

(No Model.)

H. BLAKE.
BOOK HOLDER.

No. 375,723.

Patented Jan. 3, 1888.

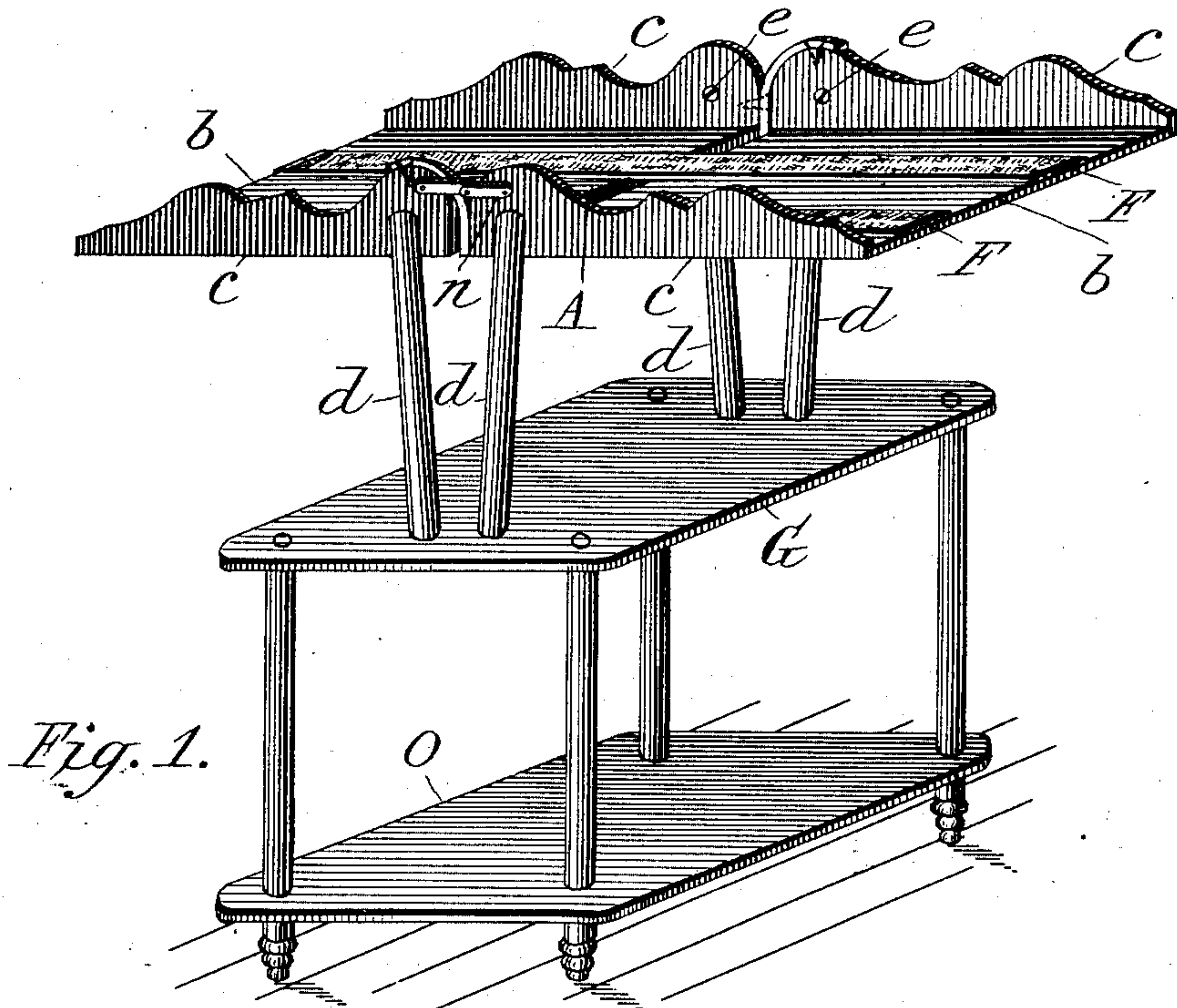


Fig. 1.

