

(No Model.)

T. YOUNG.
SELF LOCKING KEY.

No. 321,565.

Patented July 7, 1885.

Fig 1

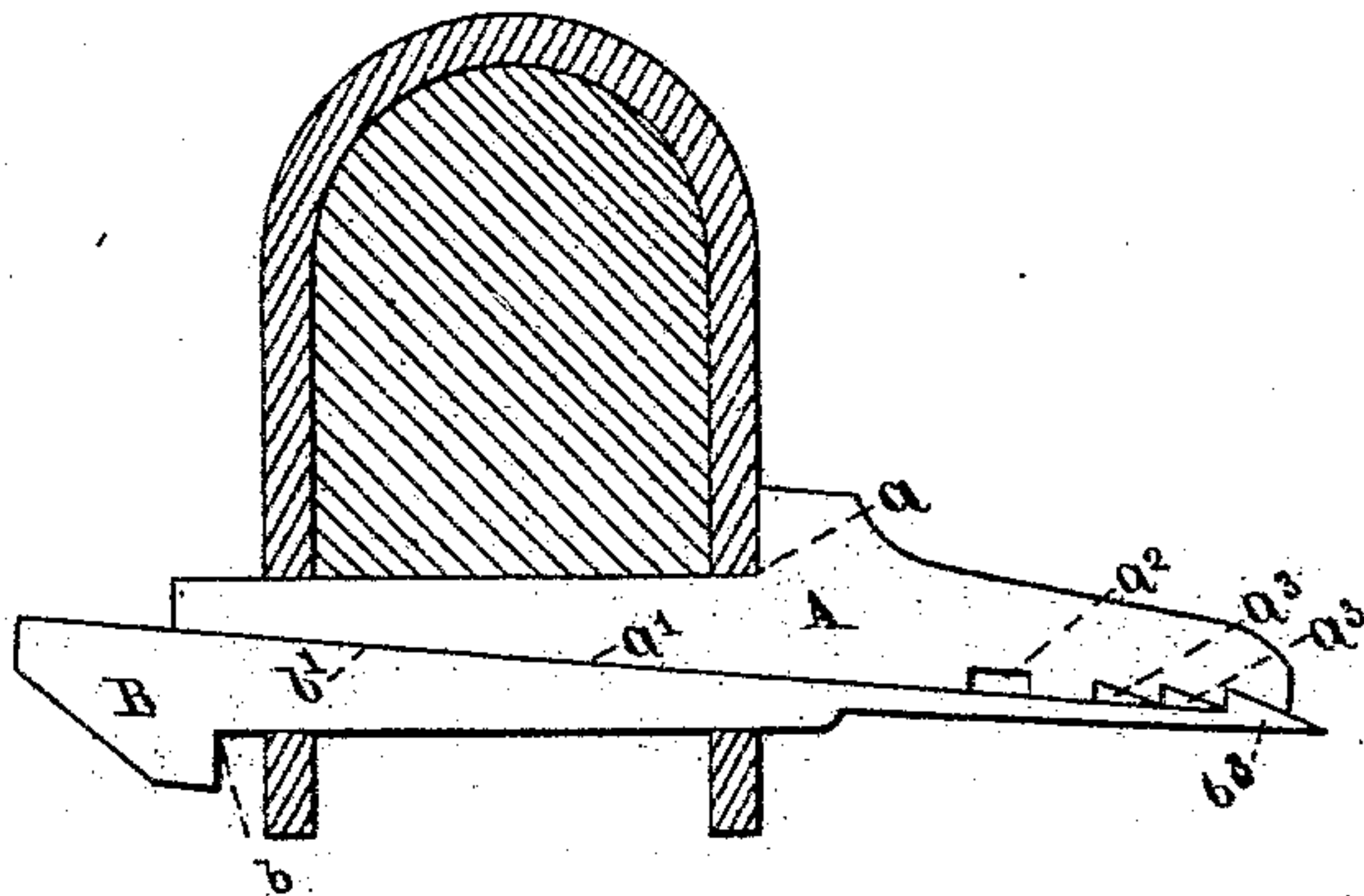


