

(No Model.)

E. SHAW.

ADJUSTABLE VISE JAW.

No. 333,261.

Patented Dec. 29, 1885.

Fig. 1.

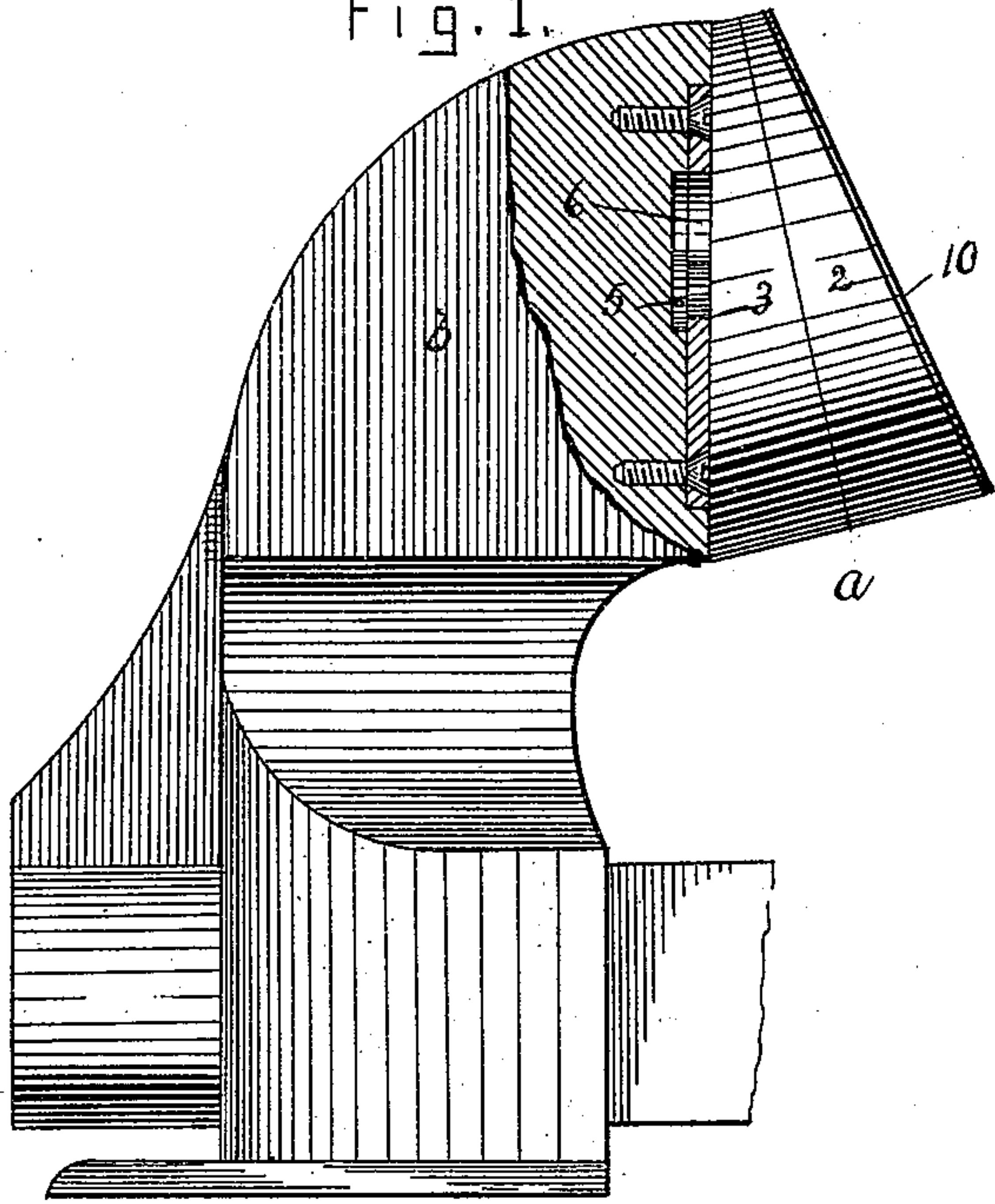


Fig. 2.

