

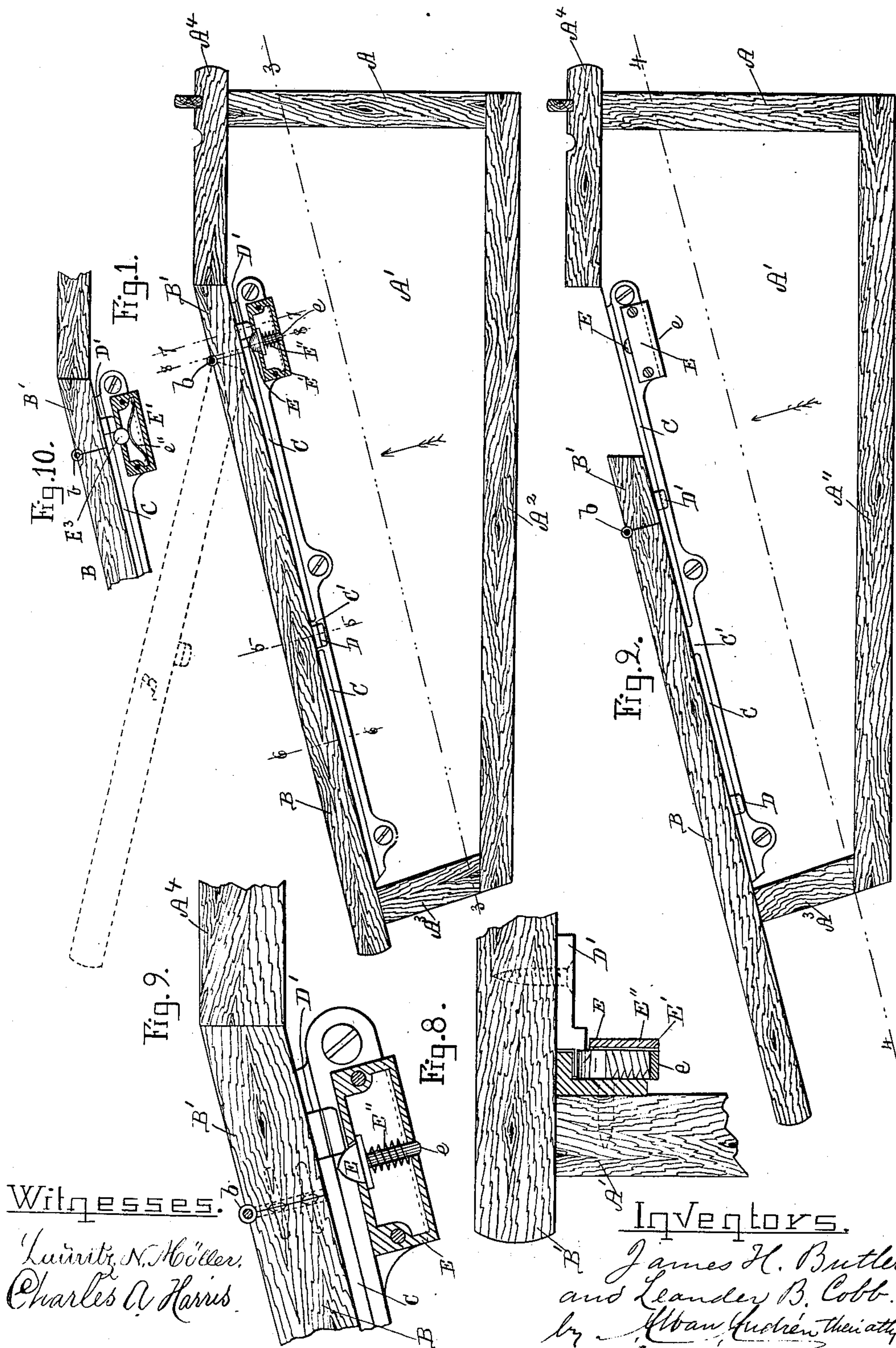
(No Model.)

2 Sheets—Sheet 1.

J. H. BUTLER & L. B. COBB.
DESK.

No. 587,473.

Patented Aug. 3, 1897.



Witnesses.

Luitpold N. Möller,
Charles A. Harris.

Inventors.

James H. Butler
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(No Model.)