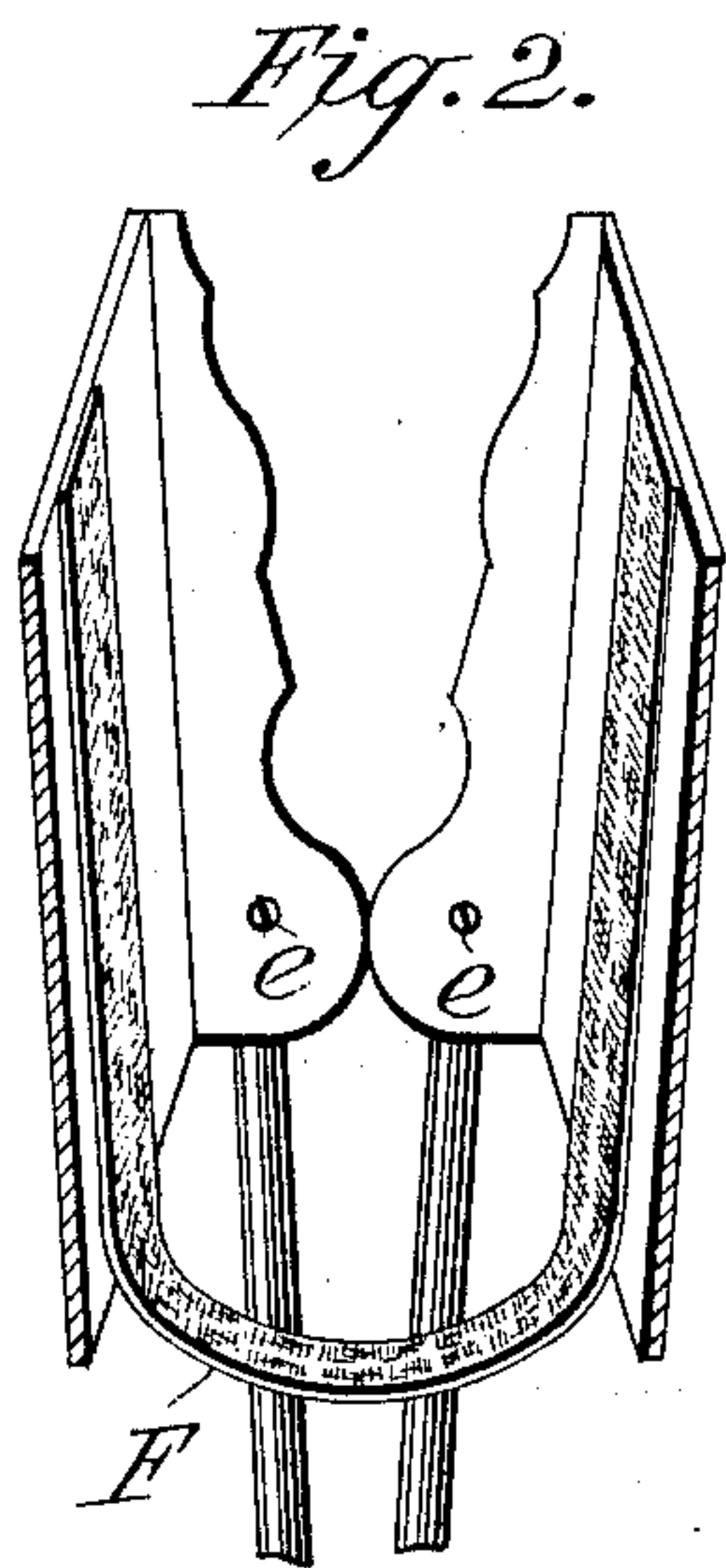


Fig. 2.