Fig 2

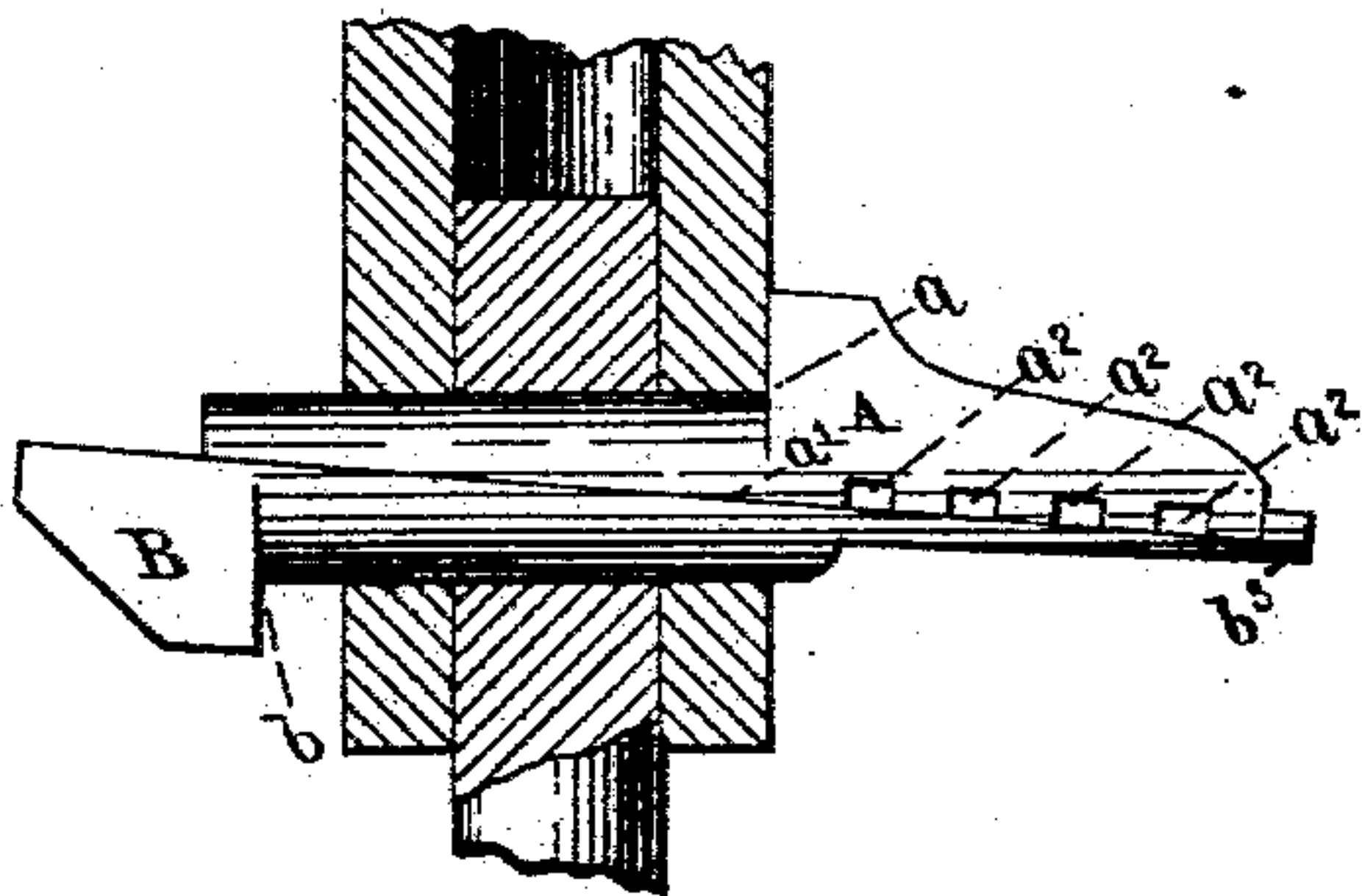


Fig 3

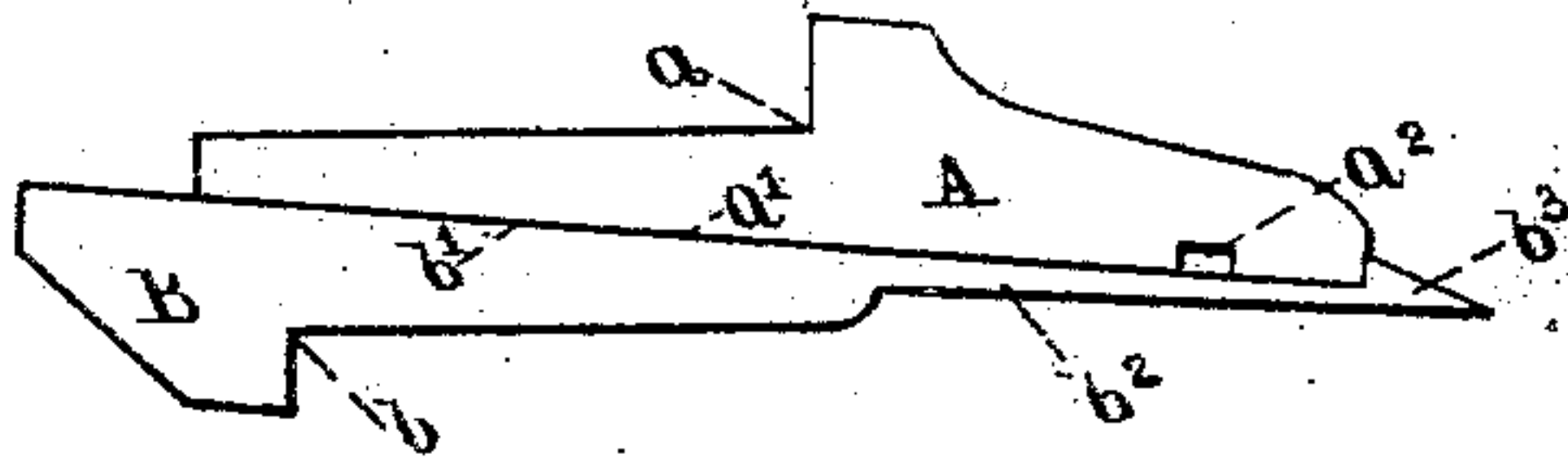


