

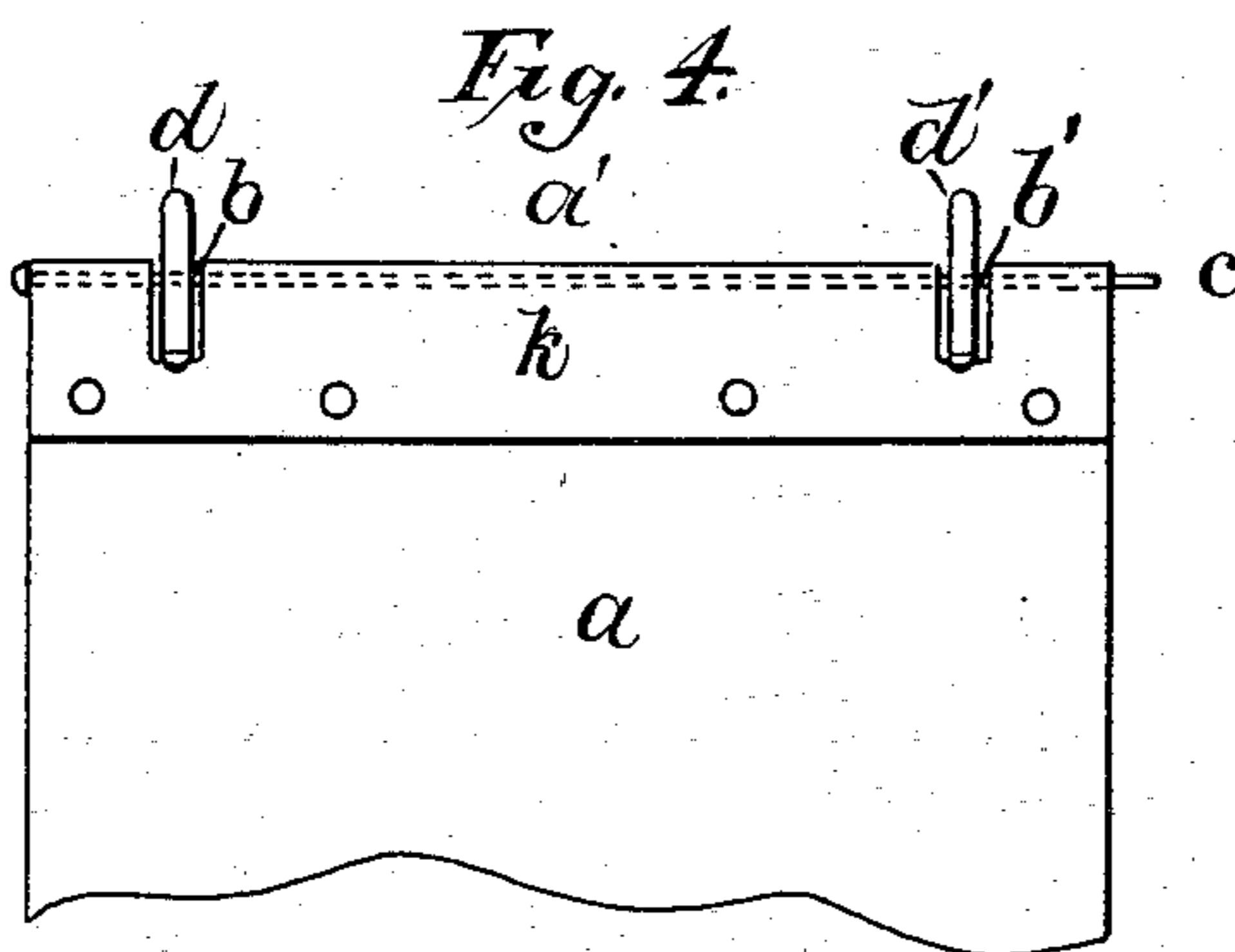
