

(No Model.)

3 Sheets—Sheet 1.

E. E. SELL.
CONVERTIBLE FURNITURE.

No. 452,171.

Patented May 12, 1891.

FIG. 1.

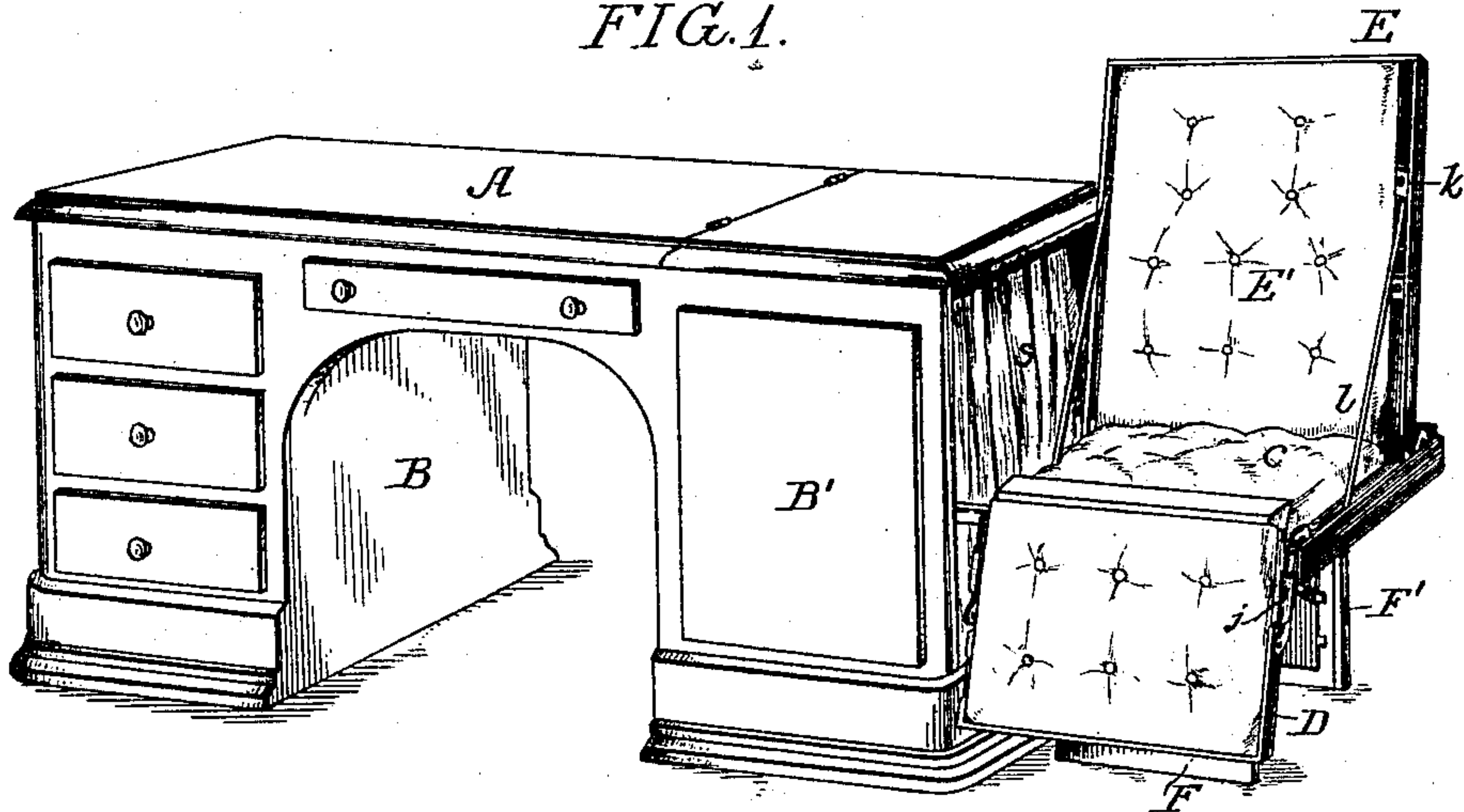


FIG. 2.