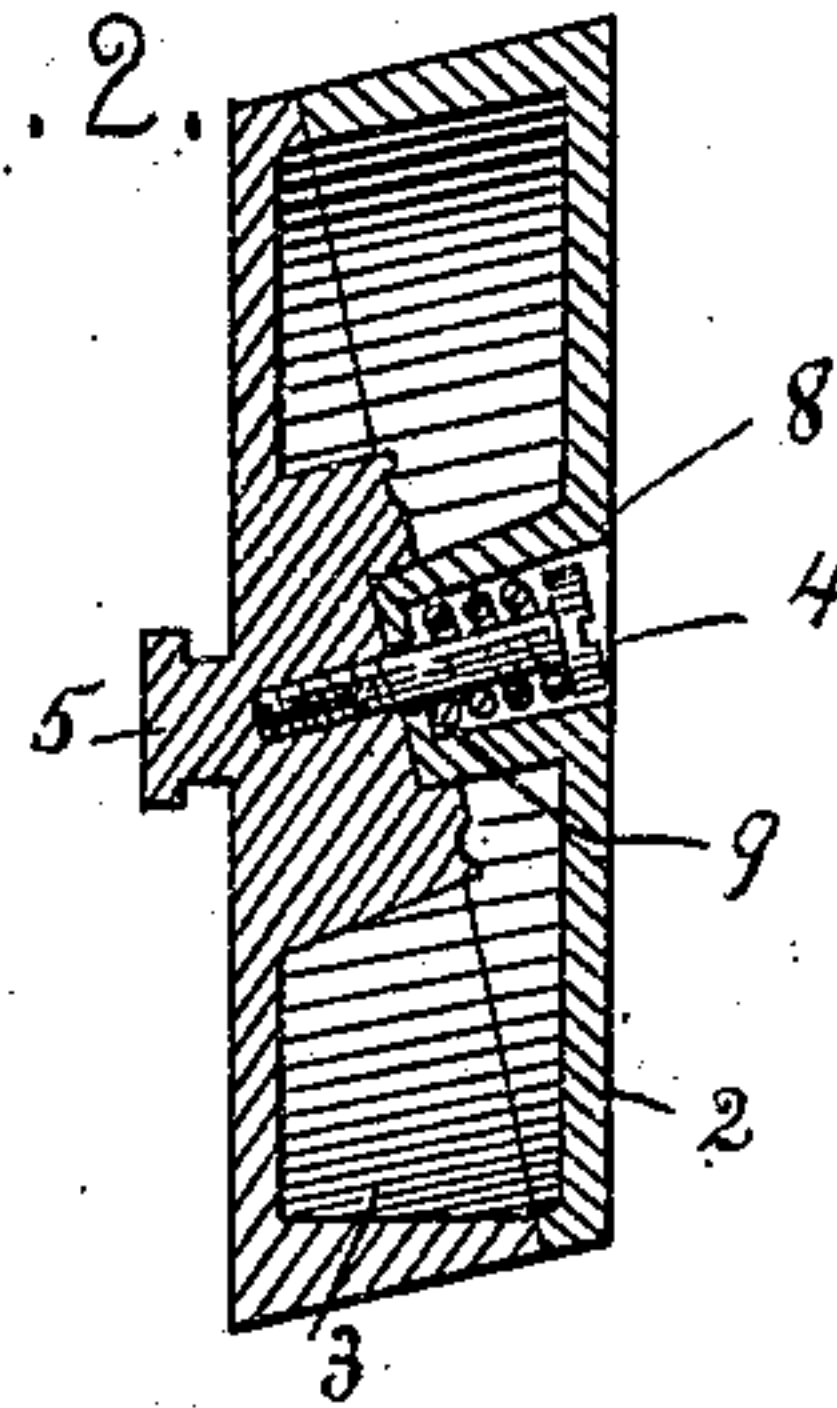


Fig. 3.

