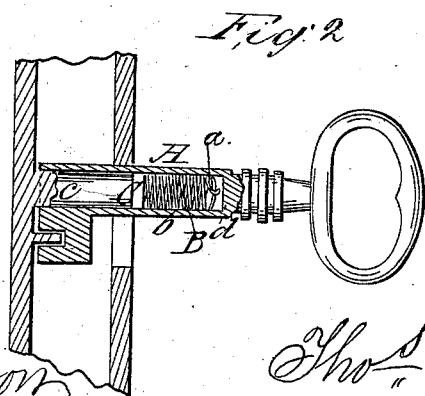
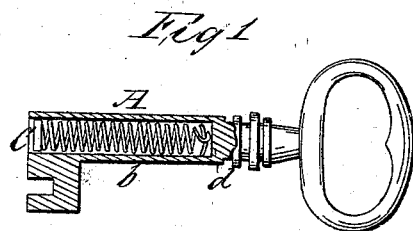


T. S. Borman,
Key,
Nº 54,678, Patented May 15, 1866.



Witnesses

Wm Lyon
W D Longton

Inventor.

Thos S Borman
Mumford
Attorneys

UNITED STATES PATENT OFFICE.

THOMAS S. BOWMAN, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN KEYS.

Specification forming part of Letters Patent No. 54,678, dated May 15, 1866.

To all whom it may concern:

Be it known that I, THOMAS S. BOWMAN, of St. Louis, in the county of St. Louis and State Missouri, have invented a new and useful Improvement in Keys; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal section of a lock-key with my improvement applied to it. Fig. 2 is also a longitudinal section of the same applied to a lock.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and useful improvement in keys for locks, watches, and all keys in which the shanks or arbors are drilled longitudinally to work on a pin when in use or applied to their work. Keys of this description, especially those which are carried in the pocket, are liable to have their holes filled up with dirt, lint, &c., and frequently much trouble and inconvenience are experienced in picking the dirt or lint out of the hole before the key can be applied.

My invention is designed to obviate this difficulty, and to this end I have the hole drilled rather deeper or longer than usual into the shank or arbor of the key, and insert a spiral spring therein having a button or disk attached to its outer end to fill the hole or serve as a stopper for the same, the spring keeping the stopper at the orifice of the hole and preventing the admission of dirt, but readily yielding under pressure when the key is applied, so that the stopper may, under the advance of the key and the bearing formed by the pin upon which the key is turned, reach the inner end of the hole, so as not to interfere at all

with the ready application of the key to its work or the turning of it upon its pin, the stopper, when the key is withdrawn, being instantly forced back to the orifice of the hole in the shank or arbor.

A represents an ordinary lock-key having a hole, *a*, drilled in its shank or arbor *b* to fit on a pin, *c*, in the lock, the key turning on said pin in locking or unlocking the lock.

B represents a spiral spring, one end of which has a bar, *d*, attached to it of such a length that when the spring B is forced into the hole *a* it will bind in said hole and prevent the spring from slipping out from it.

At the outer or opposite end of the spring there is secured a button or stopper, C, of such diameter that it will fill the hole *a*, but still slide freely therein, the spring B, when not acted upon or subjected to any pressure, keeping the disk or stopper C at the orifice of the hole *a*, as shown in Fig. 1. This stopper, it will be seen, will effectually prevent the admission of dirt and lint into the hole of the shank or arbor of the key, while it will not in the least interfere with the application of the key to its work, as the spring B readily yields and is compressed as the key is shoved forward on its pin. Thus by this simple device the hole *a* in the shank or arbor of the key may be kept perfectly free from dirt, and the annoyance alluded to avoided.

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

The application to a key having a hole drilled in its shank or arbor of a spring and stopper, substantially in the manner as and for the purpose herein set forth.

THOMAS S. BOWMAN.

Witnesses:

J. A. MARTIN,
ROBT. E. CRAIG.