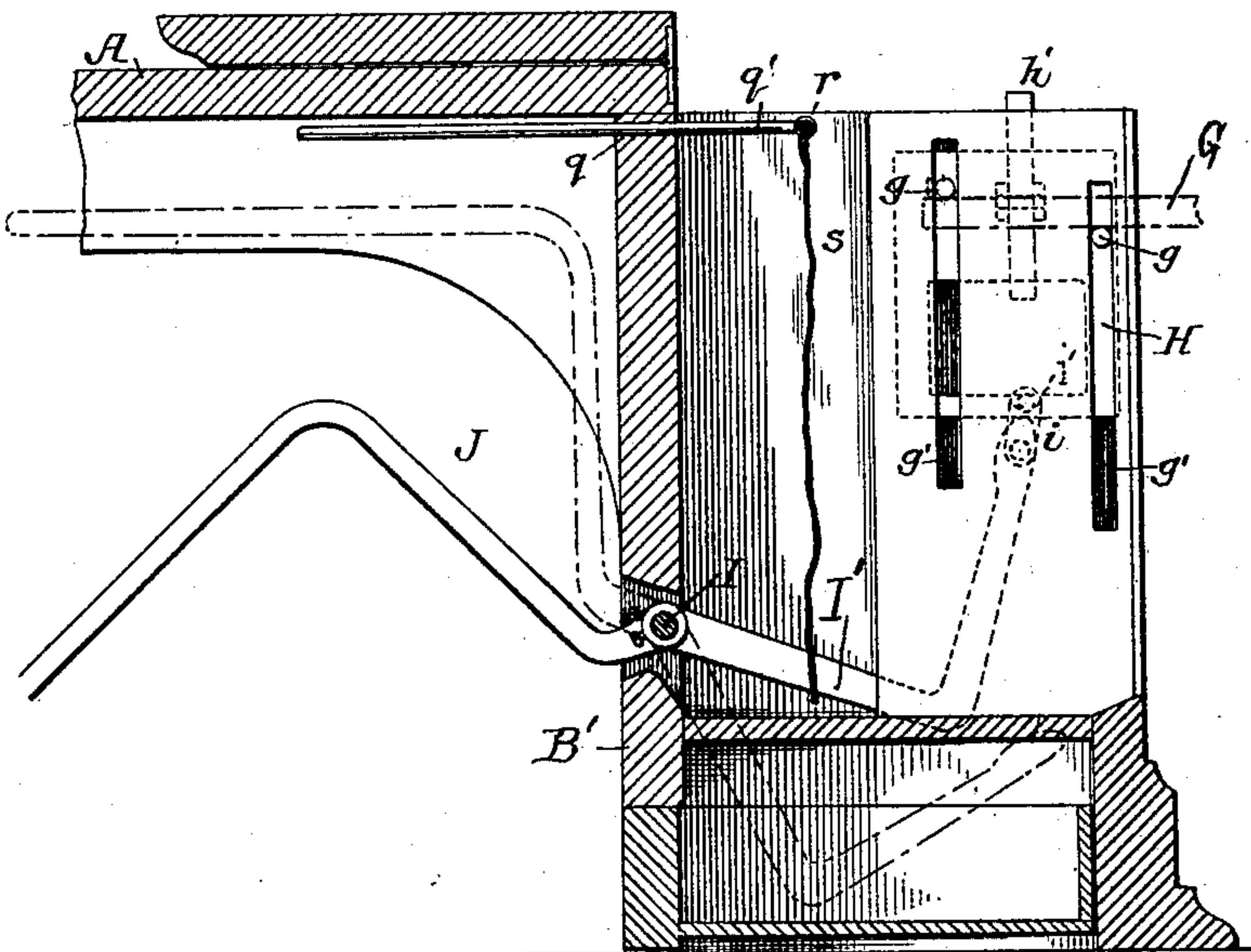


FIG.3.

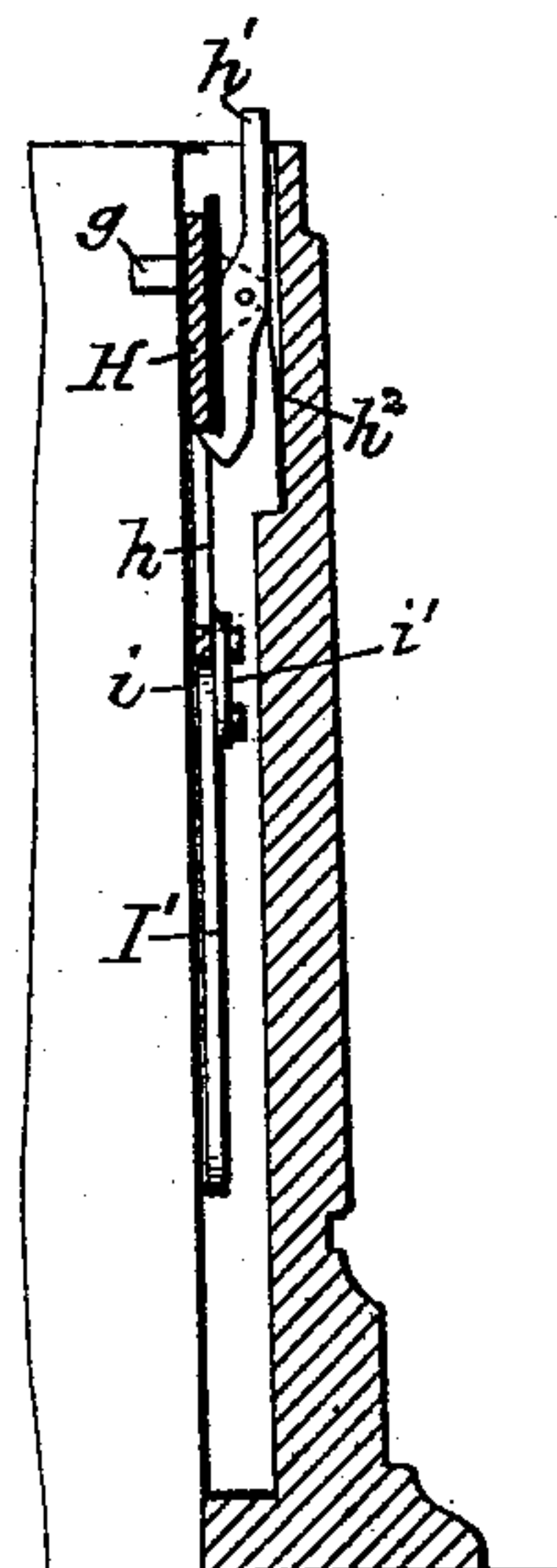
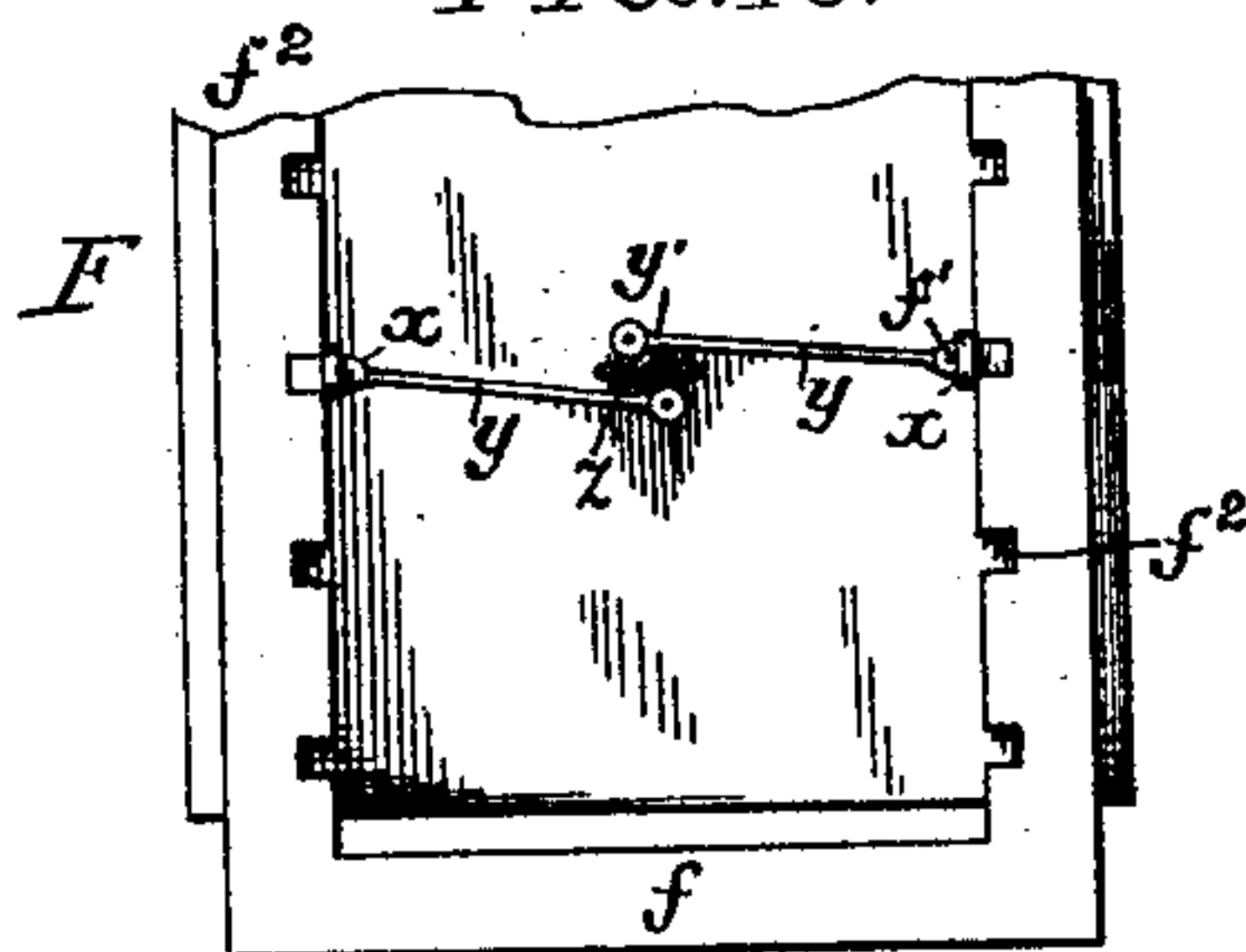


