

(No Model.)

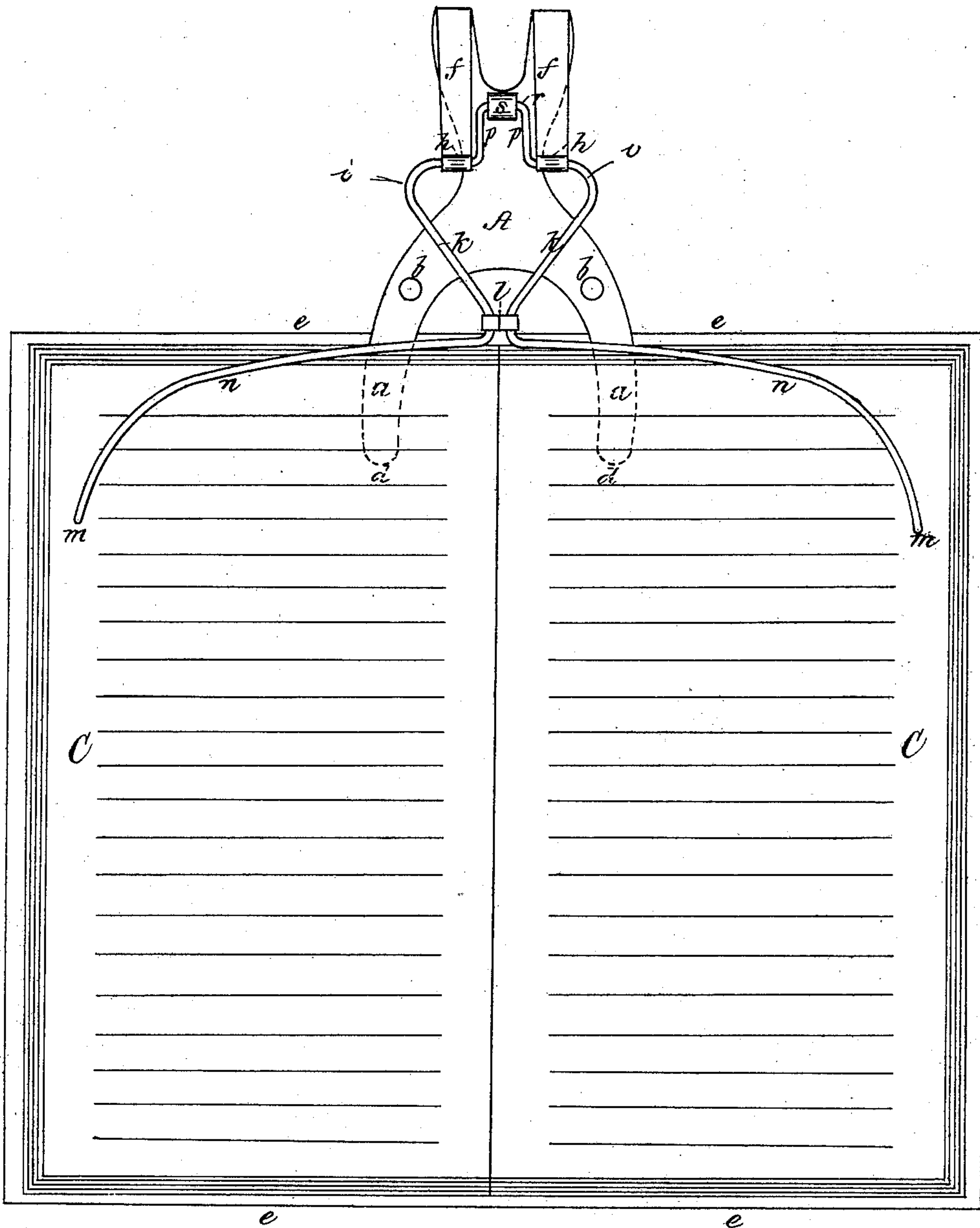
2 Sheets—Sheet 1.

F. W. SMITH.
BOOK LEAF HOLDER.

No. 336,495.

Patented Feb. 16, 1886.

Fig. 1.



WITNESSES.

