer end thereof, so as to swing in line with or at right angles to the shank and provided with a slidable ring upon said shank, said ring and said arm or bit being connected by a pivoted link, whereby the sliding movement of the ring upon the shank actuates the arm or bit.

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

JOHN W. TOOPS.

Witnesses:

MARY B. STRAIN,

WILLIAM A. STRAIN.