FIG. 10.



Witnesses:

Witnesses:
Murray C. Boyer
C. V. Groupe

Inventor:

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Edgar E. Sell
by his Attorneys
Houson & Houson

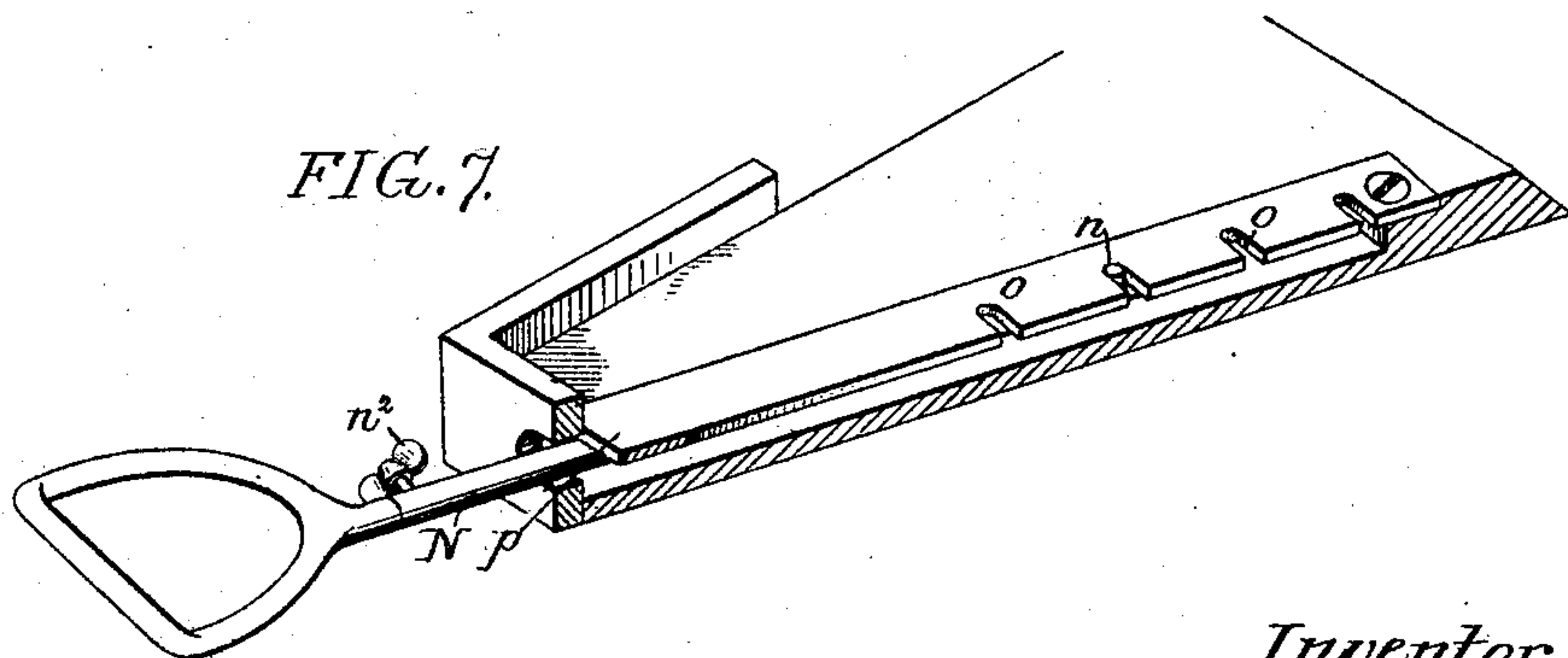
