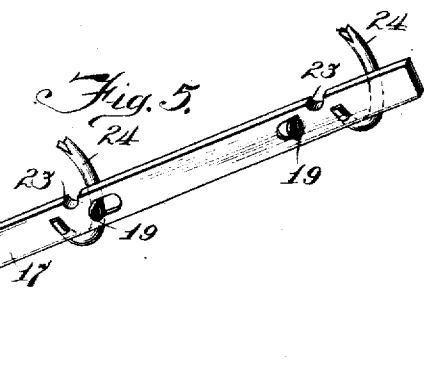
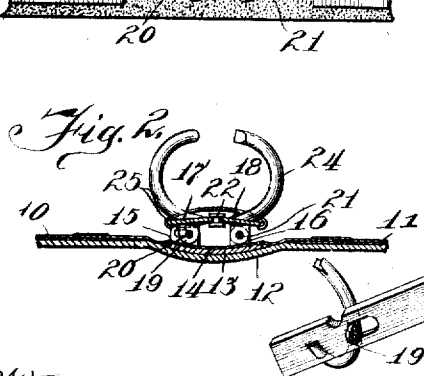
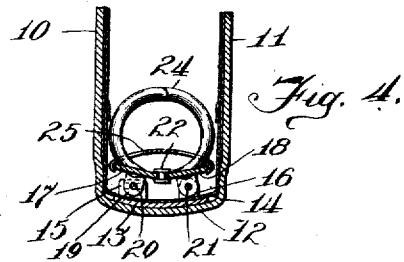
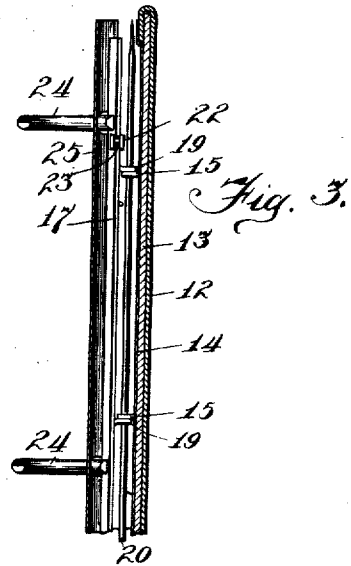
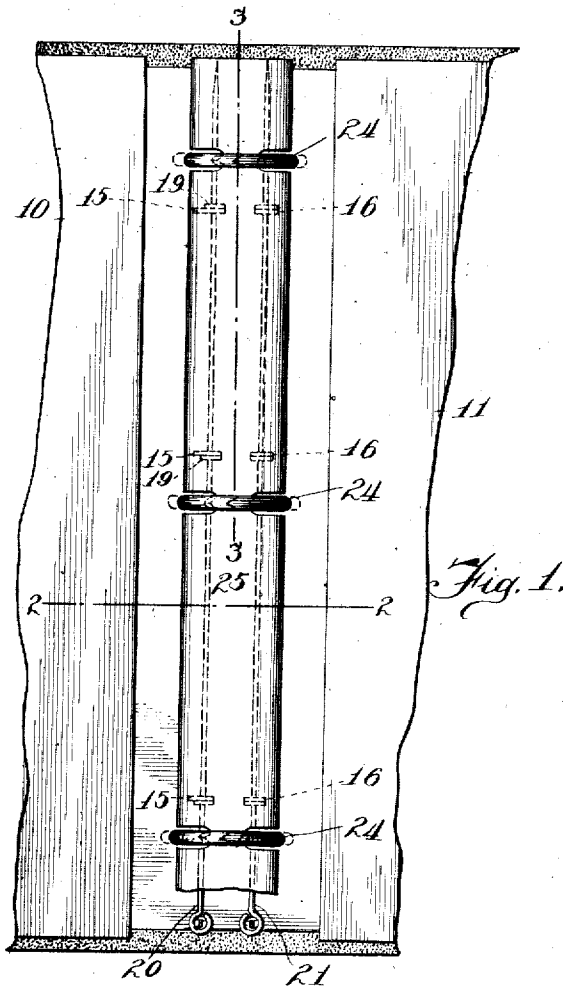


950,614.

Patented Mar. 1, 1910.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES C. DAWSON, OF WEBSTER GROVES, MISSOURI, ASSIGNOR TO SIEBER & TRUSSELL
MANUFACTURING COMPANY, A CORPORATION OF MISSOURI.

LOOSE-LEAF BINDER.

950,614.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed August 11, 1908. Serial No. 512,384.

To all whom it may concern:

Be it known that I, JAMES C. DAWSON, a citizen of the United States, and resident of Webster Groves, county of St. Louis, and State of Missouri, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to loose leaf binders usually made in small form and commonly known as price books. The binder mechanism is of that type in which mating impaling prongs are carried by a pair of plates which have their inner edges in contact and are forced together by a spring whereby a species of toggle action is obtained, the prong-carrying plates being deflected downward when the prongs are closed and upward when they are open, force being necessary to shift them from either position to the other.