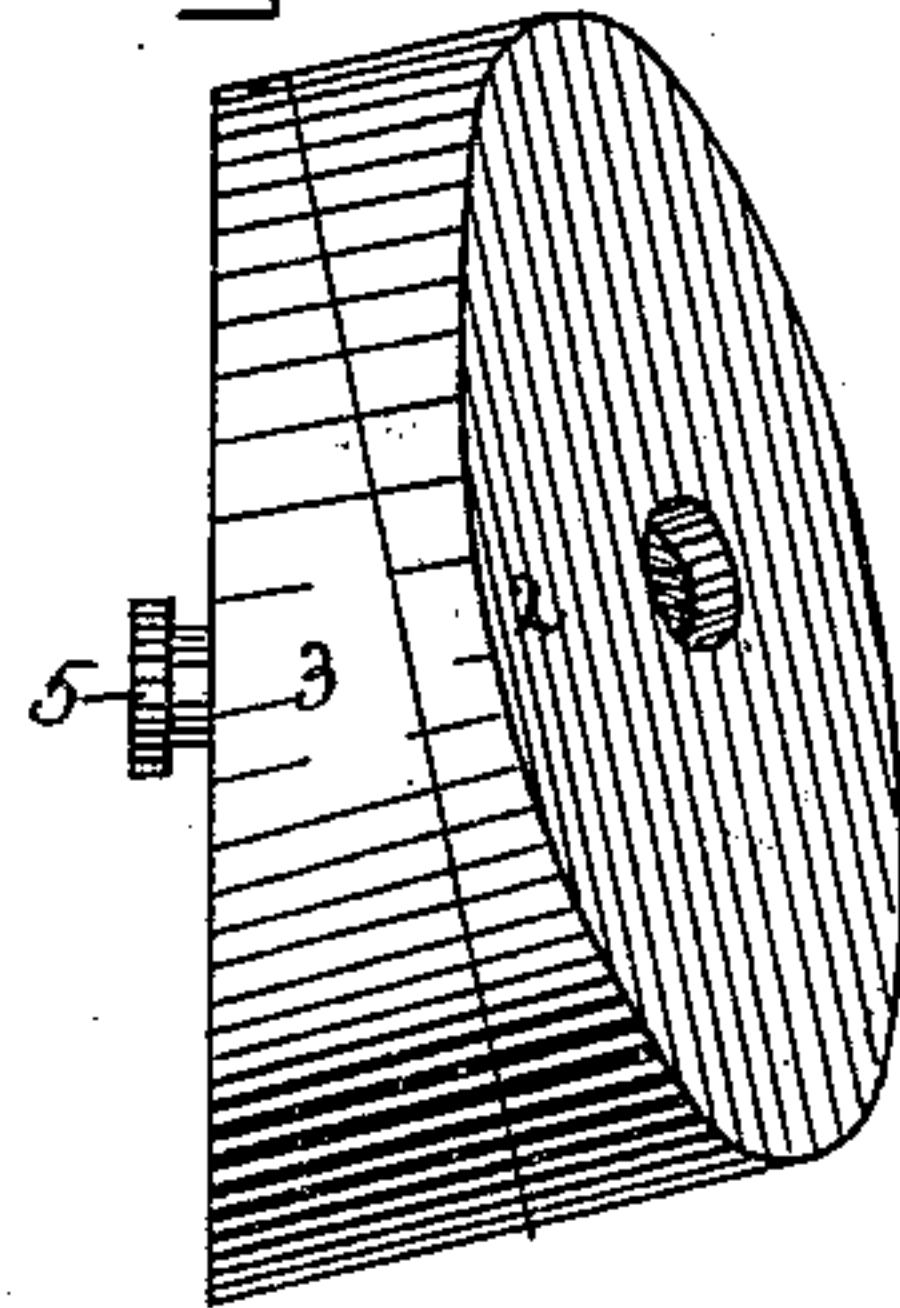


Fig. 4.

