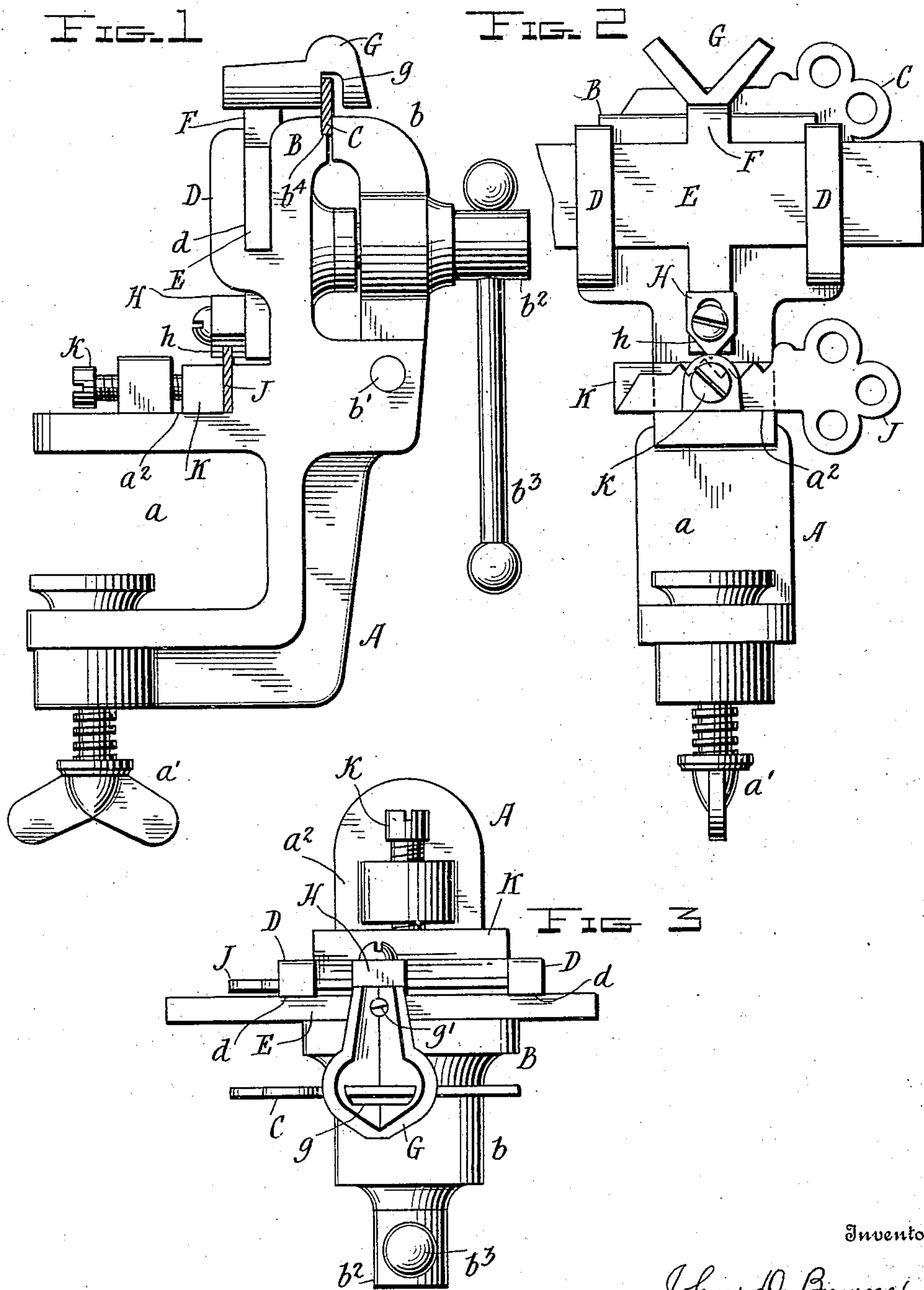


No. 870,218.

PATENTED NOV. 5, 1907.

J. D. BOWNE.
KEY FILING DEVICE.
APPLICATION FILED NOV. 16, 1906.



Witnesses
J. L. [Signature]
Richard C. Balingier.

By

Inventor
John D. Bowne,
Edwin Guthrie.
Attorney

UNITED STATES PATENT OFFICE.

JOHN D. BOWNE, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JOHN WALLACE SLAWSON,
OF NEW YORK, N. Y.

KEY-FILING DEVICE.

No. 870,218.

Specification of Letters Patent.

Patented Nov. 5, 1907.

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To all whom it may concern:

Be it known that I, JOHN D. BOWNE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Key-Filing Devices, of which the following is a specification.

My invention relates to key-filing devices, and has for its object the production of a combination of clamping contrivances having particular construction and arrangement, whereby there may be conveniently and suitably held, the blank to be filed, and the pattern to be followed.

My invention includes also a vertically-movable and horizontally-movable and guided member designed to follow the pattern and at the same time to indicate, by its position with respect to the blank, where the essential cuts are to be made and of what depth.

I accomplish the stated objects by fashioning and associating parts as illustrated in the accompanying drawings, of which

Figure 1 represents a side view of all parts assembled, Fig. 2 being a back view, and Fig. 3 a top plan view.