Ernest H. Martin
H. W. Stearns

INVENTOR

Frank W. Smith,
per Norman W. Stearns,
Atty.

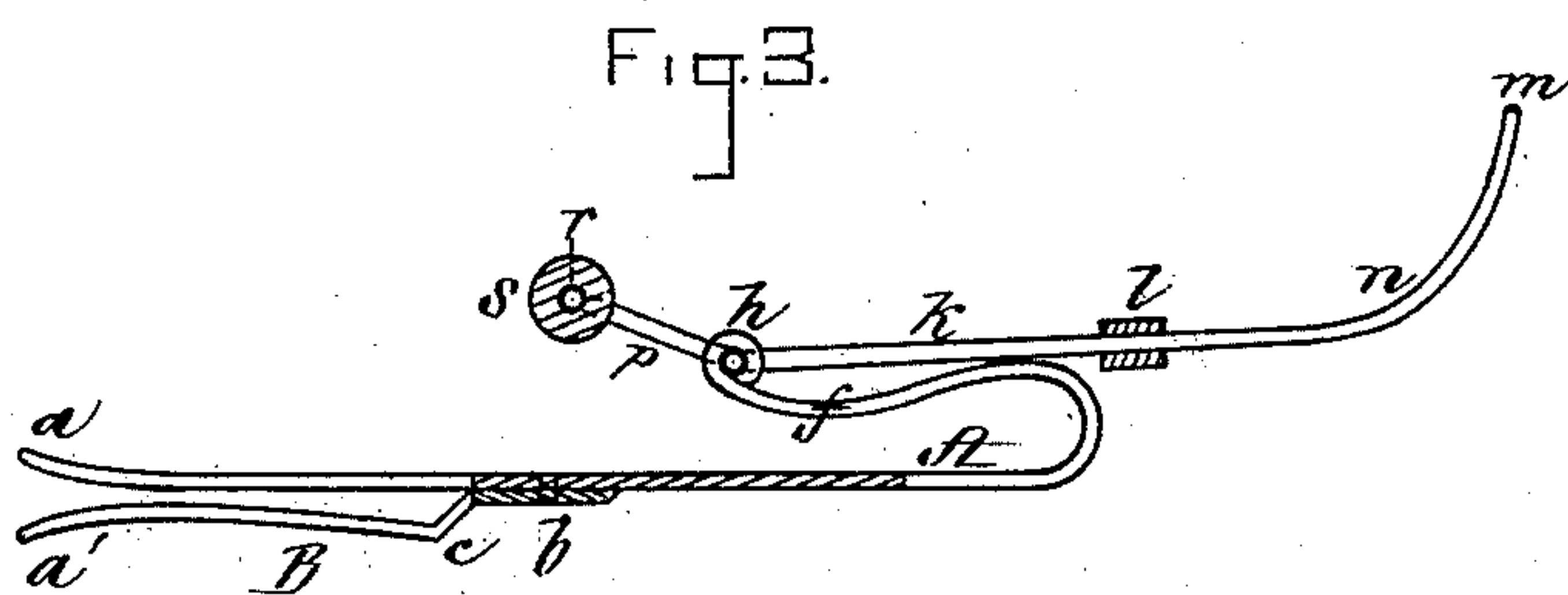
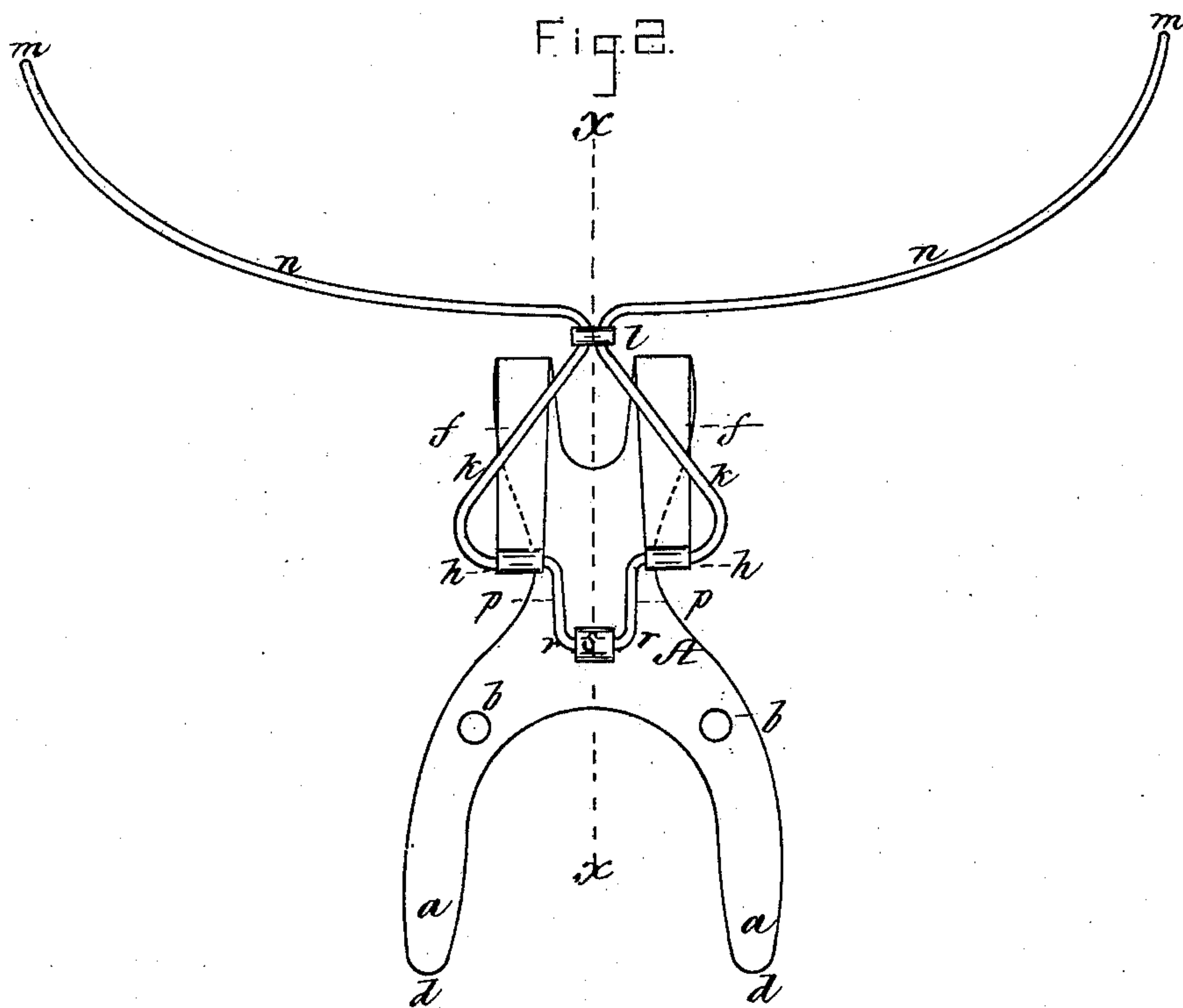
(No Model.)