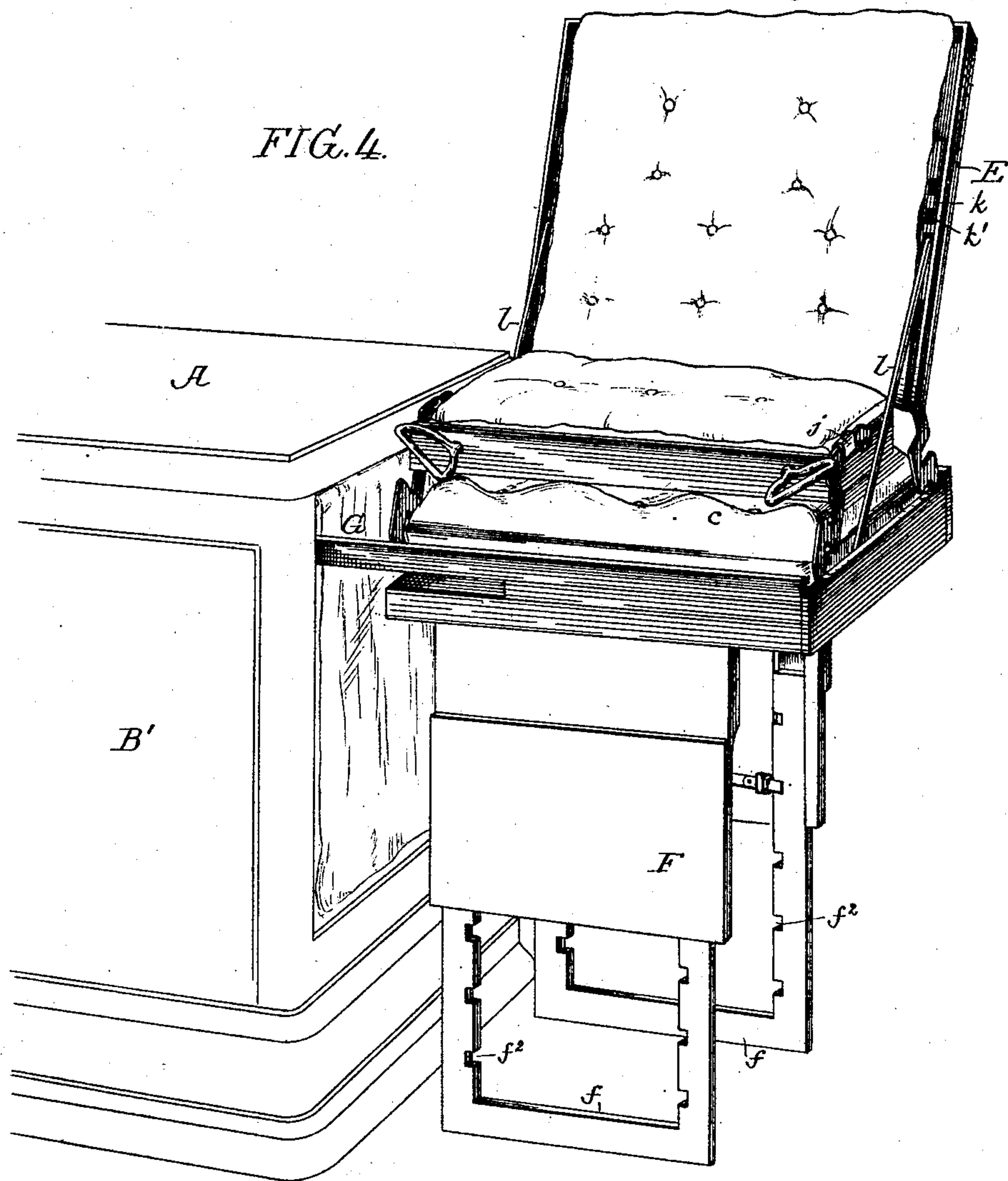
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3 Sheets—Sheet 3.

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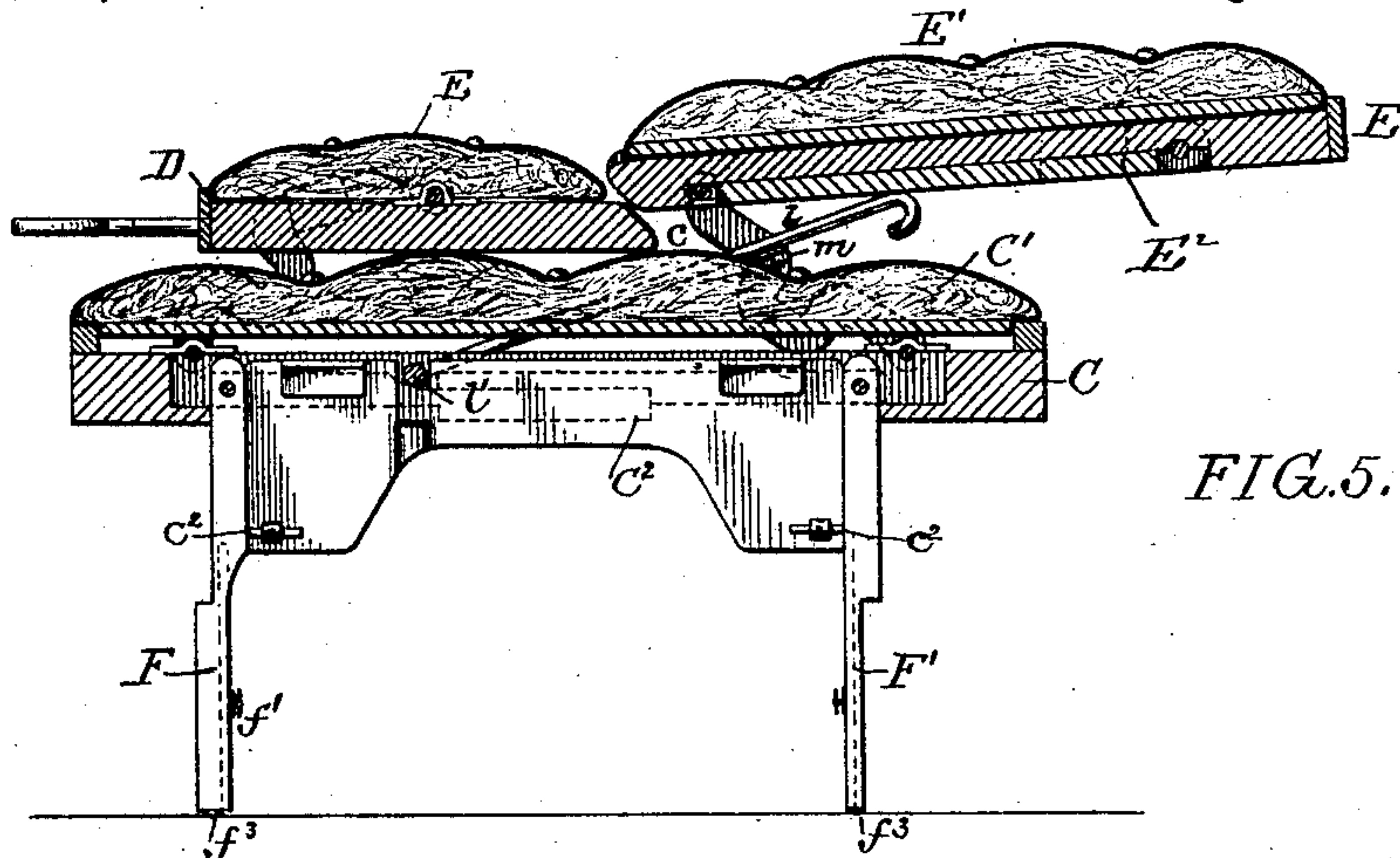


