

No. 816,380.

PATENTED MAR. 27, 1906.

F. E. RUGER.
BOOK SUPPORT.

APPLICATION FILED JUNE 19, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

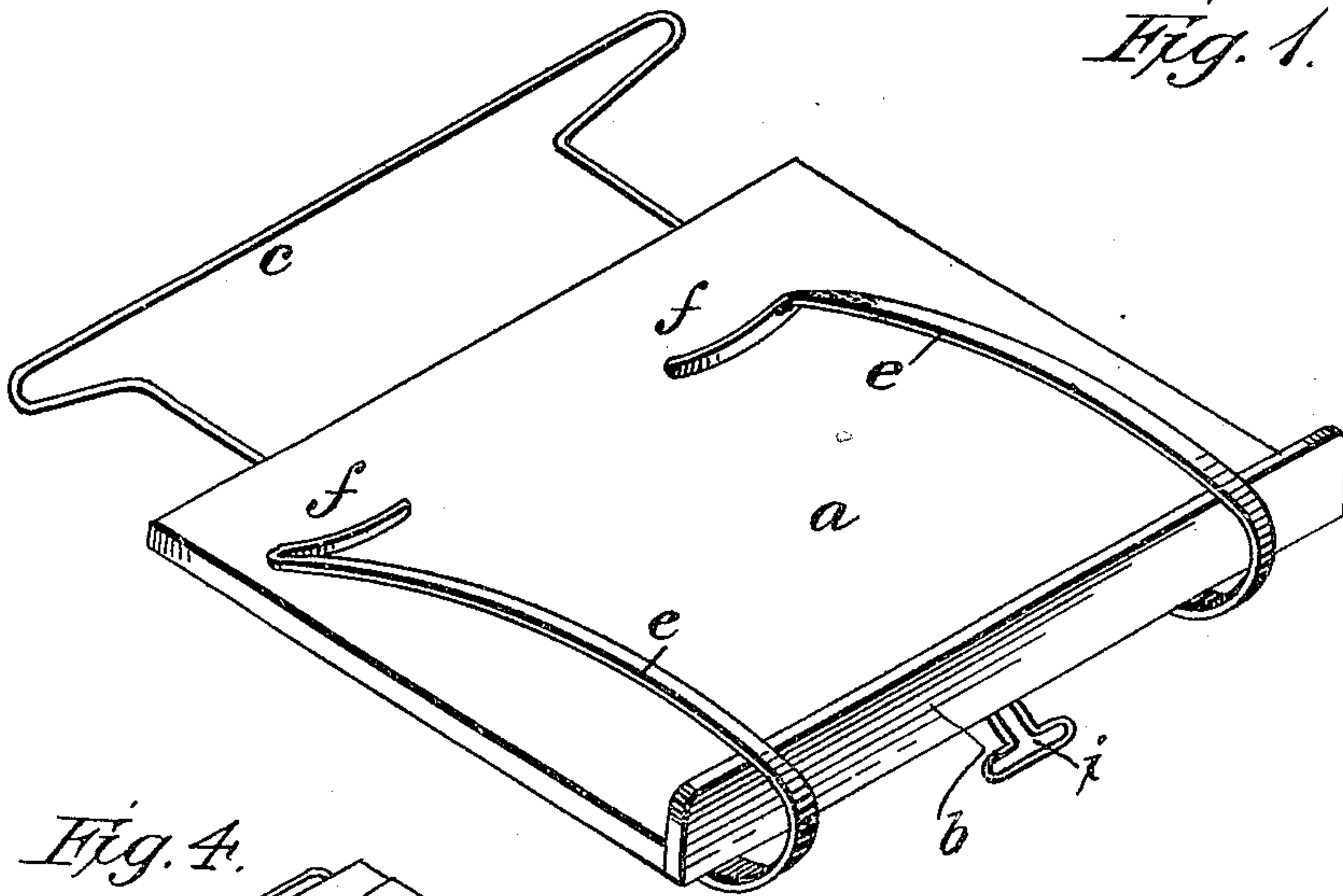


Fig. 4.

