

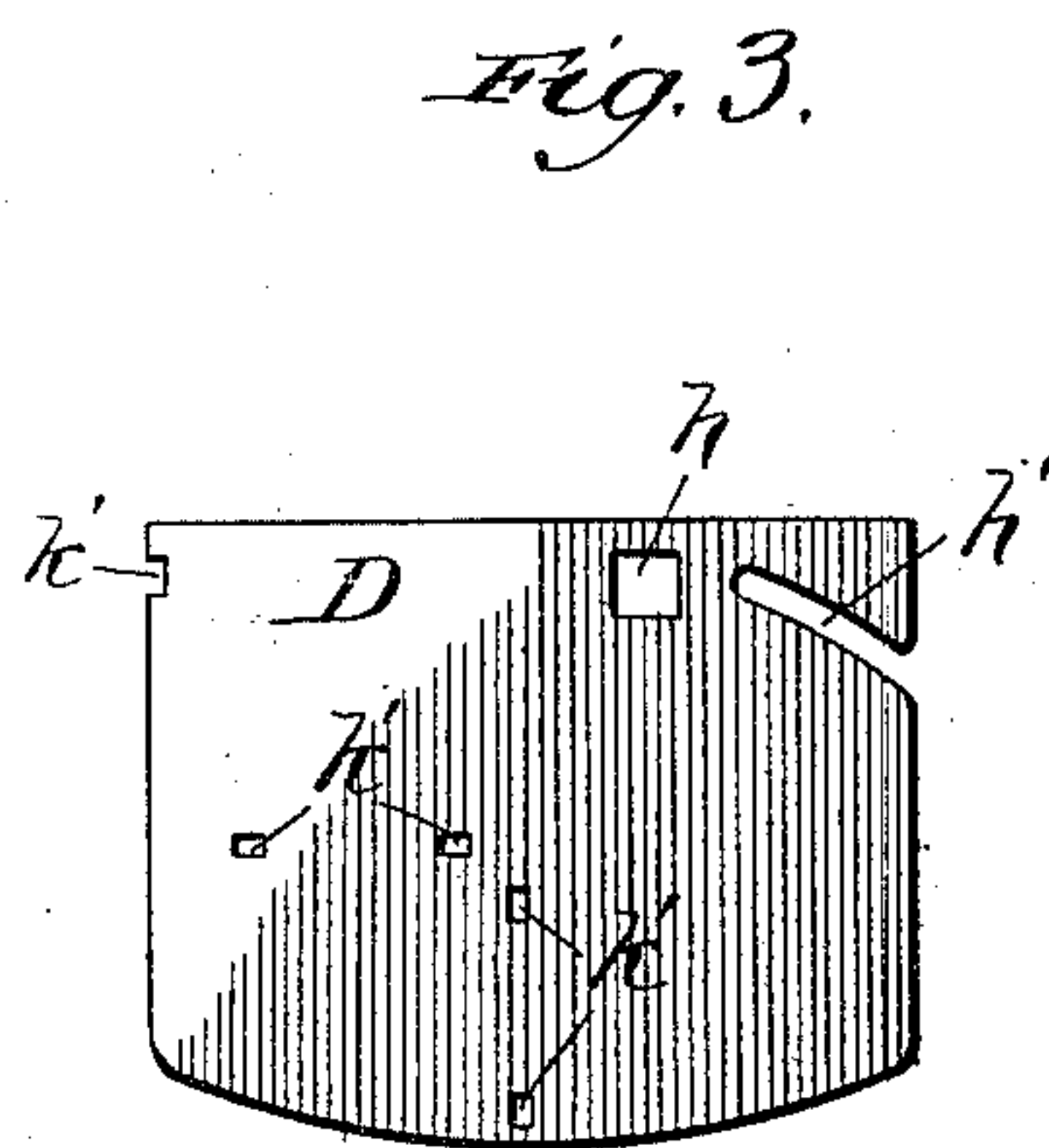
