

No. 702,451.

Patented June 17, 1902.

A. R. MILNER.
FOLDING OPERA CHAIR.
(Application filed May 25, 1901.)

(No Model.)

Fig. 1.

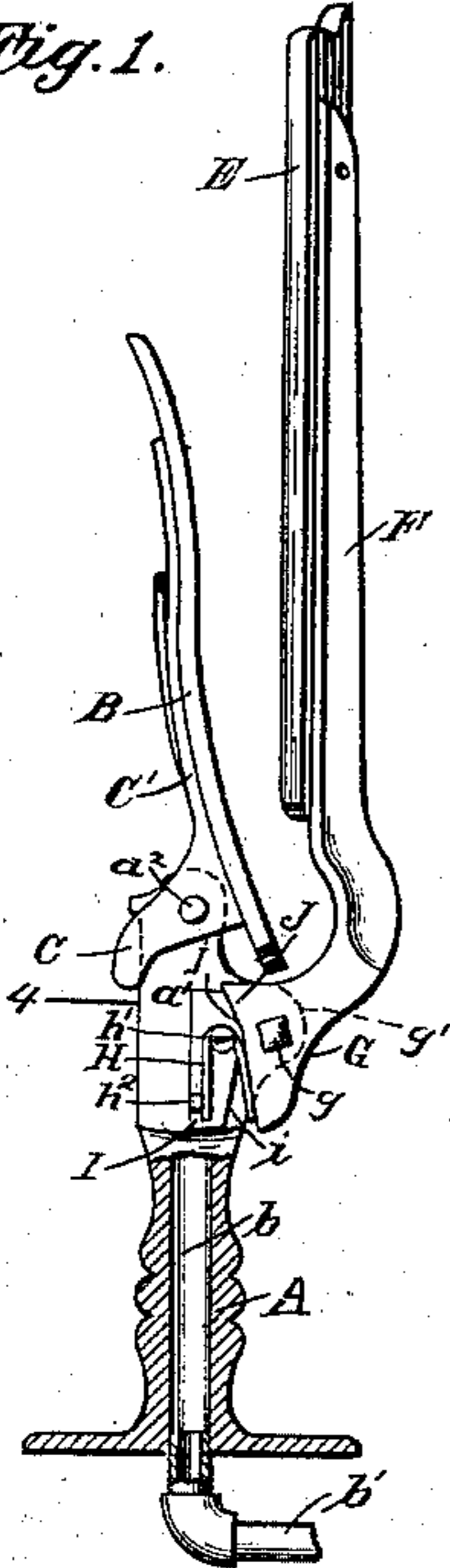


Fig. 3.

