No. 756,830. PATENTED APR. 12, 1904.

C. J. CALEY.

ADJUSTABLE KEY.

APPLICATION FILED JAN. 19, 1904.

NO MODEL.

Fig. 1.

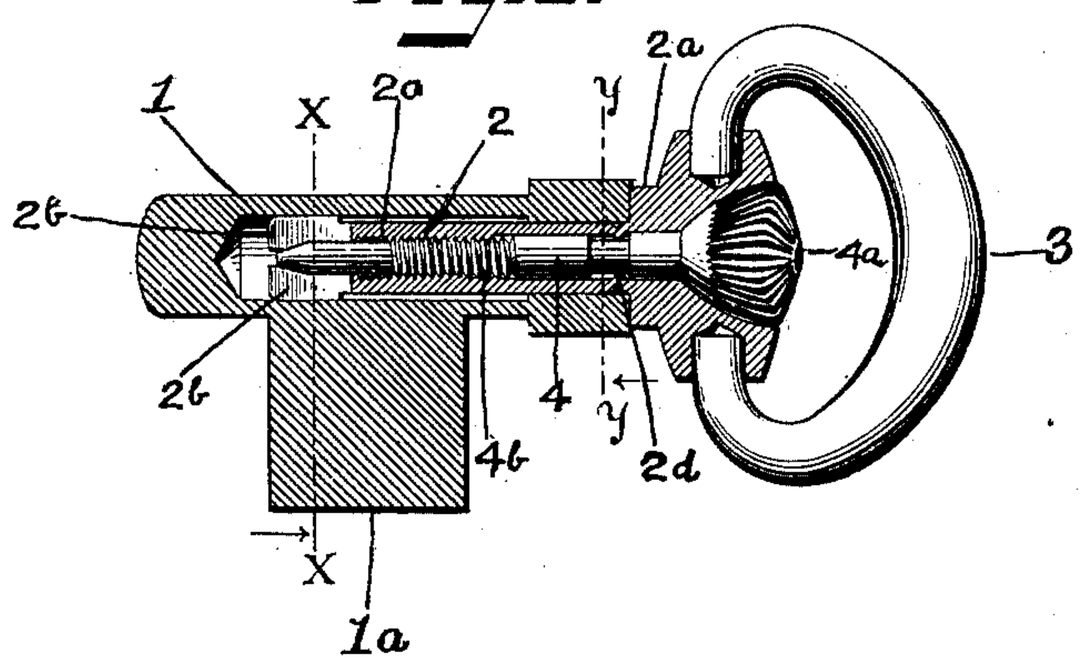


Fig. 2.

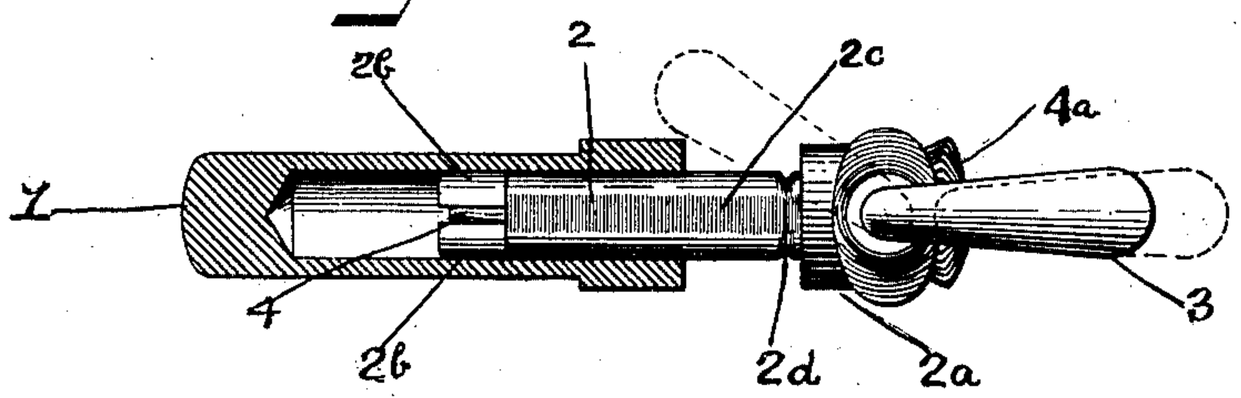


Fig. 3.