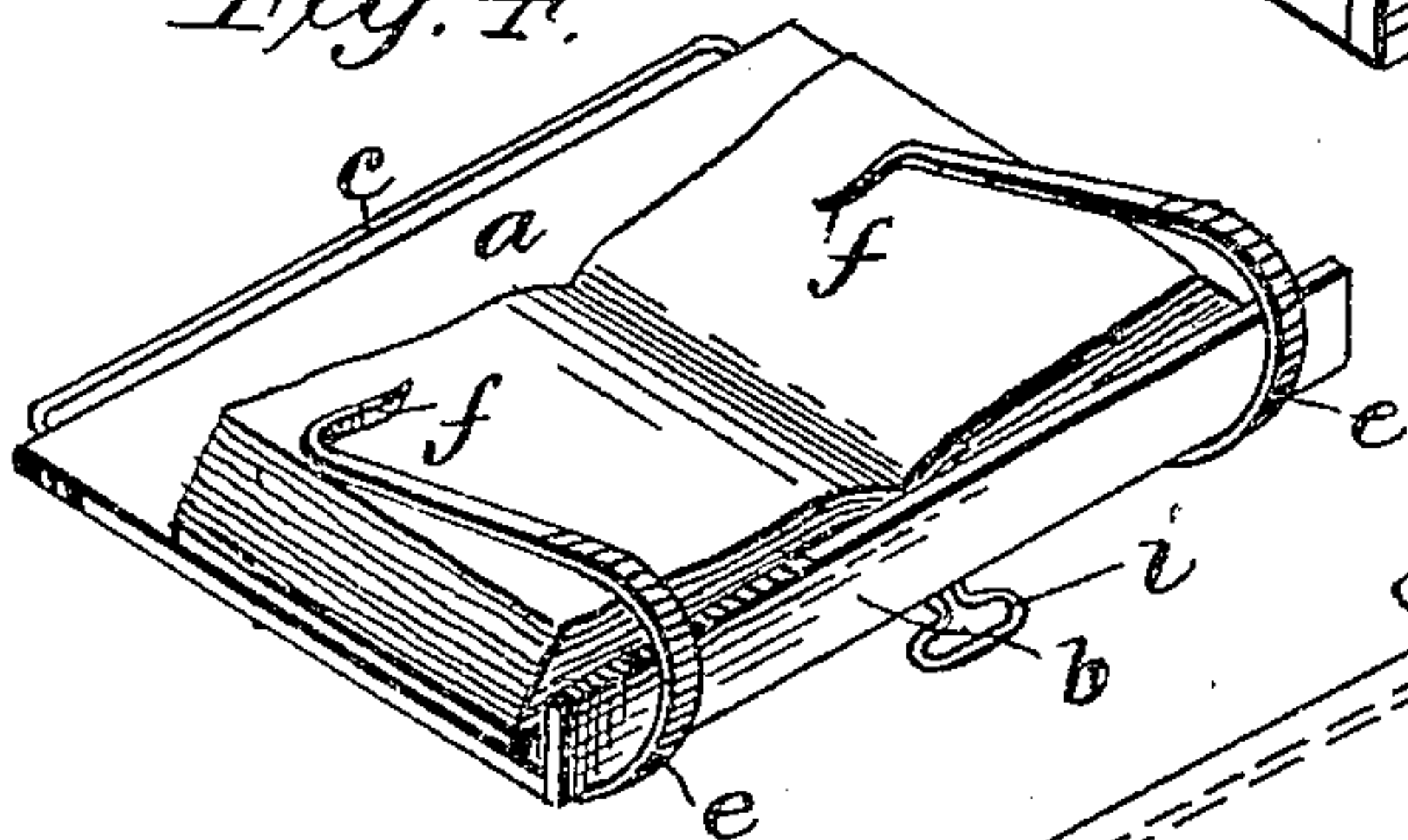