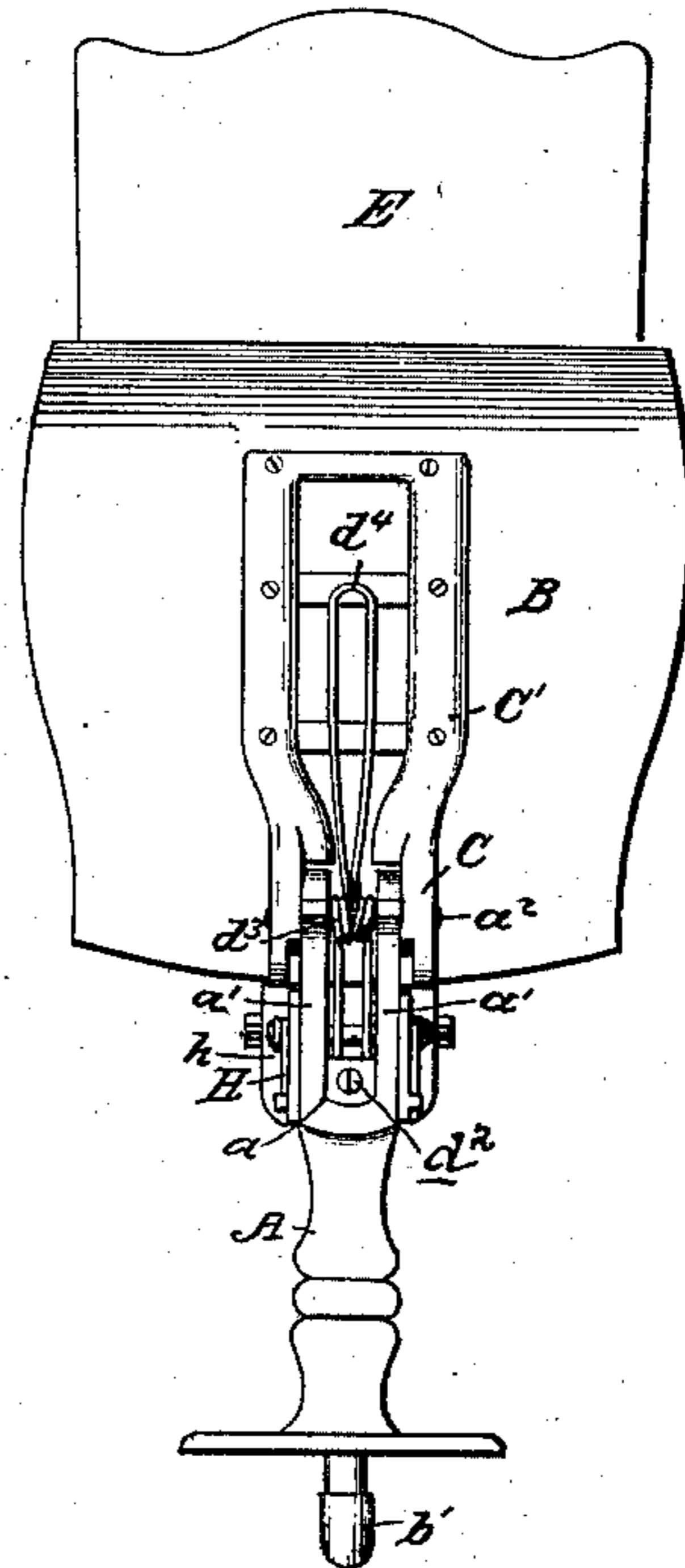


Fig. 4.

