

No. 848,245.

PATENTED MAR. 26, 1907.

J. H. HORWITZ.  
FILE BOOK, &c.  
APPLICATION FILED NOV. 30, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

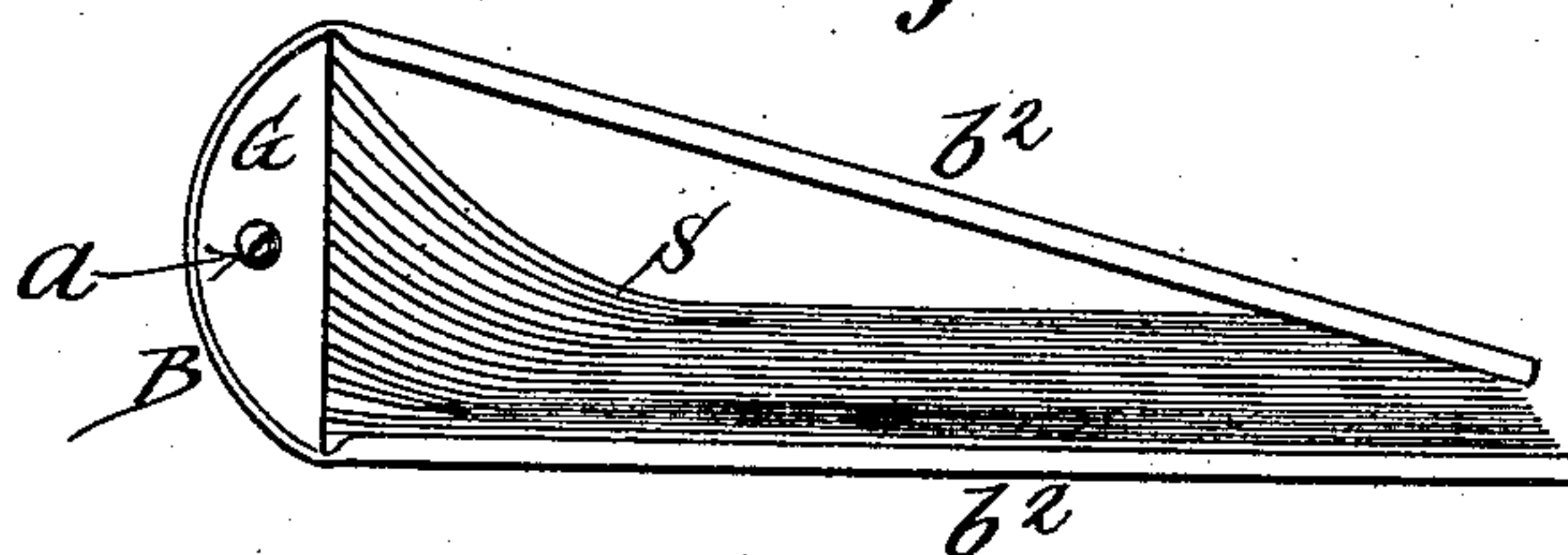


Fig. 2.