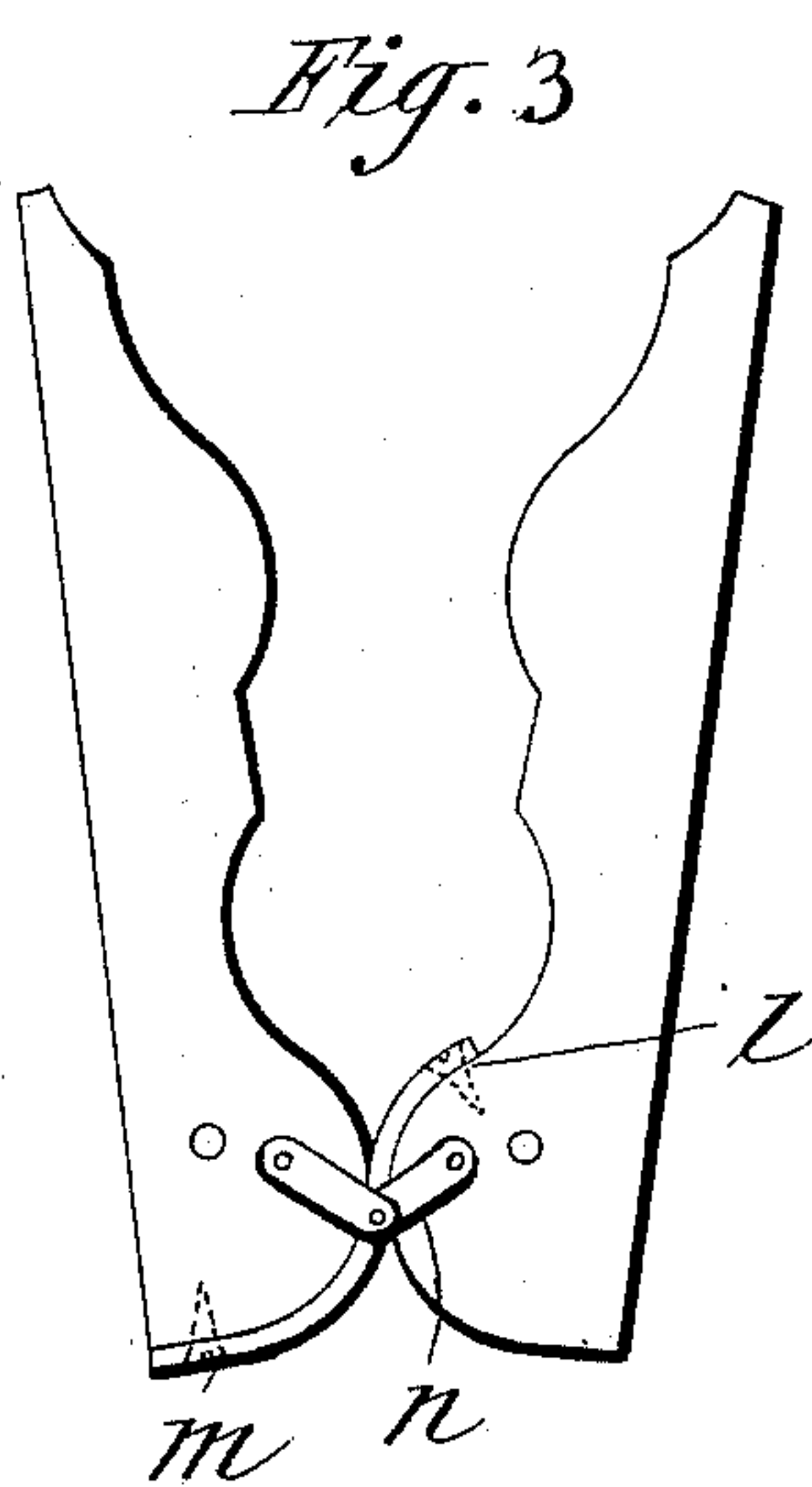


Fig. 3.