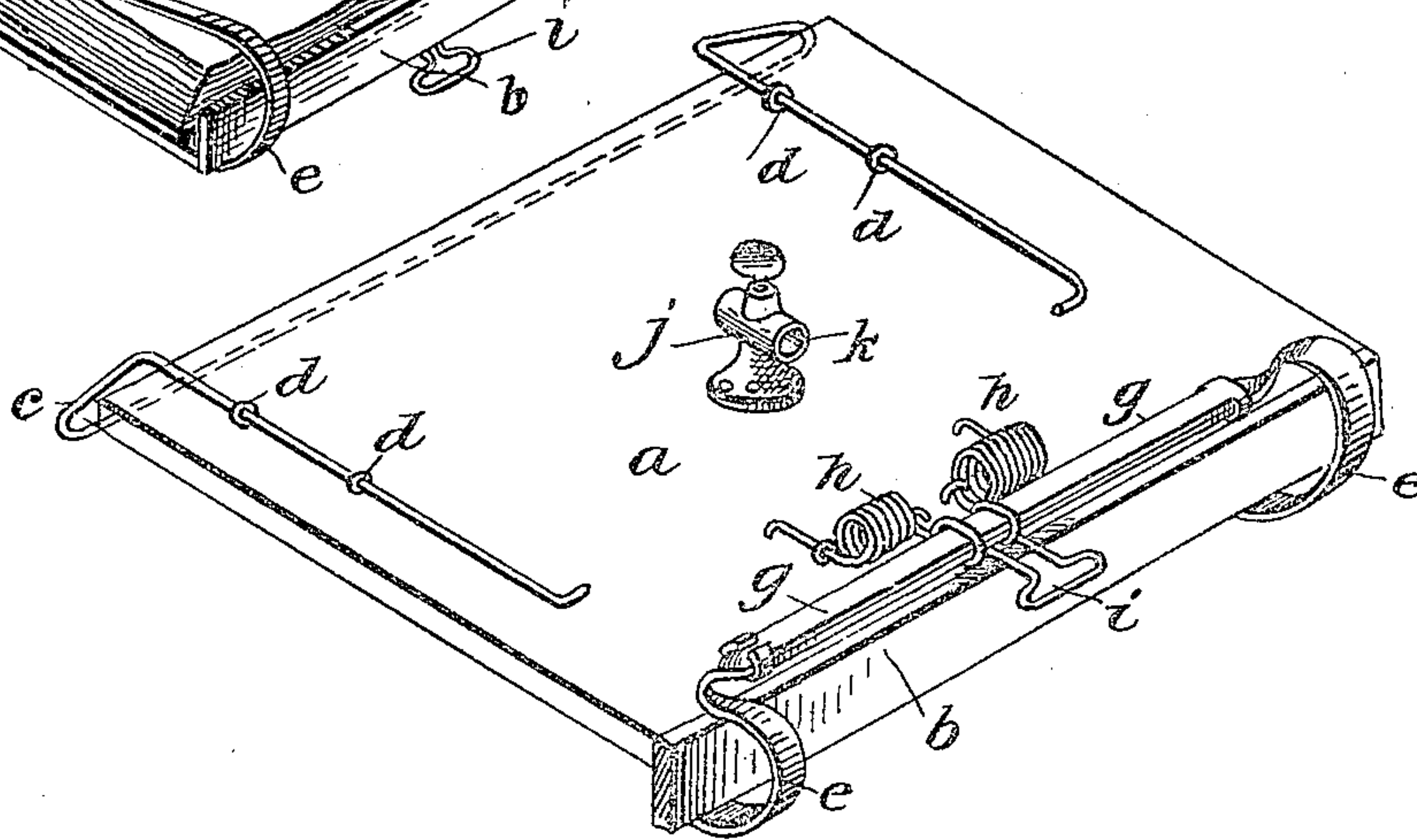


