

No. 646,228.

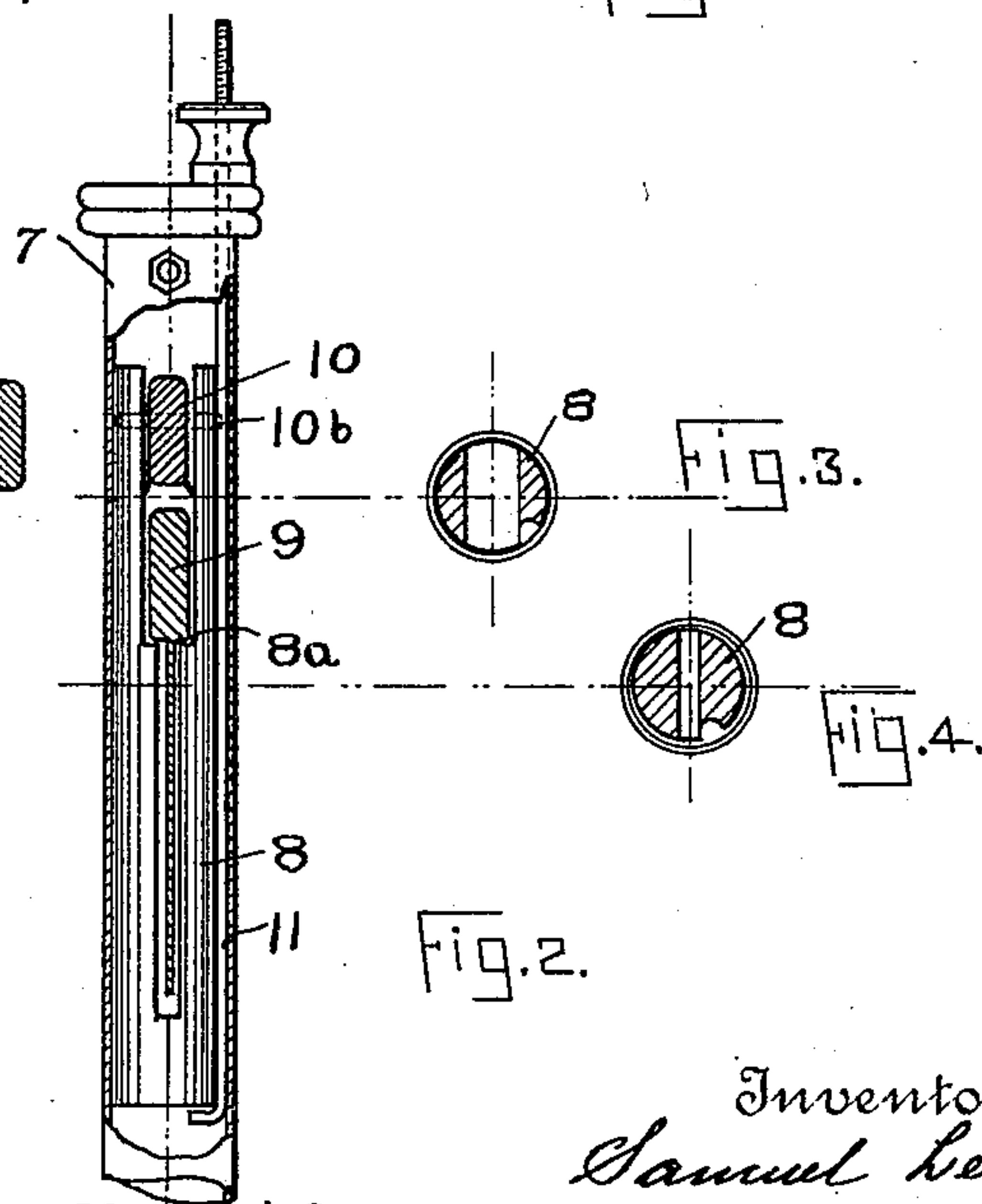