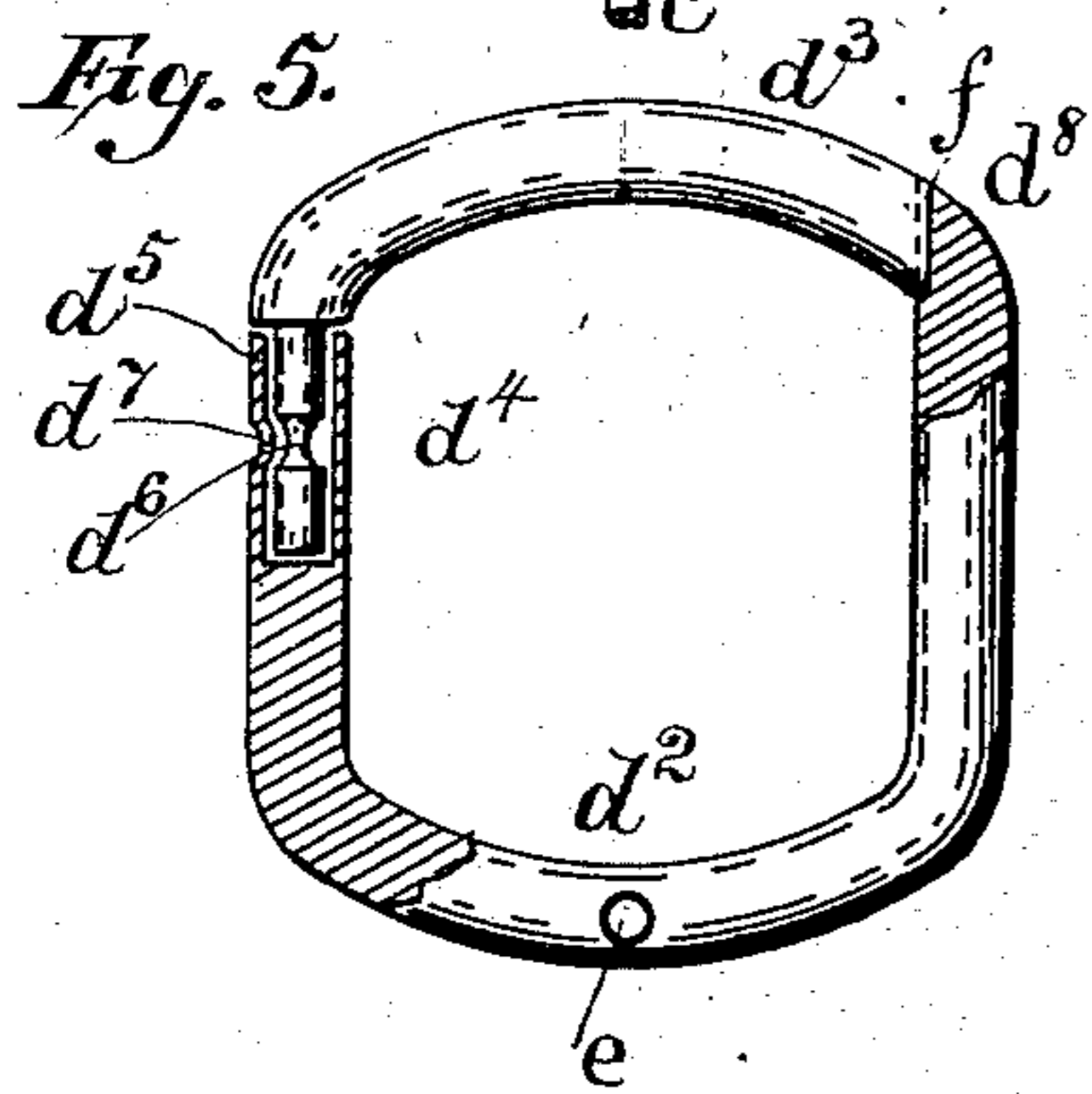
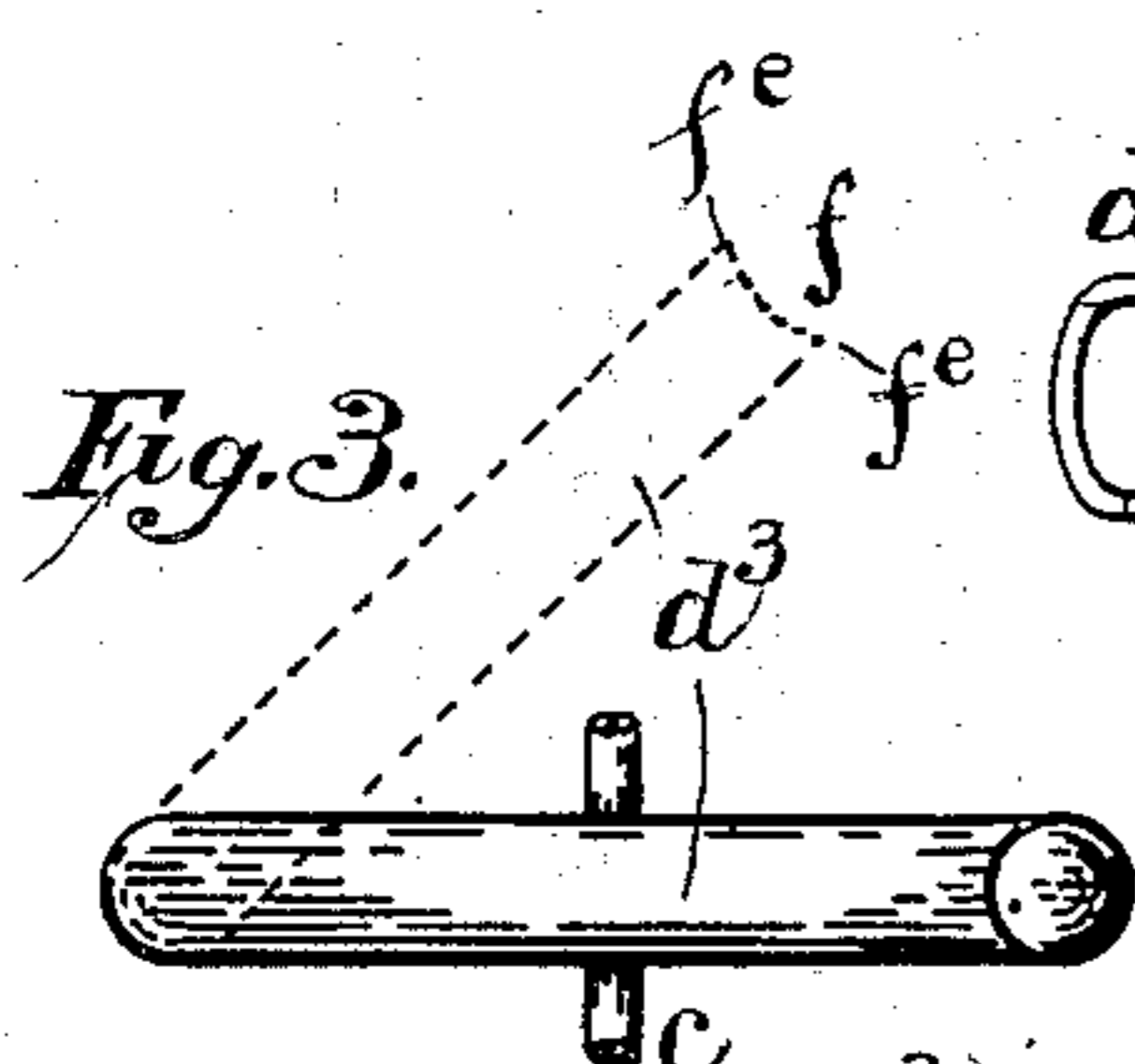