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

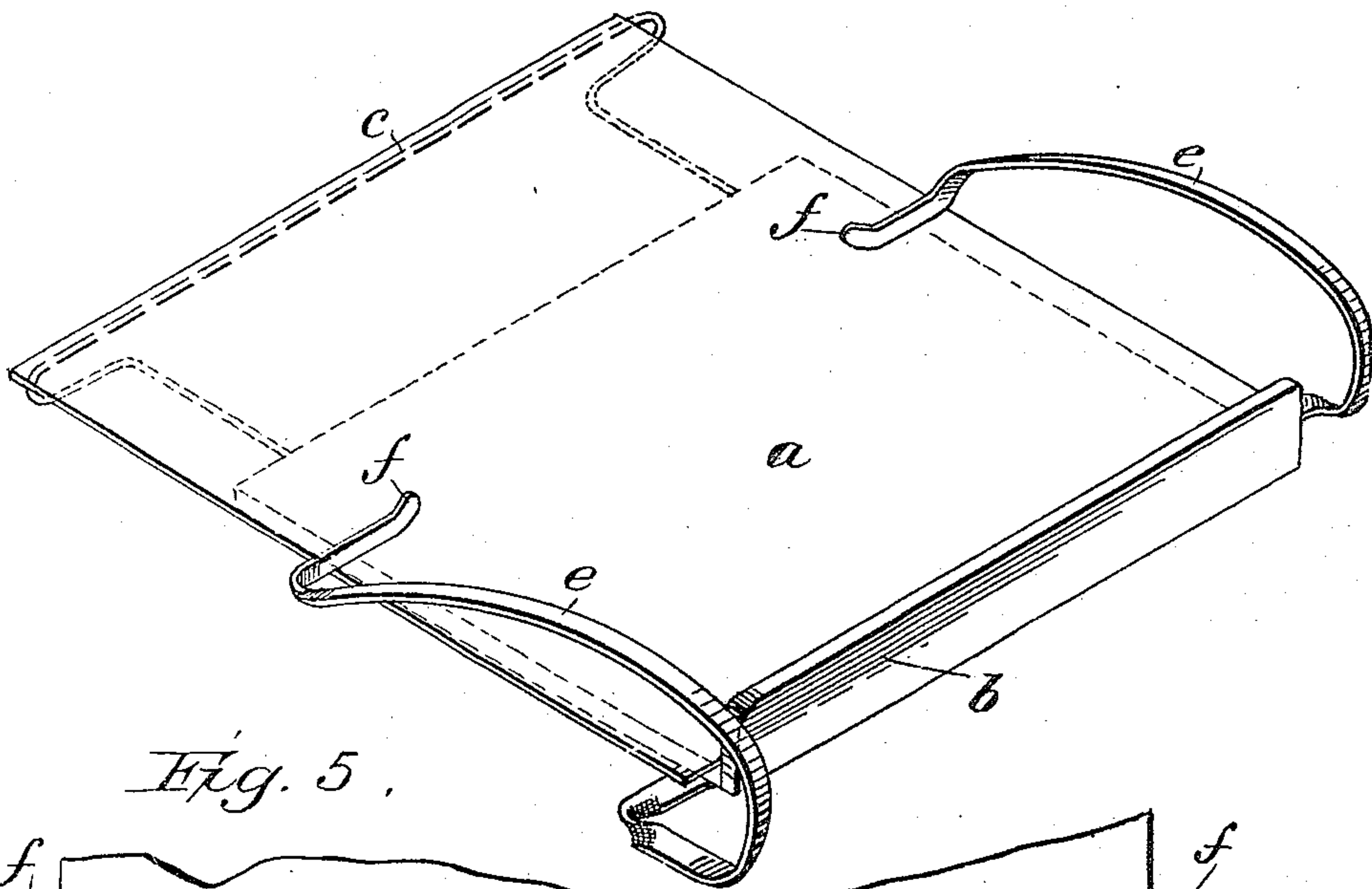
