

No. 737,317.

PATENTED AUG. 25, 1903.

J. R. BARRETT.
LOOSE LEAF BINDER,
APPLICATION FILED OCT. 6, 1902.

NO MODEL.

Fig. 1.

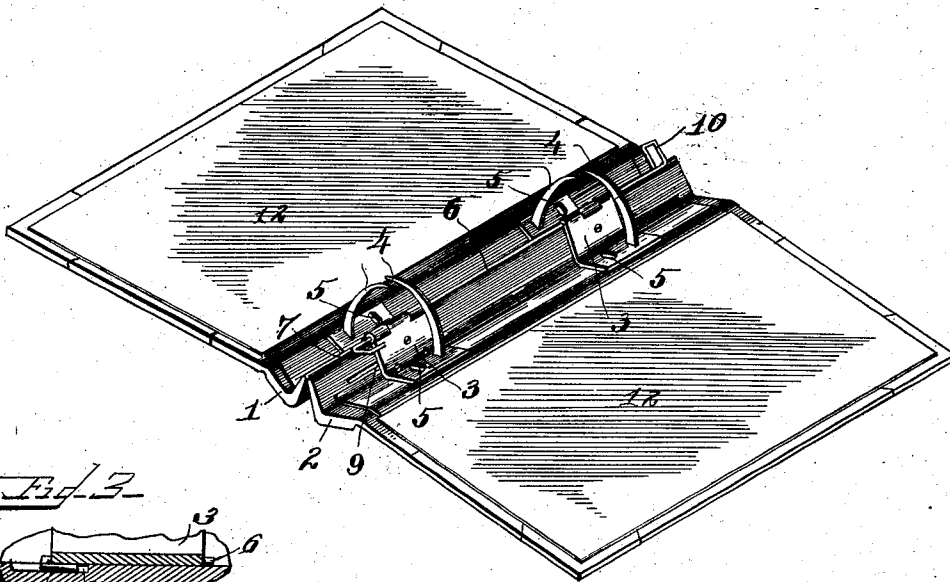


Fig. 2.

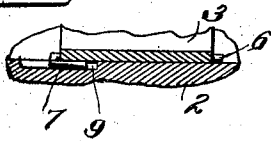


Fig. 3.

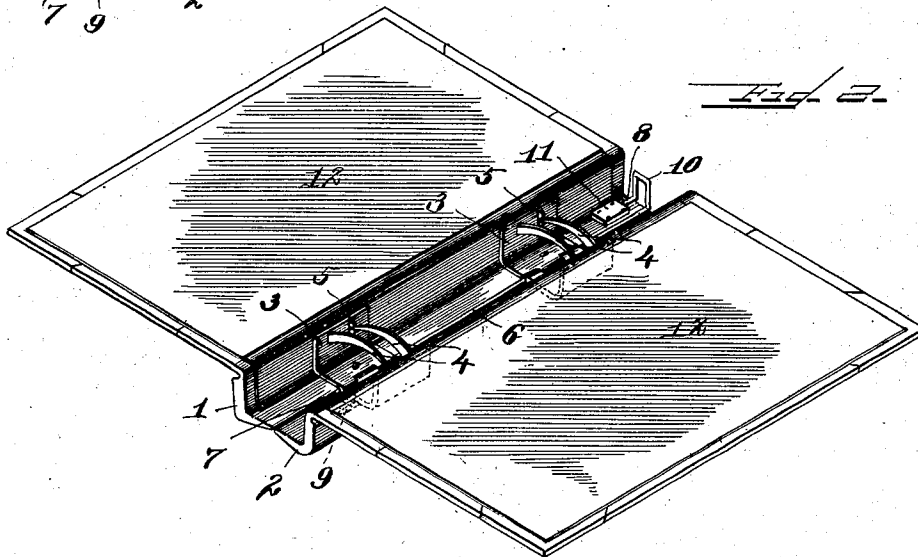
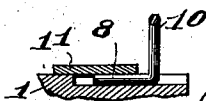


Fig. 4.



WITNESSES

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JOHN R. BARRETT, OF CHICAGO, ILLINOIS, ASSIGNOR TO ERIK L. KRAG, OF CHICAGO, ILLINOIS.

LOOSE-LEAF BINDER.

SPECIFICATION forming part of Letters Patent No. 737,817, dated August 25, 1903.

Application filed October 6, 1902. Serial No. 126,193. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. BARRETT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is a specification.

One of the objects of this invention is the production of a spring-back binder wherein the spring action may be withdrawn and the binder opened to insert or to remove leaves.