FIG. 5.

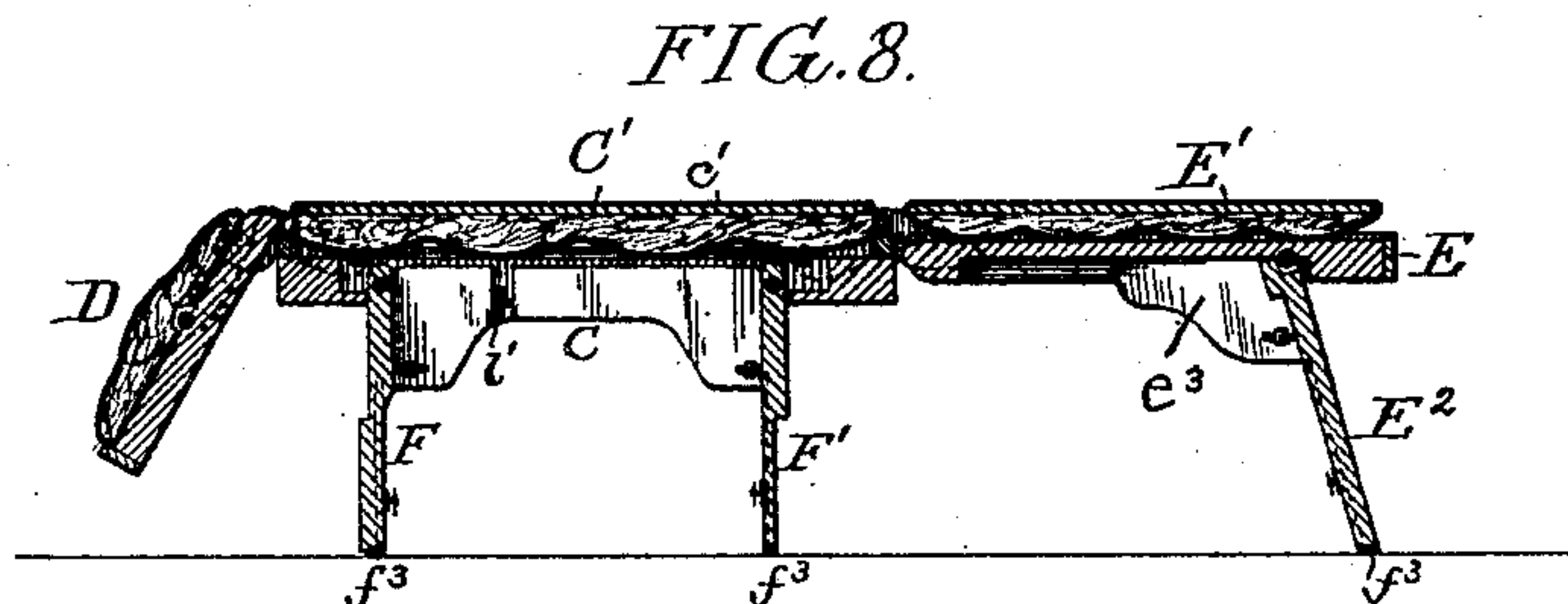


FIG. 8.