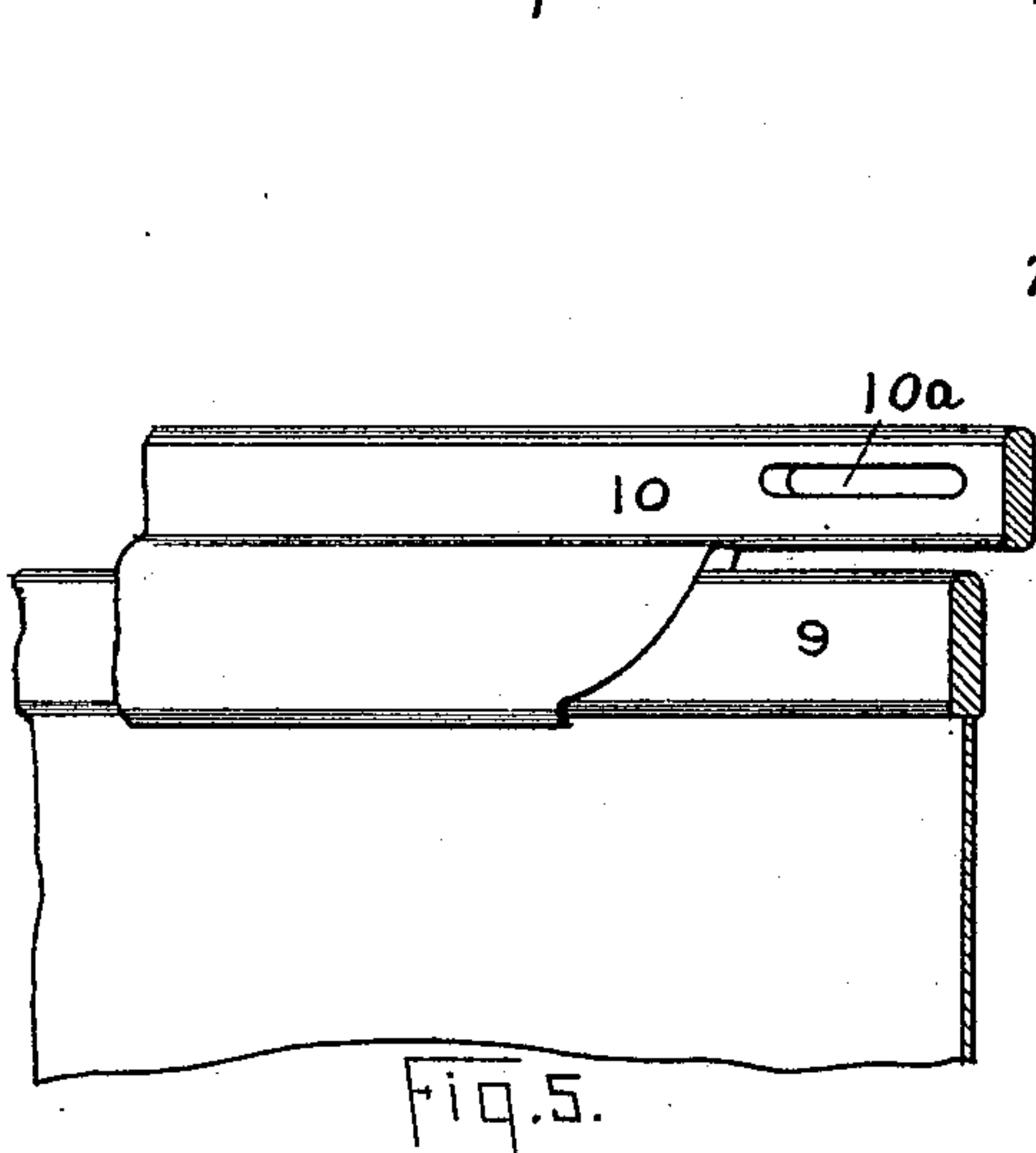