Fig 4

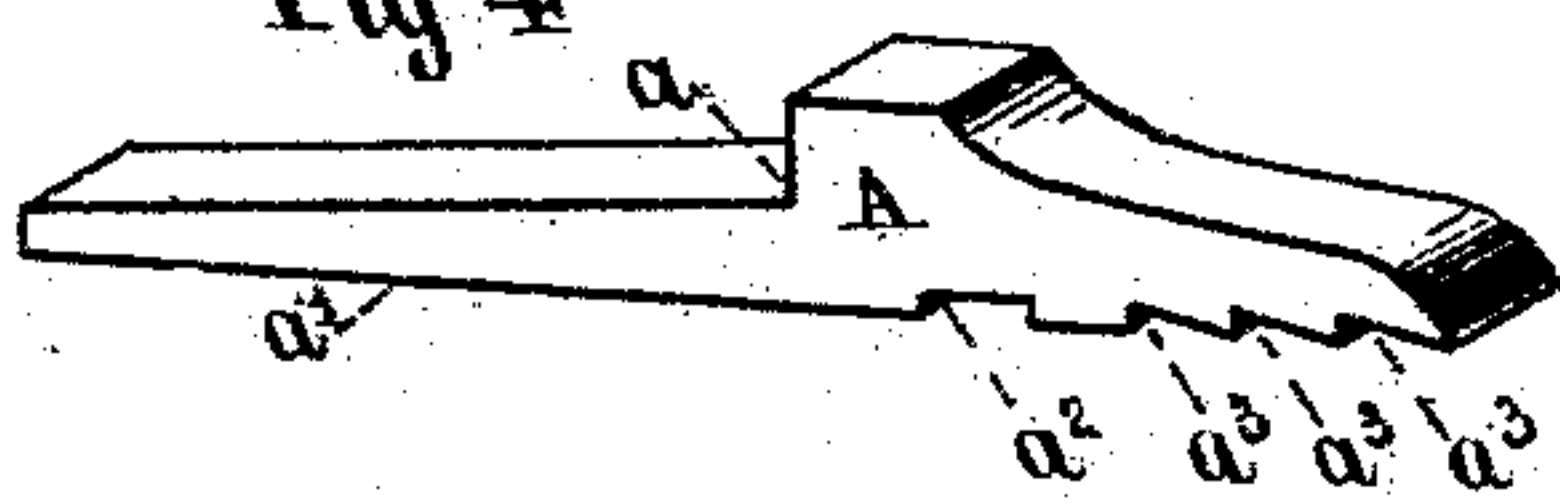


Fig 5

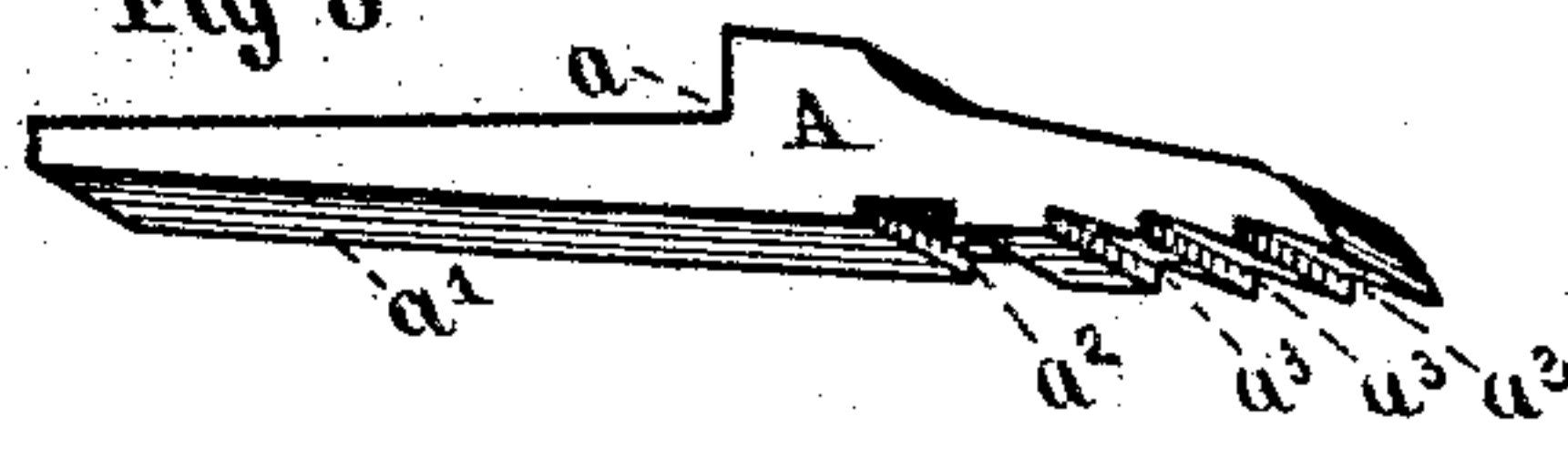


Fig 6