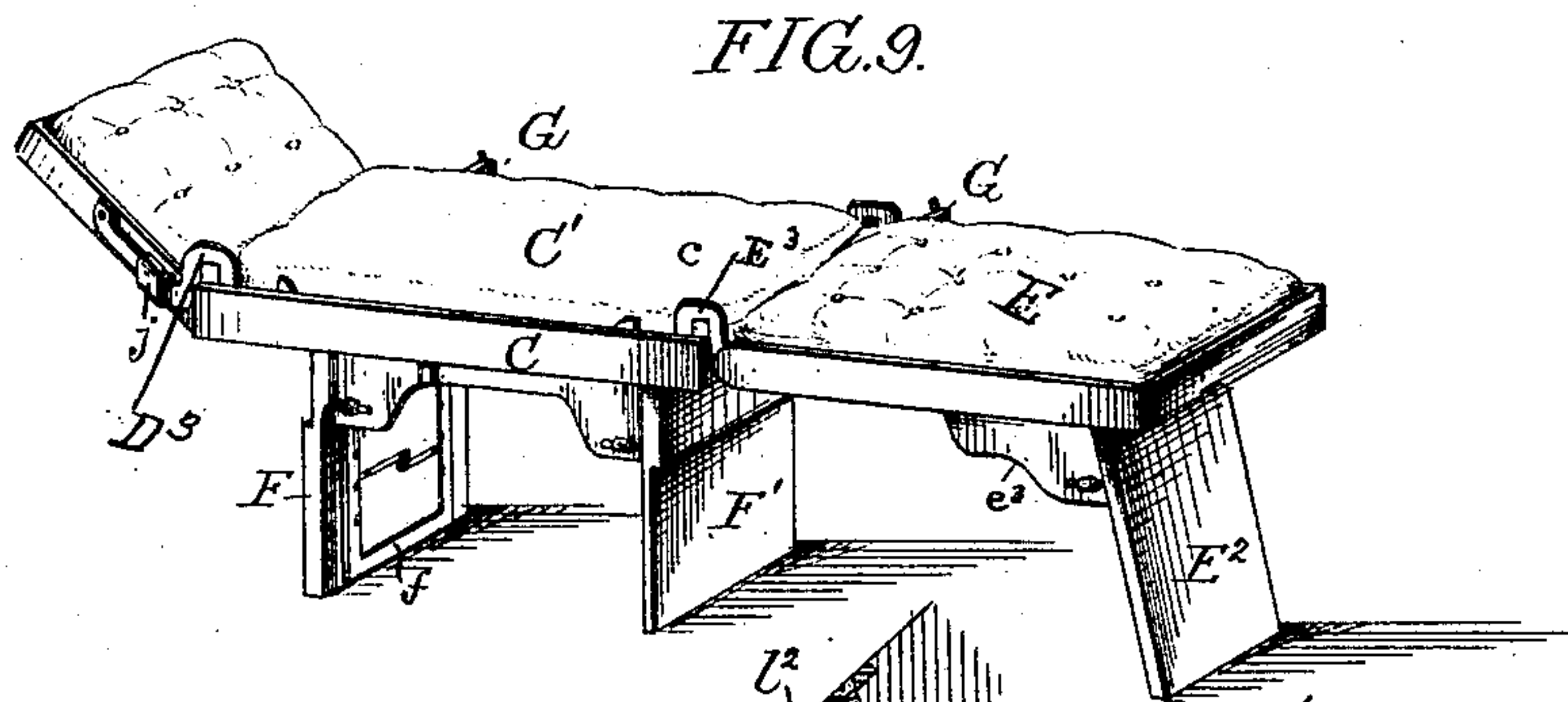


FIG. 9.

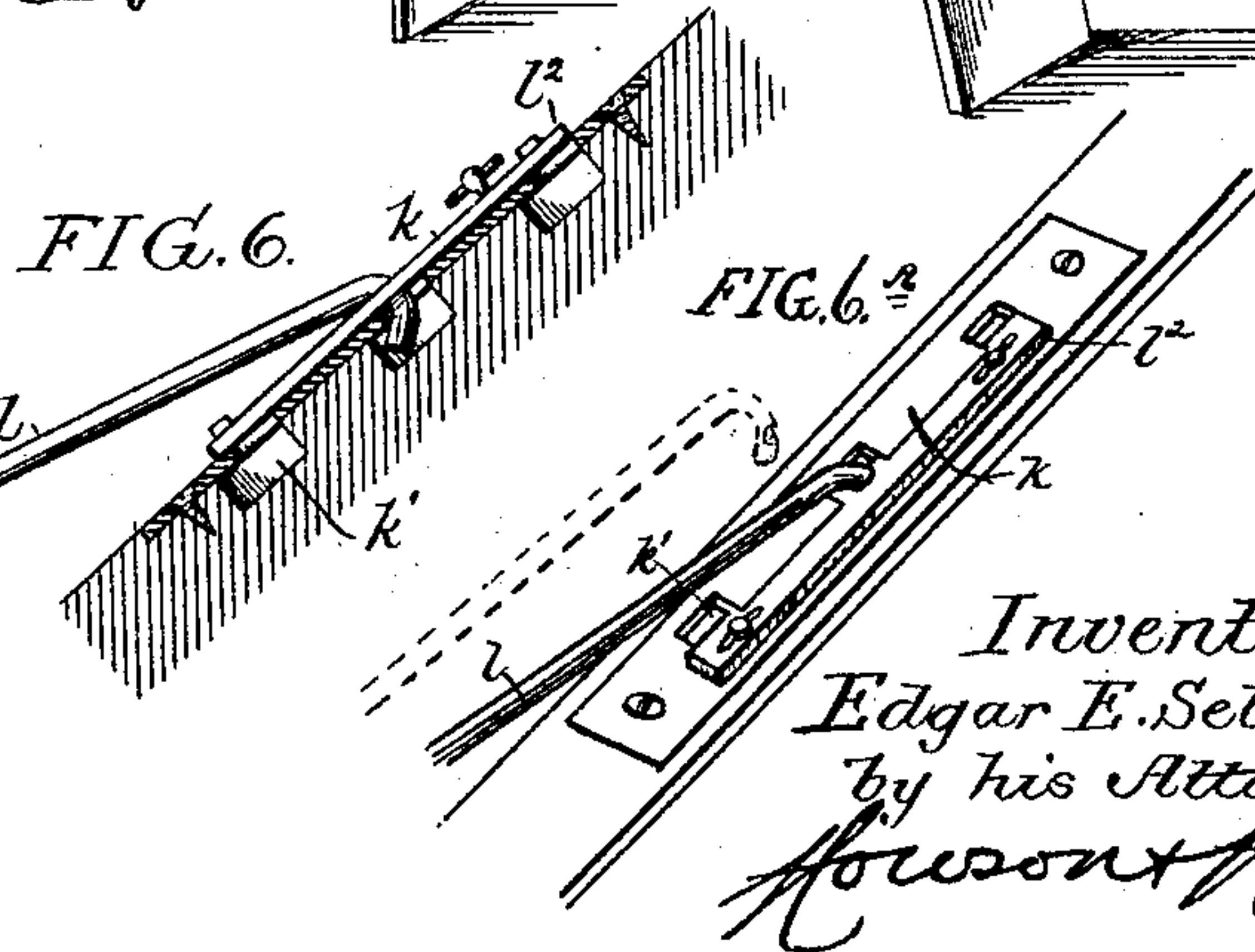


FIG. 6.

