

Jan. 2, 1923.

C. S. BOOTH.
BOOK HOLDER.
FILED MAY 23, 1921.

1,440,656

2 SHEETS-SHEET 1

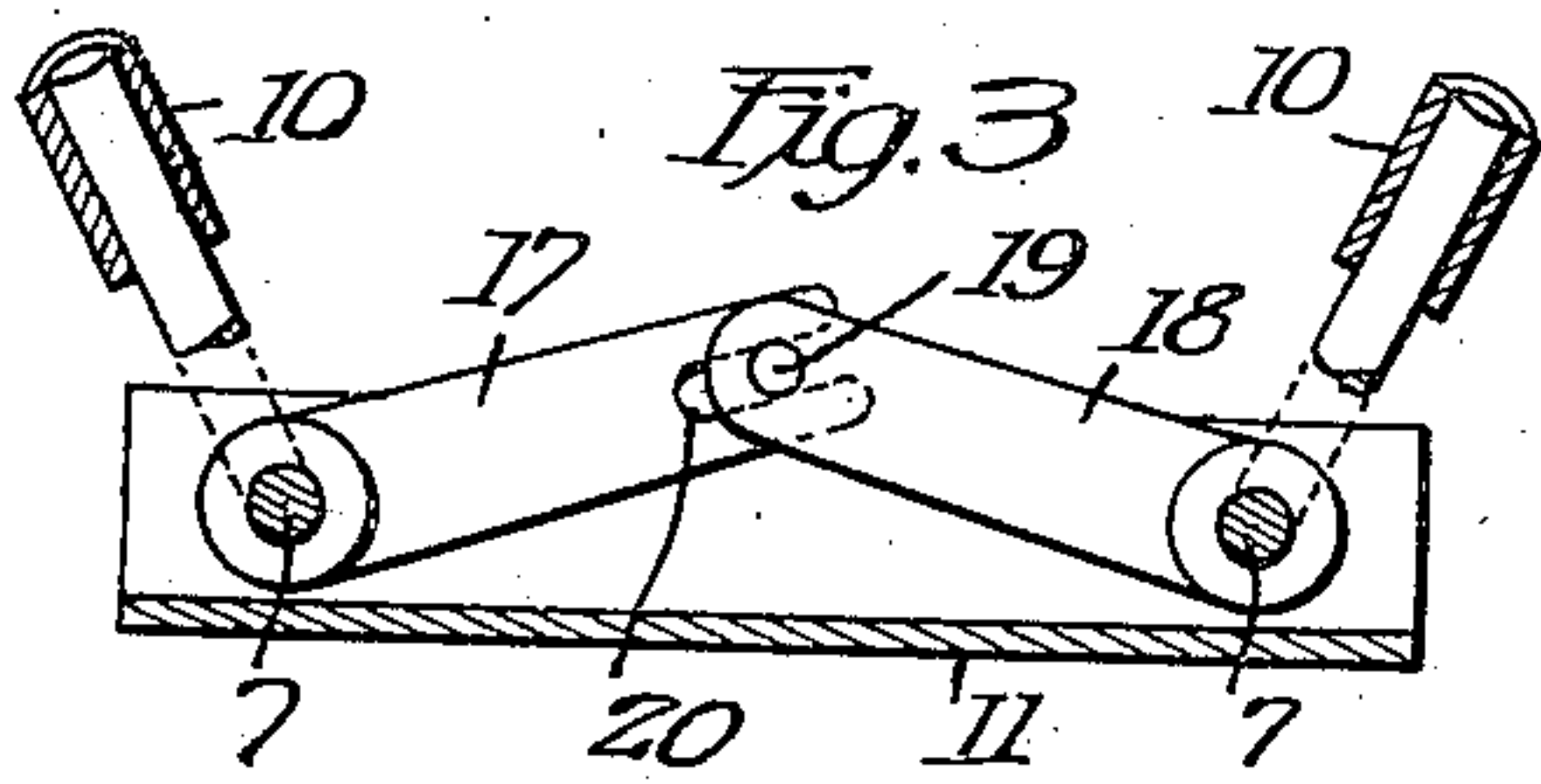
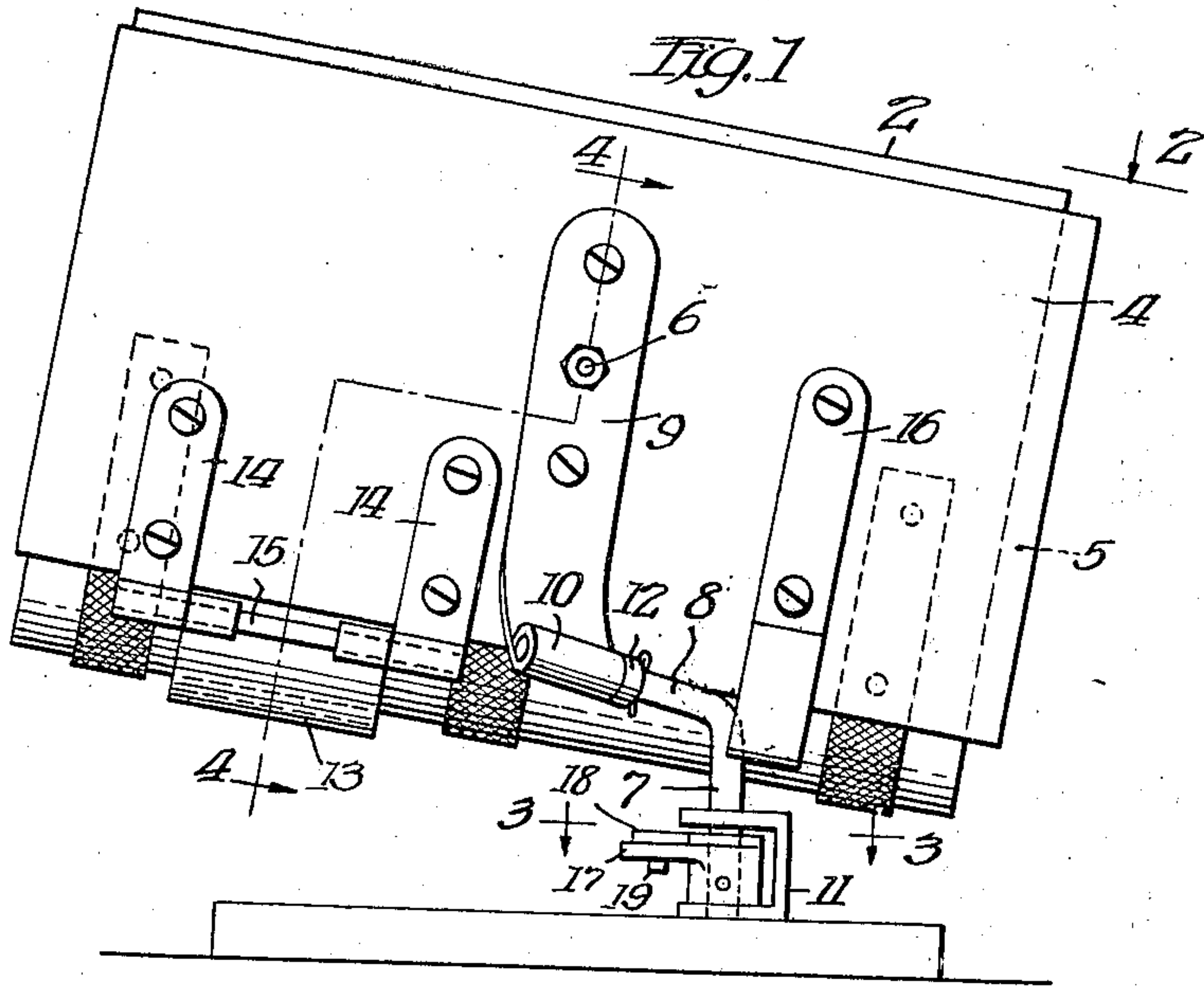


