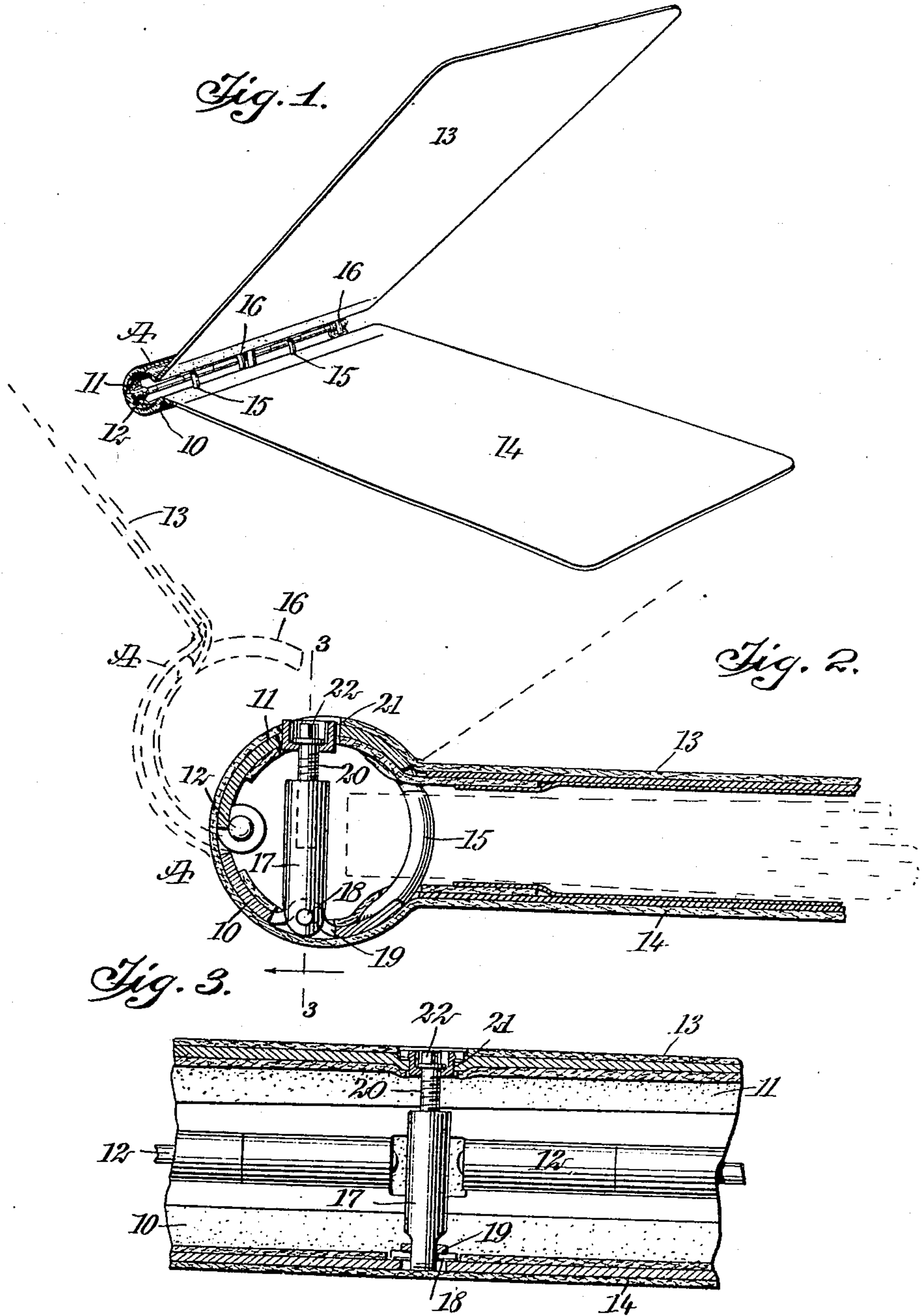


No. 849,973.

PATENTED APR. 9, 1907.