2 Sheets—Sheet 2.

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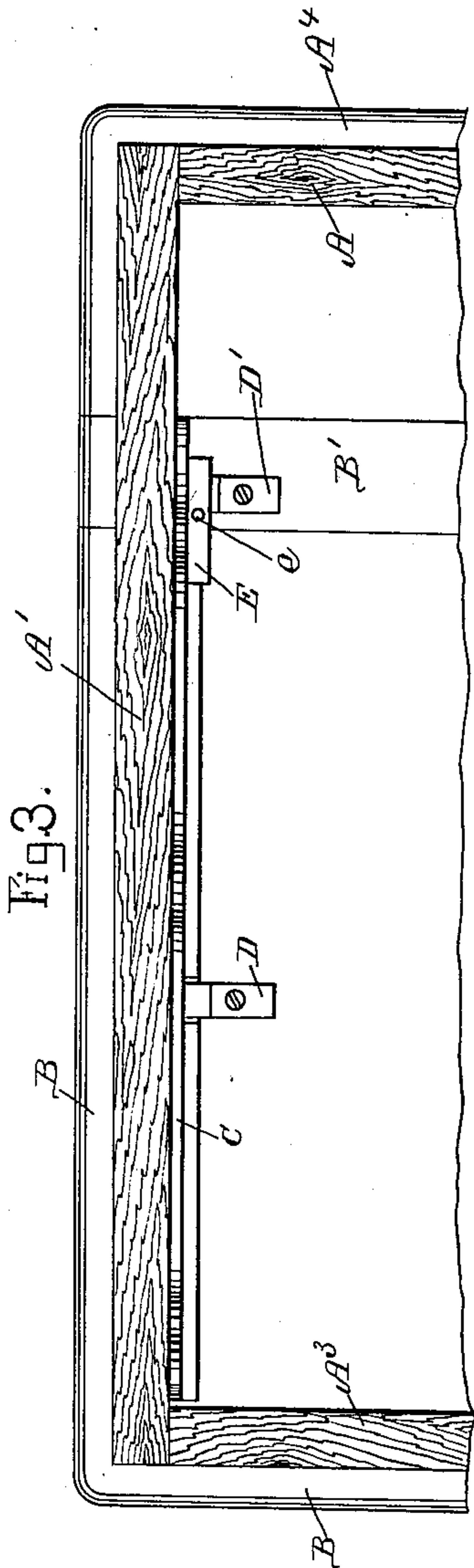


Fig. 7.