FIG. 6a.

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UNITED STATES PATENT OFFICE.

EDGAR E. SELL, OF PHILADELPHIA, PENNSYLVANIA.

CONVERTIBLE FURNITURE.

SPECIFICATION forming part of Letters Patent No. 452,171, dated May 12, 1891.

Application filed June 23, 1890. Serial No. 356,426. (No model.)

To all whom it may concern:

Be it known that I, EDGAR E. SELL, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Convertible Furniture, of which the following is a specification.

My invention relates to certain improvements in the construction of that class of convertible furniture shown in my patent, No. 269,723, of December 26, 1882, its principal object being to combine with a desk an article of furniture which may readily be converted into an easy-chair, a lounge, an operating-table, or a gynecologist's chair or table, the article being adapted to be folded into the desk in such a manner that the desk portion only will be visible.

In the accompanying drawings, Figure 1 is a perspective view of the desk with my improved article of furniture in the form of an easy-chair attached thereto. Fig. 2 is a longitudinal section of a portion of the desk, showing the mechanism employed for adjusting the chair or operating-table to different heights. Fig. 3 is a transverse sectional view of a portion of a desk, showing the catches for locking the chair or table in an elevated position. Fig. 4 is a perspective view showing the article of furniture folded in the form of a gynecologist's chair. Fig. 5 is a longitudinal sectional view of the gynecological table, (shown as a chair in Fig. 4,) detached from the desk. Figs. 6 and 6^a are views showing the devices employed to hold the back of the chair in position. Fig. 7 is a sectional perspective view showing the adjustable extension-stirrups or heel-rests for the gynecologist's chair or table. Figs. 8 and 9 are views showing different adjustments of the article of furniture, and Fig. 10 is a view of the devices employed for adjusting the article of furniture to different heights when detached from the desk.

The top A of the desk is supported upon two pedestals B B', the latter pedestal being employed for the storage of the article of furniture. This article of convertible furniture consists of three principal parts—a central portion C and end sections D and E, hinged at the opposite ends of the central section by peculiarly-shaped bars D³ E³ of the construction shown.

The central section C and the end section E are provided with removable beds C' E', having one side upholstered and the opposite side finished in a manner more suitable for the performance of special surgical operations.

To the under side of the central portion C are pivoted supporting-legs F F', which, when the parts are folded together, form ornamental panels for the end of the pedestal B', the legs being held apart by hinged aprons or spreading-bars C², which may be folded up under the section C when not in use, the lower ends of the spreading-bars being attached to the legs by means of catches c², so as to form a strong brace for the legs when the chair is moved about. I also provide the legs with rollers f³ for convenience in moving the chair or table when detached from the desk.

Each of the legs is provided with an adjustable sliding extension f, by means of which the article of furniture may be adjusted to any desired height, catches f', engaging with notches f² in the extensions, being employed to hold the adjustable legs in the desired position. These catches, as shown in Fig. 10, consist of two sliding bolts x, connected by means of links y to a central operating-plate y' under the control of an operating-handle z.

At each end of the central portion C is secured a bar G, projecting some distance from the side of the chair, and when the chair is attached to the desk these bars are carried by projections g, secured to slides H at each end of the pedestal B'. The slides H are guided vertically in slideways h at the ends of the pedestal, slots g' being cut in one face of the guides to permit of the vertical movement of the projections g.

At the rear of the pedestal B' and mounted in suitable bearings thereon is a rock-shaft I, carrying two crank-arms I', having cam-shaped ends i, adapted to support the slides H, the construction of the cam ends being such that some portion of the cam will be in contact with the center of the lower end of the slides H, and any upward movement given the arms I' will be transmitted directly thereto and any side-thrust prevented. These arms I are connected by links i' to the lower ends of the slides H, so that a positive downward movement of the slide may be had.

A cranked arm J, also secured to the shaft I and projecting outside the pedestal, serves to operate the arms I' and move the slides II to any required position. At the upper end of each slideway *h* is a pivoted catch *h'*, acted upon by a spring *h²* and tending to engage with the slides II as they are raised vertically by the operation of the lever J. By this means the device, when employed as an operating-table or examining-chair, may be raised to a convenient height.

It will be readily seen that by adjusting the pivoted head and foot sections to various positions and by changing the cushions or beds of the different sections various articles of furniture may be formed, as in part illustrated in the different figures in the drawings, and in order to permit of the required number of movements of the pivoted sections I attach them to the central section by means of the peculiar form of hinge-bar as shown in my application for Letters Patent filed January 11, 1886, Serial No. 188,227, the head section E being pivoted to the main body by a bar E³ at each side so formed as to pass partially around the supporting-bar G at the end of the section C, the opposite ends of the bar being pivoted at some distance from the ends of the central and the head sections. The foot-section D is pivoted by means of opposite side bars D³ of a construction similar to those employed for the pivoting of the head section, with the exception that each of these bars is formed of two parts and is provided with a sliding cover *j* at the pivot-point of these two parts, so that a rigid bar may be provided when required in some of the adjustments.

At each side of the head-section E is placed a plate *k*, having a number of orifices *k'*, in which is adapted to fit the hooked end of a rod *l*, pivoted at its lower end to the central section C and adapted to hold the back of the chair in an inclined position when the parts are adjusted as shown in Fig. 1. The ends of the opposite side bars *l* are secured to a shaft *l'*, forming the pivot-point, so that a movement of one bar will result in a corresponding movement of its fellow. In the plate *k* is a sliding bar *l²*, adapted to engage with a slot in the hooked end of the bar *l* to securely hold the bar in any of the orifices *k'* into which it may be placed.

