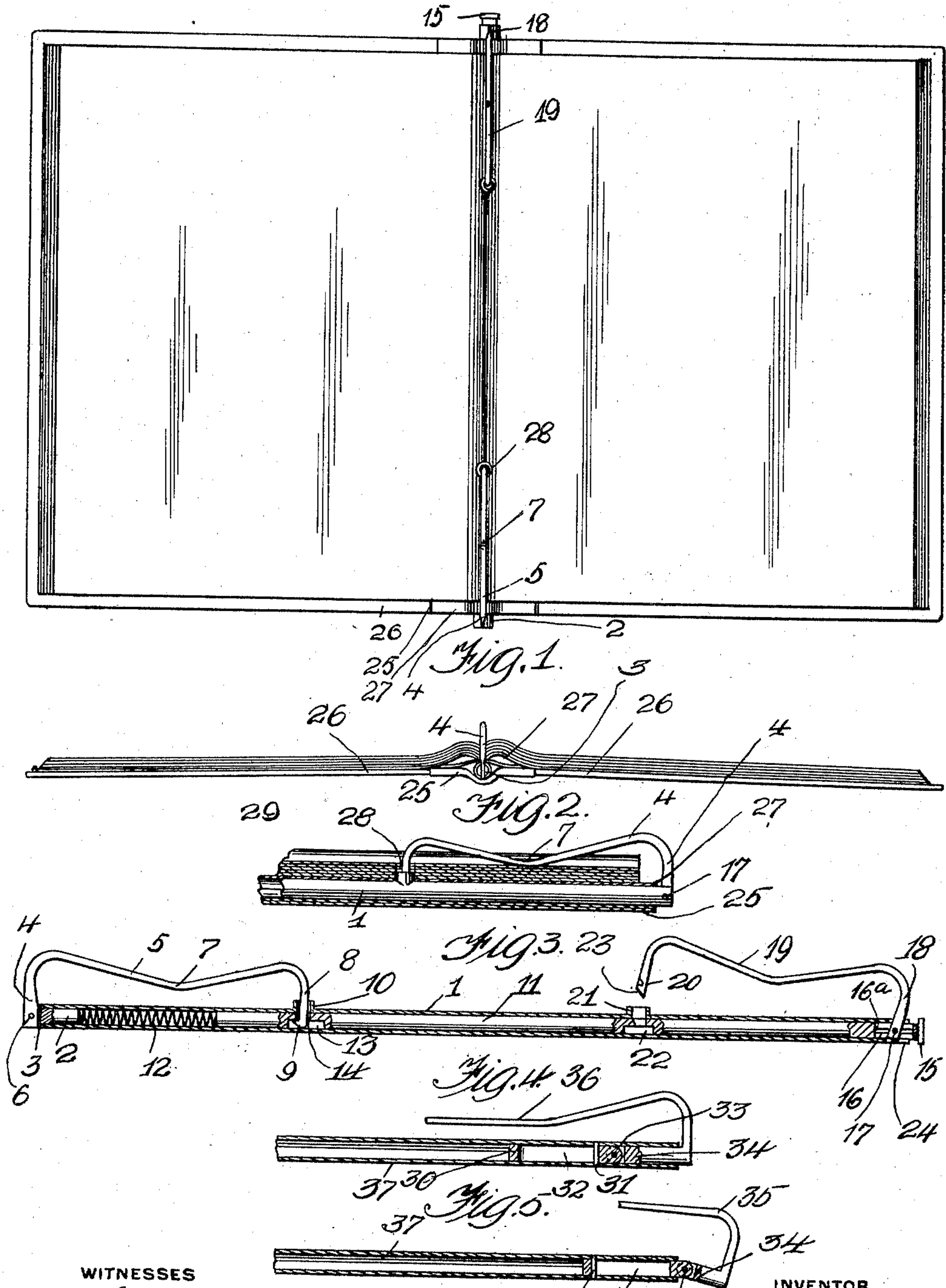


W. G. BALDWIN.
 LOOSE LEAF BINDER.
 APPLICATION FILED MAR. 25, 1910.

967,705.

Patented Aug. 16, 1910.



WITNESSES

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Fig. 7. by H. C. Everett & Co.
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UNITED STATES PATENT OFFICE.

WILLIAM GLENN BALDWIN, OF PITTSBURG, PENNSYLVANIA.

LOOSE-LEAF BINDER.

967,705.

Specification of Letters Patent. Patented Aug. 16, 1910.

Application filed March 25, 1910. Serial No. 551,493.

To all whom it may concern:

Be it known that I, WILLIAM GLENN BALDWIN, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to loose-leaf binders, and the primary object of my invention is to provide a simple and inexpensive device for retaining a plurality of pages, sheets, or leaves in a binding or cover, whereby the pages can be removed from time to time or additional pages added to the cover.

Another object of my invention is to provide a loose-leaf binder that can be advantageously used in connection with catalogues, ledgers, order books and books of various kinds where it is desirable to remove pages from the books, to renew the same or to add additional pages.

A further object of this invention is to provide a binder of the above type that will not injure the pages or sheets held thereby, and to so construct the binder as to permit pages to be easily and quickly removed or placed in engagement with the binder.

A still further object of this invention is to accomplish the above results by a device that is inexpensive to manufacture, durable and highly efficient as a fastening means for pages or sheets to be maintained in a file.