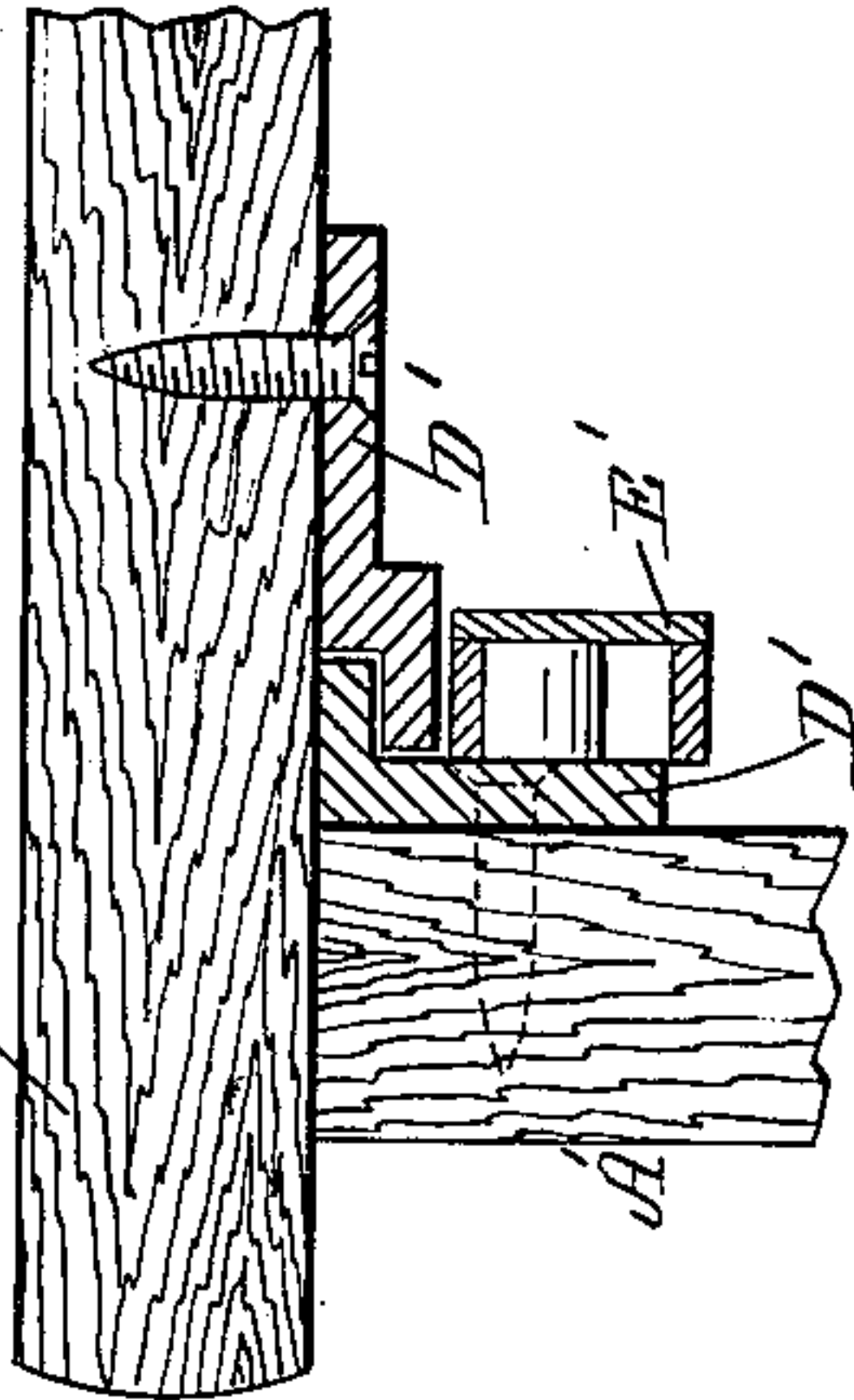


Fig. 5.