Fig. 2

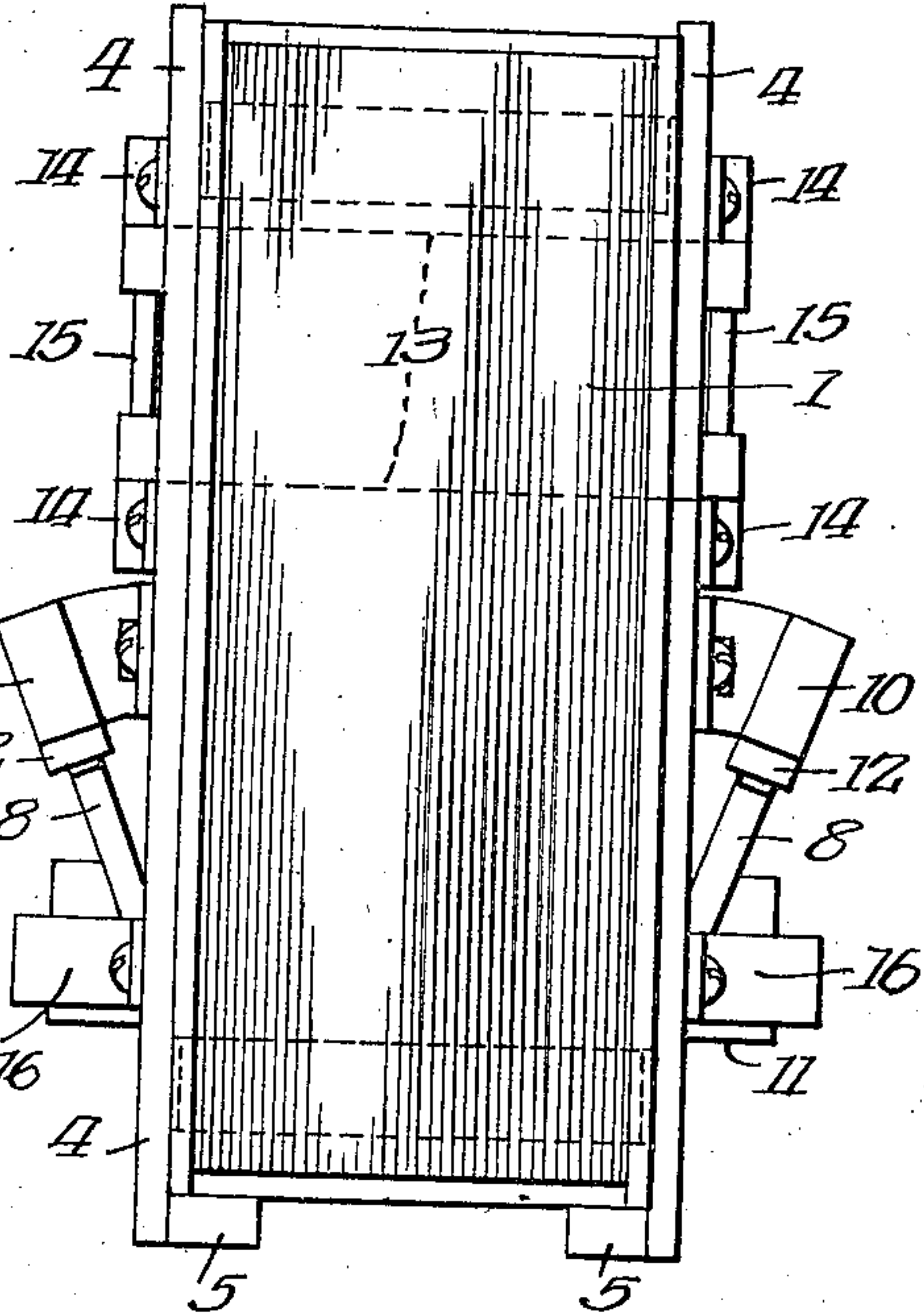