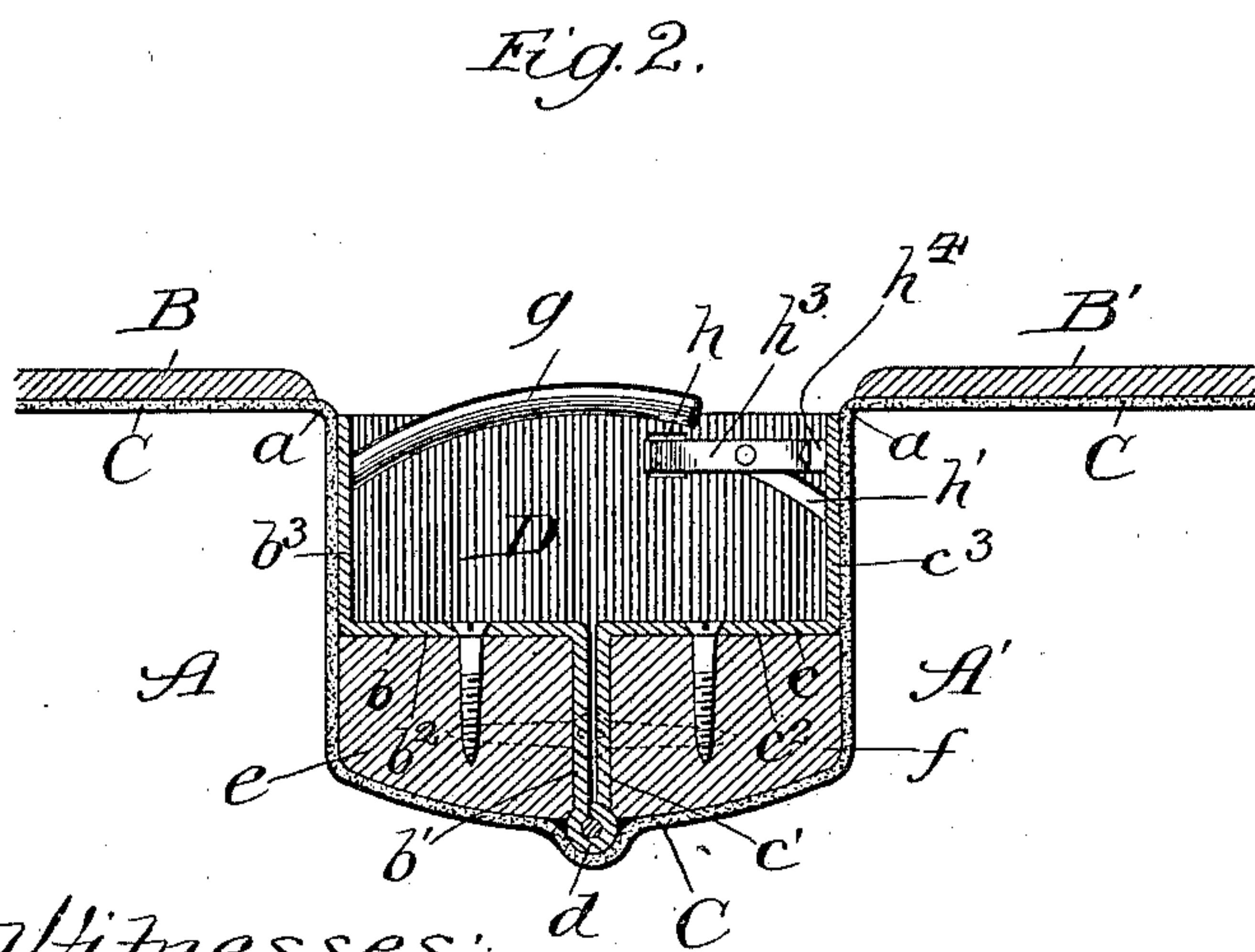