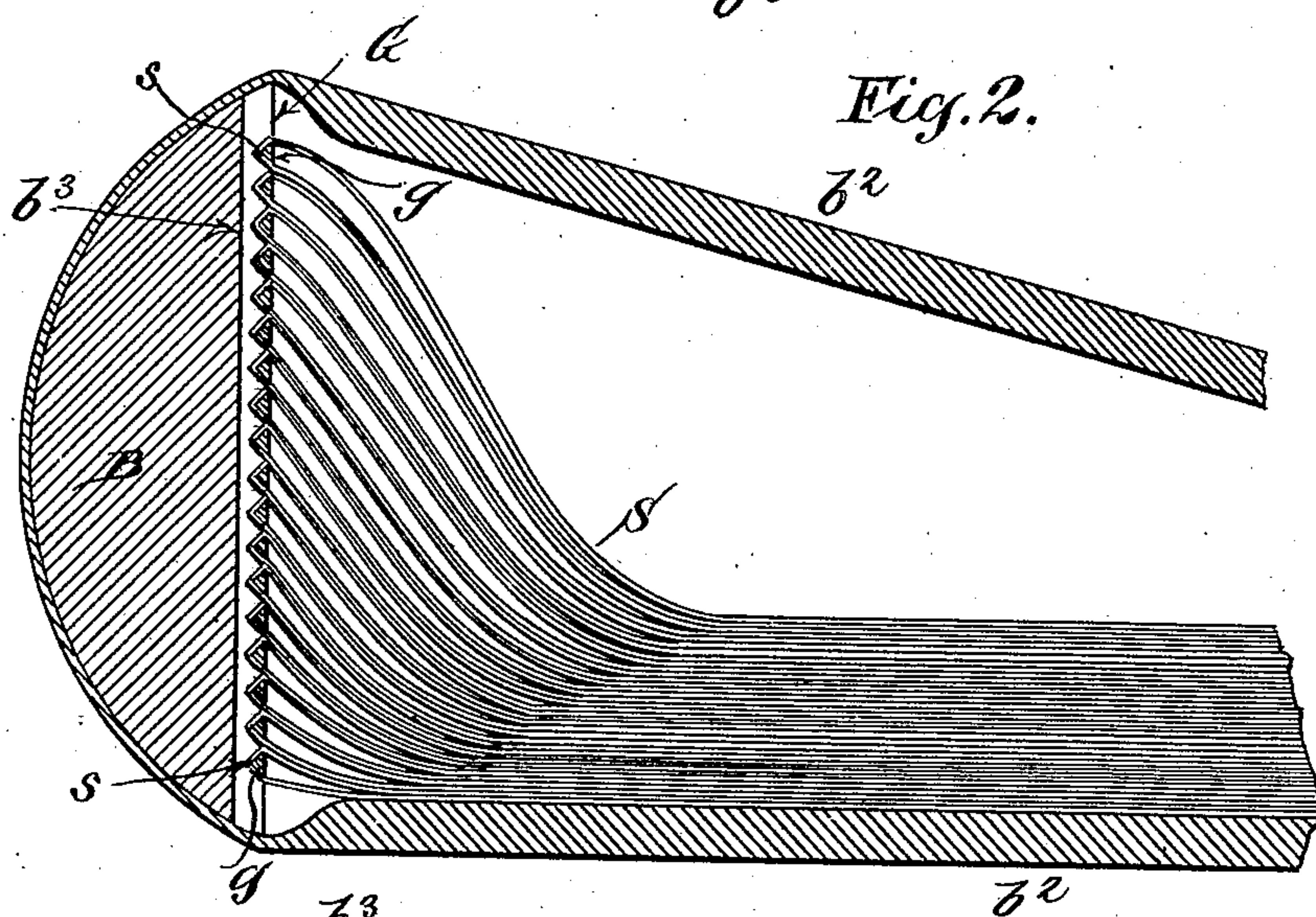
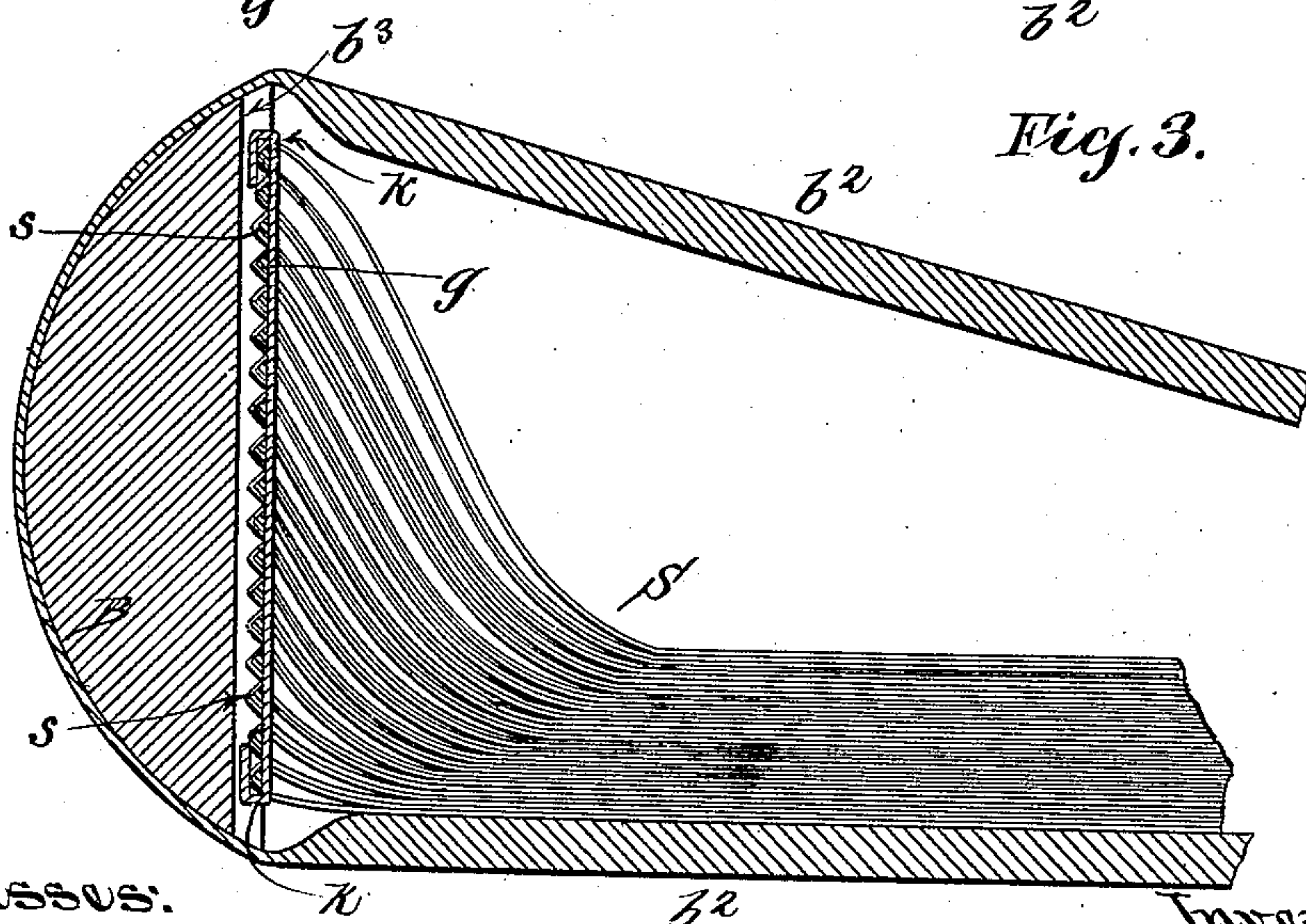