In Fig. 1 the foot-section D is bent downward, as shown, the pivot-bars between the joints assuming the position shown, and the sleeves on the bars sliding from the joint in order to permit the bending of the same, the parts being adjusted to form an easy-chair.

When it is desired to so adjust the parts are to form a surgical table, they are moved in the position shown in Fig. 8, and the cushions or beds C' E' are reversed, so as to bring the hard-finished portion uppermost and form a suitable table for the performance of the operation; or, if only a small portion of the surface is required, the bed of the central por-

tion only is reversed, while the other sections are permitted to hang vertically.

When it is desired to so adjust the parts as to form a lounge, the parts are placed in the position shown in Fig. 9, the foot-section D becoming the head-section, and the rigid connecting-bars supporting said head-section in proper position, while that portion which previously formed the back of the chair assumes a horizontal position.

A leg E², pivoted at the outer end of the section E, is bent downward to provide for its support when the parts are in the position shown in Figs. 8 and 9, and small pivoted panels *e³* are bent downward to brace the legs, as shown. The leg E² is provided with adjustable extensions *f* and catches *f'*, similar to those on the legs F F'.

When it is desired to adjust the parts so as to form a gynecologist's table, the section D is thrown backward so as to rest upon the central section C, and the section E is thrown forward into contact with the end of the section D and is supported in a nearly horizontal position by the pivoted rods *l*, which rest upon projections *m* on the pivot-bars, as shown in Fig. 5; or, if a chair is desired, the parts are readjusted as shown in Fig. 4.

The end of the foot-section D is provided with removable stirrups or heel-rests of the form more clearly shown in Fig. 7, consisting of a rigid bar N, provided at one end with a stirrup and at the other end with a toe *n*, adapted to engage with any one of a series of notches *o* in the plate *p* in the foot-section.

It will be noticed that the bar N is placed to one side of the center of the stirrup, the preponderance of weight on the one side of the bar causing it to automatically engage with one of the notches *o* when brought opposite thereto and released by the operator, it being necessary to give a quarter-turn to the bar to disengage it from one of these notches, and when moved opposite to the next notch of the series, if the stirrup portion be released, the bar will be turned by the weight of the stirrup a sufficient distance to cause the engagement of the toe and hold the stirrup in position.

The stirrups, as will be noticed on reference to Fig. 7, do not form part of the bars *n*, but are merely attached to them, a projection on the stirrup portion entering an orifice in the end of the bar, and the parts being held in position by a thumb-screw *n²*, so that the stirrups may be set at an incline when desired. By means of these devices the chair or table may be adjusted to a position most convenient for the patient and physician, and the stirrups, being adjustable, may be altered to suit different patients, as desired.

The pedestal B' of the desk is provided with slideways *q* for the reception of rods *q'*, carrying between them a transverse rod *r*, from which is hung a curtain S, so that when the chair or lounge is adjusted in position the mechanism for raising and lowering the

chair or table will be hidden from view, as shown in Fig. 1.

For convenience in operation the section of the desk-top which covers the pedestal B' is hinged to the main body, so that it may be thrown back and permit the adjustment or repair of the operating parts.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination of a desk with a chair or other article of furniture, supporting-bars extending from said chair to the interior of the desk, slides in said desk adapted to support said bars, and mechanism for raising and lowering the said slides, substantially as specified.

2. The combination of a desk with a chair or other article of furniture, supporting-bars extending from said chair, slides adapted to support said bars, mechanism for raising and lowering said slides, and catches for holding said slides in position, substantially as specified.

3. The combination of a desk with a chair or other article of furniture, supporting-bars extending from said chair, slideways in the desk, slides, and mechanism for raising and lowering the same, said slides being provided with projections adapted to support said bars, said slideways being grooved or slotted to permit of the vertical movement of said projections, substantially as specified.

4. The combination of a desk with a chair or other article of furniture, supporting-bars extending from said chair to the interior of the desk, slides having projections adapted to support said bars, a rock-shaft, cranked arms connecting said rock-shaft with the slides, and mechanism for operating said rock-shaft, substantially as specified.

5. The combination of a desk with an article of furniture supported by bars extending from said desk and consisting of a number of hinged sections, one of said sections E being provided with catches *k*, bars *l*, pivoted to another of said sections, the ends of said bars being adapted to engage with said catches *k*, and sliding bolts adapted to lock said bars in engagement with the catches, substantially as specified.

6. The combination of a desk with an article of furniture adapted to be supported by bars extending from said desk and consisting of a central section, opposite end sections, pivot-bars *D*³ *E*³, connecting the end sections to said central section, bars *l*, pivoted to said central section, and projections *m* on the pivot-bars *E*³, adapted to support the pivoted bars *l* at an angle, so that the end section *E* may rest upon the outer ends of said bars *l*, substantially as specified.

7. The combination of a desk with a gynecological chair having orifices for the reception and support of stirrup-bars, a series of holding-notches in said orifices, the stirrup-bars, and catches on said bars adapted to engage with any one of said notches, so that the stirrup may be adjusted to any desired distance from the end of the desk, substantially as specified.

8. The combination of a desk with a chair or other article of furniture adapted to be supported by bars extending from said desk, folding supporting-legs for said chair, guideways in said legs, a sliding extension adapted to such guideways and comprising opposite notched vertical portions united at their lower ends by a cross-bar, sliding bolts *x*, adapted to engage with said notched portions, a handled operating-plate, and links connecting said plate to the bolts *x*, substantially as specified.

9. The combination, with a desk having a recess for the reception of a chair or other article of furniture, of a transverse bar *r*, end sections *q'* *q'* thereof, adapted to slide in orifices in the desk, and a curtain suspended from said bar *r*, so that the said curtain can be adjusted to a position flush with the mouth of the recess or against the back board of the same, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDGAR E. SELL.

Witnesses:

JNO. E. PARKER,
HARRY SMITH.