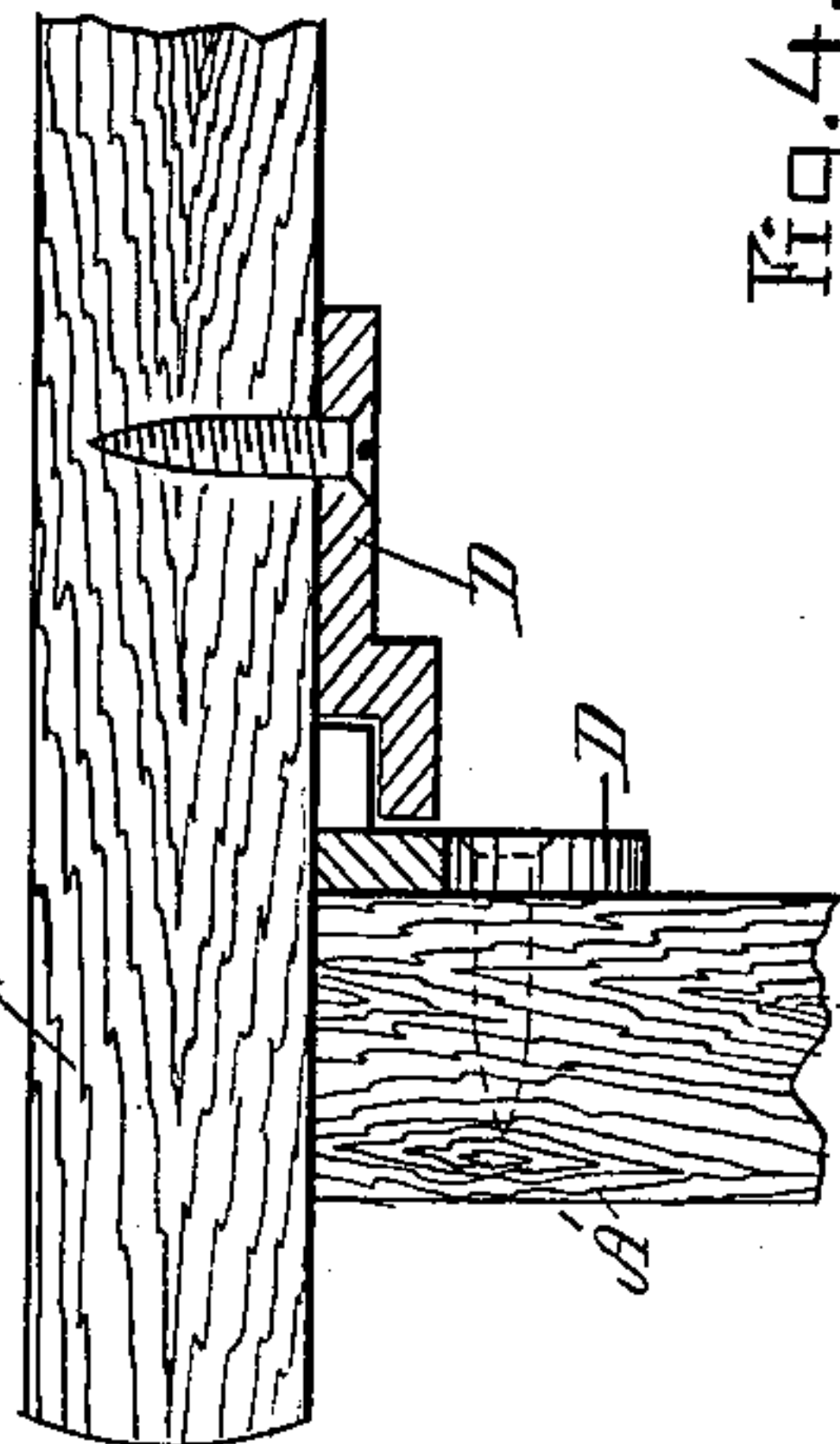


Fig. 4.

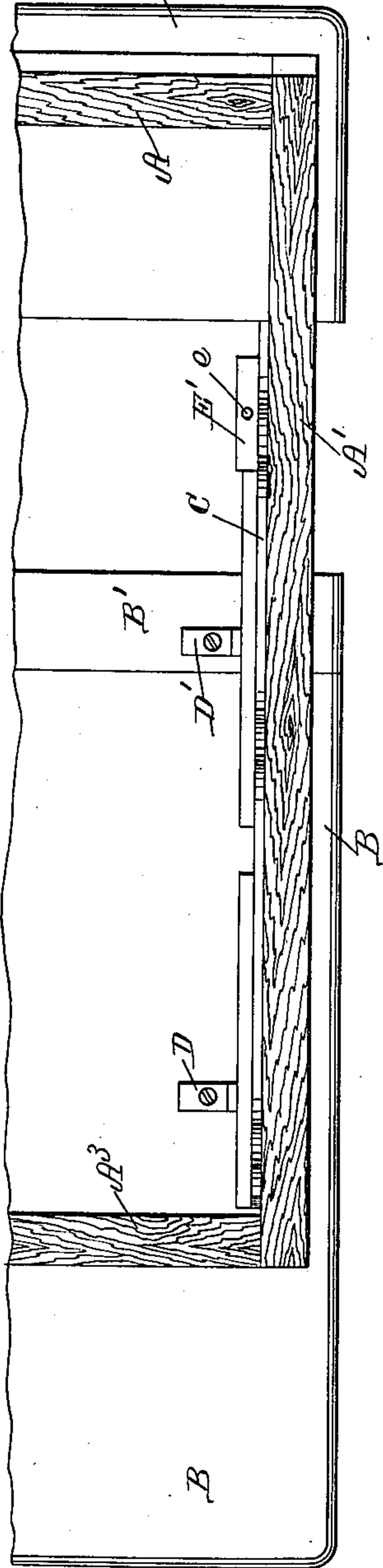
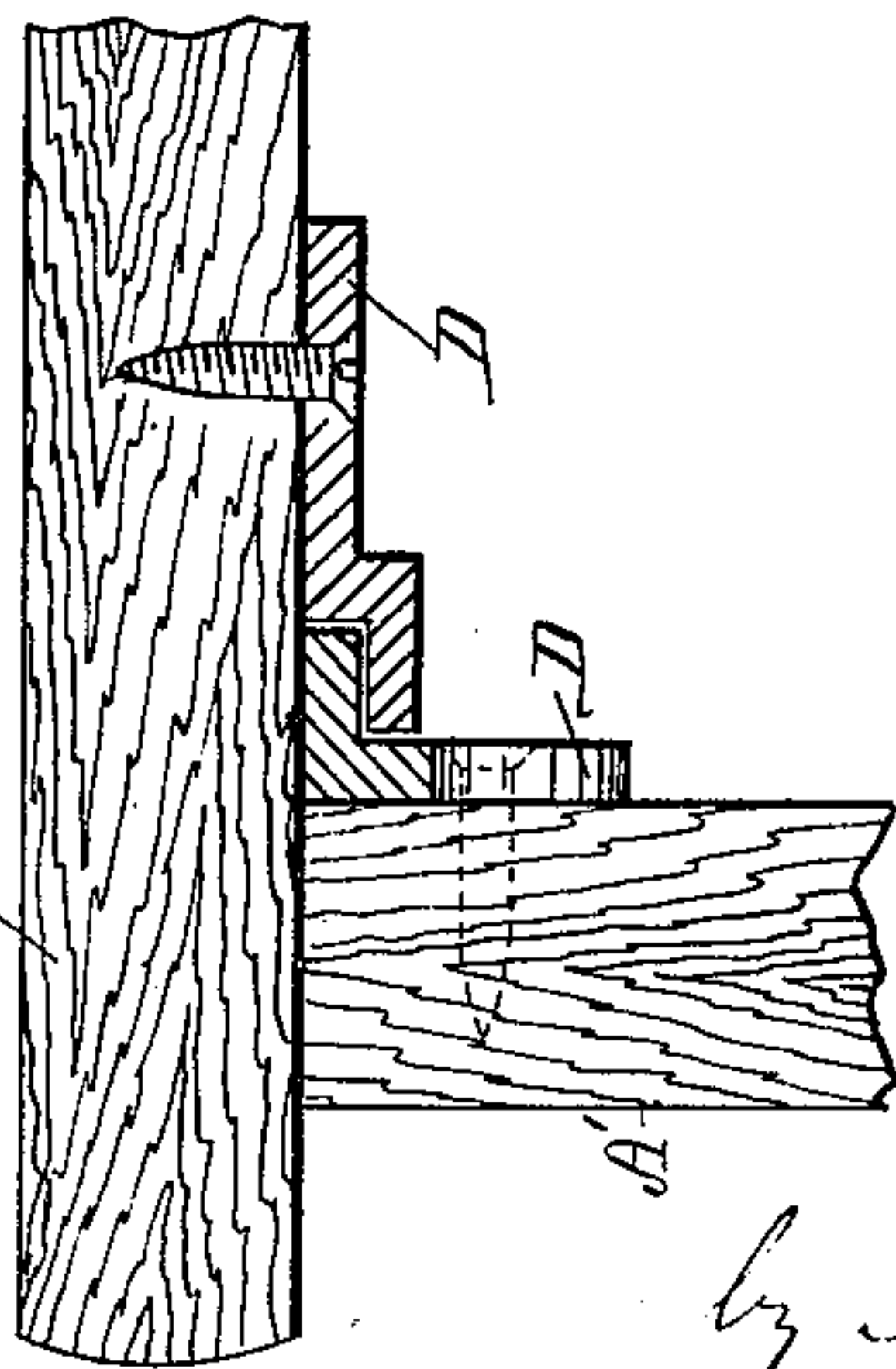