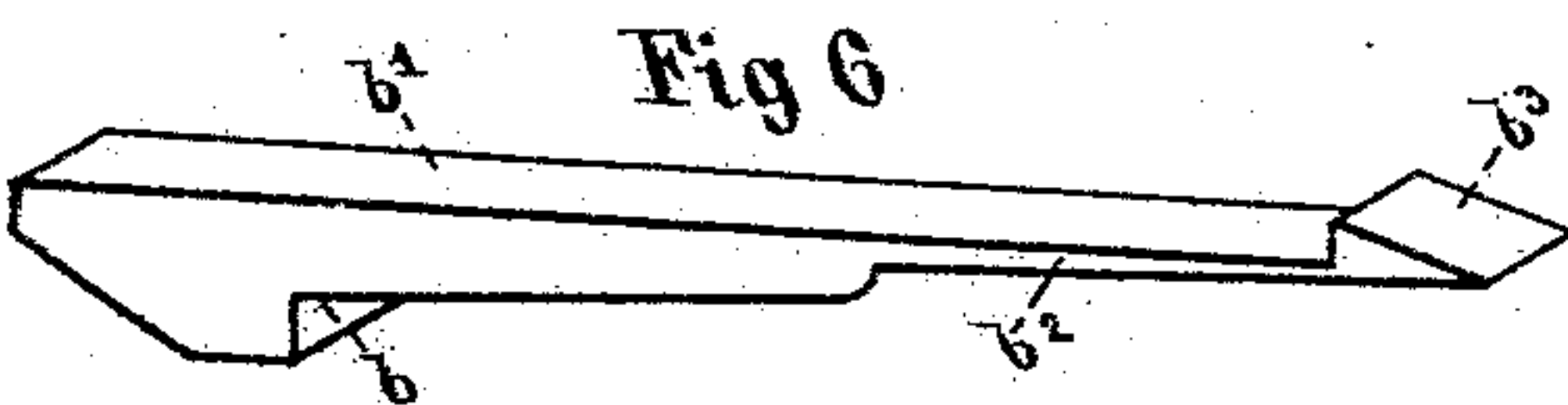


Fig 7

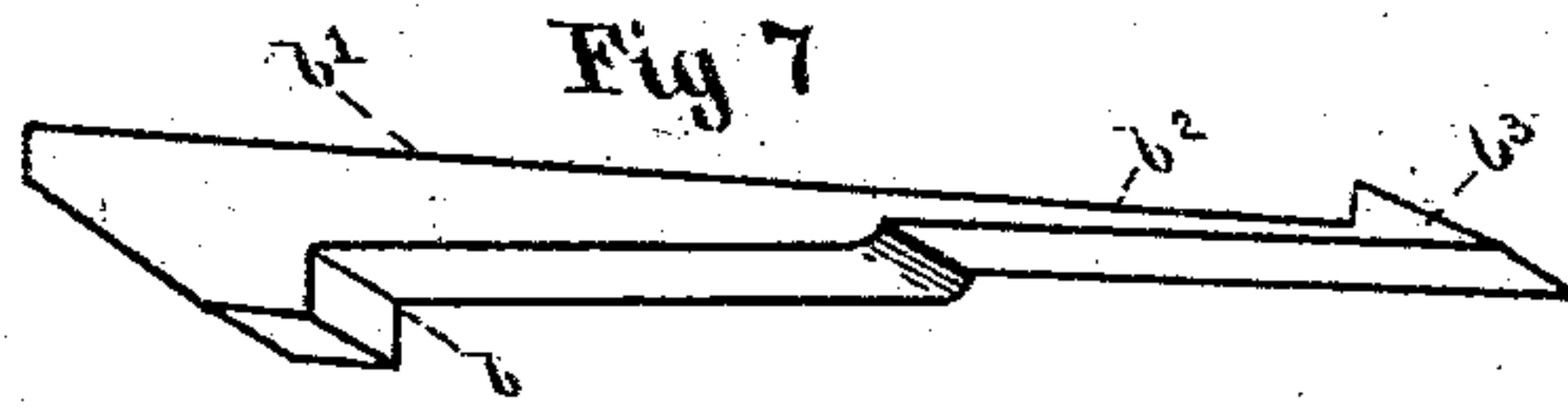


Fig 8

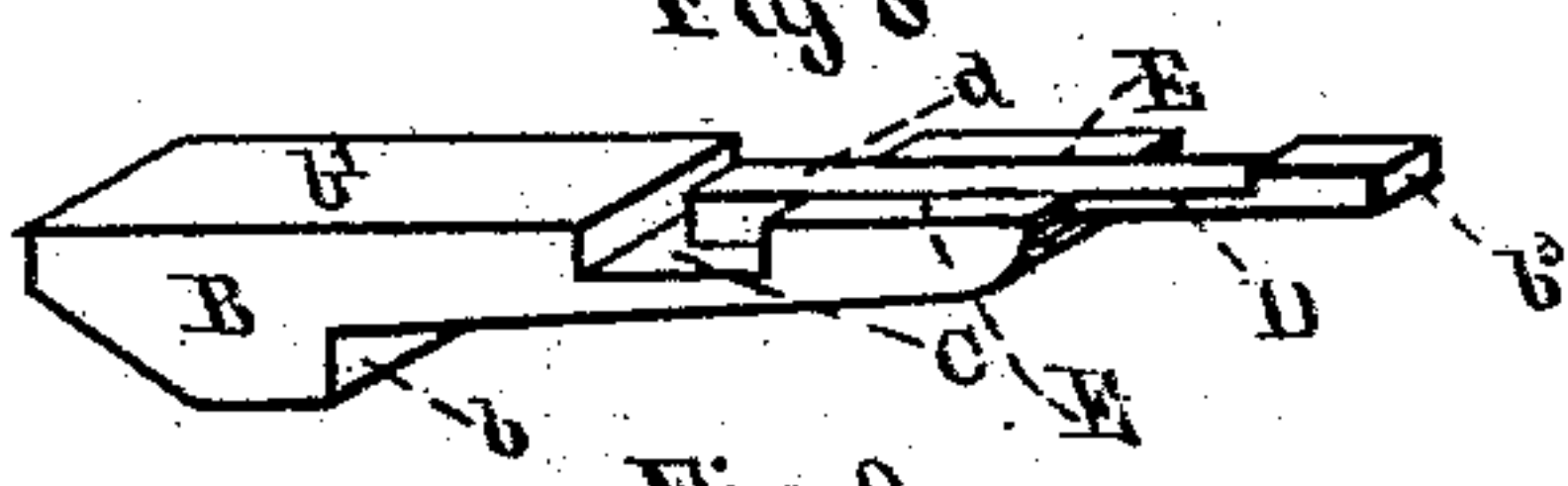