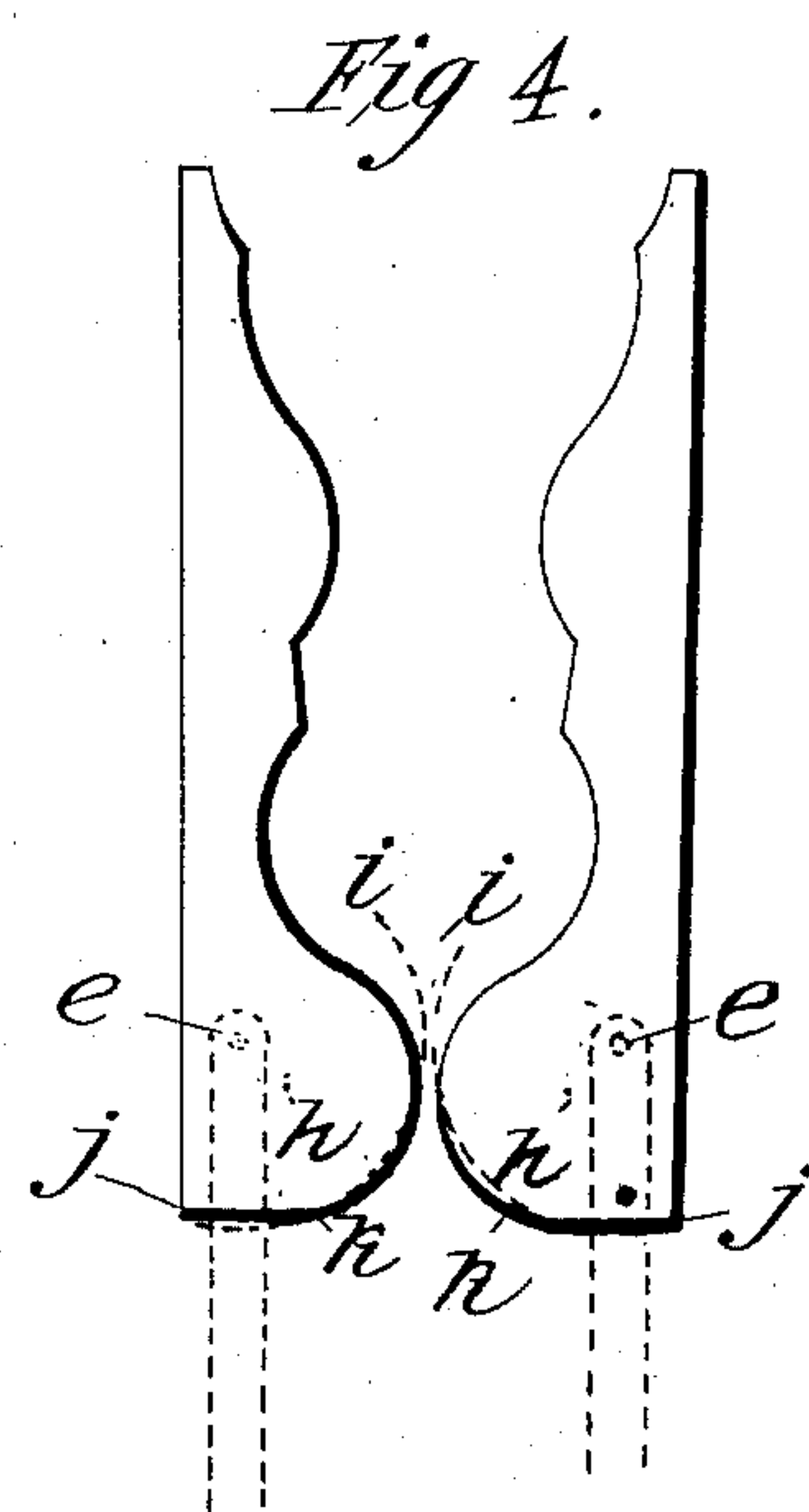


Fig. 4.

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UNITED STATES PATENT OFFICE.

HIRAM BLAKE, OF KEENE, NEW HAMPSHIRE.

BOOK-HOLDER.

SPECIFICATION forming part of Letters Patent No. 375,723, dated January 3, 1888.

Application filed June 8, 1887. Serial No. 240,677. (No model.)

To all whom it may concern:

Be it known that I, HIRAM BLAKE, a citizen of the United States, residing at Keene, in the county of Cheshire and State of New Hampshire, have invented certain new and useful Improvements in Book-Holders; 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 and figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of book-holders having a stand on which is mounted a casing or holder for the reception of the book, which, together with the book, may be opened or closed, as desired; and the objects of my invention are, first, to produce a book-holder which shall be strong, durable, and steady in its operation and not liable to get out of order; second, by which the book may be opened or closed with the casing, and when closed shall hold the book closely together, so as to exclude dust from the leaves; and, third, to utilize the stand which supports the casing by arranging shelves therein for the reception of more books or other articles, as may be desired. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my book-holder, showing all its parts. Fig. 2 is a section of the casing, showing the lug-straps which support the book therein and the manner in which the wings are attached to the upright spring-standards. Fig. 3 is a section showing the connecting strap and stop-hinge, by means of which the wings of the book-holder are kept in their proper position. Fig. 4 is a section showing the manner in which the wings of the casing are attached to the upright springs.

Similar letters refer to similar parts throughout the several views.

The casing A, or book-holder proper, is composed of two parts or wings, *b b*, so arranged as to be opened or shut in the manner of a book. They are made of boards having an area a little larger than the sides of the book to be placed therein. On each end of these wings are attached the slats *c c c c*, partly for the purpose of holding the book in position

upon the casing when the same is opened or shut. These slats may be ornamental or plain, as desired. When adjusted to the stand or frame, these wings, when open, are brought closely together, so as to form a plane surface or table on which the book may rest, as shown in the drawings.