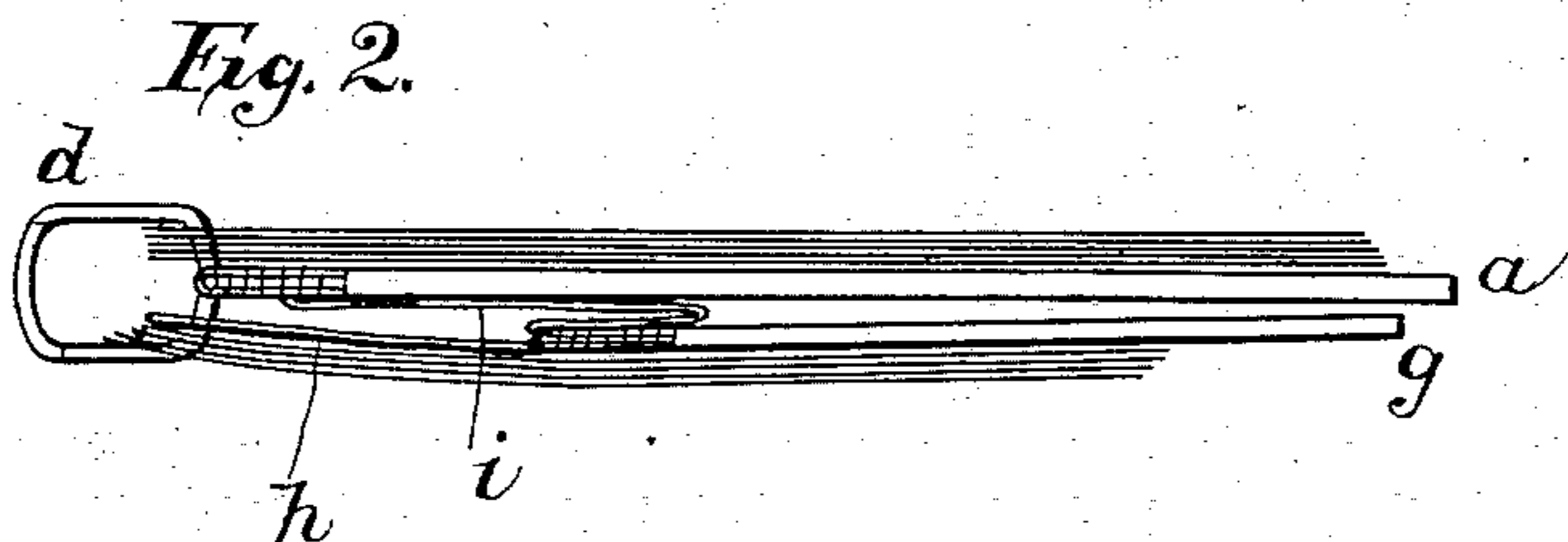