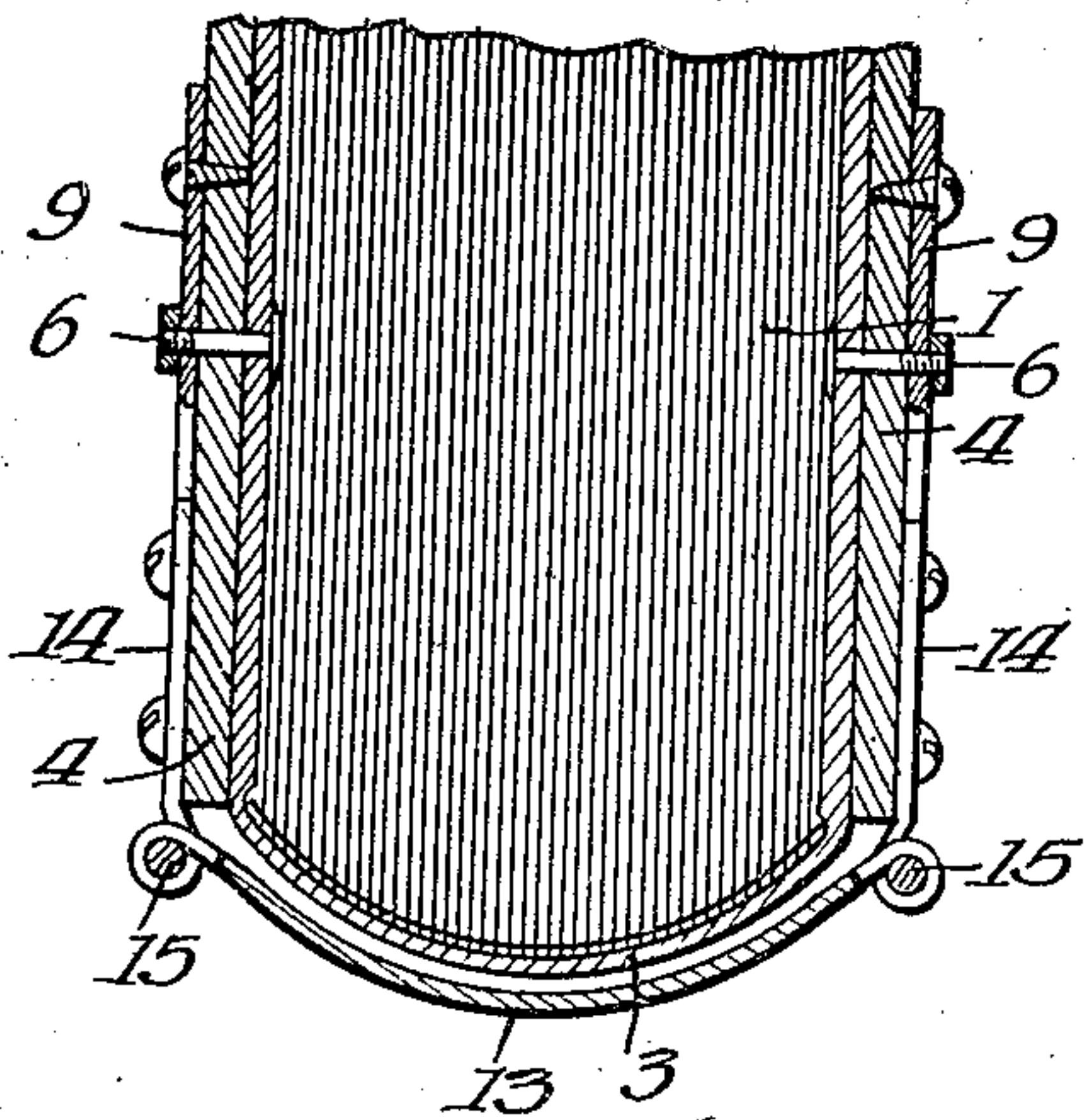


