

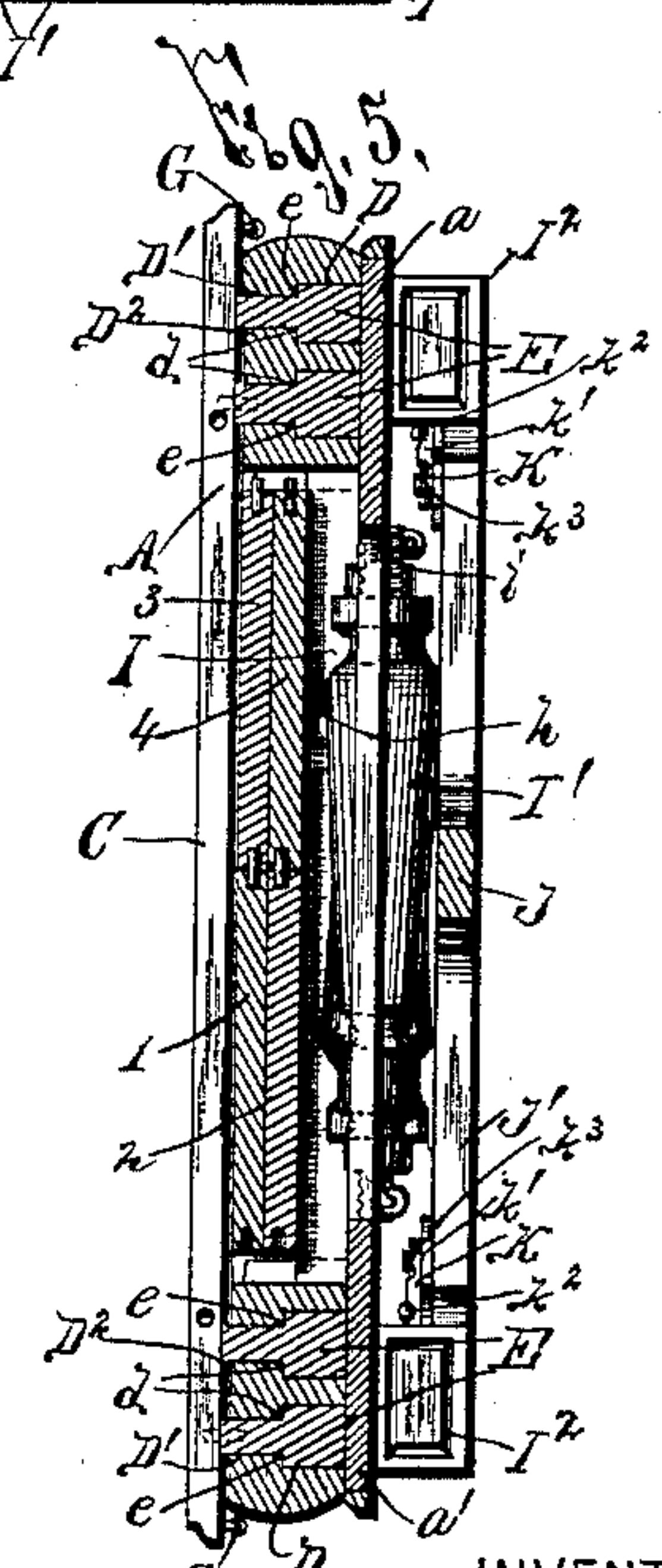
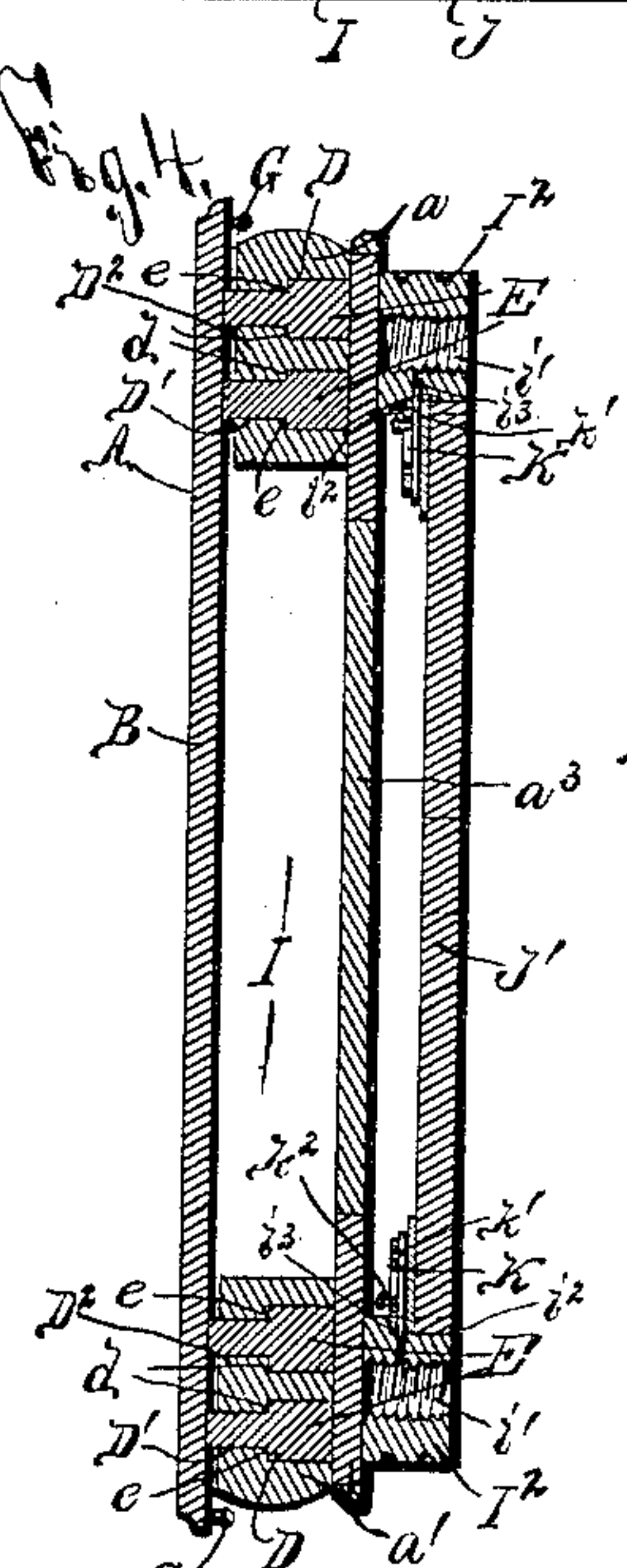