H. G. BUCHAN.
LOOSE LEAF BINDER.
APPLICATION FILED DEC. 14, 1906.



WITNESSES

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UNITED STATES PATENT OFFICE.

HUGH GELLROY BUCHAN, OF WOODBRIDGE, NEW JERSEY.

LOOSE-LEAF BINDER.

No. 849,973.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed December 14, 1906. Serial No. 347,828.

To all whom it may concern:

Be it known that I, HUGH GELLROY BUCHAN, a citizen of the United States, and a resident of Woodbridge, in the county of Middlesex and State of New Jersey, have invented a new and Improved Loose-Leaf Binder, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a loose-leaf binder with a sectional segmental back of spring material so constructed that it may be employed for binding one or as many sheets as may be desired to the extent of its expansion, which is limited only by the number of sheets it will hold when opened to its fullest extent:

A further purpose of the invention is to so construct the device that it will be simple, durable, and capable of ready and convenient operation and so that it will have bearing on the leaves in the same manner and with the same force at all points of contact.

It is also a purpose of the invention to so construct the device that the leaves or sheets contained therein can under no possibility be accidentally slipped therefrom.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improved loose-leaf binder open. Fig. 2 is a vertical section through the back portion of the binder drawn upon an enlarged scale and illustrating the binder open in dotted lines; and Fig. 3 is an enlarged section taken lengthwise of the back of the binder, the section being drawn practically on the line 3-3 of Fig. 2.

The back A of the binder is of segmental form and is constructed of spring metal or other spring material, being made in two sections 10 and 11 of equal dimensions, and said sections are connected at the longitudinal central portion of the back by a suitable hinge or hinges 12. The covers 13 and 14 may be of any approved type and may be made of any suitable material, and said covers 13 and 14 are practically continuations of the sections 10 and 11 of the book.

At the lower open portion of the back A pins 15 are made to extend up from the sec-

tion 10, and corresponding pins 16 are made to extend down from the corresponding portion of the back-section 11. These pins are curved, so that when the binder is closed the pins in connection with the sections 10 and 11 of the back have a circular formation, as is shown in Fig. 2, and the said pins 15 and 16 are passed down through apertures produced in the sheets or leaves that are received between the covers of the binder.

A socket 17 is pivotally secured to the central portion of the section 10 of the back—for example, by means of a pin 18, that is passed beneath an inserted strap 19; but the socket may be otherwise attached, if so desired. The socket 17 receives a screw 20, and the said screw is passed down through a pivotally-mounted eyelet-guide 21, located in the opposing section 11 of the back. The screw 20 is preferably provided with a polygonal head 22, whereby the screw may be turned by the application of a suitable key; but the head of the screw may be otherwise formed.

In operation after the leaves or sheets have been placed between the covers and have been received by the pins 15 and 16 the screw 20 is turned in its socket 17 until the forward edges of the sections 10 and 11 of the back are brought in firm, positive, and uniform engagement with the upper and the lower set of leaves, thus binding them firmly together and yet permitting the covers to be opened at will.

When it is desired to open the binder to its fullest extent, as is shown by dotted lines in Fig. 5, the screw 20 is entirely removed from the socket 17. If, however, but few sheets are to be placed in the binder, it is not necessary to remove said screw from said socket.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a loose-leaf binder, a back constructed of spring material in segmental form and in two hinged connected sections, covers extending from the free ends of the said sections of the back, pins extending in opposite directions from the said sections at their free ends, and a tension device for drawing the free or forward ends of the sections of the back together, said tension device having pivotal relation to the back at each end of said device.

2. In a loose-leaf binder, the combination with a segmental back constructed in two

spring-metal sections of equal dimensions,
each being of segmental form, the said sec-
tions being connected at their rear portions,
of covers extending from the forward or free
5 edges of the said sections, pins extending in
opposite directions from the forward edges
of the sections of the back, said pins having a
rearward curvature, a socket pivotally se-
cured to one section of the back, and a screw
10 having guided movement in the opposing

back-section, said screw entering the said
socket.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

HUGH GELLROY BUCHAN.

Witnesses:

N. P. HAMILTON,
F. A. MORRISON.