Fig. 3.



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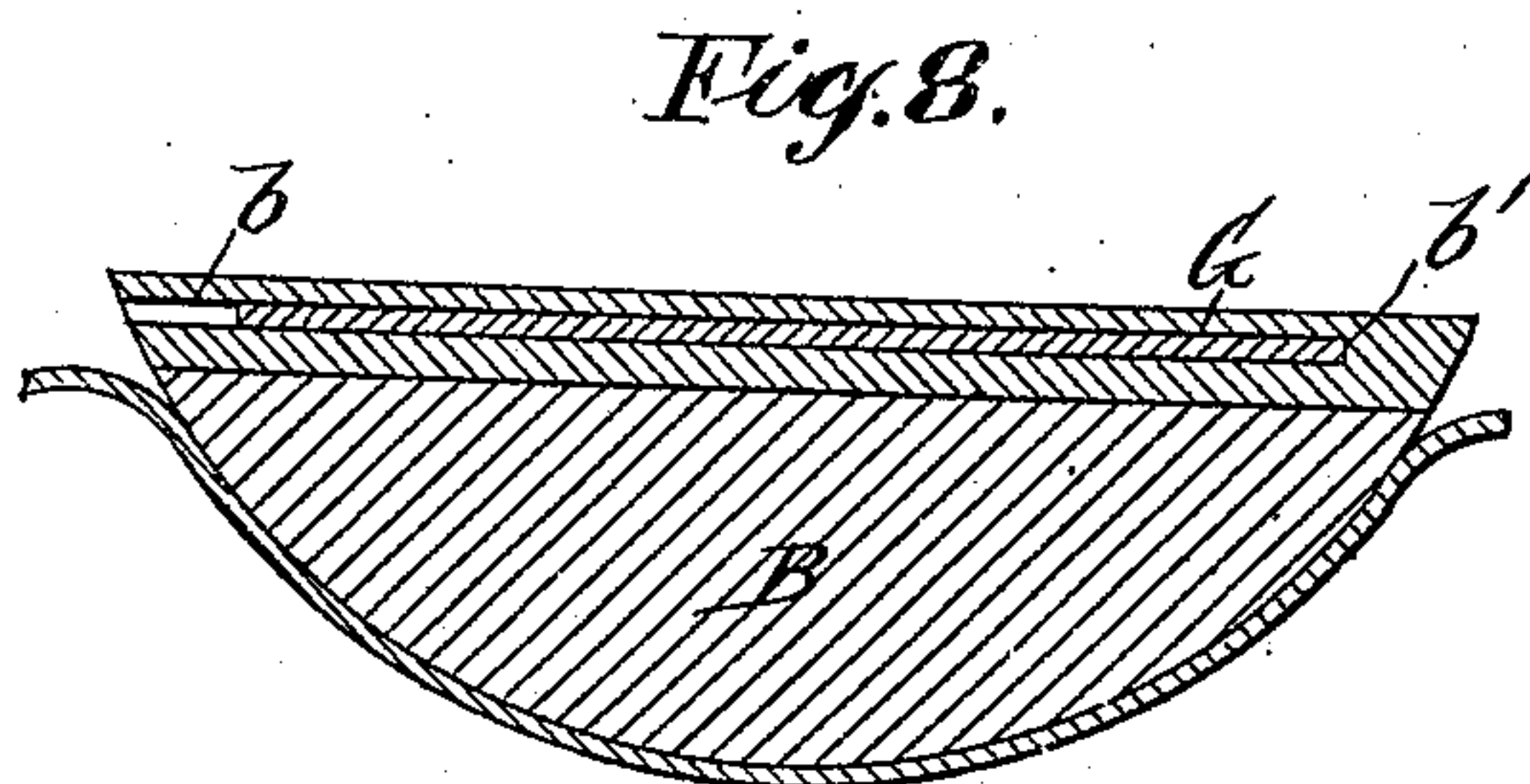
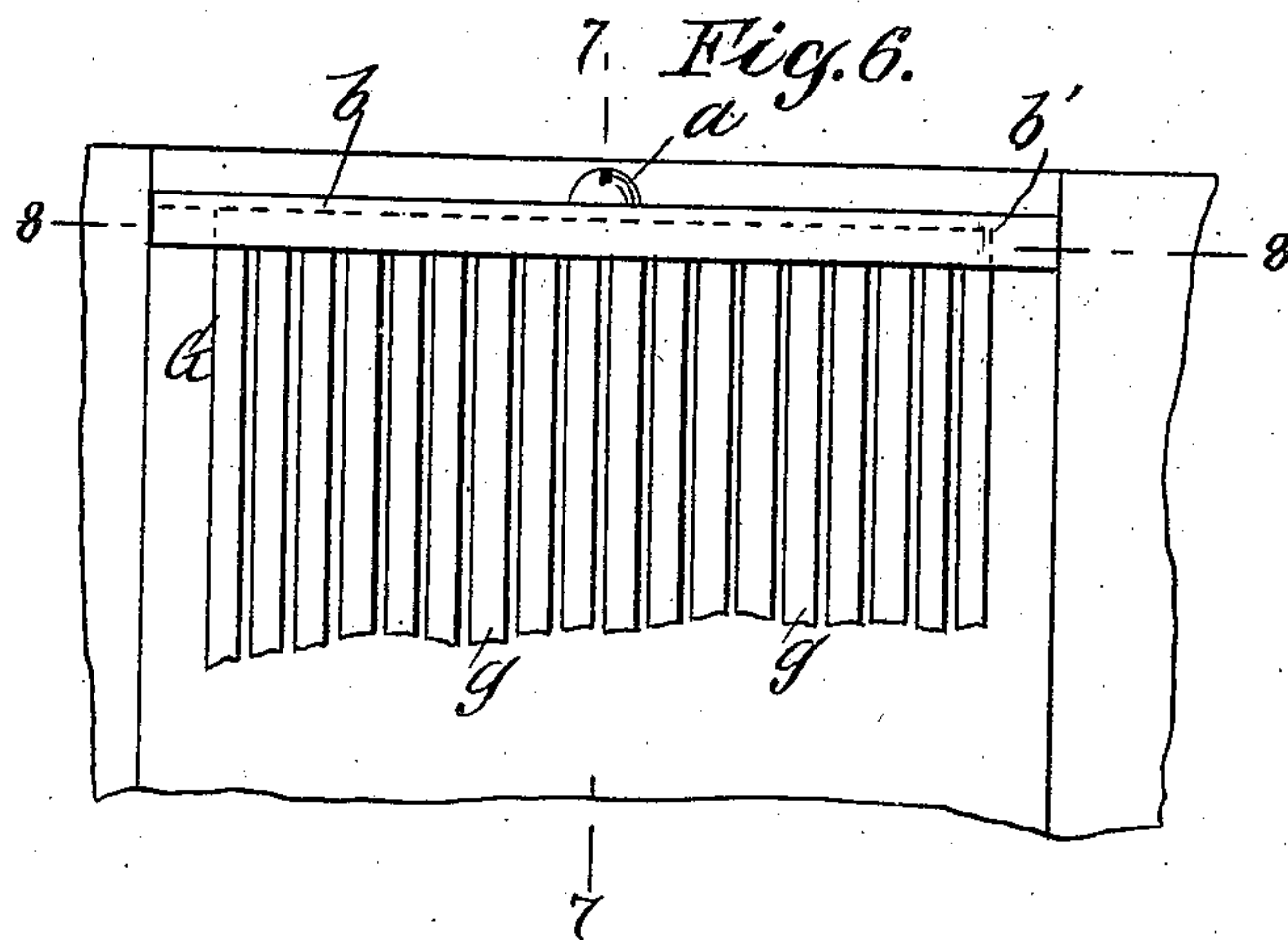