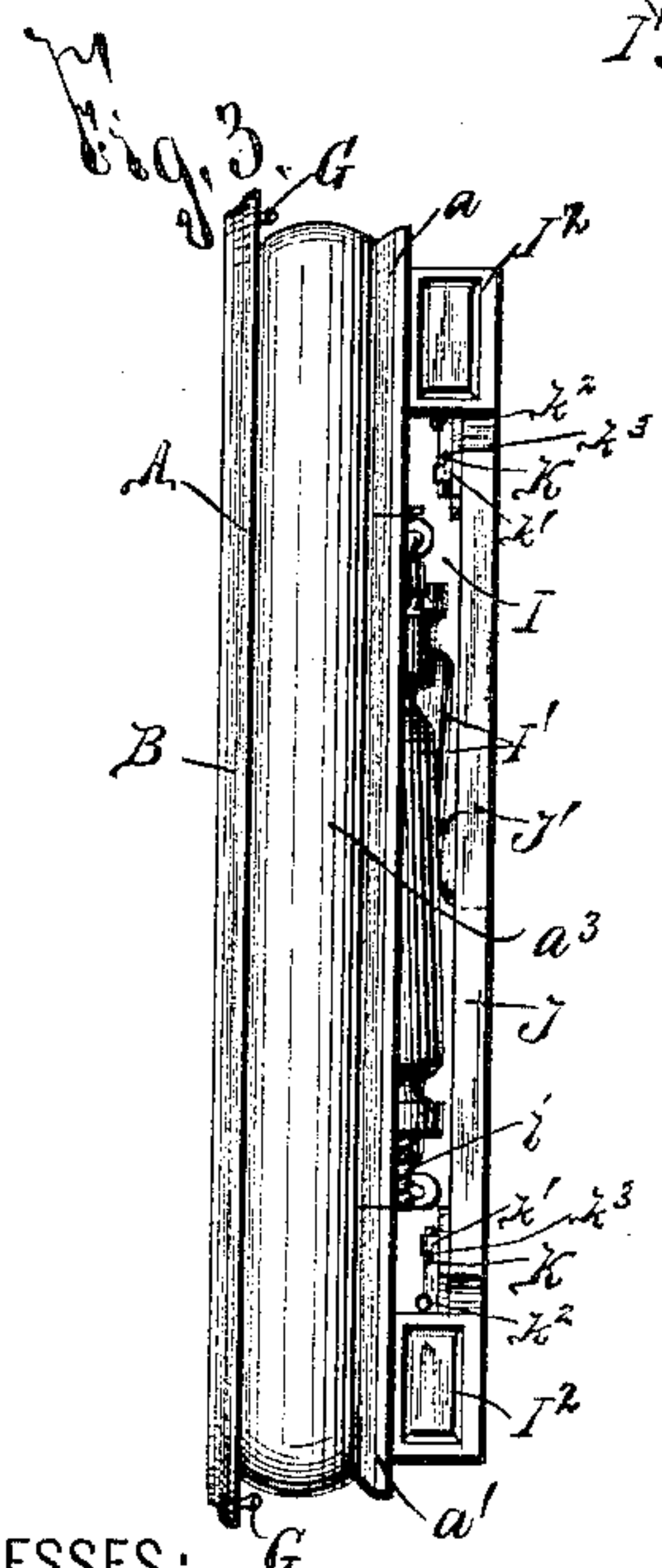
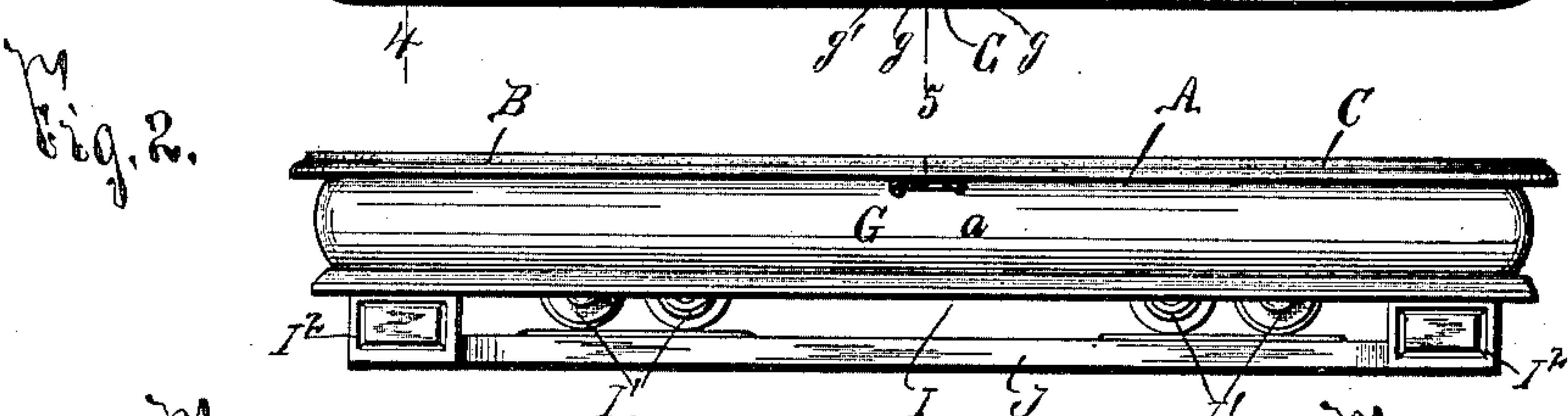