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

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MASSACHUSETTS, ASSIGNOR TO THE CHANDLER ADJUSTABLE CHAIR AND
DESK COMPANY, OF BOSTON, MASSACHUSETTS.

DESK.

SPECIFICATION forming part of Letters Patent No. 587,473, dated August 3, 1897.

Application filed March 31, 1897. Serial No. 630,071. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. BUTLER, a resident of Somerville, and LEANDER B. COBB, a resident of Everett, in the county of Middlesex and State of Massachusetts, citizens of the United States, have invented new and useful Improvements in Desks, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in desks of the kind in which the lid is adjustable to and from the person using it; and it is especially designed for school-desk purposes, although it may be used to advantage on other desks, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, in which—

Figure 1 represents a longitudinal section of a desk made in accordance with our invention and showing the lid moved backward in its normal locked position. Fig. 2 represents a similar view showing the lid drawn more or less forward. Fig. 3 represents a sectional view of the desk on the line 3 3 in Fig. 1, showing the under side of the lid and its attachments. Fig. 4 represents a similar sectional view on the line 4 4 in Fig. 2. Fig. 5 represents a cross-section on the line 5 5 in Fig. 1. Fig. 6 represents a cross-section on the line 6 6 in Fig. 2. Fig. 7 represents a cross-section on the line 7 7 in Fig. 1. Fig. 8 represents a cross-section on the line 8 8 in Fig. 1. Fig. 9 represents an enlarged sectional view of the spring locking device for holding the lid secured to the desk-body in the normal position represented in Fig. 1, and Fig. 10 represents a sectional view showing a modified form of such locking device.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings the desk-body is represented as composed of a back A, sides A', bottom A'', and front A³, as usual. The front may be an open or closed one, as may be desired, without departing from the essence of our invention.