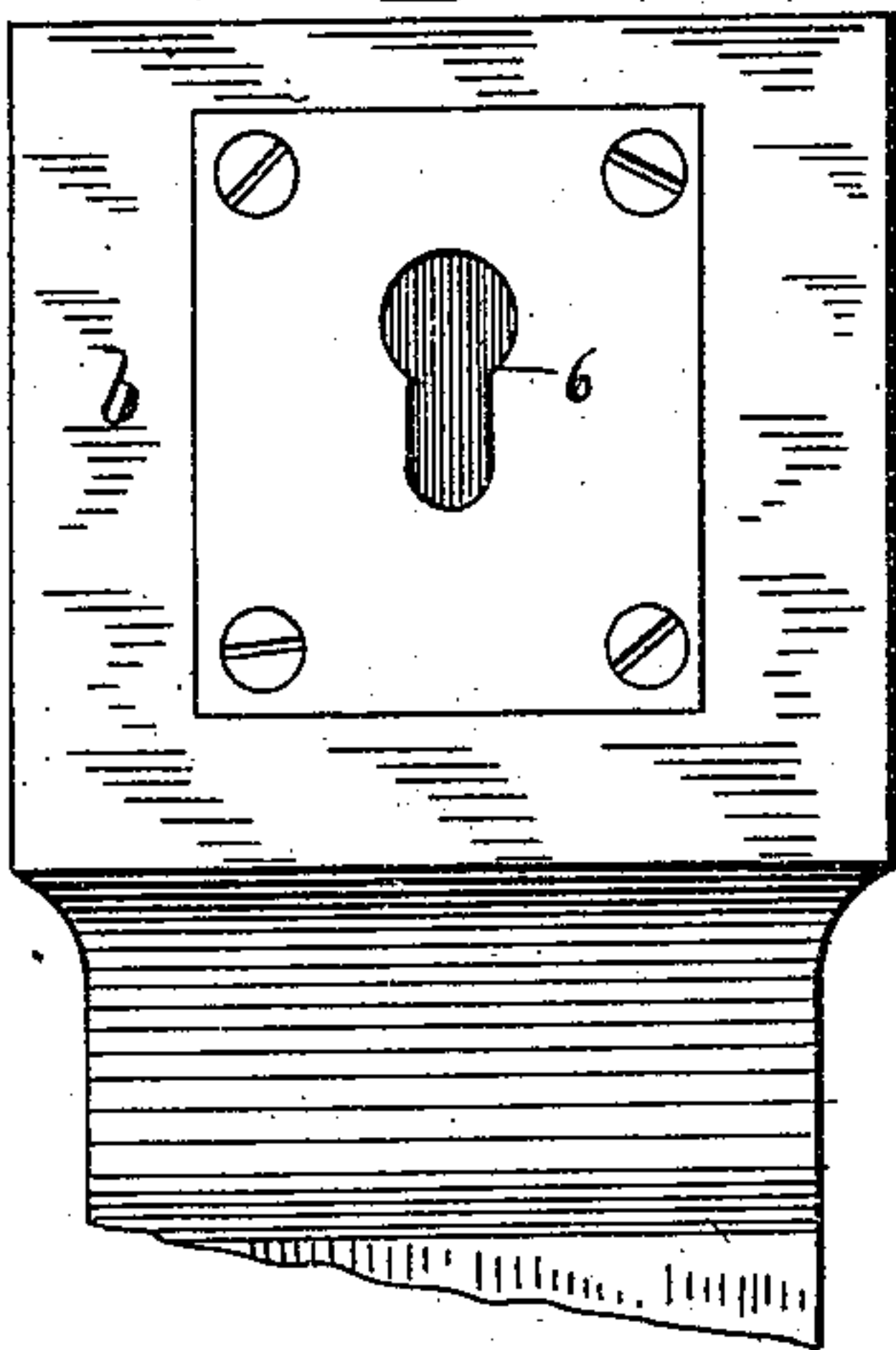


Fig. 5.