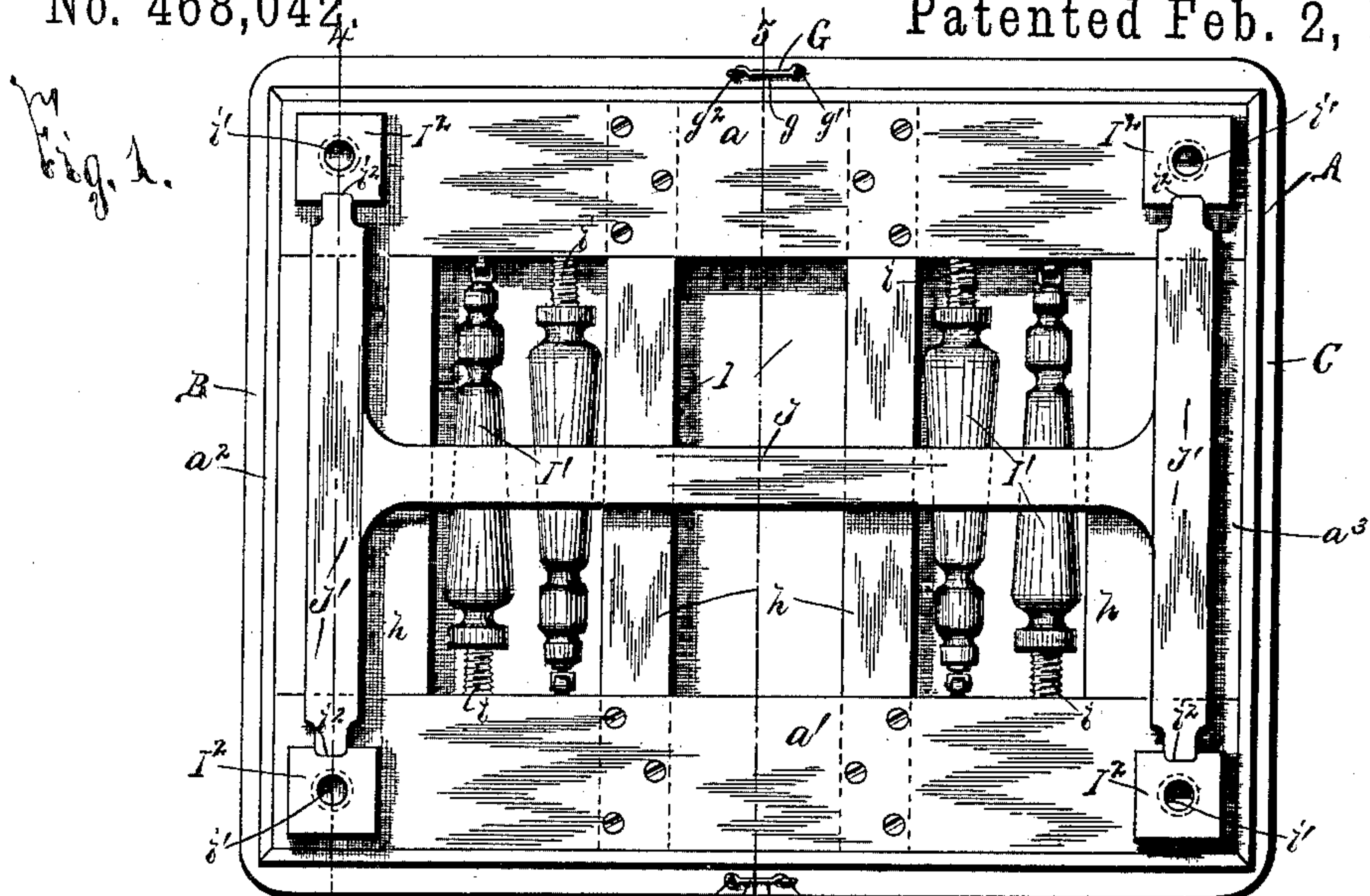
(No Model.)