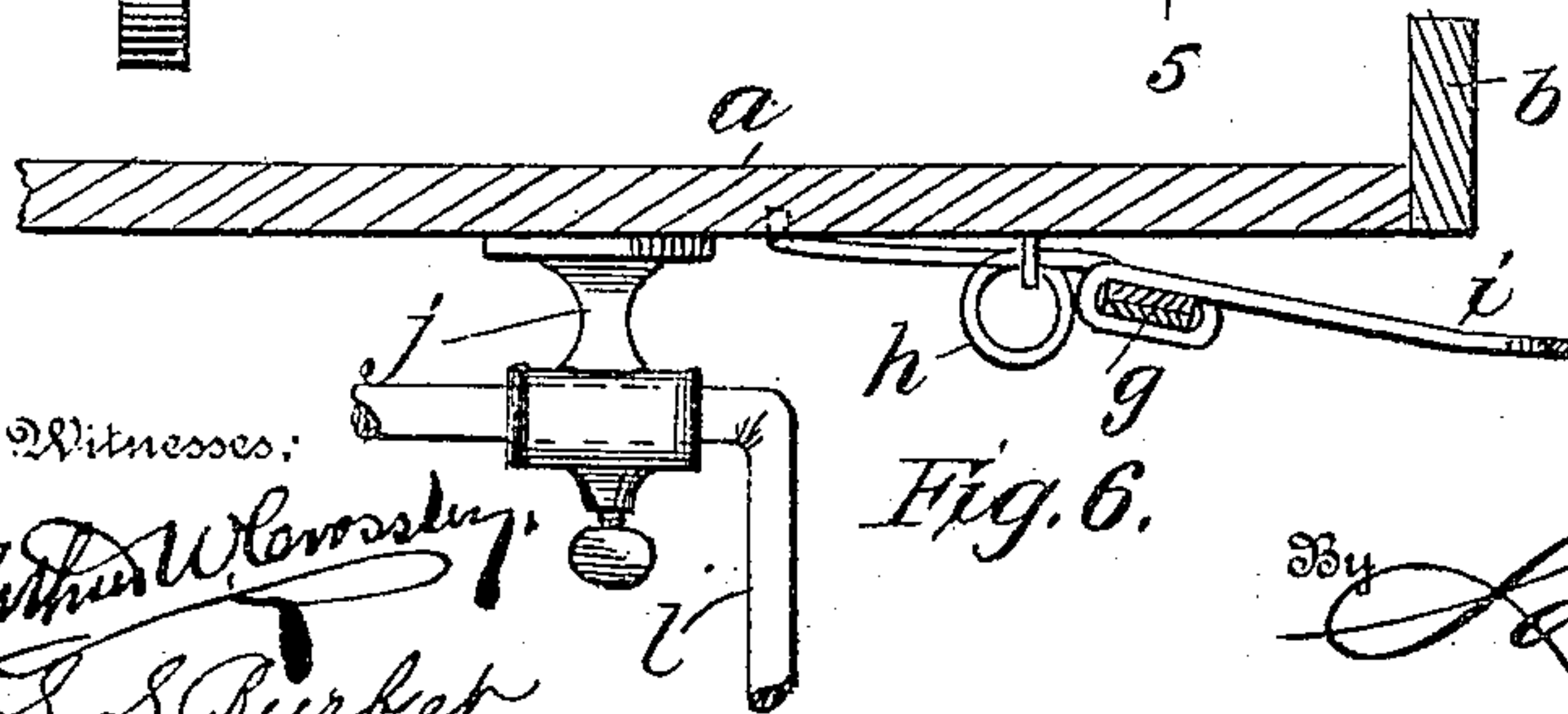
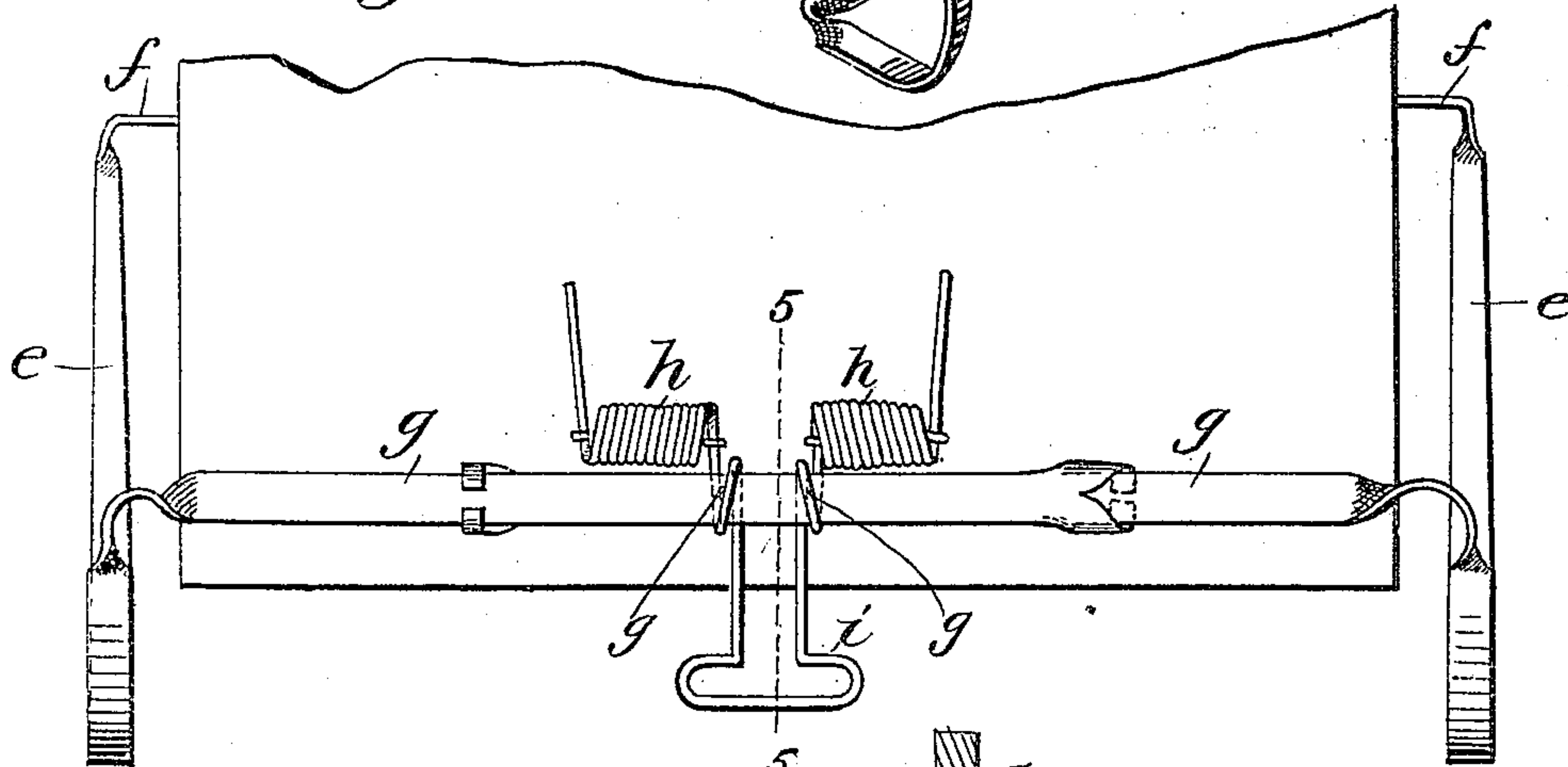