Fig. 4



Inventor:
Christopher S. Booth,

By *H. K. Gragg* atty.

Jan. 2, 1923.

C. S. BOOTH.
BOOK HOLDER.
FILED MAY 23, 1921.

1,440,656

2 SHEETS-SHEET 2

Fig. 5

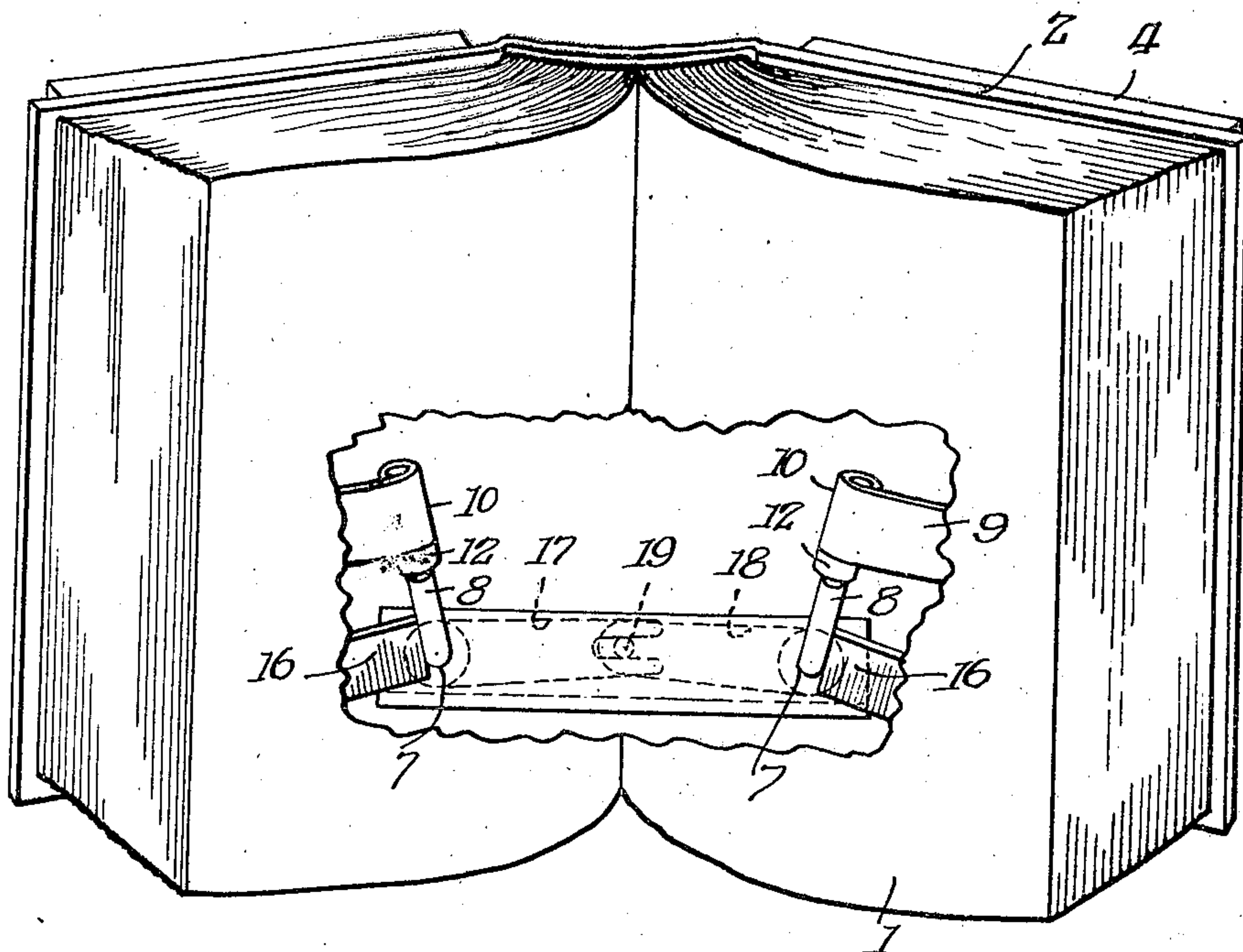


Fig. 6

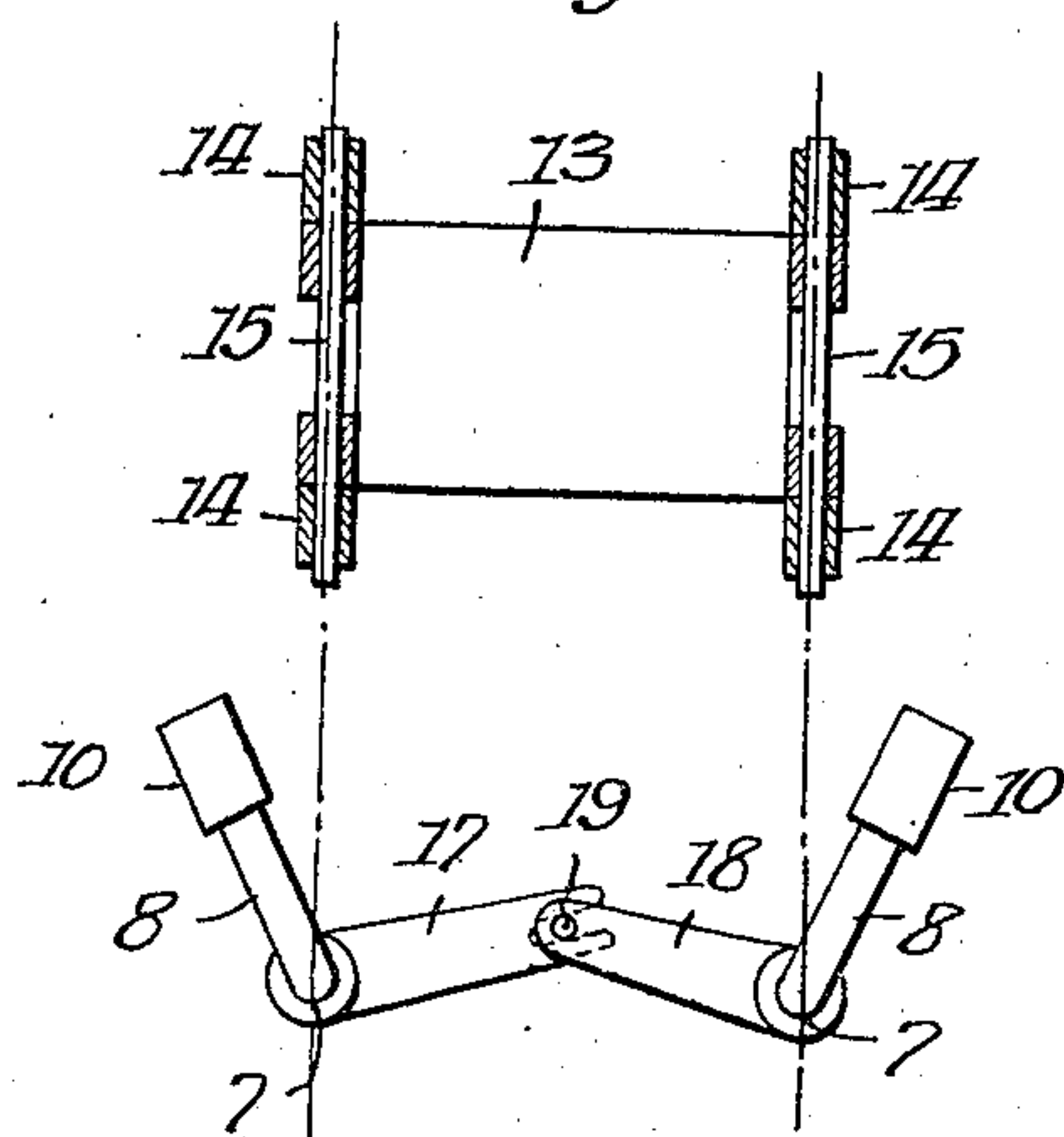
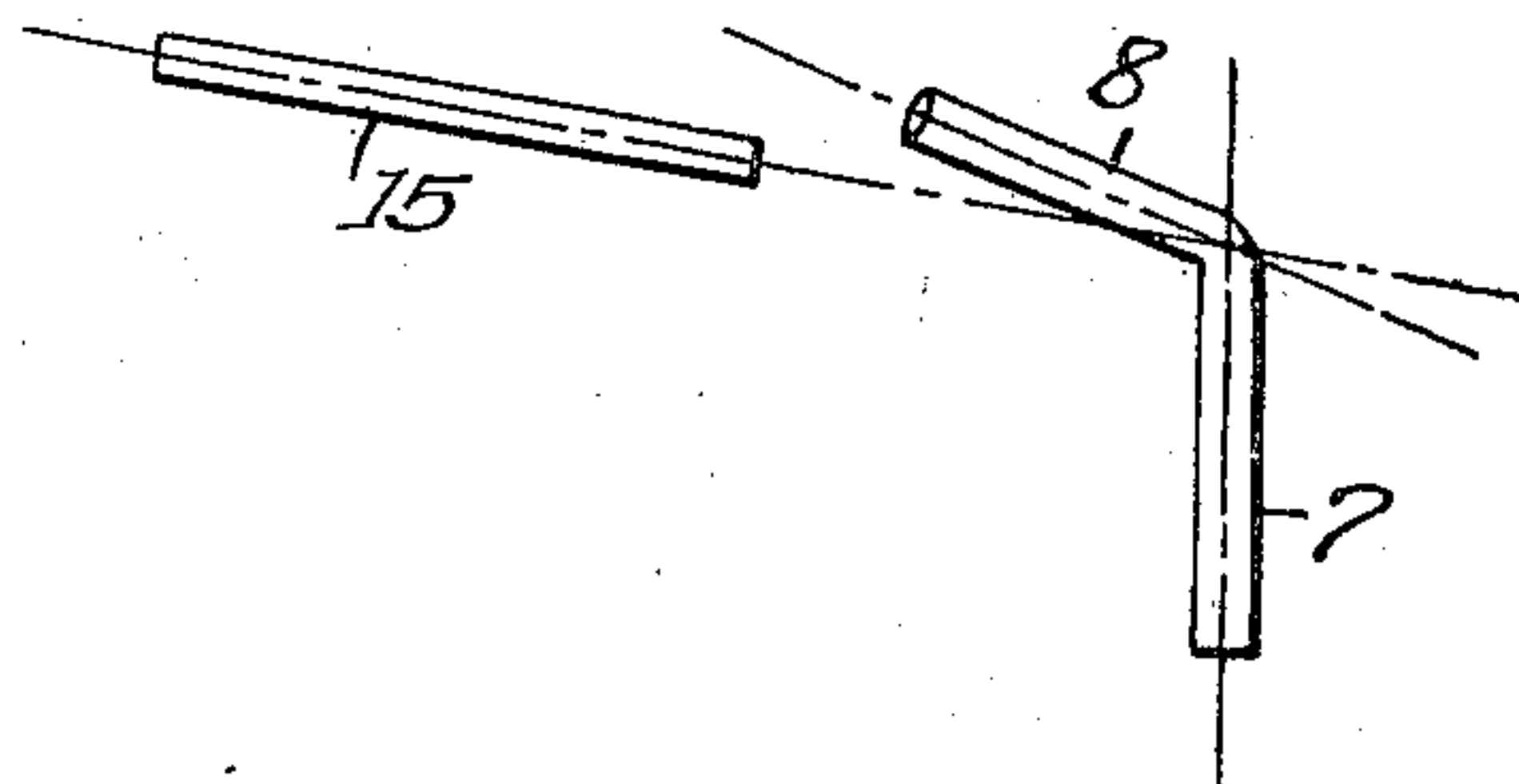