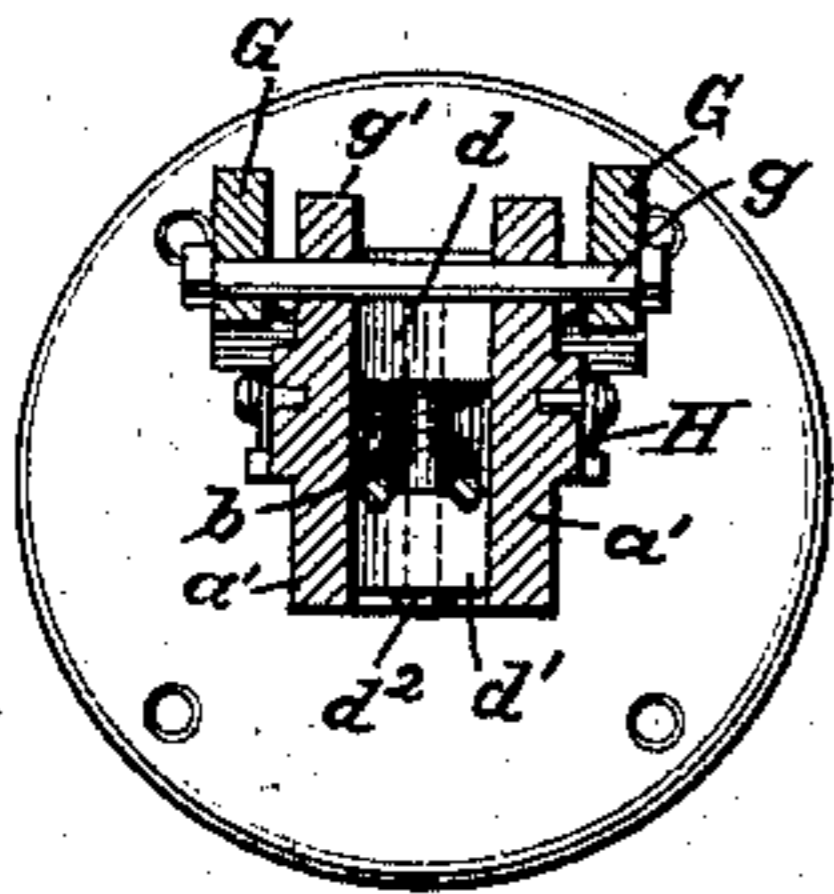
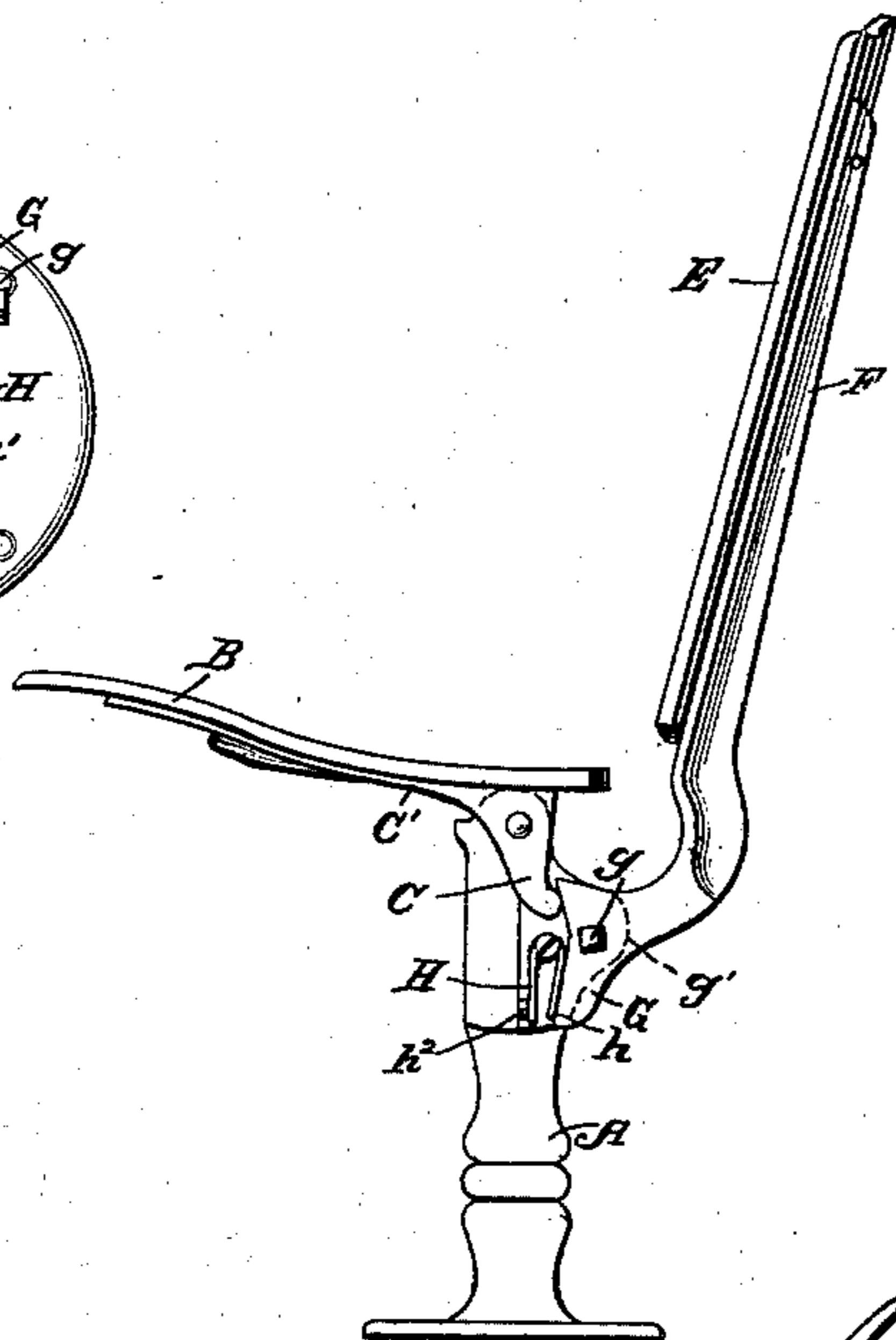


Fig. 2.



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FOLDING OPERA-CHAIR.

SPECIFICATION forming part of Letters Patent No. 702,451, dated June 17, 1902.

Application filed May 25, 1901. Serial No. 61,876. (No model.)

To all whom it may concern:

Be it known that I, ALBERT R. MILNER, a citizen of the United States, residing at Canal Dover, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Folding Opera-Chairs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved folding opera-chair of that peculiar type designed to close automatically when not in use.

The invention embraces the idea of providing a chair with an improved pivoted seat and back, the one adapted to control the other to give the proper inclination thereto.

Novel details in the arrangement and construction of the several parts of the chair will be apparent from the detailed description hereinafter when taken in connection with the accompanying drawings, forming part hereof, and the appended claims.