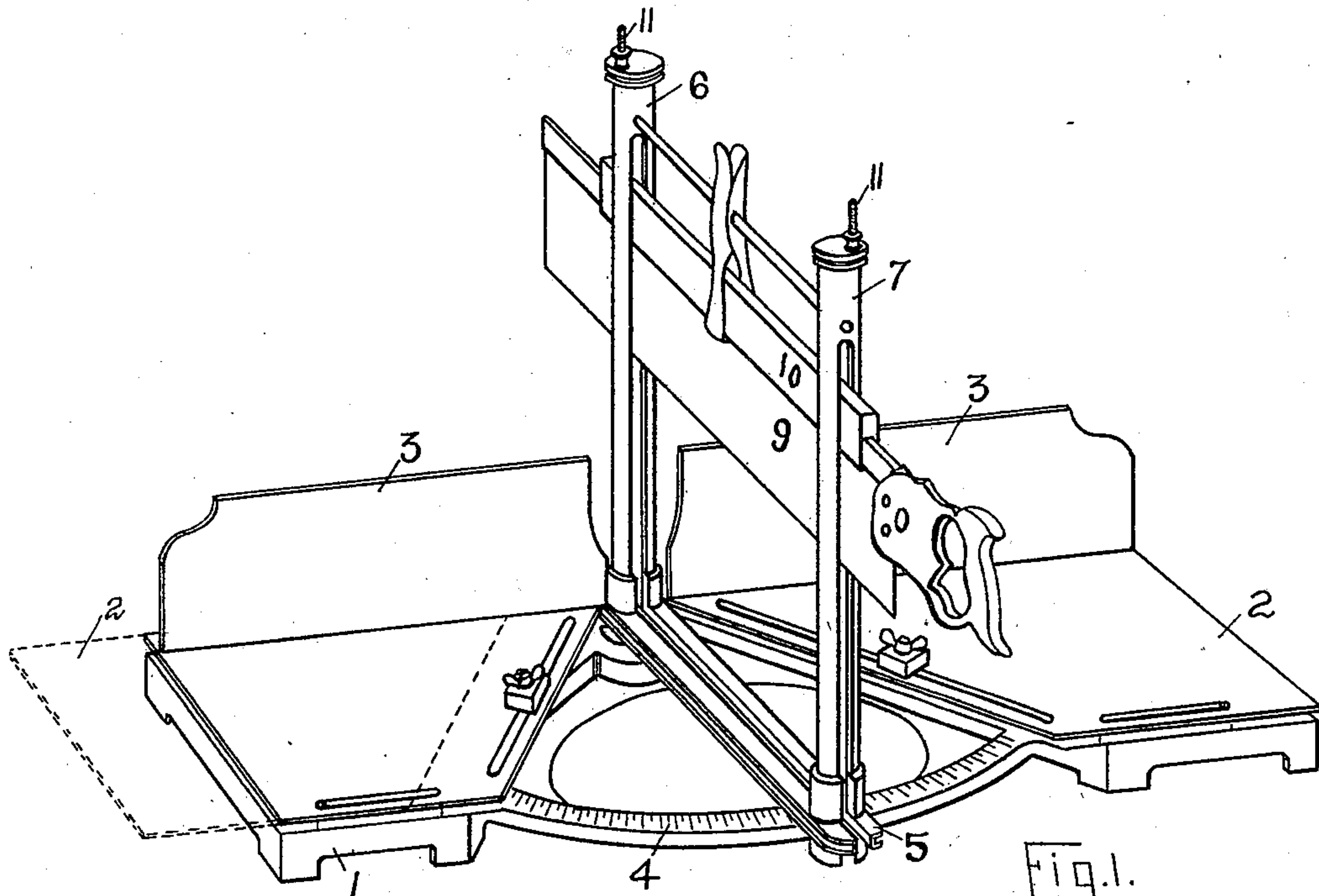
Patented Mar. 27, 1900.