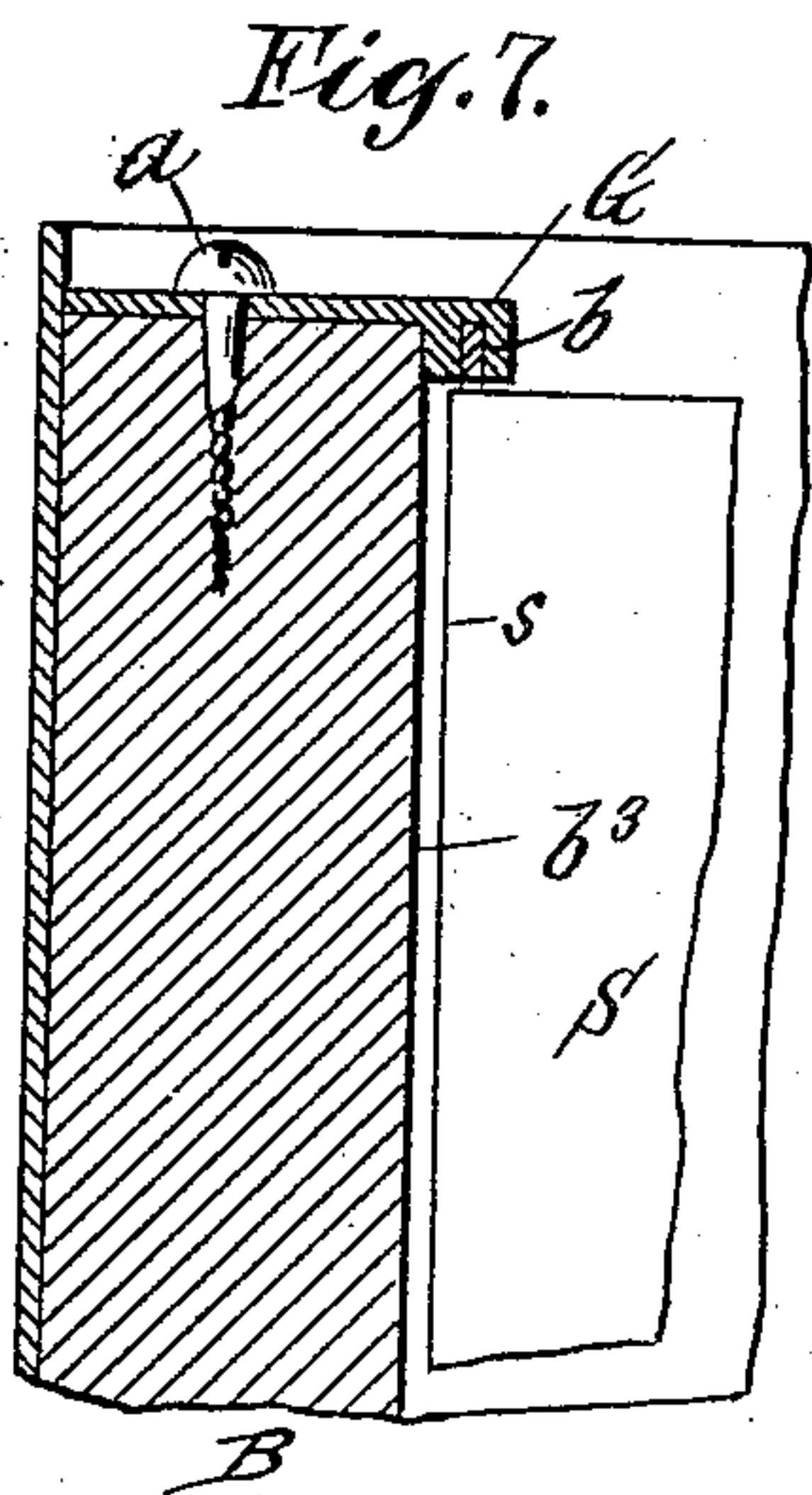