These and such other objects as may hereinafter appear are attained by the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing forming a part of this specification, wherein:

Figure 1 is a plan of the loose-leaf binder. Fig. 2 is an end view of the same. Fig. 3 is an enlarged longitudinal sectional view of one end of the binder. Fig. 4 is a longitudinal sectional view of the complete binder. Fig. 5 is a longitudinal sectional view of one end of a modified form of binder showing the binder in a closed position. Fig. 6 is a similar view showing the binder in an open position, and Fig. 7 is a perspective view of a portion of the same.

The binder comprises a tube or hollow cylindrical structure having a plug 2 mount-

ed in one end thereof, the plug protruding from the end of the tube 1 and being bifurcated, as at 3, for the end 4 of a binding member 5, the end 4 of said member being held in the bifurcated end of the plug 2 by a pin 6. The member 5 is provided with a central depression 7 and the opposite end thereof is bent downwardly, as at 8, and provided with a hook 9. The member extends longitudinally of the tube 1 and the hook-shaped end thereof is adapted to protrude into the tube 1 through a sleeve 10 provided therefor in connection with the tube 1.

Movably mounted in the tube 1 is a rod 11 and interposed between the end of the rod 11 and the plug 2 is a compression spring 12. The rod 11 adjacent to the end thereof has the underside recessed, as at 13, and is provided with an opening 14 adapted to establish communication between the recess 13 and the sleeve 10, whereby the hook-shaped end 8 of the member 5 can extend into the recess 13 and be engaged by one of the side walls of the opening 14 to lock the member 5 in a closed position. The opposite end of the rod 11 is adapted to protrude from the end of the tube 1 and is provided with a cap or button 15 whereby the rod can be easily moved. The rod adjacent to the cap or button 15 is provided with a longitudinal vertical slot 16 and horizontal slots 16^a. And pivotally mounted in the end of the tube 1 by a transverse pin 17 extending through the slot 16^a is the end 18 of a member 19 similar to the member 5. The hook-shaped end 20 of the member 19 is adapted to enter a sleeve 21, similar to the sleeve 10 and a recess 22 provided therefor in the rod 11. The hook-shaped end 20 of the member 19 is adapted to be held by the rod 11 similar to the member 5, and by shifting or pushing the rod 11 inwardly, the hook-shaped ends of the members 5 and 19 can be easily released and the members swung to an open position. The hook-shaped ends 9 and 20 of the members 5 and 19 respectively are beveled, as at 23, whereby they can be easily sprung into engagement with the rod 11, and in order that the end 18 of the member 19 will have clearance of the tube 1 the tube is slotted, as at 24.

The tube 1 is adapted to be held in engagement with the connecting piece 25 of backs or covers 26 by a strap 27, and the pages, sheets, or leaves to be retained be-

5 between the backs or covers 26 are provided with openings 28 to receive the hook-shaped ends of the members 5 and 19, as best shown in Figs. 1 and 3 of the drawings. With the pages, leaves or sheets 29 placed in position, the members 5 and 19 can be easily swung to a closed position whereby the depressed portions 7 of said members will assist in retaining the pages 29 against the covers or backs of the book.

10 In Figs. 5 to 7 inclusive, the tube 1 has the ends thereof provided with slotted, slidable plugs 30 held within the ends of the tube by pins 31 extending through the slots 32 of the plugs. Pivotally connected to the outer ends of the plugs by pins 33 are the bifurcated ends 34 of gripping members 35, these members having portions or ends 36 in parallelism with the tube 1, whereby pages or sheets can be clamped against the tube when the members are in a closed position. The members are adapted to be rigidly held by the pivoted ends thereof extending into the ends of the tube and when the plugs are pulled outwardly the members can be swung to an open position. The tube 1 in connection with the modification of the invention is adapted to have that portion thereof between the ends of the tube flattened, as indicated at 37, thus forming a structure that can be easily secured to the connecting piece 25 of the backs or covers 26.

35 The loose-leaf binder in its entirety is made of light and durable metal, and while in the drawings there are illustrated the preferred embodiments of the invention, it is to be understood that the structural elements thereof can be varied or changed as to the size, shape and manner of assemblage without departing from the scope of the appended claims.

What I claim, is:

1. A loose-leaf binder comprising a tube, a spring-pressed rod slidably mounted in said tube, and gripping members pivotally mounted at the ends of said tube and adapted to have the ends thereof swung into said tube and held by said rod. 45

2. A loose-leaf binder comprising a tube, a rod slidably mounted in said tube, gripping members pivotally mounted at the ends of said tube, said members having hook-shaped ends adapted to be swung into said tube, and means in connection with said rod for engaging the hook-shaped ends of said members. 55

3. A loose-leaf binder comprising a tube, a plug mounted in one end thereof, a spring-pressed rod slidably mounted in said tube, said rod having recesses formed therein, a member pivotally supported by said plug, and a member pivotally supported at the opposite end of said tube, said members having hook-shaped ends adapted to enter said tube and the recesses of said rod, substantially as described. 65

4. In a loose-leaf binder, the combination with a back or cover, of a tube held in engagement with said back or cover, a rod slidably mounted in said tube, page-gripping members having the outer ends thereof pivotally held by the ends of said tube and adapted to have the inner ends thereof swung through pages into said tube and held by said rod. 75

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

WILLIAM GLENN BALDWIN.

Witnesses:

KARL H. BUTLER,
EVA A. MILNE.