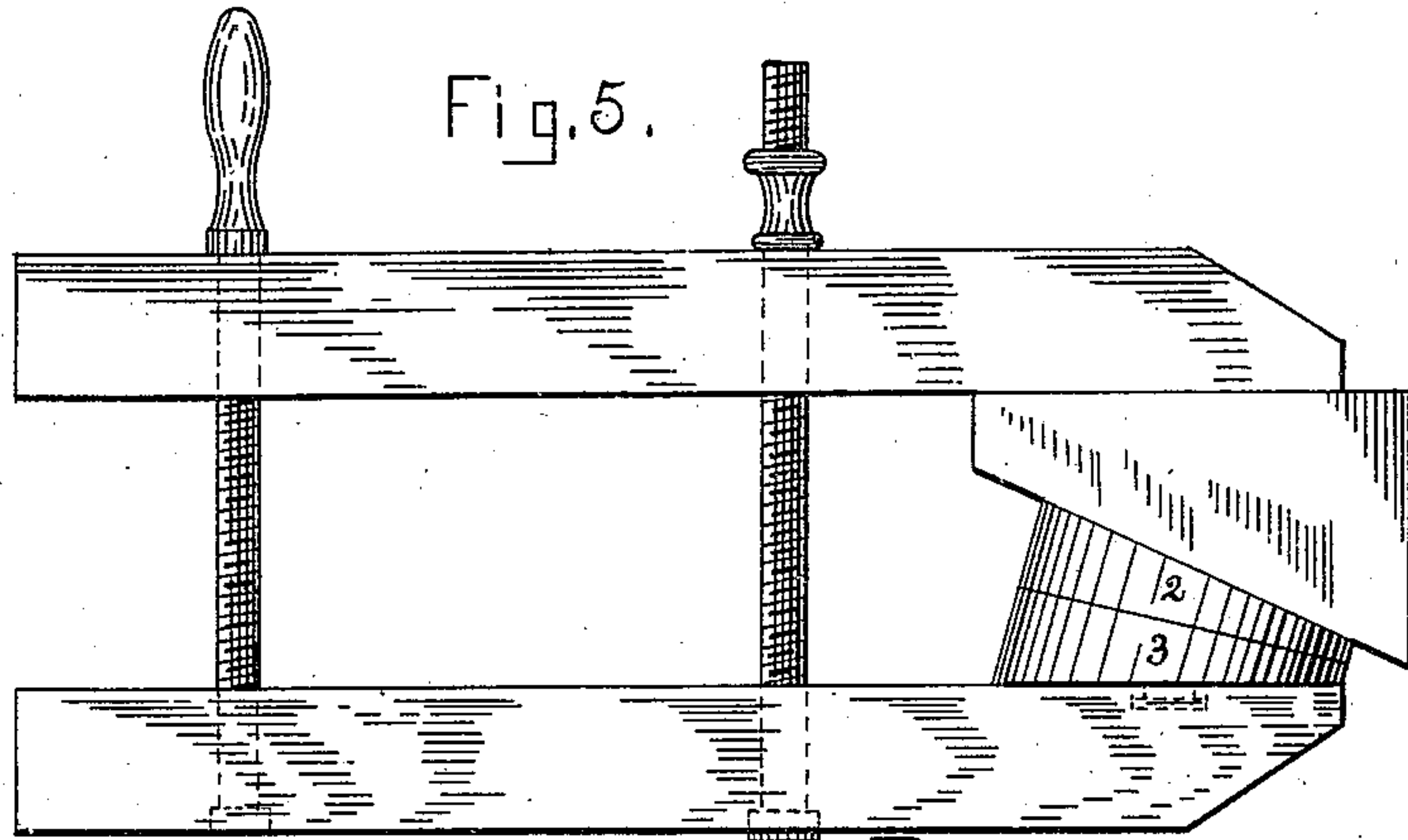