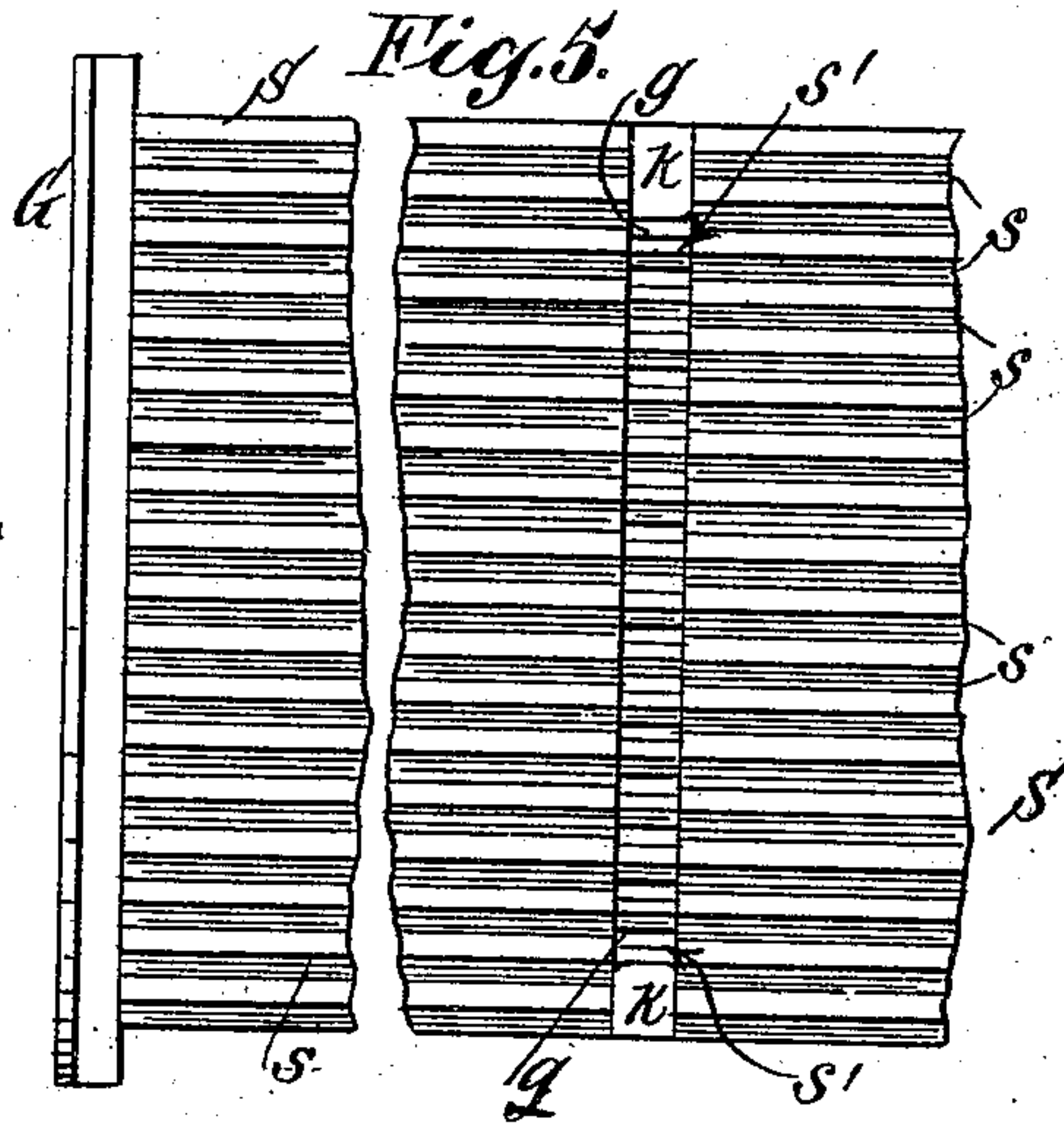
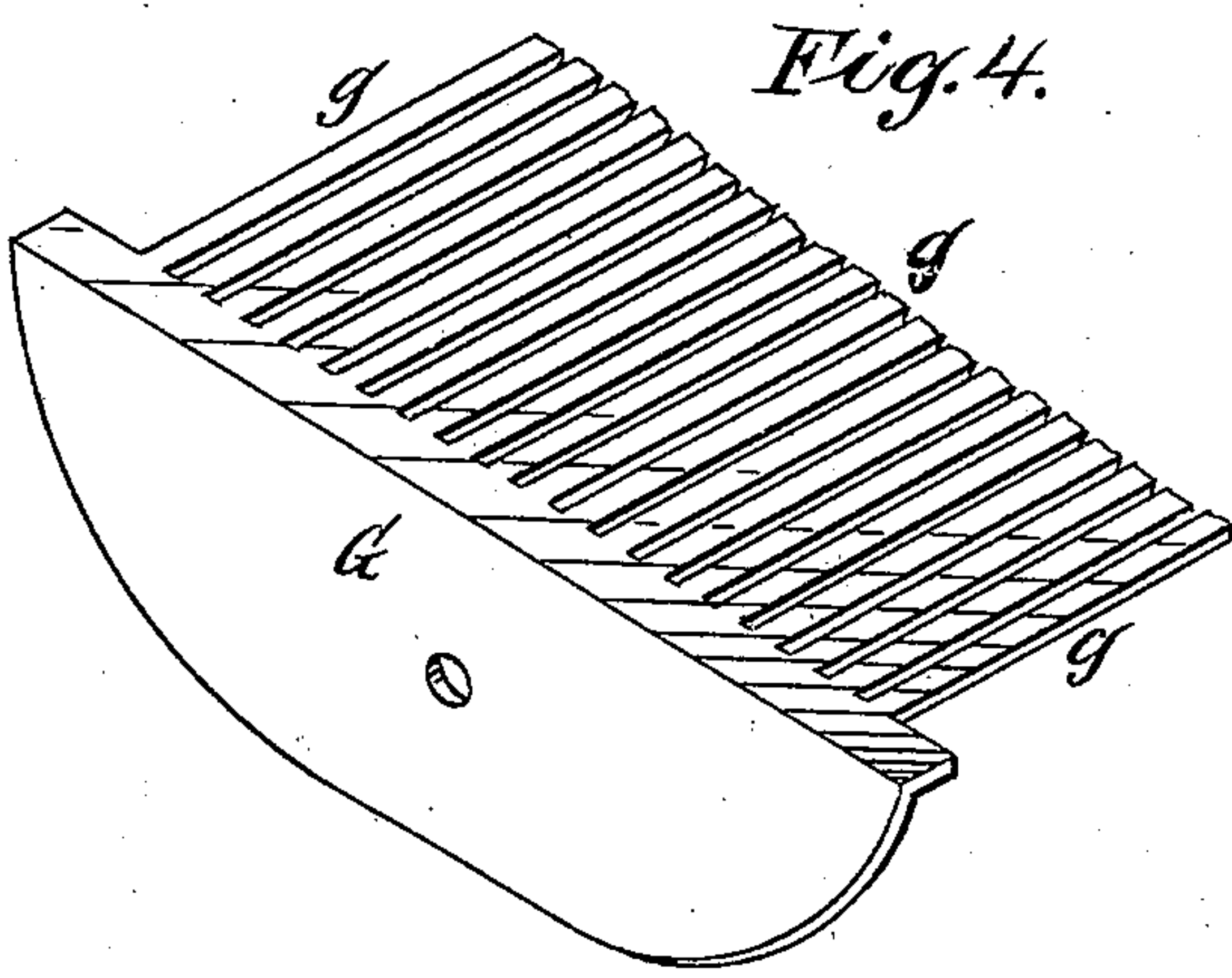