4 Sheets—Sheet 1.

A. M. HOLSTEIN.
EXTENSION TABLE.

No. 468,042.

Patented Feb. 2, 1892.



WITNESSES:

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C. E. Foulson

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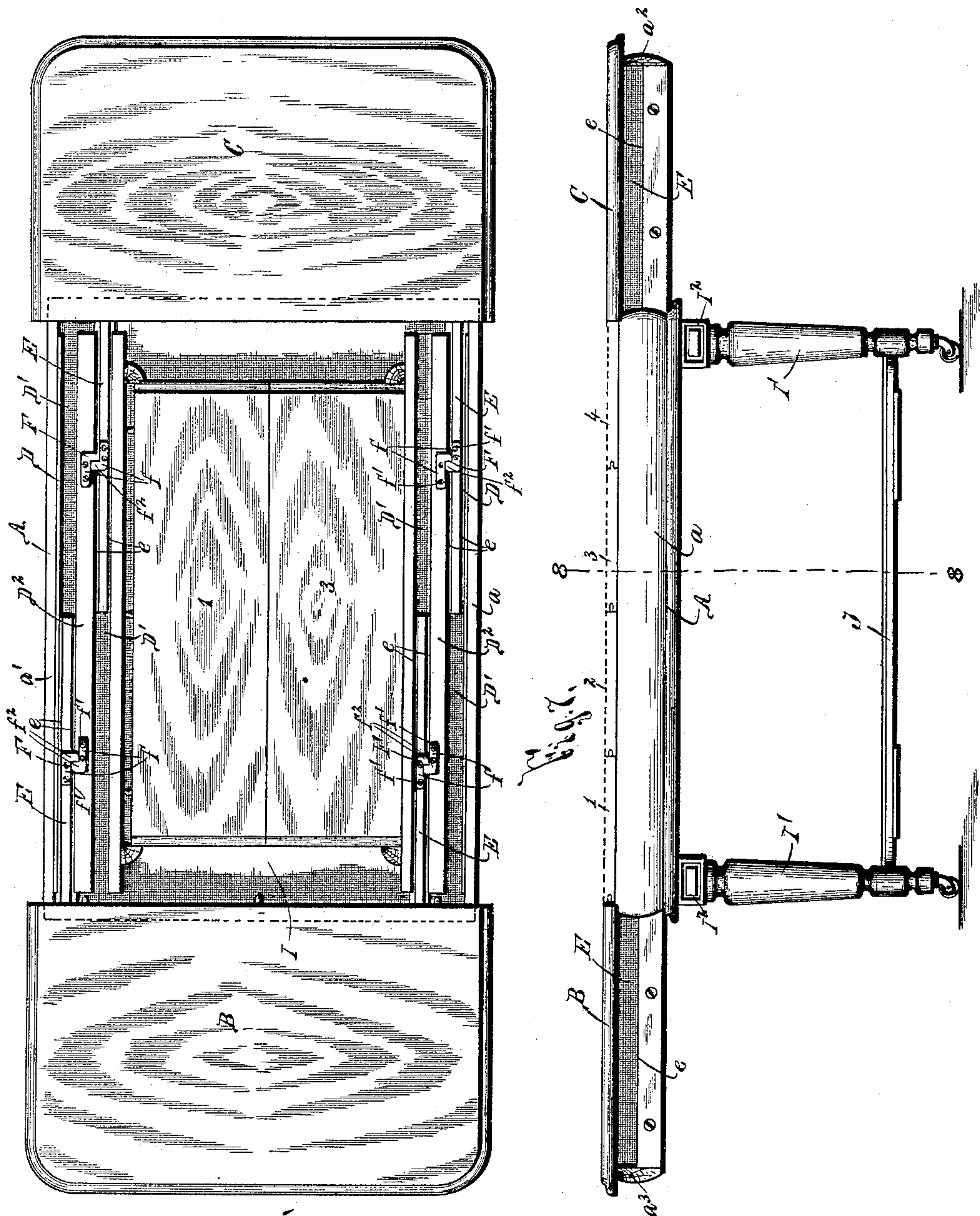
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4 Sheets—Sheet 2.

No. 468,042.