The object of the invention is to simplify and generally improve binders of this type; and it consists in a structure such as is hereinafter described, and as illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the binder showing the prongs closed, and their positions, when open, being indicated by dotted lines; Fig. 2 is a detail transverse sectional view of the binder, the prongs being open; Fig. 3 is a detail central longitudinal section through the binder mechanism; Fig. 4 is a detail transverse section, the binder being closed; and Fig. 5 is a perspective of one of the prong-carrying plates with the prongs attached thereto.

The binding mechanism is, as usual, secured between a pair of side or cover plates 10, 11, and is attached to the back 12 of the book, which is usually a piece of fabric overlapping and secured to the side plates. A rigid base plate 13, preferably of metal, is shown as secured between the back 12 and its lining 14, and is provided with upstanding apertured lugs 15, 16, adjacent its side edges, these lugs being arranged in pairs, there being three pair as shown. The prong-carrying plates 17, 18, are located above the plate 13, and each of these plates is provided with downstanding apertured lugs 19, cooperating with the lugs 15 and 16, and are secured thereto by means of pins 20, 21, which serve

as pivots on which the plates may rock. As shown, these pins are substantially of the same length as the plates, each serving as a pivot for uniting the several pairs of lugs upon one side of the binder. The inner edges of the plates 17, 18, abut, and are held in engagement by means of a plurality of buttons 22, fitting loosely within recesses 23 in the plates and being transversely grooved to provide heads above and below the plates.

The prongs 24, three sets of which are shown, are substantially semi-circular in form, their inner ends being rigidly attached to the plates 17 and 18, and their outer ends being of complementary mortise and tenon form so as to interlock when closed together.

A bowed spring plate 25 is located above the plates 17 and 18, its edges being turned inwardly to engage their outer edges, the spring plate being suitably recessed to accommodate the prongs. The tension of the spring plate forces the plates 17 and 18 toward each other and causes their deflection either downwardly for the purpose of closing the prongs together, or upwardly for spreading them, these plates pivoting upon the pins 20, 21. As there is necessarily a slight lateral movement of at least one set of the prong-carrying plates as they swing upon their pivots, one set, as 15, of the lugs rising from the plate 13 is shown as having elongated pivot apertures. The prongs may be opened by gripping the members of any pair and forcing them apart; preferably, however, by pressing the plates 13 and 25 toward each other. Usually this pressure will be applied by resting the book when open upon a desk and bearing down either directly upon the plate 25 or upon the bound sheets. The pivots of the plates 17, 18, being near their outer edges, the relative movement of the plates 13 and 25 is very small, much less than in the structure forming the subject of another application by myself for patent and co-pending with this one. The prongs are closed by pressing together the members of any pair of them.

The construction is simple and cheap, while the binder is exceedingly efficient.

I claim as my invention—

1. In a loose leaf binder, in combination, a base plate, a pair of prong-carrying plates pivotally attached to the base-plate and having their edges abutting, and a spring

acting on the prong-carrying plates and urging them together.

2. In a loose leaf binder, in combination, a base plate, a pair of prong-carrying plates pivotally attached to the base-plate and having their edges abutting, one of such pair of plates having lateral play on its pivots, and a spring acting on the prong-carrying plates and urging them together.

3. In a loose leaf binder, in combination, a base plate, a pair of prong-carrying plates pivotally attached to the base-plate and having their edges abutting, and a bowed spring plate covering the prong-carrying plates and bearing against their outer edges.

4. In a loose leaf binder, in combination, a base-plate, a pair of prong-carrying plates pivotally attached to the base-plate and having their edges abutting, and a grooved button housed in recesses in the adjacent edges of the pair of plates.

5. In a loose leaf binder, in combination, a base plate having two sets of upstanding apertured lugs, a pair of prong-carrying plates having their adjacent edges in con-

tact and each being provided with a set of downstanding apertured lugs, a pin uniting coöperating members of each set of lugs, and a spring urging the prong-carrying plates together.

6. In a loose leaf binder, in combination, a base plate having two sets of upstanding apertured lugs, the apertures of one set of lugs being elongated parallel with the base plate, a pair of prong-carrying plates having their adjacent edges in contact and each being provided with a set of downstanding apertured lugs, a pin uniting coöperating members of each set of lugs, and a spring urging the prong-carrying plates together.

7. In a loose leaf binder, in combination, a base plate, a pair of prong-carrying plates related together as toggle arms and each having a pivotal engagement with an apertured lugs, a pin uniting coöperating members of each set of lugs, and a spring engaging the prong-carrying plates and urging them toward each other.

JAMES C. DAWSON.

Witnesses:

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