Like letters of reference are used to designate like parts throughout.

In the preferred embodiment of my invention I construct a vise-frame A having a recess *a* and clamping screw *a'* by which the frame may be secured to a bench or other support.

The upper part of the frame is formed into an abutment B which constitutes the stationary jaw of a vise, the pivoted jaw being marked *b* and pivotally connected to a suitably projecting portion of the front of the frame by means of pin *b'*. The screw of the vise is designated by the character *b²* and the handle bar by *b³*. The office of the vise is to clamp in a certain fixed position the key blank desired to be filed. A key blank is shown in the vise and bears the reference letter C.

Considering now the back view, Fig. 2, in connection with Fig. 1, it will be noted that there are formed integrally with frame A and projecting rearwardly two bracket lugs D, each provided with recesses *d* open at the top and adapted to receive a cross-plate E, which is made to fit the recesses *d* movably. It is thought to be clear that the plate E may be moved vertically and horizontally in the recesses. The plate carries a vertical bar F, usually formed integrally with the plate, and, obviously partaking of any movements of the plate. At the upper end of the bar F is attached the file guide G, in this instance a V-shaped trough having a transverse recess *g* through its lower edge adapted to receive the key blank edge as illustrated, and indicating visually the position and size of the cut on both

sides of the key blank. The file guide is removably secured to bar F by screw *g'*, in order that it may be replaced by a guide of different shape when desired. At the lower end of vertical bar F, there is adjustably secured the follower block H, provided with a wedge-shaped end *h* that is arranged to enter the correspondingly formed notches of a key pattern J, shown in the drawings as clamped, notched edge up, and in position to engage block H. Pattern J is held by the clamping plate K and set screw *k* provided as shown at the back of frame A.

In connection with the explanation of the mode of operation of this invention, attention is called to the fact that there is sufficient distance between the guide brackets D to permit the follower block H to be moved sidewise from end to end of the notched portion of pattern J. Hence, it is thought to be clear, that the edge *h* of block H may be placed in any notch of the pattern, whereupon the file guide G, being rigidly attached to the part bearing the block, will be moved correspondingly. It is not essential that the pattern and the key blank should be arranged vertically one over the other, but it is necessary that they should be parallel throughout with respect to their surfaces and edges, and that the vertical distance from edge *h* to the lowest point of the V-shaped passage of guide G should be accurately equal to the vertical distance from the upper edge of an unnotched portion of the pattern to the upper edge of the key blank before it has been cut. Thus, when the block H is placed in any notch of the pattern key the V-shaped channel of the guide G will indicate the depth of the notch to be cut in the blank, and by moving the plate E sidewise all the notches of the pattern may be indicated on the blank in number, size and position. To insure the necessary parallelism just mentioned, there is provided in the face of abutment or stationary jaw B of the vise a recess *b⁴* which receives part of the thickness of the blank, and, the surface *a²* of frame A upon which clamping plate K slides is finished carefully parallel with the bottom of the recess.

Having now described my invention and explained the manner of operating it, what I claim is—

1. In a key-filing device, the combination with a key blank clamp, of a pattern key clamp located at a lower point than the said key blank clamp, a movable member, means constructed and arranged to guide the said movable member vertically and horizontally, an adjustable block secured to the said movable member and having a portion adapted and disposed to follow the shape of the key, and a file guide having a recess in its bottom adapted to admit the key blank, the said file guide being secured to the said movable member whereby the said file guide is moved with respect to the key blank in correspondence with the shape of the pattern key and the depth and extent of the various cuts to be made indicated on the key blank, substantially as described.

2. In a key-filing device, the combination with a key blank clamp, of a pattern key clamp located at a lower point than the said key blank clamp, a movable member, means constructed and arranged to guide the said movable member vertically and horizontally, an adjustable block secured to the said movable member and having a portion adapted and disposed to follow the shape of the key, and a file guide, the said file guide being secured to the said movable member whereby the said file guide is moved with respect to the key blank in correspondence with the shape of the pattern key and the depth and extent of the various cuts to be made indicated on the key blank, substantially as described.
3. In a key-filing device, the combination with a key blank clamp, of a pattern key clamp, the said clamps being arranged to hold the said blank and pattern parallel, a file guide having the form interiorly of the variations in the pattern, a device adapted to engage the variations of the pattern, and means constructed and arranged to carry the said file guide and said device and give both the same movements, the said file guide being adapted to be pre-

sented transversely to the key blank and moved along the surface of the blank thereby indicating visually on the blank the extent and depth of the various cuts to be made, substantially as described.

4. In a key-filing device, the combination with a key blank clamp, of a pattern key clamp, a file guide having the form interiorly of the variations in the pattern, a device adapted to engage the variations of the pattern, and means constructed and arranged to carry the said file guide and said device and give both the same movements, the said file guide being adapted to be presented transversely to the key blank and moved along the surface of the blank thereby indicating visually on the blank the extent and depth of the various cuts to be made, substantially as described.

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

JOHN D. BOWNE.

Witnesses:

R. B. HOPKINS,
ANNA SCHMIERMUND.