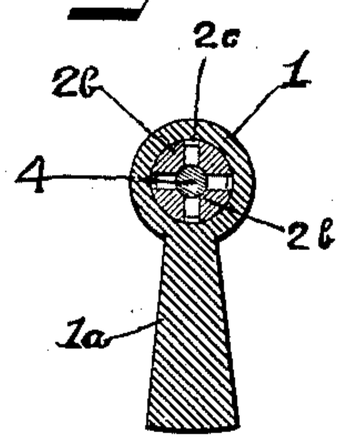
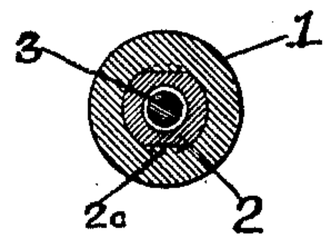


Fig. 4.



Witnesses:
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By his Attorney
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No. 756,830. Patented April 12, 1904.

UNITED STATES PATENT OFFICE.

CHARLES J. CALEY, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ADJUSTABLE KEY.

SPECIFICATION forming part of Letters Patent No. 756,830, dated April 12, 1904.

Application filed January 19, 1904. Serial No. 189,662. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. CALEY, a citizen of the United States, residing at New Britain, Hartford county, and State of Connecticut, have invented certain new and useful Improvements in Adjustable Keys, of which the following is a full, clear, and exact description.

My invention relates to keys, and particularly to that class of keys used with locks for sliding doors.

The main object of my invention is to provide a key which will be adapted for use in connection with sliding doors of different thicknesses; and it consists of a simple means whereby the length of the key-shank may be adapted to the width of the door.

In the drawings, Figure 1 is a longitudinal section of a key, the bow and clamp-knob being shown in full. Fig. 2 is a plan view of the same structure, the body being shown in section. Fig. 3 is a cross-section on the plane of the line *x x*, Fig. 1. Fig. 4 is a cross-section on the plane of the line *y y*, Fig. 1.

1 is the main body of the key carrying the bit or bit-head 1^a.

2 is a stem slidably supported by body 1, said stem having a longitudinal passage therein.

3 is a bow suitably attached to head 2^a of stem 2. This bow in the form shown constitutes a handle for turning the key. The inner end of stem 2 is split to form expansion jaws 2^b of any desired number.

4 is a pin-wedge having a handle 4^a, the head of which may be knurled. The body of the pin-wedge may bear a screw-thread 4^b, which takes into an internally-threaded portion of stem 2.

To prevent rotative movement of stem 2 with relation to body 1, portions of its surface, as at 2^c, are flattened to take against correspondingly-flattened portions of the upper wall of a recess within body 1. A portion only of the stem 2 is flattened, leaving that part of the stem adjacent to the jaws 2^b in its original form to form a stop-shoulder, as best seen in Fig. 1. When the stem has been inserted into the body, the butt-end of the latter may be pressed down or swaged to provide a second stop-shoulder. The engagement of these shoulders prevents stem 2 from being entirely withdrawn from body 1. The disengagement of stem 2 and pin-wedge 4 is prevented by reducing the diameter of the pin-wedge and by indenting the wall of the stem adjacent thereto to form the stop-shoulder 2^d. This reduced portion of the pin-wedge is of sufficient length to allow pin-wedge 4 sufficient freedom of longitudinal movement to permit it to perform the function of expanding the jaws 2^b. The manner of forming the various stop-shoulders is of course immaterial.

In operation the tapered end of the pin-wedge 4 serves to expand the split end of stem 2, impinging the jaws thereof tightly against the inner wall of the recess within body 1, thus setting the stem therein at any desired position, and thereby adjusting that portion of the key which constitutes the shank so that it may be of any desired length.

What I claim is—

1. In a key, a main body portion, a stem slidably supported thereby, and adjustable relatively thereto, and means extending longitudinally through said stem for locking said parts against movement relatively to each other, said means being operative from the handle end of the key.

2. An adjustable key comprising a main body portion, a telescopic stem, a loop-like bow and a setting member having a head within said bow, substantially as described.

3. In a key, a main body portion, a telescopic stem slidably mounted therein, means for holding said parts against independent rotation, spring-jaws on one of said parts arranged to coact with the other part and means for operating said jaws for locking said parts against longitudinal movement.

4. In a key, a main body, a telescopic stem adjustably mounted therein, means for locking said parts against independent rotation, jaws on the inner end of said stem and manually-operated means for expanding said jaws

and locking said parts against independent longitudinal movement in their various adjustments.

5. In a key, a shank adjustable as to length, said shank comprising a tubular body and a stem telescopically mounted therein, jaws at the inner end of said stem, a pin-wedge passing through said stem and arranged to operate said jaws and a handle for said pin-wedge accessible at the outer end of said stem.

Signed at New Britain, Connecticut, this 16th day of January, 1904.

CHAS. J. CALEY.

Witnesses:
M. S. WIARD,
C. E. RUSSELL.