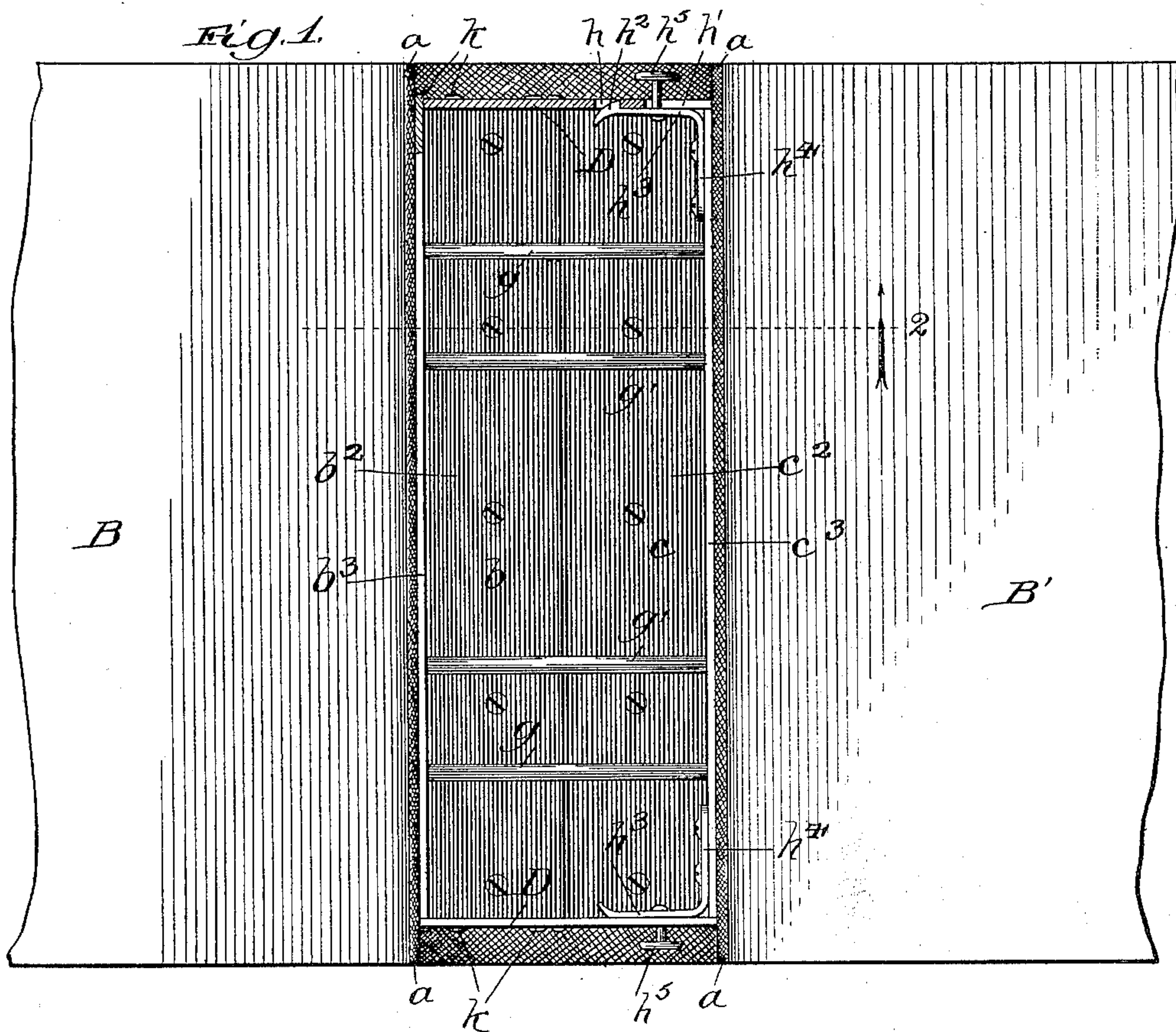
No. 652,439.