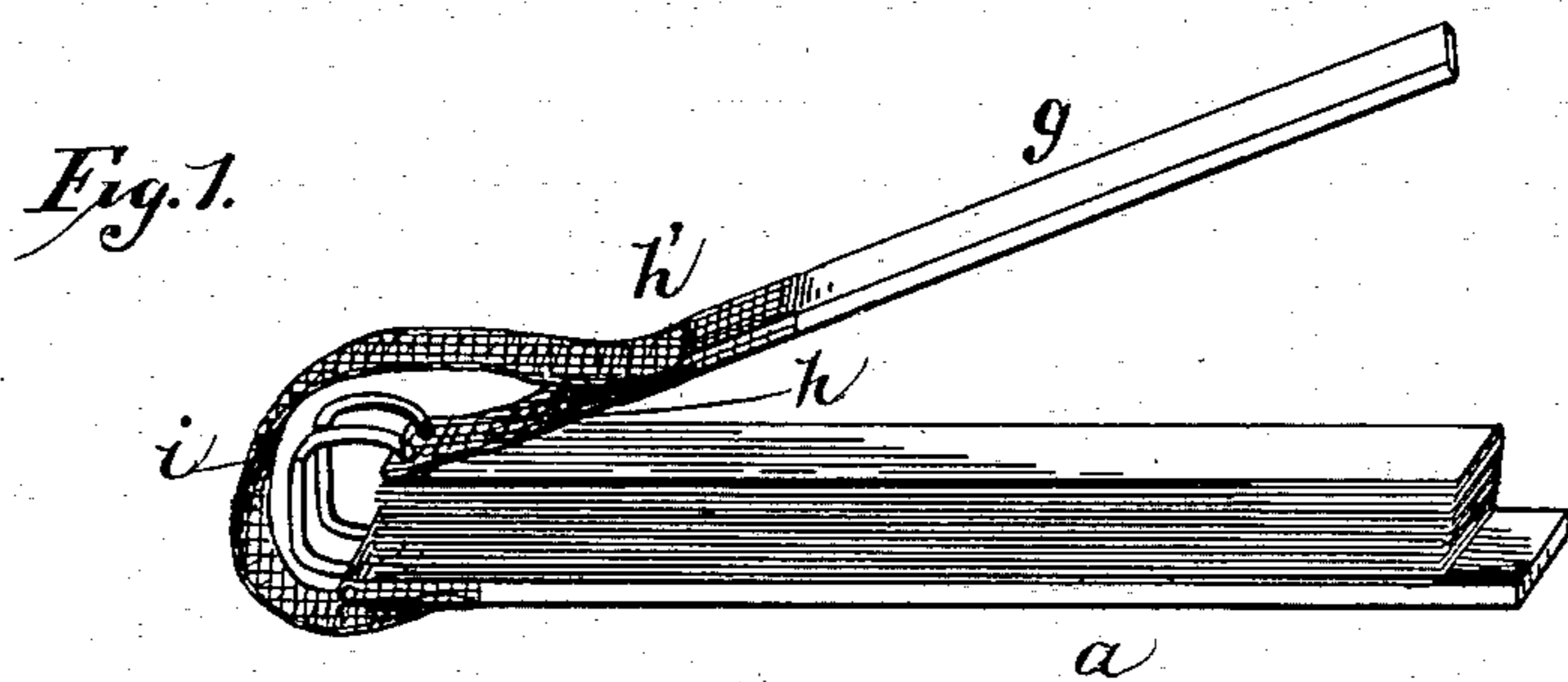
No. 651,950.