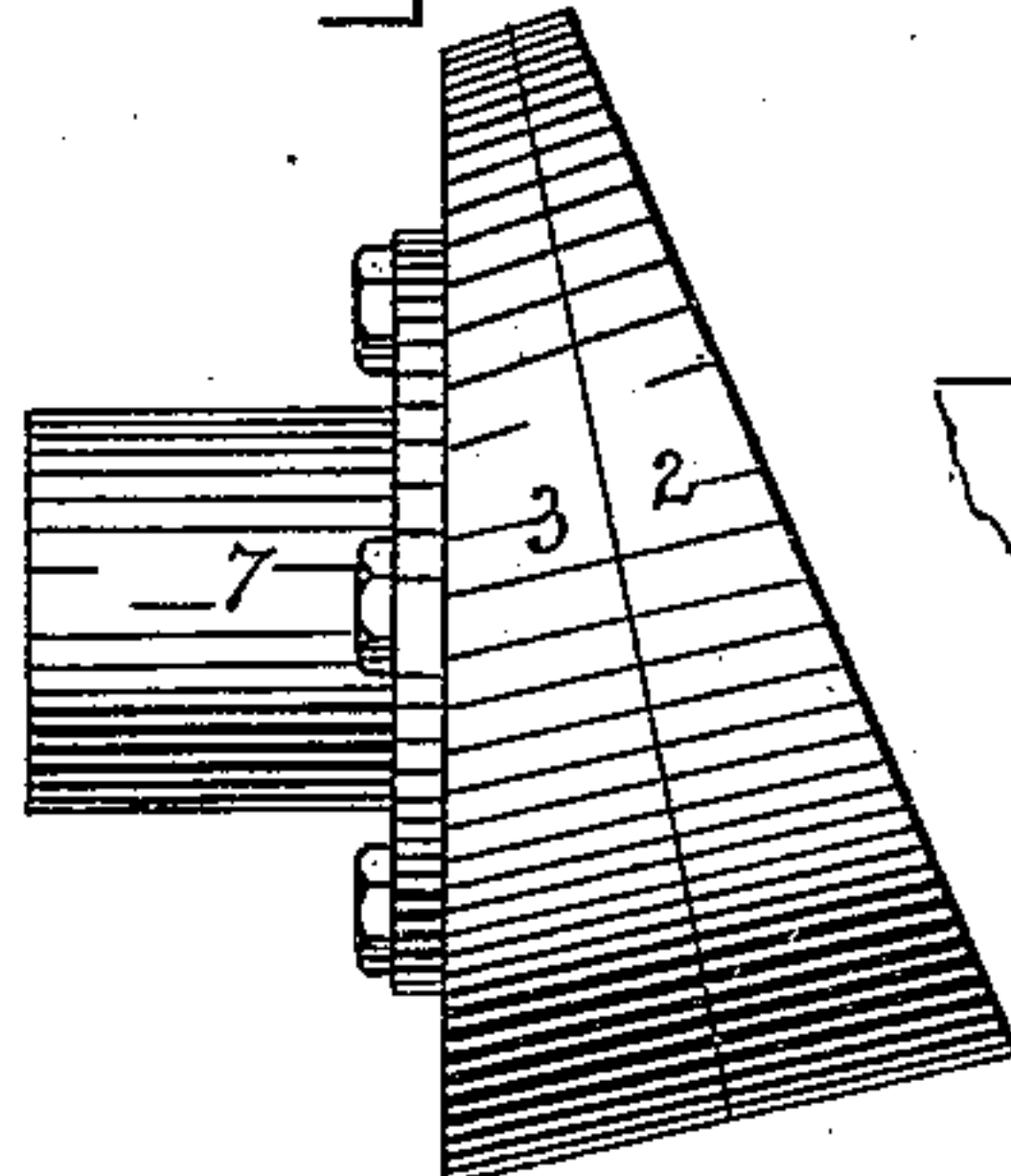