Patented June 26, 1900.

F. X. MUDD.
LOOSE LEAF BINDER.

(Application filed Apr. 21, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

FRANK X. MUDD, OF CHICAGO, ILLINOIS.

LOOSE-LEAF BINDER.

SPECIFICATION forming part of Letters Patent No. 652,439, dated June 26, 1900.

Application filed April 21, 1900. Serial No. 13,711. (No model.)

To all whom it may concern:

Be it known that I, FRANK X. MUDD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Loose-Leaf Binders, of which the following is a specification.

My invention relates to that class of temporary or loose-leaf binders in which provision is made for separating the leaves readily at any place for the purpose of removing any desired leaf.

My object is to provide an improved construction for binders of the type having back-sections hinged together centrally of the back and provided at each of the two sections with times or impaling-prongs for entering the leaf-perforations and adapted to receive at either section when the binder is open any number of the leaves, whereby the leaves may be parted, as desired, with a view to removing any particular leaf.

My invention consists in the improved back-section structure and the improved locking mechanism hereinafter described.

In the accompanying drawings, Figure 1 is an inner view of the binder with the cover-sections thrown open while the back-sections remain closed, a portion of a back-section end being broken away to expose the locking device; Fig. 2, a section taken as indicated at line 2 of Fig. 1, and Fig. 3 a detail view of a metallic end and lock-piece employed.

A A' represent back-sections, and B B' cover-sections flexibly joined to the back-sections at *a*. The back-sections comprise suitably-disposed Z-shaped sheet-metal hinge-pieces *b* and *c*, pivotally joined at their lower edges at *d*, and filling-blocks *e* and *f* of wood or other light material. The Z-shaped pieces are so disposed that two flanges *b'* and *c'* lie side by side at the center plane of the binder. The webs *b²* *c²* project in opposite directions therefrom, and the flanges *b³* *c³* project from the webs on the side away from the pivotal connection of the back-sections. A covering of canvas or other flexible material *C* is shown on the outer surfaces of the back-sections and cover-sections.

The back-section A is shown provided with curved impaling-prongs *g* and the section A' with similar prongs *g'*. One of said sections

(here A) is provided with end pieces D, rigidly joined thereto and each provided with a catch-receiving perforation *h* and a curved slot *h'*. The other back-section is provided inside the planes of the ends D with out-turned catches *h²*, preferably carried by springs having portions *h³* parallel to said ends and intumed portions *h⁴*, secured to the flange *c³*. The portions *h³* are provided with outwardly-projecting buttons or lugs *h⁵*, which move in the curved slots *h'* and serve to unlock the catches.

The preferred method of securing the end pieces D to the back-section A is to provide the latter at its ends with studs or projections *k*, which project through perforations *k'* in the end plates and are riveted. Screws are employed to secure the metallic parts to the blocks *e* and *f* properly.

The manner of using files of the general character described is well understood. In the present construction the catches *h²* are located at such a distance from the pivot *d* as to give them great efficiency in holding the back-sections closed. When desired, however, the catches are readily forced inwardly by means of the buttons *h⁵*, and thereby disengaged from the ends D, permitting the back-sections to swing open.

The construction is cheap, durable, and perfectly adapted to its purpose.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a loose-leaf binder, the combination of pivoted back-sections comprising Z-shaped sheet-metal hinge-plates disposed with one set of flanges side by side at the central plane of the binder and with webs extending in opposite directions at a distance from the pivotal connection, and impaling-prongs carried by said back-sections, substantially as and for the purpose set forth.

2. In a loose-leaf binder, the combination of Z-shaped hinge-plates pivoted together at two adjacent flanges located at the central plane of the binder, filling-blocks outside the webs of said plates, end plates secured to one of the back-sections thus formed and provided with catch-engaging perforations, and catches carried by the other back-section, substantially as and for the purpose set forth.

3. In a loose-leaf binder, the combination of

Z-shaped hinge-plates pivoted together at two adjacent flanges located at the central plane of the binder, filling-blocks outside the webs of said plates, end plates secured to one
5 of the back-sections thus formed and provided with catch-engaging perforations, and catches located on the innersides of said end plates and carried by the other back-section

and provided with operating means projecting outside the end plates, substantially as is and for the purpose set forth.

FRANK X. MUDD.

In presence of—
D. W. LEE,
A. D. BACCI.