Patented June 19, 1900.

L. M. MORDEN.  
SEPARATE LEAF BOOK.

(Application filed Nov. 28, 1898. Renewed Nov. 16, 1899.)

(No Model.)



Witnesses:

Geo. Hargen  
E. D. Dimmick

Inventor,  
Lucena M. Morden  
by *T. J. Geisler*  
Attorney.

# UNITED STATES PATENT OFFICE.

LUCENA M. MORDEN, OF PORTLAND, OREGON.

## SEPARATE-LEAF BOOK.

SPECIFICATION forming part of Letters Patent No. 651,950, dated June 19, 1900.

Application filed November 28, 1898. Renewed November 16, 1899. Serial No. 737,251. (No model.)

*To all whom it may concern:*

Be it known that I, LUCENA M. MORDEN, a citizen of the United States, and a resident of Portland, county of Multnomah, and State of Oregon, have invented certain new and useful Improvements in Separate-Leaf Books, of which the following is a specification, reference being had to the accompanying drawings as a part hereof.

My invention relates to blank books of the separate-leaf class, in which a number of loose sheets of paper having perforated binding edges are removably secured between a base and cover, enabling the removal, substitution, and insertion of single sheets or sections of paper at will. I have heretofore invented an improvement in blank books of this character, for which invention I made application for Letters Patent of the United States, filed June 24, 1898, Serial No. 684,438; and the object of my present invention is the further perfection of such blank books, so as to make them well adapted for convenient use.

The binding or filing rings of my present invention are of better construction for the purpose intended, and the outer covers are so joined together as to be more easily handled and adjusted and at the same time presenting a neater appearance. These features of my present invention will be apparent from the said drawings, in which—

Figure 1 is a perspective of my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a plan of one of my file or binder rings. Fig. 4 is a partial plan of the base of my book, showing the upper edge provided with slots, a knuckle, and a pair of binder-rings hinged in such slots; and Fig. 5 is an elevation of one of my binder-rings, with parts broken away to show those portions of such ring which are of special construction.

The letters designate the parts referred to in the description of my invention.

The fundamental plan of construction of my book is like that of my prior invention. A number of single sheets of paper are removably bound between two outer covers by means allowing the paper to be so arranged as to lie flat in every position convenient for writing. In my present invention the outer covers, the binding-rings, and the arrangement of the front cover are better adapted to

their work. The base or under cover *a* has two slots *b b'* cut in the upper edge *a'*, and to this edge is attached a knuckle *k*, made of a strip of folded metal correspondingly slotted. The pintle *c* is inserted in said knuckle, and by means thereof the file or binding rings *d d'* are hinged in place, the pintle passing through an eye *e* in the base of each ring. This contrivance enables the rings to accommodate themselves to the arrangement of the paper. The construction of the rings is shown in Fig. 5, being made of two pieces or members *d<sup>2</sup> d<sup>3</sup>*. The U-shaped lower part comprises two straight parallel arms and an arched base, and the head *d<sup>3</sup>* is a locking-bar similarly arched as the base of the member *d<sup>2</sup>*, to which it is pivotally attached. The extremity of the left arm of the member *d<sup>2</sup>* has a socket *d<sup>4</sup>*, and the corresponding end of the bow *d<sup>3</sup>* a dependent pintle *d<sup>5</sup>*, inserted in such socket. The middle portion of such pintle is reduced, so as to form a peripheral groove *d<sup>6</sup>*, and the wall of said socket opposite to said groove is slightly dented to form a stud *d<sup>7</sup>*, projecting into said groove and retaining the pintle in place. The free end of the locking-bar is concaved to form a vertical groove *f*, the lateral extremities *f<sup>e</sup>* of which form small jaws embracing the extremity of the right arm of the body of the ring and by so doing lock the contacting ends when the bar is closed. The extremity *d<sup>8</sup>* is rounded to facilitate the passing of the paper over the rings. When opening the ring, the locking end of the bar is sprung out of its engagement with the contacting arm. The shape given to my rings in the drawings is merely adopted as calculated to give the greatest convenience and freedom of use. I do not, however, limit myself to any particular shape.