Fig. 7



Inventor:
Christopher S. Booth,
By *H. L. Bragg*
attorney

UNITED STATES PATENT OFFICE.

CHRISTOPHER S. BOOTH, OF CAMP POINT, ILLINOIS.

BOOKHOLDER.

Application filed May 23, 1921. Serial No. 471,953.

To all whom it may concern:

Be it known that I, CHRISTOPHER S. BOOTH, citizen of the United States, residing at Camp Point, in the county of Adams and State of Illinois, have invented a certain new and useful Improvement in Bookholders, of which the following is a full, clear, concise, and exact description.

My invention relates to stiff covered books and resides in the combination thereof with improved holders therefor.

The invention has for one of its objects the provision of means whereby opening or closing movements imparted to either book cover will be communicated to the other book cover so that both book covers will have substantially equal and simultaneous opening and closing movements.

The invention has for another of its objects the provision of means whereby the weight of the book will take part in closing the same.

The invention further includes an improved mounting for each of the book covers whereby the opening and closing movements thereof are made smooth.

The invention in all of its characteristics will be fully explained by reference to the accompanying drawings in which Fig. 1 is a side view of the book and the supporting means therefor, the book being shown in closed position; Fig. 2 is a plan view of the book as it appears in Fig. 1; Fig. 3 is a plan view, partially in section, illustrating the preferred means for constraining both book covers to have substantially equal and simultaneous opening and closing movements; Fig. 4 is a sectional view on line 4—4 of Fig. 1; Fig. 5 is a plan view of the book, open; Fig. 6 is a somewhat diagrammatic view of parts of the book supporting means; and Fig. 7 is another somewhat diagrammatic view of parts appearing in Fig. 6.

Like parts are indicated by similar characters of reference throughout the different figures.