2 Sheets—Sheet 2.

F. W. SMITH.
BOOK LEAF HOLDER.

No. 336,495.

Patented Feb. 16, 1886.



WITNESSES

Ernest H. Hartou.
H. W. Stearns

INVENTOR

Frank W. Smith,
per Norman W. Stearns,
Att'y.

UNITED STATES PATENT OFFICE.

FRANK W. SMITH, OF LEOMINSTER, MASSACHUSETTS.

BOOK-LEAF HOLDER.

SPECIFICATION forming part of Letters Patent No. 336,495, dated February 16, 1886.

Application filed May 13, 1885. Serial No. 165,399. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. SMITH, of Leominster, in the county of Worcester and State of Massachusetts, have invented an Improved Book-Leaf Holder, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of open book with my leaf-holder applied thereto; Fig. 2, a plan of my holder detached and in a position to admit of the turning over of the leaves. Fig. 3 is a section on the line *x x* of Fig. 2.

To relieve the hands or fingers from the task of keeping the leaves of a book open, and thereby promote the ease and comfort of the reader of the same, is the object of my invention, which consists in a device provided at one end with two pair of spring-jaws to engage with the covers of the book, and at its opposite end with a pair of spring-bearings in which is pivoted a spanner, which is pressed into contact with the two open leaves of the book and retains them in this position until other pages are to be perused or examined, when the spanner is raised and thrown back against the resistance of its spring-bearings, thus leaving the leaves free to be turned over and the next ones to be held down under the spanner; and my invention also consists, in combination with the spring-bearings and the spanner, of a friction-roll secured to an extension of the latter and interposed between its bearings, the object of this connection being to transmit the pressure of the springs to the spanner and to regulate their tension.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents a bent plate of the form seen, and preferably of metal, one end (the lower end) of this plate terminating in bifurcations *a a*, and having riveted or otherwise secured to its under side at *b b* a smaller plate, B, of about the same thickness, and also having bifurcations *a' a'*. A space intervenes between each pair of bifurcations *a a'*, those, *a'*, of the lower or under plate, B, being bent or inclined from the upper plate,

A, at *c c*, while the lower ends of each pair of bifurcations *a a'* are bent or spread outwardly from each other, and the ends of all four are rounded off at *d d*, the metal plates A B being so tempered that their two pair of bifurcations *a a'* serve the functions of spring-jaws, to slide over and grasp the upper edges of the covers *e e* of a book, C, Fig. 1. The opposite end of the plate A is also bifurcated, and each bifurcation *f f* is so bent as to resemble a reverse curve, Fig. 3, the lower extremities of the bifurcations being rolled over to form sockets or bearings *h h*, for the reception of two oppositely-located short horizontal portions, *i i*, of stiff wire, said wire below its bearings *h h* being nearly V shape, or nearly resembling an equilateral triangle with its upper side open at its middle, and the two inclined sides *k k* converging together at *l*, where they are confined by a clasp. Below this clasp the two portions of the wire separate first in the direction of two straight lines inclined below the horizontal, then assuming curves to their extremities *m m*, the two portions of the wire below the clasp serving as a spanner, *n*, to reach over and retain in an open position any two contiguous leaves of a book. As the spanner *n* is located loosely in the bearings *h h*, in order that it may be thrown back out of contact with the leaves, it would not press with sufficient force thereon when required for use, Fig. 1, unless a means were provided for utilizing the power contained in the spring-bearings *h h*, which is effected in the following manner: After the two portions *i i* of the wire pass horizontally inward through the bearings the wire is bent at right angles thereto, so as to form two parallel portions, *p p*, which extend for a short distance upwardly and between the bifurcations *f f*, and are united by a short horizontal portion, *r*, surrounded by a friction-roll, *s*. When the spanner *n* is thrown back in the position seen in Figs. 2 and 3, this friction-roll does not rest on the plate A, and the spring-bifurcations *f f* are in their normal position, and are not endowed with the ability to exert any pressure on the spanner; but when the spring-jaws *a a'* are engaged with the covers of the book, and the ends of the spanner are in contact with the open leaves, the friction-roll *s* is brought to a firm

bearing on the plate A against the resistance of the spring-bearings *h h*, and the resilient property of the latter causes a pressure to be exerted on the leaves of the book, said pressure increasing with an increased thickness of leaves under the spanner, whereby the reader may be relieved of the usual necessity of holding the leaves down by the hand or use of the fingers, and consequently the book may be located on any inclined stand or in any other convenient position.

I prefer to employ the friction-roll *s*, as the operation of reversing the position of the spanner is made easier thereby; but, if desired, said roll may be omitted and the portion *r* of the wire made to bear directly on the plate A, to endow the spring-bearings with the necessary power for producing the pressure required on the spanner.

I claim—

1. A book-leaf holder consisting of a device having two pair of spring-jaws, *a a'*, to engage with the covers of the book, a pair of spring-bearings, *h h*, and a spanner, *n*, pivoted within the latter for exerting pressure on the leaves, the parts being constructed to operate substantially as described.

2. The friction-roll *s*, in combination with two pair of spring-jaws, *a a'*, a pair of spring-bearings, *h h*, and a spanner, *n*, as and for the purpose set forth.

Witness my hand this 29th day of April, 1885.

FRANK W. SMITH.

In presence of—

HAMILTON MAYO,
WILLIAM S. REED.