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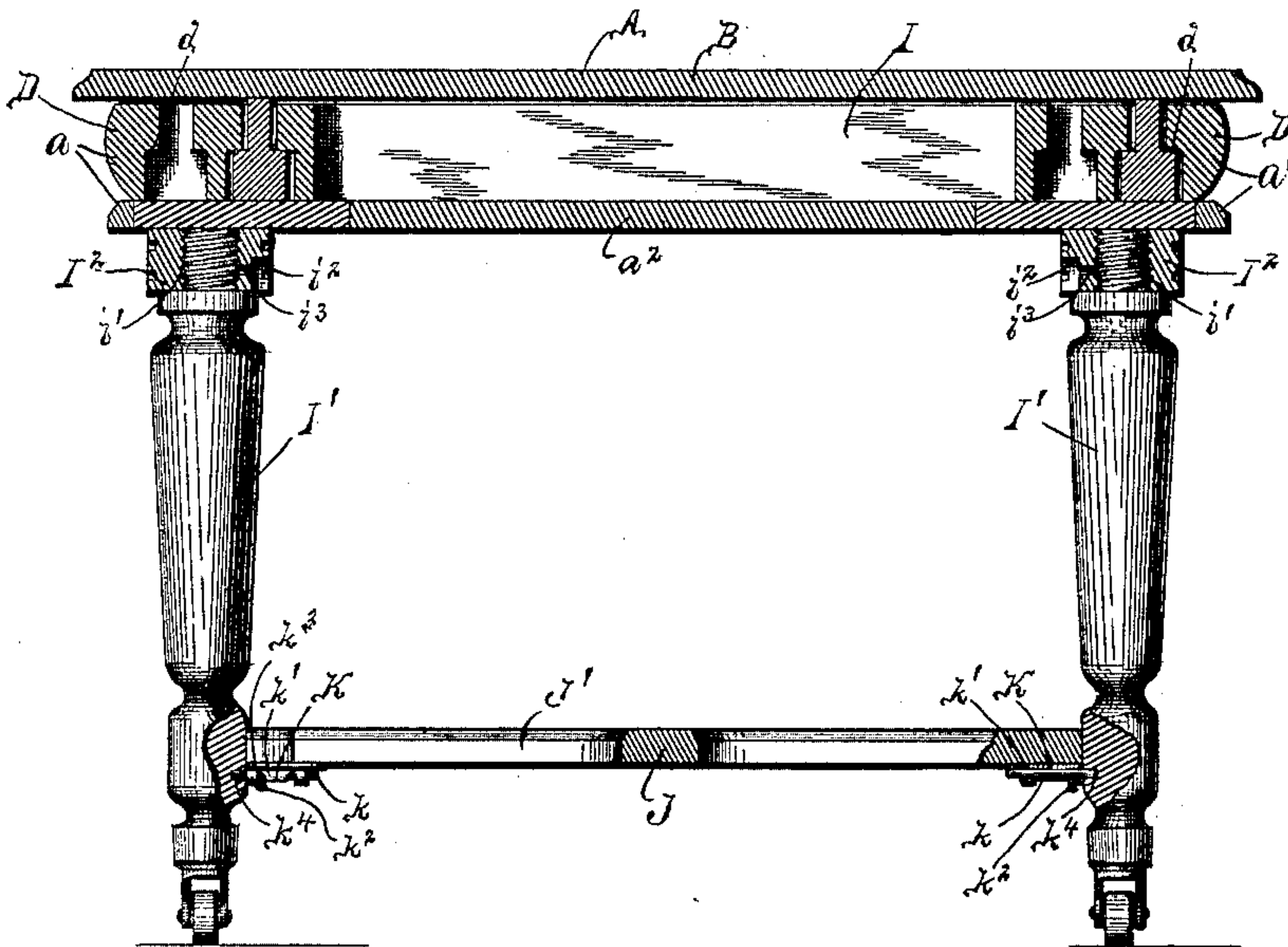
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Fig. 8.