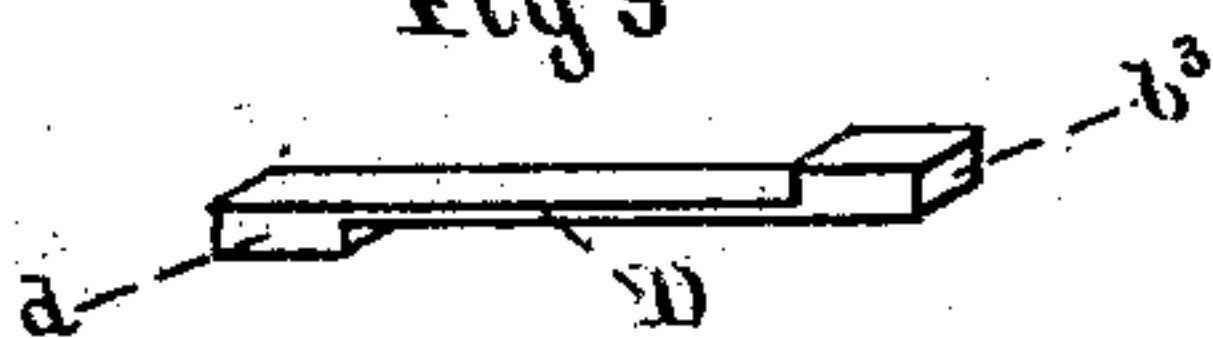


Fig 9



Witnesses;

Ben J. Haydon
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Inventor;

Thomas Young
By his Atty.
James C. Boyce

UNITED STATES PATENT OFFICE.