Fig. 5.



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Fig. 6.

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UNITED STATES PATENT OFFICE.

FORREST E. RUGER, OF BINGHAMTON, NEW YORK, ASSIGNOR OF ONE-HALF TO FRANK A. BLAKSLEE, OF BINGHAMTON, NEW YORK.

BOOK-SUPPORT.

No. 816,380.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed June 19, 1905. Serial No. 265,974.

To all whom it may concern:

Be it known that I, FORREST E. RUGER, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented new and useful Improvements in Book-Supports, of which the following is a specification.

This invention has relation to book and music trays or supports and leaf-holders. The tray is designed to be adjustably connected with "easy" or "invalid" chairs or like devices, though it may be used in any connection or way that may be thought best or found most desirable.

The invention consists, among other things, of improvements for rendering the tray or support extensible, so that it can be used with equal readiness and convenience with small books and large magazines, papers, and music and to also make the leaf-holders adjustable for the same purpose and to arrange for their easy and convenient operation in unison to completely suit them to the needs they are designed to fulfil.

The annexed drawings and letters of reference marked thereon form a part of this specification and are to be referred to as such.

Of the said drawings, Figure 1 is a perspective view of the front of the tray with the extensible device drawn out. Fig. 2 is a similar view of the back of the tray, showing the extensible device as retracted. Fig. 3 is a view similar to Fig. 1, showing the tray as supporting a large paper. Fig. 4 is a view similar to Fig. 3, showing the tray as supporting a relatively small book and the leaf-holders as in use in connection with the book. Fig. 5 is a bottom plan showing the means for operating the leaf-holders and rendering the same extensible. Fig. 6 is a sectional detail view taken on the line 5 5 of Fig. 5.

In the drawings, *a* designates the base or body of the tray for holding a book or paper, which base may be provided at its lower edge with a flanged piece *b* to keep the book or paper on the tray from slipping off therefrom. The flange *b* may be an integral part of the tray or a strip secured thereto.

c is an extensible device for making the book or paper support of larger or smaller area, said extensible means consisting of a small rod left straight at its center, so as to extend horizontally when connected with the

tray and in use supporting a paper or book and having its end portions first bent backward nearly parallel with the central portion and then directly downward, so that each end part may pass through two parallelly-arranged screw-eyes *d d*, the extreme ends being bent at right angles to prevent them from accidentally slipping from the screw-eyes. By this means the horizontal part of the rod may be drawn up to make the support larger or be pressed down out of the way when not needed.

e e are two leaf-holders designed to bear upon the leaves to keep the book or paper open, which leaf-holders consist of small bowed arms which extend from the back of the tray over the flange *b* to substantially the vertical center of the tray, where the ends are bent inward toward each other, as at *f*, to render them most efficient in performing the functions for which they are designed.