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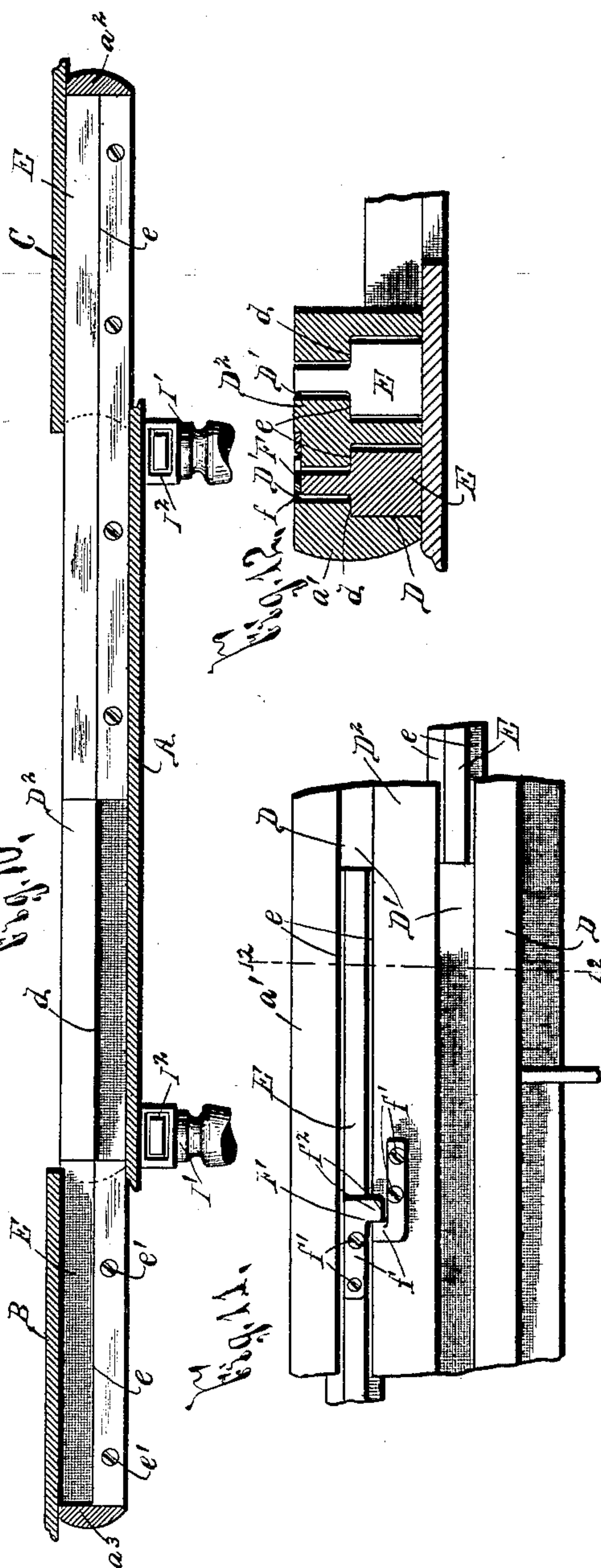
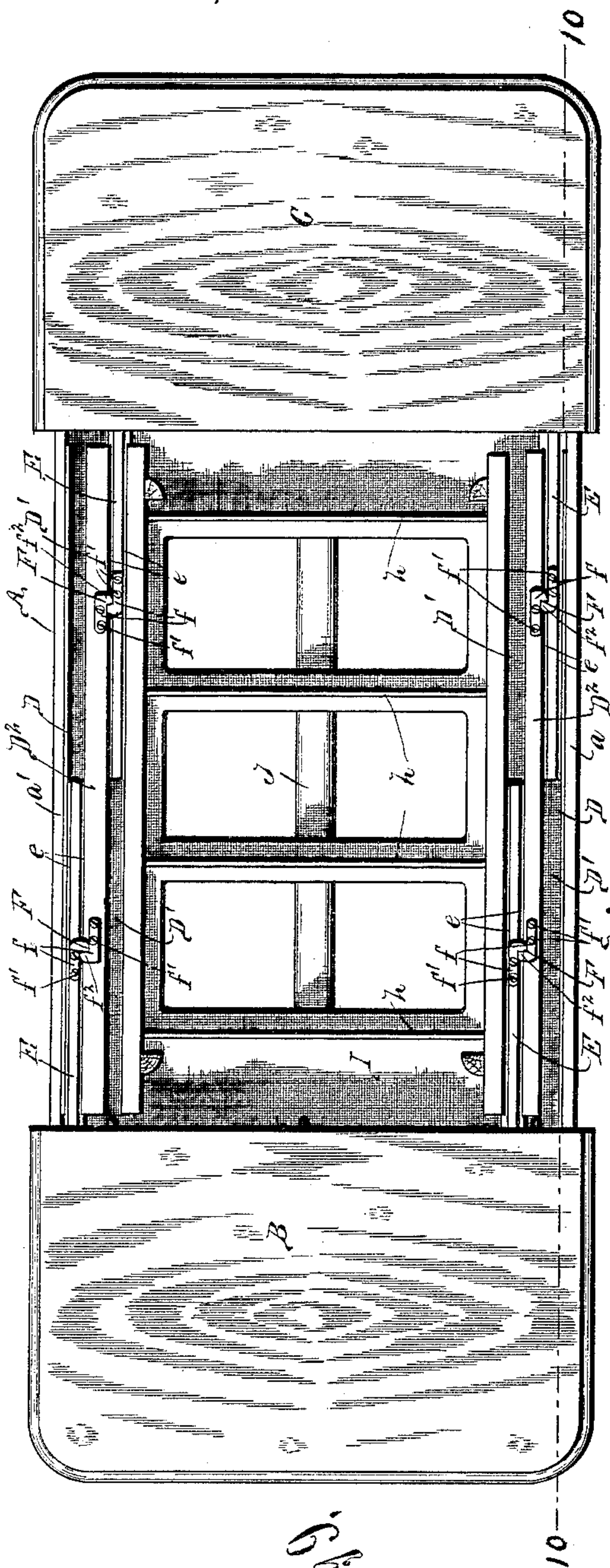
(No Model.)

4 Sheets—Sheet 4.

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UNITED STATES PATENT OFFICE.

ADOLF M. HOLSTEIN, OF SYRACUSE, NEW YORK.

EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 468,042, dated February 2, 1892.

Application filed March 28, 1891. Serial No. 386,778. (No model.)

To all whom it may concern:

Be it known that I, ADOLF M. HOLSTEIN, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in Extension-Tables, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in
10 extension-tables, and has for its object the production of a particularly strong, practical, and desirable construction, which is readily knocked down for the purpose of shipment, quickly and easily opened for the purpose of
15 extension, is even when opened to its extreme capacity as strong and firm as when in its compact position, and is provided with a chamber or bearing-face beneath the face-boards or leaves of the table for receiving the
20 removable leaves, in order that they may be always convenient and accessible and prevented from warping, as is the case where the leaves are kept separately.

To this end the invention consists, essen-
25 tially, in a frame having side bars, a pair of leaves or face-boards movable lengthwise of the side bars, adapted to carry the end bars of the frame, which are thus movable toward and away from the ends of the frame side
30 bars.