S. LEVAN.  
MITER BOX.

(Application filed Mar. 20, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
William Stephens  
W. Nicholson

By *his* Attorney

Inventor  
Samuel Levan  
Geo. B. Willcox

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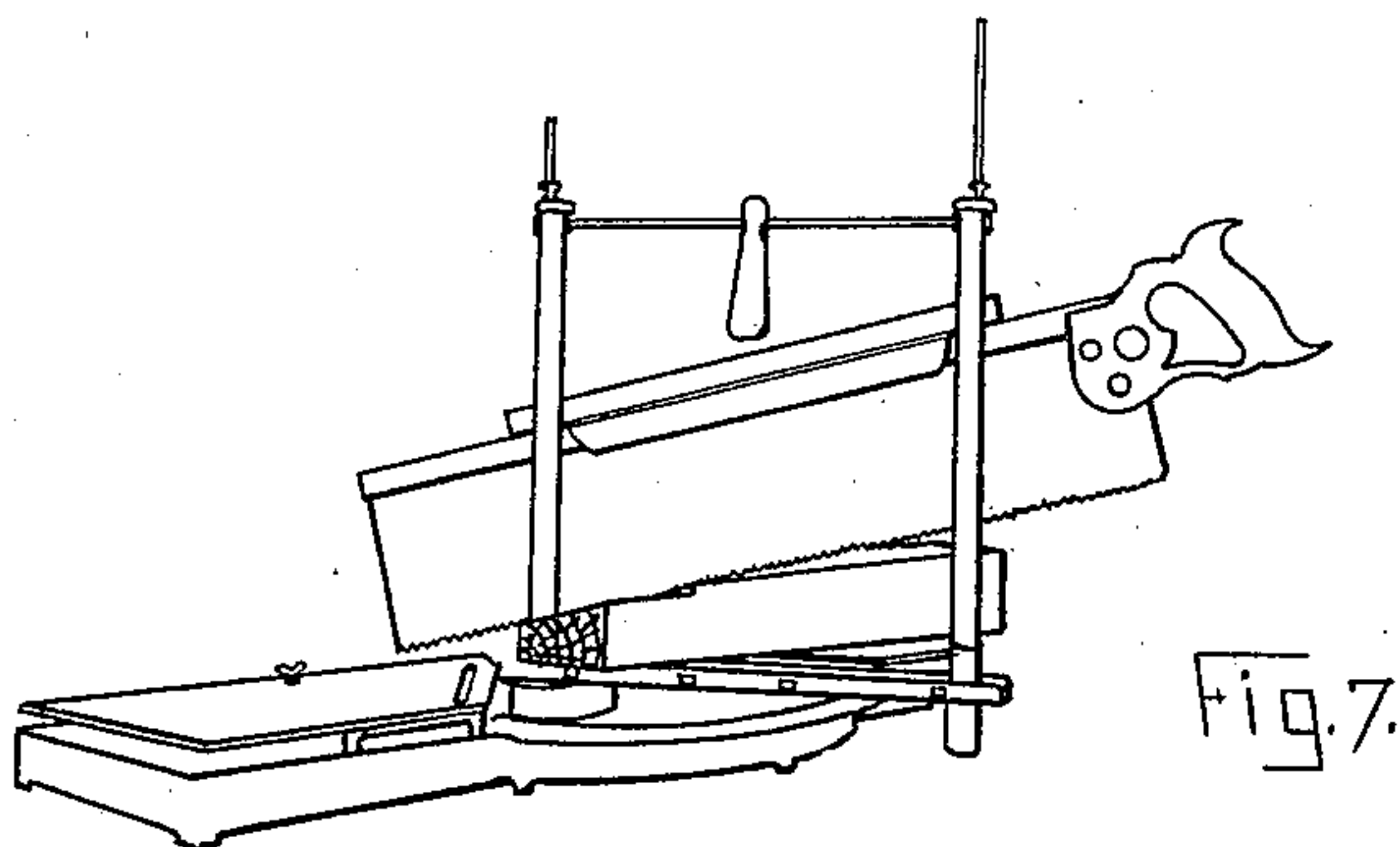
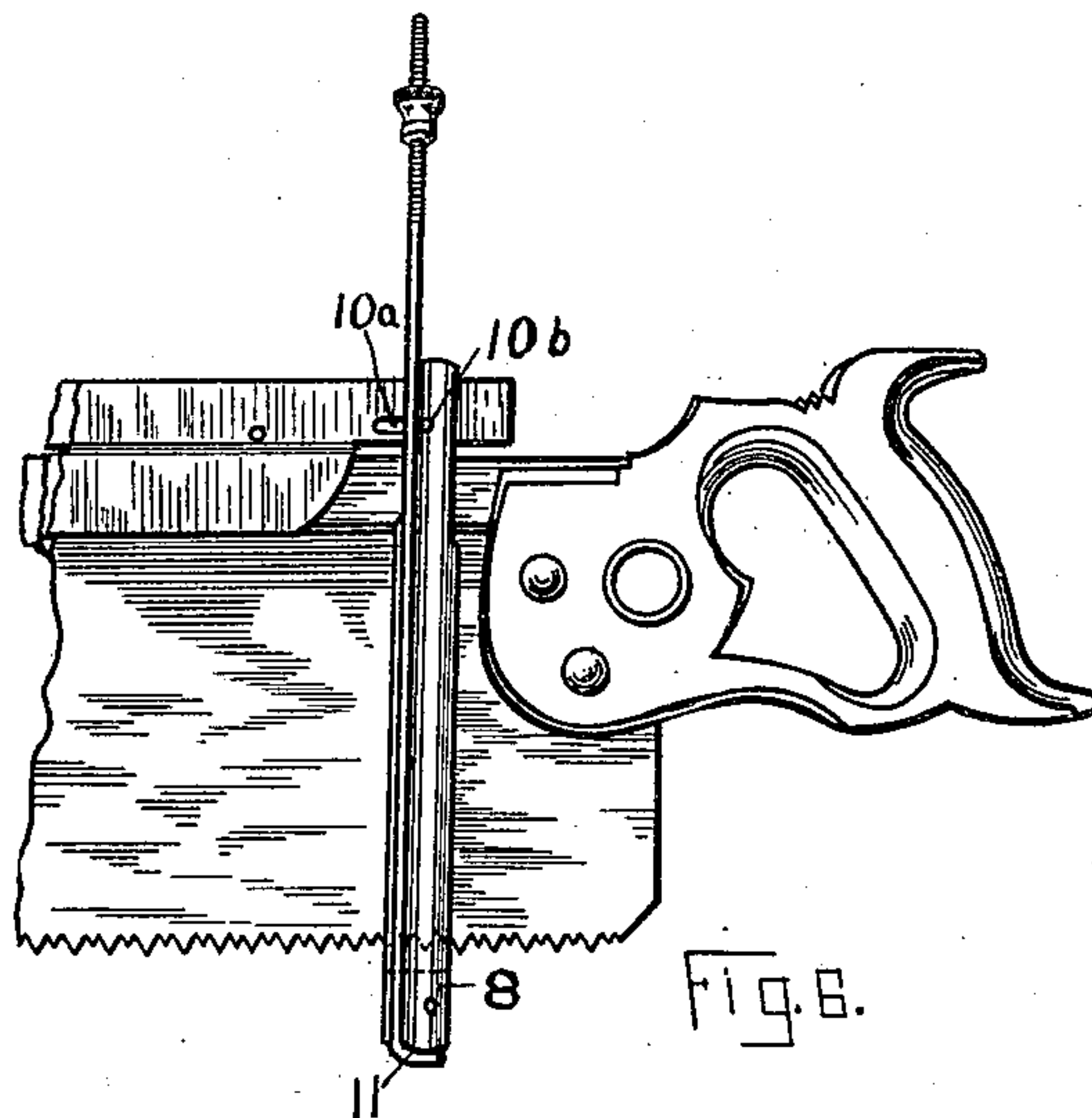
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2 Sheets—Sheet 2.