At the back of the tray each arm comprising a leaf-holder is formed as a flat bar *g*, which extends parallel with the flange *b*. Each bar is split at its end, and the split parts are bent so as to somewhat loosely engage the other bar, which construction provides for one bar sliding upon the other, thereby rendering the adjustment of the leaf-holders nearer together or farther apart.

h h designate two coiled springs formed from a length of wire which at its center is formed into a finger-loop *i*, extending outward and below the tray. The upper ends of the arms of the loops are bent around the bars *g*, are then secured by screw-eyes to the bottom of the tray, then formed into the aforesaid spring-coils *h*, then secured again by screw-eyes to the tray, and the extreme ends of the wire are bent at a right angle and driven into the bottom of the tray. It is obvious that this precise construction and arrangement of parts is not essential to the invention; but it is described with particularity in order that one form of the means under consideration may be clearly understood.

A standard *j*, perforated at its outer or lower end, as at *k*, for the reception of the supporting-rod *l*, is secured to the under side of the tray. A book and music supporting device detachably secured to a chair, shown in an application for a patent filed of even date herewith, may be employed in connec-

tion with the tray herein described and claimed, and reference may be had, if desired, to said other application.

In use the tray will be supported as indicated, and if the book or paper to be read or examined calls for it the extensible rod *c* will be drawn up, as shown in Fig. 3, the book or paper placed on the tray, the finger-loop *i* will be pressed upon, which will raise leaf-holders *e*, and when the book is opened or the leaves of the paper adjusted as desired the finger-loop *i* will be released, which will permit the leaf-holders to bear upon the leaves, and the book or paper may be read or examined with entire readiness or any other attention or any occupation of the hands. When a leaf is to be turned, the finger-piece will be pressed upon to raise the leaf-holders, and when the leaf is turned and adjusted the leaf-holders will be released and reading will proceed as before.

My improvements are presented as making a tray more desirable than heretofore in that it is made more useful and handier of manipulation in the performance of the various purposes for which it is designed.

I claim—

1. In a book support or tray of the character described, a rod having vertical portions slidably supported on the back of the tray and a horizontal part at the top of said vertical portions which may be drawn up or outward to render the support extensible the ends of the upper horizontal part having recurvate bends made therein, to extend said support laterally beyond the vertical portions, and substantially coincident with the sides of the tray.

2. The combination, with a book support or tray, having a flange at its lower edge, of spring-operated leaf-holders consisting of small bowed arms which extend from the back of the tray, over the flange to near the top of said tray, where the ends of the arms are bent inward toward each other, the arms

at their lower ends beneath the tray being formed into flat bars which are superposed one upon the other, each bar being split at its end and the split parts being bent to loosely engage the opposite bar, whereby the arms are rendered adjustable laterally.

3. The combination, with a book support or tray, having a flange at its lower edge, of spring-operated leaf-holders consisting of small bowed arms which extend from the back of the tray, over the flange to near the top of said tray, where the ends of the arms are bent inward toward each other, the arms at their lower ends beneath the tray being formed into flat bars which are superposed one upon the other, each bar being split at its end and the split parts being bent to loosely engage the opposite bar, whereby the arms are rendered adjustable laterally, and coiled springs formed from a length of wire which at its center is formed into a finger-loop extending outward below the tray the upper ends of the arms of the finger-loop being bent around the said superposed flat bars and secured by screw-eyes to the bottom of the tray, the wire being then formed into springs and again secured by screw-eyes to the bottom of the tray.

4. The combination with a book support or tray, of spring-operated leaf-holders formed into flat bars beneath the tray and superposed one upon the other, the ends of which bars are split and the split portions of one bar being lapped loosely around the other, and two springs secured to the sides of the tray and provided each with an integral finger-piece being in engagement with the said bars to actuate the leaf-holders.

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

FORREST E. RUGER.

Witnesses:

SENECA RISLEY,
WM. MCLENAN.