The invention furthermore consists in a bearing-face or chamber beneath the face-boards or leaves for receiving the removable
35 leaves, in legs detachably secured to the frame, a bearing-face or chamber on the under side of the frame for receiving the detached legs, a cross-bar adapted to retain the legs in either their knocked-down or operative position, and in the detail construction
40 and arrangement of the parts, all as herein-after more particularly described, and pointed out in the claims.

In describing this invention reference is had to the accompanying drawings, forming
45 a part of this specification, in which like letters and figures indicate corresponding parts in all the views.

Figures 1, 2, and 3 represent, respectively,
50 inverted plan view, side, and end elevations of my improved table, shown as in its knocked-down position. Figs. 4 and 5 represent sec-

tional views taken, respectively, on the section lines 4 4 and 5 5, Fig. 1. Figs. 6 and 7 are respectively top plan and side elevation of my improved table, shown as extended to
55 its fullest capacity, the extension-leaves or face-boards being shown at Fig. 6 as in their concealed position beneath the plane of the end leaves and being dotted at Fig. 7 as in their operative position. Fig. 8 is a trans-
60 verse sectional view taken on line 8 8, Fig. 7. Fig. 9 is a similar view to Fig. 6, representing the extension-leaves as removed for the purpose of further illustrating the construction of the underlying parts. Fig. 10 is a sectional
65 view taken on line 10 10, Fig. 9. Fig. 11 is a plan view of detached portions of one of the side bars of the frame, the guide-tongue for the end facing board or leaf, and the lock for holding the same in its extreme outward po-
70 sition; and Fig. 12 is a sectional view taken on line 12 12.

As heretofore constructed, the frame of an extension-table is divided at its central portion, and when the table is opened to its
75 extreme capacity a great space intervenes between the adjacent extremities of the separate divisions of the frame. This construction of parts renders the table much weaker when in its extended position than when used
80 as an ordinary table, since the central portion thereof is substantially unsupported. It is also the case that the leaves are kept separate from the table in a closet or other place preferred by the housekeeper. Consequently
85 these leaves are extremely liable to warp, and are never conveniently near when desired to increase the size of the table. It is also well known that it is extremely difficult to carry a table, as the legs project from the lower face
90 of the frame and necessitate both skill and care in carrying the same through an ordinary doorway.

My invention combines a frame which remains in the same position whether or not the
95 table is extended, rendering the same equally strong on all occasions, a chamber or bearing-face beneath the face-boards of the table for receiving the removable leaves, in order that they may be kept from warping and when
100 needed for use may be convenient and handy, removable legs adapted to be secured in a

chamber on the underneath side of the frame, and a cross-bar for securing the legs in their knockdown position, whereby the entire extension-table may be readily carried by a man of ordinary strength, requiring comparatively no exercise of either care or skill in passing through an ordinary doorway.

A represents the frame of my table, a and a' its side bars, and a^2 and a^3 its front and rear bars.

B and C represent the end leaves or facing-boards, which are movable lengthwise of the side bars a and a' toward and away from each other for increasing or diminishing the length of the table.

As best seen in Figs. 4, 5, 6, 7, 9, 10, 11, and 12, the side bars a are provided with the guideway D, having the top shoulders d and the central contracted portion D'. Two of these guides, slightly separated from each other, are formed in each cross-bar, and movable within them are tongues or ribs E, provided upon the opposite sides of the respective face-boards B and C. These tongues, as shown in the drawings, are arranged within the side bars a a' , and the extremities of the front and rear side bars a^2 and a^3 project beyond the tongues, whereby the bars a a' , a^2 , and a^3 present a neat and workmanlike appearance when the table is unextended. The guide-ribs E are of similar cross-sectional area to the guides D, being formed with top shoulders e , adapted to bear against the shoulders d , and thus prevent the guide-ribs from swinging upward out of the guides when a weight is placed upon said end face boards or leaves B and C. To render positive the strength of this connection of the end leaves to the table, the ribs E extend substantially the entire length of the leaves B and C, being secured thereto at e' e' , and even when in their extended or opened position extend within the guideways D a distance substantially equal to the width of said leaves. Indeed by the practical use of a table of this character I have ascertained that a weight placed upon one leaf and of sufficient size to counterbalance the weight of the opposite end of the table swings said opposite end upward without the slightest liability of injuring or bending the guide ribs or tongue of the leaf sustaining such weight.

To prevent the end leaves or facing-boards being entirely withdrawn from the table, I provide the stop F, which consists of a pair of metallic plates f , the opposite ends of which are secured at f' to the top face of the rib or tongue E and the wall D² of the guideway D. The adjacent ends of these plates are formed with laterally-extending arms f^2 , which engage one with the other, as best seen in Figs. 6, 9, 11, and 12.

When the table is in its normal position, the opposite leaves B and C are held firmly in position by an ordinary catch G. (Best shown in Figs. 1 and 2 as a hinged hook g , hinged at one extremity at g' to the inner

edge of one of said leaves, and adapted to engage at its opposite extremity a loop g^2 , secured to the opposite leaf.)

Beneath the lower face of the leaves B and C, as best seen at Figs. 5, 6, and 9, is a chamber H, having a top bearing-face composed of cross-bars h h h h , and mounted upon these cross-bars, as seen in Fig. 6, are four leaves 1 2 3 4, which are arranged in two pairs, one directly above the other. The thickness of the leaves corresponds closely to the distance between the top face of the bars h and the under face of the leaves B and C for preventing said removable leaves from warping, in order that when intended for use they may assume their desired position and permit the engagement of the usual dowel-pins and sockets formed on the adjacent edges of the table-leaves.