Fig. 7.



Fig. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDGAR SHAW, OF LYNN, MASSACHUSETTS.

ADJUSTABLE VISE-JAW.

SPECIFICATION forming part of Letters Patent No. 333,261, dated December 29, 1885.

Application filed March 19, 1885. Serial No. 159,382. (No model.)

To all whom it may concern:

Be it known that I, EDGAR SHAW, of Lynn, in the county of Essex and State of Massachusetts, have invented certain Improvements in Adjustable Bearings or Supports for Vise-Jaws, &c., of which the following is a specification.

This invention has for its object to provide an adjustable support for use in connection with vise-jaws, and in other relations where it is desired to hold or support differently-inclined surfaces.

My invention consists in two independently-rotatable sections, each of varying thickness, as I will now proceed to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of my improved adjustable support applied to a vise-jaw, the latter being shown partly in section. Fig. 2 represents a sectional view of the same. Fig. 3 represents a side view with the supporting-face in a different position. Fig. 4 represents a front view of the vise-jaw shown in Fig. 1. Fig. 5 represents a hand-screw to which my improvement is applied. Fig. 6 represents a side view of my improved support, showing the rear section provided with a shank adapted to be inserted in a socket in the tail-stock of a lathe. Fig. 7 represents a modification.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents my improved adjustable support, composed of two sections, 2 3, each of which varies in thickness, being thickest at one side, and gradually decreasing in thickness to the opposite side, like a wedge, as shown. The outer section, 2, is connected to the inner section, 3, by a pivot, 4. When the outer section is rotated on its pivot, its outer face, which constitutes the bearing or supporting surface, is caused to assume different angles, as will be readily seen. The inner section, 3, is provided with means whereby it may be pivotally connected to a vise-jaw or other object.

In Figs. 1, 2, and 3, I have shown the back of the section 3 provided with a flanged stud, 5, which enters a key-hole slot, 6, in a vise-jaw, *b*, and is capable of turning in said slot, to give a wider range of adjustment to the sup-

porting-surface than is afforded by the rotation of the outer section. The supporting-surface may be caused to stand at its greatest angle with the rear surface of the inner section by turning the two sections so that their thickest portions coincide, as shown in Figs. 1, 5, and 6, or to stand parallel with said rear surface by causing the thinnest portion of the one section to coincide with the thickest portion of the other section, as shown in Fig. 2. By suitable adjustments of one or both sections the supporting-surface may be caused to stand at any intermediate angle.

In Fig. 6 I have shown the inner section provided with a shank, 7, adapted to enter a holder or socket in the tail-stock or other part of a lathe, to support an object having two opposite surfaces which are not parallel while said object is being acted on either by a lathe-cutter or by a drill or other tool. The support may also be used in a drilling-machine to keep one face of a wedge-shaped or triangular body at right angles with the axis of the drill, so that the latter will not have a tendency to "run" or move sidewise as it might do in entering a surface which is oblique to the axis of the drill. I prefer to interpose a spring, 8, between the head of the pivot 4 and the bottom of a socket, 9, formed in the outer section, as shown in Fig. 2. Said spring presses the outer section against the inner, and thus prevents the outer section from turning too freely, so that the outer section is not likely to be accidentally displaced by gravitation of its heaviest side when it stands in positions like those shown in Figs. 2 and 3. The proximate surfaces of the two sections may be roughened or corrugated, to increase the holding-power of the spring and additionally guard against accidental displacement of the outer section. The supporting-surface may have a covering, 10, of rubber or other yielding material, as shown in Fig. 1, to prevent injury to objects bearing against it.

A modification is shown in Fig. 7, in which the two sections, 2 3, are separated, and each is pivoted to a jaw of a vise or clamp. The sections thus arranged are capable of producing the same results that are attained by the use of the two connected sections and an opposing jaw, as shown in Fig. 5. I do not

therefore limit myself to the sections pivotally connected to each other.

I claim—

5 1. An adjustable support composed of two pivotally-connected and independently-rotatable wedge-shaped sections in contact with each other, as set forth.

2. An adjustable support composed of an inner wedge-shaped section having means, substantially as described, for attachment to a vise-jaw or other support, and an outer wedge-shaped section pivoted to and bearing upon the inner, as set forth.

3. The combination of the wedge-shaped sec-

tions pivotally connected and in contact with 15 each other, and a spring whereby one section is pressed against the other, as set forth.

4. The combination, with the jaws of a vise or clamp, of the two independently-rotatable wedge-shaped sections 2 3, as set forth. 20

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 16th day of March, 1885.

EDGAR SHAW.

Witnesses:

C. F. BROWN,
A. L. WHITE.