When hereinafter referring to the drawings, like reference characters will refer to corresponding parts in the several views.

Figure 1 is a side elevation of the chair as it appears when folded, parts being shown in section. Fig. 2 is a corresponding view, the chair being shown in open position. Fig. 3 is a front elevation of Fig. 1, and Fig. 4 is a cross-section of Fig. 1.

Referring more specifically to the drawings, A designates a suitable base or standard adapted to be secured to a floor in an ordinary manner. The standard is provided with a longitudinal through-opening *b*, into which leads a supply-pipe *b'*, adapted to discharge a heating or cooling medium into the standard in a manner to pass outward through the upper portion thereof and be deflected laterally by the seat B for ventilating purposes. The upper end of the standard A is bifurcated, as at *a*, and through the ears *a'* a horizontally-arranged pivot-bolt *a²* passes, at the respective ends of which the seat B is sup-

ported through the medium of oppositely-disposed brackets C, projecting from the casting C', secured to the center of the seat, as shown in Fig. 3. At the lower portion of the bifurcation in the standard is a cross-piece *d*, in the space between which and a vertically-grooved binding-block *d'* the respective ends of a wire spring are secured by a clamping-bolt *d²*. The arrangement of the spring is such as to have at all times the tendency to exert an upward pressure upon the seat-bottom, so as to automatically fold the same when not in use. The respective members of the spring are coiled intermediate their ends to form loops *d³*, which engage over the pivot-bolt *a²* and are connected by a return-bend *d⁴*. By operating the clamping-bolt *d²* the tension of the spring may be adjusted.

The back E of the chair is provided at opposite points with angle-iron brackets F, secured thereto by screws *f*, the latter being provided with extensions G, pivoted through the medium of a pivot-bolt *g* to rearwardly-extending ears *g'* on the standard. The extensions G are respectively provided with an abutment *h*, against which one member of a spring H contacts to throw the back into the vertical position (shown in Fig. 1) when the chair is not in use, said springs being secured to the standard by bolts *h'* and their opposite ends bearing against suitable lugs *h²* on a casting I, formed on the standard. The extensions G are also provided with the upwardly-extending projections J, inclined on their lower surfaces, as at *j*, to subserve two functions, the one to limit the forward movement of the back when the chair is out of use by coming against a correspondingly-inclined edge *i* on the castings I and the other to serve as a bearing for the ends of the brackets C on the seat to throw the back into the inclined position shown in Fig. 2 when the seat is lowered for use.

I am aware that I am not the first to construct a chair with a spring-operated seat or back; but the special arrangement and construction described herein is novel in the art.

As a result of the invention herein described I am enabled to construct a chair of the special character designated of the fewest possi-

ble parts—i. e., three castings, a standard-casting, a seat-casting, and a back-casting—which when assembled need only have the seat, back, and springs secured thereto.

5 Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A folding chair comprising a suitable standard bifurcated at its upper end, a seat,
10 brackets secured to the bottom thereof, a pivot-bolt passing through the brackets and the bifurcated portion of the standard, extensions on said brackets, a spring for automatically throwing the seat out of operative position comprising oppositely-disposed mem-
15 bers looped around the pivot-bolt, and extended in opposite directions to respectively engage the standard and the seat-bottom, a back, oppositely-disposed brackets on said back
20 pivotally connected to the standard, downwardly-extending projections on the brackets, springs on the standard adapted to normally throw the back into vertical position, upwardly-extending projections also on the
25 brackets, adapted to be engaged by the extensions on the seat-bracket, and stops on the

standard adapted to limit the forward movement of the back.

2. A folding chair comprising a suitable standard bifurcated at its upper end, a seat-
30 section, brackets thereon, a pivot-bolt extending through said brackets and the bifurcated portion of the standard, a spring coiled around the pivot-bolt and adapted to normally hold the seat in vertical position, a back, brackets there-
35 on, a pivot-bolt extending through the bifurcated portion of the standard and through the brackets on the back, stops on the standard, downwardly-extending projections on the back-brackets adapted to contact with the
40 stops, other projections on the back-brackets, extensions on the seat-brackets, said projections being adapted to engage the extensions to automatically incline the back when the seat is lowered.
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In testimony whereof I affix my signature in presence of two witnesses.

ALBERT R. MILNER.

Witnesses:

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