A further object of the invention is the application of a torsion-spring to binders.

In the accompanying drawings, Figure 1 is a perspective view illustrating a binder embodying my invention, said binder being relieved from the tension of its closing-spring and opened upon its hinge-joint to receive leaves. Fig. 2 illustrates the binder closed by the action of its torsion-spring. Figs. 3 and 4 are fragmental sectional views through the back portion of the binder, showing opposite ends of the torsion-spring.

In the embodiment of this invention I provide a back portion comprising the two parts 1 and 2, each substantially L shape in cross-section. These back members 1 and 2 are hinged together at their adjacent inner edges in any suitable manner, as by means of the hinges 3, the leaves of which are bent to conform to the inner faces of said back members. Upon each leaf of said hinges a curved holding-pin 4 is secured, which holding-pins extend inward, the point of each pin being adapted to enter an opening 5 in the opposite leaf of the hinge in order to permit of a sufficient length of said holding-pins. The pintle of the hinges is formed of a piece of spring-wire 6, extending lengthwise of the binder along the pivotal joint between the back members 1 and 2, one end of said pintle being bent at a right angle and again upon itself in the hook 7 and at its opposite end bent in a similar manner in the hook 8. Both hooks 7 and 8, however, lie in substantially the same plane. The point of the hook 7 is adapted to enter an opening 9, provided for it and formed in the substance of the back member 2 underneath a leaf of one of the hinges 3. The hook 8 is bent upward in a standing portion 10 to provide a means for

grasping it in order to move the pintle-wire 6 longitudinally of the hinge members. The hook 8 is also provided with a holder 11 for retaining the end of said hook, though permitting a longitudinal movement of the hook and pintle-wire. When the pintle-wire 6 is slid upward (toward the upper edge of the hook) and the hook 7 lies with its point in the opening 9 in the back member 2, the pintle-spring 6 is in position to hold the back members 1 and 2 in a normal or closed position by the torsional resistance of said pintle-wire; but when said hook is removed from the opening 9 the back members move freely upon said pintle-wire.

Covers 12 are flexibly secured in any suitable manner at the outer edges of the back members 1 and 2.

In the binder illustrated the points of the holding-pins 4 overlap slightly when the binder is opened to its widest extent upon the pintle 6, and loose leaves are inserted by bending them and putting them into place between said holding-pins. The holding-pins 4, however, may be made slightly shorter than those illustrated herein, so that their points will not be overlapping when the binder is open.

If desirable, a lock may be added to provide a positive means for holding the hinge members in a closed position instead of depending upon the stiffness of the spring-pintle 6.

In use leaves are put into the binder by opening the same upon its hinge-joint, and this is accomplished by pressing downward upon the standing portion 10 of the hook 8, sliding the pintle-wire 6 longitudinally in its bearings, and withdrawing the hook 7 from the opening 9. This relieves the hinge from the spring action of the pintle 6 and permits it to be opened freely. Leaves may now be inserted upon the holding-pins 4 until the contents of the binder are made complete. The spring action of the torsional pintle-wire 6 is brought into play by sliding said pintle-wire upward and placing its hook 7 in the opening 9. The spring will now tend to hold the binder closed. In the closed position the points of the holding-pins enter the openings 5 in the leaves of the hinges 3, said openings

being provided to allow for a length of holding-pin sufficient to permit the points of said pins to overlap even when the binder is opened to its widest extent. This will prevent leaves from being accidentally dropped from the binder, although they may be removed when the binder is opened by bending them slightly.

The embodiment herein shown of my invention is susceptible of various modifications, many changes in the form and arrangement of parts being possible without a departure from the spirit of my invention. I therefore desire to have it understood that I do not limit myself to the specific construction herein set forth.

I claim as my invention—

1. In a loose-leaf binder, in combination, two back members; a hinge for connecting said back members, said hinge having a pintle of spring material, said pintle being bent

in hook form at its opposite ends; and a holder on one of said back members for torsionally engaging one end of said pintle, the other member being provided with a socket or opening adapted to receive the other hook end of said spring-pintle.

2. In a loose-leaf binder, in combination, two back members; a hinge for connecting said back members, the pintle of said hinge being formed of spring material and bent in oppositely-extending hooks at its opposite ends; and a holder on one of said back members for one of the ends of said spring-pintle, the other back member being provided with a socket or opening adapted to receive the opposite hooked end of said pintle.

JOHN R. BARRETT.

Witnesses:

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