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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

JACOB H. HORWITZ, OF NEW YORK, N. Y.

## FILE-BOOK, &c.

No. 848,245.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed November 30, 1906. Serial No. 345,685.

*To all whom it may concern:*

Be it known that I, JACOB H. HORWITZ, a citizen of the United States, residing in the borough of the Bronx, city, county, and State of New York, have invented certain new and useful Improvements in File-Books, &c., of which the following is a specification.

My improvements relate to the class of books used for filing and exhibiting various articles—such as letters, prescriptions, samples, pictures, and the like—and are designed to afford a simple, convenient, and substantial structure, which will maintain its shape permanently under all conditions of use, and in which the inherent defects and weakness of prior file-books are avoided.

Heretofore the leaves and spacers constituting the several signatures of such file-books have been sewn together to form the rounded flexible forwarded back of ordinary construction, which has many inherent disadvantages as applied to books of this class subjected, as they usually are, to severe usage. For instance, the stitching gives out, and the flexibility of the forwarded back allows it to bulge outward more and more as the spaces between the leaves become occupied by insertions, rendering the inner parts of the pages inaccessible, or at least inconvenient of access.

A distinguishing feature of my invention is the use of a rigid flat grill the bars of which not only hold the signatures in place but also act as spacers to compensate for the thickness of the insertions upon and between the pages. This grill, or signature-holder, being preferably metallic, is practically indestructible under ordinary conditions of use and being flat and permanent in shape affords many practical advantages as compared with the old flexible round back. Thus my book so formed may be opened and closed absolutely on the "flat" without straining or injuring the parts, thereby rendering the book more convenient and accessible in use and making the whole of each page available. Furthermore, the structure is not only stronger and more durable, but the parts may be assembled more quickly without the aid of skilled labor, thereby reducing the cost of manufacture while affording a superior article.

In conjunction with this new method of securing the signatures my invention inci-

dentally includes certain other features in the construction and arrangement of parts herein described and claimed specifically.

In the accompanying drawings, Figure 1 is an end view, upon a small scale, of my improved file-book closed. Fig. 2 is a partial section, full size, of the same closed. Fig. 3 is a similar view on a plane passing through the key. Fig. 4 is an isometrical view of one end of the grill, taken from the front side thereof; Fig. 5, a rear view of a portion of the grill, partly broken away, with the signatures attached thereto; Fig. 6, a front view of one end of a modified form of grill, which is removable; Fig. 7, a section upon plane of line 7 7, Fig. 6. Fig. 8 is a section upon plane of line 8 8, Fig. 8.

G is the signature-holder, consisting, preferably, of a plain flat metal plate formed with the longitudinal bars *g g*, which are also preferably, though not necessarily, triangular in cross-section. By making the bars *g g* triangular in cross-section with an apex of the triangle at the back of the grill-plate G, I facilitate the insertion of the edges of the signatures S.