A⁴ is the rear top portion of the desk, such rear top portion being permanently secured to the desk-body in the usual manner.

The sides of the desk are preferably more or less inclined toward the front, as usual.

B B' represent the lid, supported on the sides A' A', and said lid is capable of sliding adjustment to and fro in using it. In the drawings we have shown the said lid composed of two parts B and B', hinged together at b, so as to permit the main portion B to be swung upward, as represented in dotted lines in Fig. 1, and although this is the most preferred construction, as it enables the lid to be raised for the purpose of placing and removing articles into and from the desk-body, still we do not limit our invention to this exact construction, as, if so desired for certain kinds of desks, the lid may be hingeless and made in one single piece.

To the interior of each side portion A' of the desk-body is secured a preferably metal guide-rib C, which may be of any desired size and sectional form.

To the under side of the lid of the desk, at or near its sides, are secured catches D D', adapted to engage the guide-ribs C in such a manner as to properly guide the lid when adjusted forward and back, as well as to prevent the said lid from being raised, except, if so desired, when said lid is placed in its normal locked position and when the said lid is of the hinged kind represented in Fig. 1.

If the lid is a hinged one and it is desired to raise it when in the normal position shown in Fig. 1, we make a cut-away portion or notch C' on each of the guide-ribs C, opposite to the place where the catch D is located, so as to cause said catch to pass freely through such cut-away portion C' when the lid is to be raised, as shown in Figs. 1 and 5. If, however, the lid is a hingeless one, we dispense with the cut-away portion or notch C' and make each of the guide-ribs continuous and unbroken throughout its length. The upper catch D' is at all times in engagement with the guide-rib C, whether the lid is a hinged one or not.

For the purpose of locking the lid to the desk-body when said lid is pushed to its rear normal position, as represented in Fig. 1, we make use of a suitable automatic locking device, and we have for this purpose represented,

one form of such locking device in the drawings, Figs. 1, 2, 8, and 9; and it consists, preferably, of a spring-pressed locking projection E, arranged and guided in a box or bearing 5 E', secured to the side A' of the desk-body or made in one piece with the guide-rib C. Said locking projection is normally pressed upward by the influence of a preferably coiled spring E'', surrounding the shank e of said 10 locking projection between the head of the latter and the bottom of the box or bearing, as shown in detail in Fig. 9; but we desire to state that we do not wish to confine ourselves to this exact form of locking projection or 15 spring, as other or equivalent forms may be used to equal advantage without departing from the spirit of our invention.

In Fig. 10 is shown a modification of the locking device, and it consists of a ball or 20 cylinder E³, adapted to be forced upward against the guide-rib C by the influence of the spring e'', arranged within the box E'.

From the above it will be seen that when the lid is to be drawn forward a slight pull 25 will cause the upper catch D' to be depressed and pass by the yielding locking projection E and thus allow the lid to be drawn forward more or less as may be desired. During such forward adjustment of the lid it is guided by 30 means of the catches D D', engaging the stationary guide-ribs C C, thus guiding the lid in a parallel direction relative to the sides of the desk-body.

When the lid is moved backward and as it 35 approaches its rear normal position, the upper catch D', as it passes by the yielding locking device E, causes the latter to be sufficiently depressed to allow the said catch D'

to pass by said yielding locking device, and after it has passed by it the locking device E 40 is automatically forced upward on the front side of the said catch D', as represented in Figs. 1 and 9, thus holding the lid secured to the desk-body as long as said lid remains in the normal position shown in Fig. 1. 45

It will readily be understood that if the lid is a hinged one, as shown in the drawings, and notches C' are made in the guide-ribs C opposite to the lower catches D the lid may be swung open more or less, as represented 50 in dotted lines in Fig. 1, when the lid is pushed back to its normal position. (Shown in said Fig. 1.)

Having thus fully described the nature, construction, and operation of our invention, we 55 wish to secure by Letters Patent and claim—

In combination with a desk a two-part hinged and longitudinally-adjustable sliding lid, stationary guide-ribs secured to the desk-body, and having cut-away notches arranged 60 opposite to the lower catches secured to the lid and upper catches permanently engaging said guide-ribs and an automatic yielding locking device for locking the lid to the desk-body when said lid is moved to its normal 65 rear position substantially as and for the purpose set forth.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, on this 27th day of 70 March, A. D. 1897.

JAMES H. BUTLER.
LEANDER B. COBB.

Witnesses:

ALBAN ANDRÉN,
LAURITZ N. MÖLLER.