THOMAS YOUNG, OF BRADFORD, PENNSYLVANIA.

SELF-LOCKING KEY.

SPECIFICATION forming part of Letters Patent No. 321,565, dated July 7, 1885.

Application filed December 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS YOUNG, a citizen of the United States, residing at Bradford, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Self-Locking Keys; and I do hereby 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.

The object of my invention is to provide a self-locking key.

Figure 1 shows the key locked in place. Fig. 2 shows the key fitted in a round hole. Fig. 3 shows the lower part locked on the end of the upper part. Fig. 4 is a perspective top view of the upper part. Fig. 5 is a perspective bottom view of the upper part. Figs. 6 and 7 are perspective views of the upper and lower surfaces of the lower part. Figs. 8 and 9 show another form of the lower part.

The key consists of two parts, of which A is the upper and B the lower part. The upper part, A, is made with a square shoulder, as shown at a , and with an inclined slope, a' , on its lower side. The upper part has one or more notches, either square, as shown at a^2 , or wedge-shaped, as shown at a^3 . The lower part, B, is made of the shape shown in the drawings, with a square shoulder, b , and its upper surface tapering from the shoulder, as shown at b' . The extreme end of the key b^2 is drawn down comparatively thin, so as to bend freely, and should be made of sufficient elasticity to spring back to its place. It terminates with the tooth b^3 , which may either be wedge-shaped, as shown in Figs. 1, 3, 6, and 7, or square, as shown in Figs. 2, 8, and 9. The object of the tooth b^3 is to lock in the depressions a^2 and a^3 or over the end of the upper part, A. When put together, both parts may be inserted in the aperture together, or the lower part, B, may be first put in, and the upper part, A, then be driven to its place until the tooth b^3 engages in one of the depressions a^3 or slips over the end of A. The

parts are then firmly locked together, and cannot be displaced until the tooth b^3 is sprung far enough to disengage its hold. When it is desired to remove the key, the flexible part b^2 is sprung down by a pressure upon it, or on the tooth b^3 , or by inserting a nail or other article in the cavity a^2 , and thereby springing the tooth b^3 sufficiently to disengage its hold and allow the upper part, A, to be withdrawn. The lower part, B, may be made, as shown in Fig. 8, with an insertible portion made of two teeth, b^3 and d , united by an elastic tongue, D, the tooth d being placed in the transverse groove C, and the tongue D lying in the channel E. The action of this form is the same as the other.

For convenience of explanation, I have termed the part A the "upper" and the part B the "lower" part of the key; but it is evident that either part can be used upward with the same effect. As the two parts are shown in the drawings, they should enter from opposite sides of any aperture in which they are inserted; but it is plain that by changing the slopes both parts could be inserted from the same side with the same effect.

I do not limit myself to keys having the shoulders a' and b' , although I prefer that one or both of the parts should be provided with such shoulders; but the object of my invention will be attained if those shoulders are not employed.

What I claim as my invention is—

1. A key made in two parts, one part provided with an elastic tongue, either fixed or removable, having a projecting tooth adapted to lock over the end of or into a depression in the other part, substantially as shown and described.

2. The part B of a self-locking key, provided with an elastic tongue, either fixed or removable, having a tooth, b^3 , substantially as shown and described.

THOMAS YOUNG.

Witnesses:

M. L. LYNCH,
JAMES C. BOYCE.