Each signature may of course consist of any suitable number of sheets folded to constitute the leaves of the book, each signature, as represented in the accompanying drawings, showing only one sheet and fold for convenience and clearness of illustration. The edges of the signatures are passed through the slots between the bars *g g* of the grill and the signatures drawn forward until their bights rest against said bars.

The desired number of signatures having been thus placed, the grill is attached to a rigid back B by any suitable means, as by means of screws *a a* passing through the flanged ends of the grill and entering the ends of the back B, as shown in Figs. 1 and 7. This or any other simple mechanical expedient may be resorted to in attaching the grill to the back where the connection is designed to be more or less permanent; but where the connection is to be temporary in character I omit the flanges on the ends of the grill, make said ends plain and form grooves *b b* on the back B for the reception of the ends of the grill, as shown in Figs. 6, 7, and 8, in which case I prefer to close one end of each groove *b* with a shoulder *b'*, so that the grill can be inserted or removed only on one side



of the back, said shoulder  $b'$  also acting to centralize the grill and sustain it against lateral movement in one direction.

The back may or may not be provided with the side boards or covers  $b^2$   $b^2$ , as may be found most expedient for the purposes for which the file is used. In any case it is provided with a flat inner surface  $b^3$ , which when the grill is in place is opposed to the bights of the signatures, and it is preferably in cross-section in the form of the segment of a circle with the chord opposed to the grill.

Where it is desirable to prevent the withdrawal of a signature or any of the leaves thereof, I form each signature  $S$  with a slot  $s'$ , the slots in all the signatures coinciding in position with relation to each other, and pass a key  $k$  through these slots  $s'$  and attach it to the grill  $G$ . This key may consist, as shown, of a simple strip of metal or other suitable material having its ends, after the strip is inserted through the slots  $s'$  in the signatures, bent around the longitudinal edges of the grill, as will be seen by reference to Figs. 3 and 5, or any other mechanical expedient may be substituted with like results—that is, the locking of the leaves in the grill.

Owing to the flatness and rigidity of both the opposed surface of the back and of the grill itself, the signatures practically open absolutely on the “flat” and the whole surface of each page is exposed and rendered available. Furthermore, the structure while simple is much stronger and more durable than the known form of stitched book with flexible back, and there is less liability of injuring the leaves in use.

It will be seen that the bars  $g$   $g$  perform a double function in that they secure the leaves in place and at the same time create the necessary space in each signature to compensate for the insertion of material upon and between the pages thereof.

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

1. In a book of the character designated, the combination of a signature-holder consisting of a grill having parallel bars adapted to fit within the bights of the signature-folds, said signatures formed with slots in the bights of their folds, and a key extending through said slots and secured in such position, for the purpose described.

2. In a book of the character designated, the combination of a signature-holder consisting of a grill formed of a single piece of flat metal with parallel bars adapted to fit into the bights of the signature-folds, said signatures formed with slots in the bights of their folds, a key extending through said slots and secured in such position, a cover formed with a rigid back, and means for securing said

grill to said rigid back of the cover, for the purpose described.

3. In a book of the character designated, the combination of a signature-holder consisting of a grill having parallel bars adapted to fit within the bights of the signature-folds, said signatures formed with slots in the bights of their folds, and a key extending through said slots and attached to the grill, for the purpose described.

4. In a book of the character designated, the combination of a signature-holder consisting of a grill having parallel bars adapted to fit into the bights of the signature-folds, said signatures formed with slots in the bights of their folds, a key extending through said slots and attached to the grill, a rigid back, and means for attaching said grill thereto, for the purpose described.

5. In a book of the character designated, the combination of a signature-holder consisting of a grill having parallel bars adapted to fit within the bights of the folds of the signatures, said signatures, and a rigid back attached to said grill by means of grooves on said back adapted to receive the ends of the grill, for the purpose described.

6. In a book of the character designated, the combination of a signature-holder consisting of a grill having parallel bars adapted to fit within the bights of the folds of the signatures, said signatures, and a rigid back attached to said grill by means of grooves on said back adapted to receive the ends of the grill, each of said grooves being closed at one extremity, for the purpose described.

7. In a book of the character designated, the combination of a signature-holder consisting of a grill having parallel bars adapted to fit within the bights of the folds of the signatures, said signatures formed with slots in the bights of their folds, a key extending through said slots and attached to the grill, and a rigid back attached to said grill by means of grooves on said back adapted to receive the ends of the grill, for the purpose described.

8. In a book of the character designated, the combination of a signature-holder consisting of a grill having parallel bars which are triangular in cross-section and are adapted to fit within the bights of the signature-folds, said signatures formed with slots in the bights of their folds, a key extending through said slots and attached to the grill, and a rigid back attached to said grill and formed with a flat surface parallel to the grill and opposed to the bights of the signatures, for the purpose described.

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