On the under side of the frame, as best seen at Figs. 1, 3, and 5, is a seat or seats I.

I' represents the table-legs, which are removably secured to the frame, in order that when desired the table may be readily knocked down for shipment. The legs are preferably secured in position by a screw-threaded nipple i , adapted to engage a socket i' in the end face of the frame A and preferably in the end face of a block I², secured upon said frame. When in their operative position, the legs are supported at their lower extremities by a cross-bar J, having the end bars J', which are each provided with a suitable lock K of any desirable form and construction. The lock here illustrated consists of an ordinary sliding bolt adapted to engage notches k^4 in said legs, as best seen at Fig. 8, and will be immediately briefly described.

When desired to ship the table, the locking-bolts are withdrawn from operative position, and the legs are unscrewed from the socket i' and then placed in the chamber I, formed in the lower face of the frame. The under side of the leaves and the cross-bars h form one of the bearing-faces, against which these legs rest, and the under side of the cross-bar J is adapted to form the other, said cross-bar being utilized, as best seen in Figs. 1, 2, 3, 4, and 5, to retain the legs in position.

The adjacent faces of the opposite ends of the blocks I² are formed with notches i^2 , adapted to receive the adjacent ends of the cross-bar arms J', and are formed with sockets i^3 , Fig. 4, for receiving the sliding bolt k of the lock K, which moves in the frame k' and is provided with a hand engaging arm k^2 . When moved to operative position, the arm k^2 is shifted into the usual notch k^3 , and is firmly held in said position. The construction of this lock K is obviously no material part of the invention, and it is unnecessary to describe or illustrate it further, it being understood that it may be varied at will.

The operation of my invention will be readily perceived from the foregoing description and upon reference to the drawings, and it is

evident that the entire table is assembled in a very small compass, the removable leaves being in a chamber beneath the top face of the table and the removable legs in a chamber on the end face of the frame and retained in position by the base or cross bar which supports said legs when in their operative position.

The parts of this table are very readily produced at a minimum cost of manufacture and it is evident are strong, durable, and extremely convenient and handy when in use.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an extension-table, the combination of a frame having stationary side boards, each provided on its inner face with a pair of guide-grooves, a central cavity or chamber between said side boards, leaves removably mounted within said chamber, a pair of movable face-boards having guide-ribs movable in said guide-grooves and within said side boards, and end boards depending beneath said movable face-boards, formed with their ends projecting beyond said guides and adapted to be moved into close proximity to the side boards when the inner edges of said face-boards are adjacent, substantially as and for the purpose specified.

2. In an extension-table, the combination of a frame, legs removably secured to the frame, a bearing-face on the frame for said legs when in knockdown position, and a bar removably secured to the frame and adapted to engage the legs for securing the same upon the bearing-face when in their knockdown position, substantially as and for the purpose described.

3. In an extension-table, the combination of a frame, legs removably secured to the frame, a bearing-face on the frame for said legs when in knockdown position, a bar removably secured to the frame and adapted to engage the legs for securing the same upon the bearing-face, and a movable catch for securing said movable bar to the frame, substantially as and for the purpose specified.

4. In an extension-table, the combination of a frame having a pair of stationary side bars provided with guide-grooves, a face-board having ribs removable lengthwise of the stationary side bars, legs removably secured to the frame, a bearing-face on the frame for said legs when in knockdown position, and a bar removably secured to the frame and adapted to engage the legs for se-

curing the same upon the bearing-face when in their knockdown position, substantially as and for the purpose set forth.

5. In an extension-table, the combination of a frame having stationary side boards provided with guide-grooves and a central cavity or chamber between said side boards, leaves removably mounted within said cavity, a movable face-board having guide-ribs movable in said guide-grooves for exposing said leaves, legs detachably secured to the frame, a bearing-face on the frame beneath said leaves for receiving said legs when in their knockdown position, and a bar removably secured to the frame and adapted to engage the legs for securing the same upon the bearing-face when in their knockdown position, substantially as and for the purpose specified.

6. In an extension-table, the combination of a frame, a pair of legs at the opposite extremities of the frame, each having one extremity removably secured to said frame and provided with a socket at the opposite extremity, a rigid cross-bar having transverse arms between the legs of each pair, and locking-bolts movably mounted on said arms for rigidly holding the legs, substantially as and for the purpose set forth.

7. In an extension-table, the combination of a frame having stationary side boards, each provided on its inner face with a pair of guide-grooves, a central cavity or chamber between said side boards, leaves removably mounted within said chamber, a pair of movable face-boards having guide-ribs movable in said guide-grooves and within said side boards, and end boards depending beneath said movable face-boards, formed with their ends projecting beyond said guides and adapted to be moved into close proximity to the side boards when the inner edges of said face-boards are adjacent, and laterally-extending arms projecting from the top face of the adjacent walls of said guide-grooves, and ribs for interlocking and preventing undue movement of the face-board, substantially as and for the purpose described.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 14th day of March, 1891.

ADOLF M. HOLSTEIN.

Witnesses:

CLARK H. NORTON,
L. M. BAXTER.