Witnesses  
William Stephens  
W. Nicholson

Inventor  
Samuel Levan  
By his Attorney  
Geo. B. Wilcox



# UNITED STATES PATENT OFFICE.

SAMUEL LEVAN, OF SAGINAW, MICHIGAN.

## MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 646,228, dated March 27, 1900.

Application filed March 20, 1899. Serial No. 709,769. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL LEVAN, a citizen of the United States of America, and a resident of the city and county of Saginaw, Michigan, have invented certain new and useful Improvements in Miter-Boxes, of which the following is a specification.

My invention relates to miter-boxes; and the improvements consist in certain constructions and arrangements of the parts of a miter-box whereby the objects of my invention are accomplished. These are, first, to provide a miter-box having a stationary work-table with means for adjusting the saw through a horizontal arc to cut various bevels and having means for permitting the saw to travel its full length without striking the parts of the miter-box; second, to provide means for holding one end or the other of the saw in an elevated or depressed position for cutting deeper at one edge of the piece than at the other, and, third, to so construct the table of the miter-box that wide angle bevels may be cut on a miter-box having a relatively-small arc.

A miter-box of the general type referred to is shown and described in Patent No. 542,738, issued to me on July 16, 1895.

I accomplish the purposes of the present invention by the means described in the following specification and illustrated in the accompanying drawings, throughout the several views of which similar characters of reference designate corresponding parts and devices.

Figure 1 is a front perspective of a miter-box embodying my improvements. Fig. 2 is a part-sectional view of one of the standards. Figs. 3 and 4 are transverse sections of the standard, taken on the lines indicated. Fig. 5 is a detail of the end of the saw-guide, showing the saw-blade in position. Fig. 6 shows the saw-adjusting mechanism. Fig. 7 is a perspective showing the position of the saw when set to cut a combined or skew miter.

As is clearly shown in the drawings, the device consists in a base 1, carrying a work-table 2, adapted to be moved laterally, as shown by the dotted lines in Fig. 1, to permit a greater arc of swing for the saw.

3 3 is the back of the miter-box, supported by the base 1, to which it may be secured by screws or otherwise.

4 is a circular segment having a scale for adjusting the saw. A pivoted bar 5 carries the vertical slotted standards 6 and 7, within which the saw-supporting blocks 8 move vertically. The blocks 8 are provided with longitudinal slits, through which the saw 9 and guide-bar 10 pass. The guide-bar 10 is provided at each end with an elongated slit 10<sup>a</sup>. A pin 10<sup>b</sup>, which passes through the upper end of the saw-supporting block 8, passes also through the slit 10<sup>a</sup>, thus supporting the guide 10, while admitting of its adjustment with one end higher or lower than the other for skew-mortising, as is shown in Fig. 7. The lower part of guide 10 has depending lips to engage and guide the back or bead of the saw 9. The weight of the saw does not rest on the lips, but is taken by the block 8, which is provided with shoulders 8<sup>a</sup>, as is shown in Fig. 2. The office of the depending lips is to guide the saw when it is being inserted in the miter-box and to prevent its striking the standard 6 when the saw is cutting with long strokes.

The guide-blocks 8 slide freely up and down in the hollow standards, the downward movement being limited by the inwardly-projecting end of a rod 11, that extends alongside the block 8 and is secured to the upper ends of standards 6 and 7 by a screw thread and nut or otherwise, so as to be vertically adjustable.

The saw is always free to be raised, and the depth of cut may be varied at will by adjusting the rods 11.

What I claim is—

In a miter-box, means for regulating the depth of the saw-cut, comprising in combination, hollow saw-guiding standards, saw-supporting slotted blocks vertically movable within said standards, a guide-bar connecting said slotted blocks and pivotally connected therewith by means that permits independent vertical movement of each block, and means, substantially as described for supporting and regulating the height of said blocks.

Signed by me in the city and county of Saginaw, Michigan, this 23d day of July, 1898.

SAMUEL LEVAN.

Witnesses:

A. H. SWARTHOUT,  
CHAS. FRANCE.