As illustrated, the book 1 has stiff covers 2, the book having a flexible back 3 that joins the covers and permits the back edges of the covers gradually to become further apart as the book opens. The book thus constructed is shown as having its covers 2 disposed within the stiff supports 4 that have ledges 5 to engage the bottom edges

of the covers 2, the book being held in an inclined position. In order to assure the permanent relation between the stiff covers 2 and their stiff supports 4 said covers and supports are bolted or otherwise rigidly secured together as indicated at 6. The supports 4 thus, virtually, become parts of the book covers, wherefore the invention is not to be limited to a construction employing both elements 2 and 4. The book is supported upon rods having lower upright portions 7 and angular portions 8, the stiff covers of the book being directly connected with said angular rod portions by means of straps 9 which are bolted thereto and which are curled at their lower ends into bearings sleeves 10 which surround and turn upon the angular rod portions 8. The upright rod portions 7 are journaled in the frame 11 whereby the rods may turn upon the vertical axes of said upright portions 7. The angular rod portions 8 are symmetrically related and are oblique to the normal plane of the book, the plane occupied by the book when closed. The two angular rod portions 8 converge toward the bottom of the book, on which account the rod portions 8 are provided with washers 12 that engage the lower ends of the sloping sleeve bearings 10. Upright rod portions 7 are between the middle and bottom of the book whereby the weight of the book aids in closing the book, it being therefore unnecessary to employ a book closing spring.

The axes of the upright and angular rod portions 7 and 8 intersect in a plane that is below the back edges of the covers whereby these back edges may spread apart as the book is being opened.

A rigid connection, preferably in the form of a strap 13, is in hinged connection with the leaves 14, carried by the book supports 4, by means of pintles 15. These pintles are parallel and below the back edges of the book covers and the axes thereof substantially intersect the axes of the rod portions 7 and 8 where these latter axes intersect. The sloping axes of these pintles are therefore the substantially relatively fixed axes upon which the book covers turn as the book is opened and closed. The places of union of the flexible book back 3 with the book covers 2 is at the back edges of these book covers and as these back edges are above the plane that contains the axes of

the pintles they may spread apart as the book is opened, these back edges turning upon the axes of the pintles and about the points of intersection of these axes and the axes of the sloping rod portions 7 and 8.

It is preferred to have some limiting means to define the extent to which the book may be opened and to this end I have bolted straps 16 upon the sides of the book supports, these straps having their lower ends outwardly flared and so positioned that they will engage the upright rod portions 7 when the book has been opened to the predetermined extent, said upright rod portions preventing further opening movement of the book.

In order that the opening and closing movements of both book covers may be made substantially equal and simultaneous, I employ motion transmitting means operating upon and operated by either cover to accomplish this result.

In the preferred embodiment of the invention links 17, 18 are respectively rigidly secured to the upright rod portion 7, one of these links carrying a pin 19 and the other being formed with a slot 20 receiving said pin whereby the adjacent ends of the links are in pin and slot connection. The arrangement is such that when either link is turned it forces opposite turning movement of the other link of the same degree so that when either book supporting rod is turned in opening or closing the book the other rod is constrained to have similar turning movement in an opposite direction so that both book covers are constrained to substantially equal and simultaneous opening and closing movements.

While I have herein shown and particularly described the preferred embodiment of my invention I do not wish to be limited to the precise details of construction shown as changes may readily be made without departing from the spirit of my invention, but having thus described my invention I

claim as new and desire to secure by Letters Patent the following:—

1. The combination with a book having stiff covers; of two rods having lower upright portions which are mounted to turn upon their axes and angular portions upon which said covers are mounted to turn, these angular portions being symmetrically related and oblique to the normal plane of the book; and two links individual to said rods and having adjacent ends which are in pin and slot connection and their other ends in fixed connection with the upright portions of said rods to which the links are individual.

2. The combination with a book having stiff covers; of two rods having lower upright portions which are mounted to turn upon their axes and angular portions upon which said covers are mounted to turn, these angular portions being symmetrically related and oblique to the normal plane of the book, the upright portions of said rods being between the middle and bottom of the book, whereby the weight of the book aids in closing the book; and two links individual to said rods and having adjacent ends which are in pin and slot connection and their other ends in fixed connection with the upright portions of said rods to which the links are individual.

3. The combination with a book having stiff covers; of two rods having lower upright portions which are mounted to turn upon their axes and angular portions upon which said covers are mounted to turn, these angular portions being symmetrically related and oblique to the normal plane of the book, the upright portions of said rods being between the middle and bottom of the book, whereby the weight of the book aids in closing the book.

In witness whereof, I hereunto subscribe my name this 11th day of May A. D. 1921.

CHRISTOPHER S. BOOTH.