The casing A is mounted on four upright spring rods or standards, *d d d d*, each wing of the casing being hinged or journaled at the sides next their points of contact to the tops of said standards at the points *e e e e*. By this arrangement the casing may be opened or closed, as desired. When the casing is closed, the wings come together at the top and open at the bottom of a width equal to the thickness of the book. The book is held within the casing by means of the lug-straps F, passing across the floor of the wings and the opening at the bottom of the casing, as shown in Fig. 2. These are made of suitable webbing, and extending across the inner surface of the casing, they furnish a convenient rest or cushion for the book. The slats *c c* on each wing next their points of contact are rounded, so as to form the segment of a circle; and while the wings are being opened or closed they roll evenly and smoothly on these segments.

The upright standards *d d d d* may be made of elastic wood or metal, and are grounded or affixed in the shelf G, as shown. When the casing A is mounted on these standards, the tops thereof are strained apart, so as to give them a spring tension sufficient to press the wings firmly together, and thus these wings, whether open or shut, are always bound together by means of these spring-standards. The utility of these spring-standards is increased by the manner in which they are attached to the wings of the casing, as herein-after described.

The segments of the circle on the wing-slats *c c* have their true centers at the point *h*, as shown in Fig. 4, while the bearings are placed at the point *e*, having its segment passing through the dotted line *i j*. By thus placing the bearing above its true center the pressure of the spring-standards is increased on the upper portion of the casing, where it is most needed to keep the book tightly closed, so as to exclude dust from the leaves. By the em-

ployment of the non-concentric bearing *e* the segment having its center at *h* extends beyond the segment *i j*. This feature causes the wings of the casing to spread at the proper moment while they are lifting the book from the lug-straps *F*, thus causing the book and casing to open with an elastic yet steady movement. It is also apparent that whenever the segments pass the points *k*, in opening or closing the casing, they pass down an incline, and hence the tension of the springs automatically performs the opening or closing after the segments have passed the point *k*.

In order to confine the wings of the casing together, so they shall not slip, but open and shut simultaneously, I employ the strap-hinge *l m*, as shown in Fig. 3. This consists of a spring-tempered metallic strap passing between and over the tangent surfaces of the wings. One end of this strap is attached to each wing, so as to fit snugly to the surfaces of the segment, as shown. When one wing only is moved upward or downward, this strap carries the other with it, thus making their movements uniform and simultaneous.

When the casing is open and the wings on a plane with each other, they are kept from being turned farther downward by means of the stop-hinge *n*. This consists of two metal sheets linked together at one end of each, while the opposite ends are movably attached to the upper part of the wing-slats, as shown. When the casing is closed, these links contract by dropping downward. When the casing is open, the link is extended, so that the wings can be opened no farther.

The stand or frame *O*, on which the casing is mounted, is preferably constructed of four vertical legs or standards, of the desired length, passing through the shelves at or near their corners, as shown. In the upper shelf, *G*, near each end thereof, the upright spring standards are firmly affixed, and the stand *O* furnishes a suitable base for the support of the casing when a heavy book is placed therein. Its shelves also furnish convenient receptacles for a number of books. I do not, however, confine myself strictly to this form of stand, but one shelf

only may be employed supported by four legs, in the manner of an ordinary table or stand. The spring-standards may also be extended through the shelf and spread apart, so as to form suitable legs for the stand; or the shelf may be dispensed with altogether; and rods serving both for legs and springs may be bolted to a connecting-block at their middle parts, thus making a convenient and suitable stand for the casing.

Having described my invention, I claim—

1. A book-holder having a casing consisting of two parts or wings, each wing having sides or slats at its front and rear ends, which are rounded at their points of contact with each other, so as to form a segmental joint on which the wings move while being opened or closed, and provided with a connecting-strap attached to each slat of said wings, and a stop-hinge connecting said wings together, and further provided with a lug-strap to hold the book within the casing, which casing is mounted or pivoted on four upright spring-standards affixed to a frame or stand, all constructed and operating substantially as and for the purposes described.

2. In a book-holder constructed substantially as herein shown, the stop-hinge *n*, having a pivotal joint at its center and pivotally attached at each end to the wings of the casing, in combination with the casing *A*, substantially as and for the purpose set forth.

3. The casing *A*, composed of two wings provided with slats or sides on each end and rounded at their meeting ends into segments of a circle, and further provided with the stop-hinge *n*, connecting-strap *l m*, lug-straps *F*, non-concentric bearings *e e e e*, in combination with the upright spring-standards *d d d d*, and stand *O*, all constructed to operate substantially as and for the purposes described.

In testimony whereof I affix my signature in presence of two witnesses.

HIRAM BLAKE.

Witnesses:

ADOLPH PRESSLER,
J. R. BEAL.