The base or under cover and the upper cover are joined by means constituting one of the important features of my invention. The base *a* is made of inflexible material. The upper cover *g* is made in part of inflexible material, joined to which is a flexible binding-strip *h*, being, in fact, an extension of the upper cover to about the length of the base, and the base and upper cover are joined by means of a flexible back strip *i*, one end of which is secured to the binding edge of the base away from the knuckle, so as not to in-

terfere with the movement of the binding-rings, and the other end of such binding-strip being attached to the upper cover at  $h'$ , the place of union between the inflexible cover  $g$  and the flexible binding-strip  $h$ . The function of the flexible binding-strip  $h$  is to hold the cover  $g$  in place without interfering with any convenient arrangement of the leaves. The flexible cover  $h$  is perforated at its binding edge, so as to be engaged by the binding-rings. All this is illustrated in Fig. 2, where a section of the leaves is shown turned under the base, and the relation and operation of all the parts of my invention are illustrated in Fig. 1.

Now what I claim, and desire to secure by Letters Patent, is—

1. A binding or file ring composed of two members, one of which comprises two branches united in an arched base and the other being a locking-bar, the extremity of one of said branches having a socket,  $d^4$ , and the corresponding end of the locking-bar a dependent pintle which is journaled in such socket, and means for retaining the pintle in place, the outer or free end of such locking-bar and the extremity of the corresponding branch being adapted to lock when brought in contact with each other upon the closing of the ring.

2. A binding or file ring, comprising an approximately U-shaped body, one of the arms of which has a socket; a locking-bar having a pintle journaled in such socket; a groove on the periphery of the pintle; a stud dented in the wall of the socket and entering such groove; and the contacting ends of the locking-bar and of the body being adapted to lock when the bar is closed.

3. A binding or file ring, comprising an approximately U-shaped body, one of the arms of which has a socket, a locking-bar having a pintle journaled in such socket; a groove on the periphery of the pintle; a stud dented in the wall of the socket and entering such groove; the free end of the locking-bar having a vertical groove, the extremities of which constitute jaws engaging the contacting extremity of the body when said parts are brought in contact with each other.

4. A blank book, comprising in combination, an inflexible base or under cover; an inflexible upper cover of lesser length than

the base; a flexible binding-strip as  $h$ , suitably perforated and inserted on the binding-rings, such strip being an extension of said upper cover to about the length of the base; a slot in the binding edge of the base; a knuckle attached to such edge and correspondingly slotted; a file or binding ring hinged in such slot, and having an opening portion, the free end of which, and the contacting end of the body of the ring, are adapted to lock when brought in contact with each other upon closing the ring; and a number of loose sheets of paper, the binding edges of which are suitably perforated and inserted on such binding-ring.

5. In a blank book, of the class specified, an inflexible base or under cover; an inflexible upper cover of lesser length than the base; a flexible binding-strip, as  $h$ , being an extension of the upper cover to about the length of the base; and a flexible back strip joining the base and the upper cover, substantially as described.

6. A blank book, comprising in combination, an inflexible base or under cover; an inflexible upper cover of lesser length than the base; a flexible binding-strip as  $h$ , suitably perforated and inserted on the binding-rings, such strip being an extension of the upper cover to about the length of the base; a flexible back strip joining the base and the upper cover, such back strip being attached to the base clear of its inner or binding edge and being attached to the upper cover at the place of union between the latter and the said binding-strip; a slot in the binding edge of the base; a knuckle attached to such edge and correspondingly slotted; a file or binding ring hinged in such slot, and having an opening portion, the free end of which, and the contacting end of the body of the ring are adapted to lock when brought in contact with each other upon closing the ring; and a number of loose sheets of paper, the binding edges of which are suitably perforated and inserted on such binding-ring.

Signed by me, in the presence of two witnesses, this 22d day of November, 1898.

LUCENA M. MORDEN.

Witnesses:

T. J. GEISLER,  
GEO. W. HAZEN.