W. H. Elwell,

Key.

NO. 108,466. Patented Oct. 18. 1870.

fig. 4

fig. 5

fig. 1

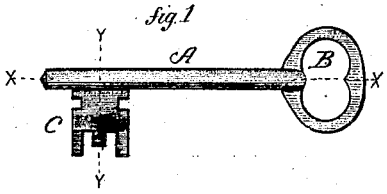


fig. 2.

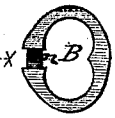


fig. 3

fig. 6

fig. 8.

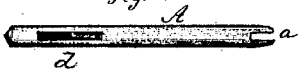


fig. 7

fig. 9

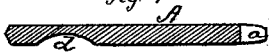


fig. 10.

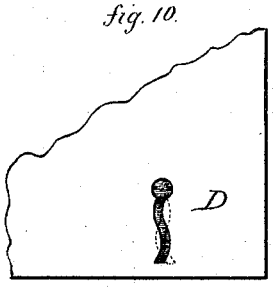
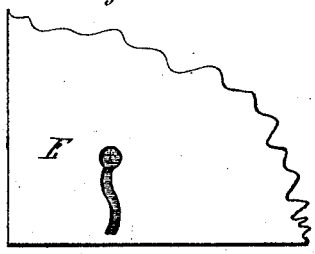


fig. 11.



Witnesses.
J. H. Shumway
A. J. Stobbs

Henry H. Elwell
Inventor
By his Attorney.
John E. Earle

United States Patent Office.

HENRY H. ELWELL, OF SOUTH NORWALK, CONNNECTICUT.

Letters Patent No. 108,466, dated October 18, 1870.

IMPROVEMENT IN KEYS FOR DOORS, &c.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, HENRY H. ELWELL, of South Norwalk, in the county of Fairfield and State of Connecticut, have invented a new Improvement in Door-Keys; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a side view of the key complete;

Figures 2 to 9, inclusive, detached views to illustrate the construction; and in

Figures 10 and 11, reverse sides of a latch-case, showing the key-hole as for the reception of my improved key.

This invention relates to an improvement in door-keys; and consists in the construction of the spindle of the key from a single rod, and combining therewith the bow and bit, each inserted into the spindle, and secured by the upsetting of the spindle onto the same.

A is the spindle of the key, which I form from round steel or other suitable wire.

B is the bow, and C the bit, both constructed from sheet-steel or other suitable material.

In the end of the spindle a slot, *a*, is formed, as seen in fig. 8, and a groove, *d*, cut near the other end, as seen in figs. 8 and 9.

The upper end *b* of the bit C is formed corresponding to the shape of the groove *d* in the bit, and longitudinally.

That portion of the bit which corresponds to the groove in the spindle I make of dovetail-form, as seen in fig. 5, so that, when inserted into the groove, that portion of the spindle around the bit may be struck down onto the bit, as seen in fig. 7, and thus securely hold the bit in the spindle.

The ends *i* of the bit may project, so that the metal of the spindle may be struck into or over such projection.

For convenience of inserting the bit, I open the groove slightly, and this prevents the upsetting of the spindle from changing the diameter or shape of the spindle at any point.

In the bow, that portion, *n*, which corresponds to the slot in the end of the spindle (seen in figs. 2 and 3) is also made of dovetail form, so that, when set into the end of the spindle, as seen in fig. 6, the end of the spindle may be struck down and close onto the bow sufficiently to firmly hold the bow and make it, like the bit, practically of one and the same piece with the spindle.

The shape of the groove for the insertion of the bit may be varied, it only being required that it shall be of such shape that the spindle may be struck down and hold it in place, and the same may be said of the bow.

By this construction a very light, simple, and cheap key is produced.

In order to avoid the use of the shoulder on the key-spindle, which is necessary to govern the position of common keys in locks, I make the bit of a curved or irregular form, as seen in fig. 5, and in the lock-case I make the key-hole upon the side D corresponding to the shape of the bit, and of like shape upon the reverse side, E, as seen in figs. 10 and 11, the reverse side being denoted in fig. 10 in broken lines; consequently the key inserted from one side will strike the case upon the opposite side, and arrest the insertion of the key in the proper position for turning, and no other device is necessary to govern the position of the key.

I do not wish to be understood as broadly claiming the construction of a key in which the bit and bow are formed independent of the spindle, and attached thereto by soldering or riveting.

I claim as my invention—

The herein-described key, consisting of the spindle A, bit C, and bow B, formed from different pieces of metal, united by closing or striking the spindle down onto the bow and bit, they being first prepared in the manner substantially as described.

Witnesses: HENRY H. ELWELL.

LEWIS F. BEERS,

A. H. TIBBITS.