

March 9, 1937.

G. H. DAWSON
LOOSE LEAF BINDER

2,073,049

Filed Dec. 29, 1934

2 Sheets-Sheet 1

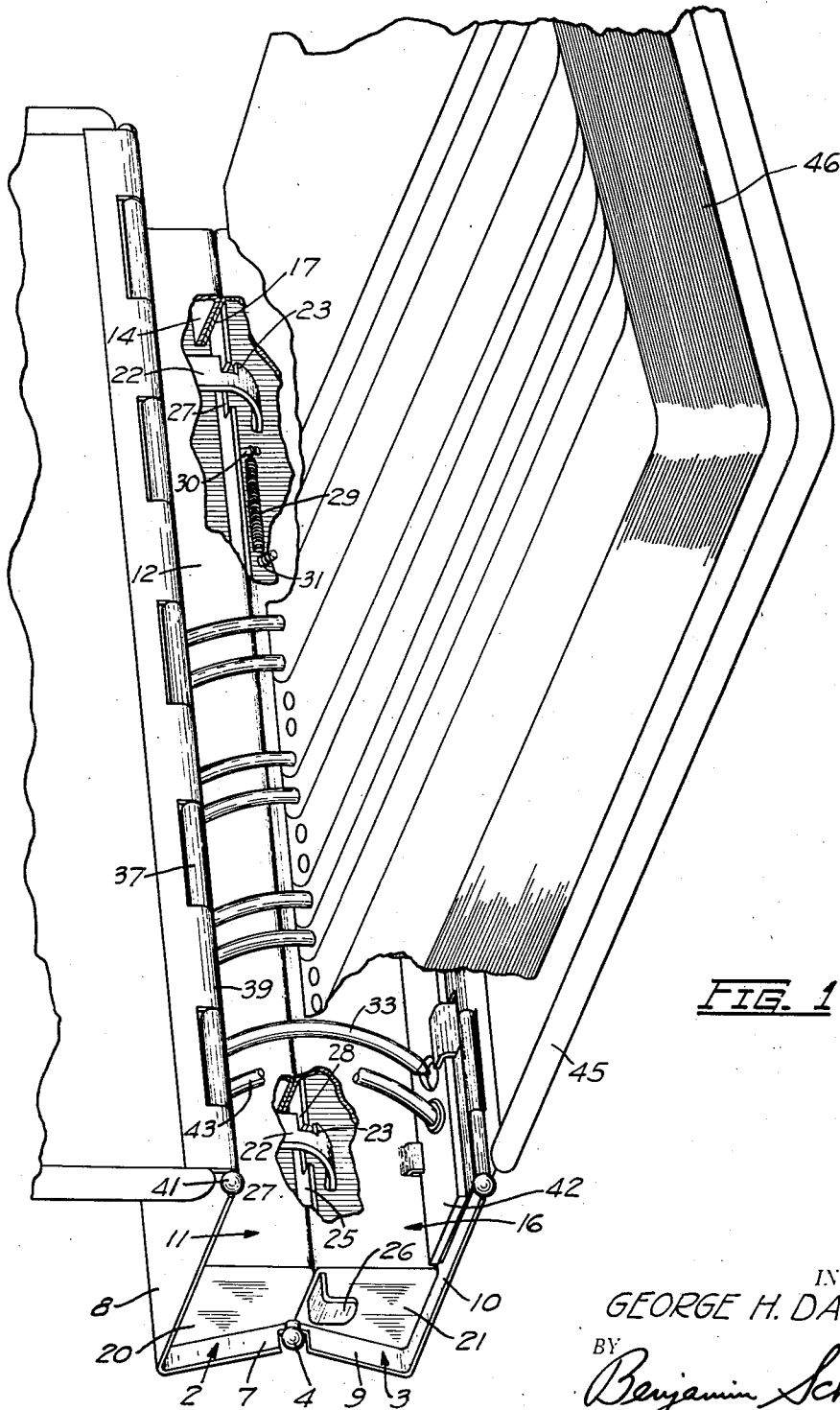


FIG. 1

INVENTOR.
GEORGE H. DAWSON
BY
Benjamin Schlosser
ATTORNEY.

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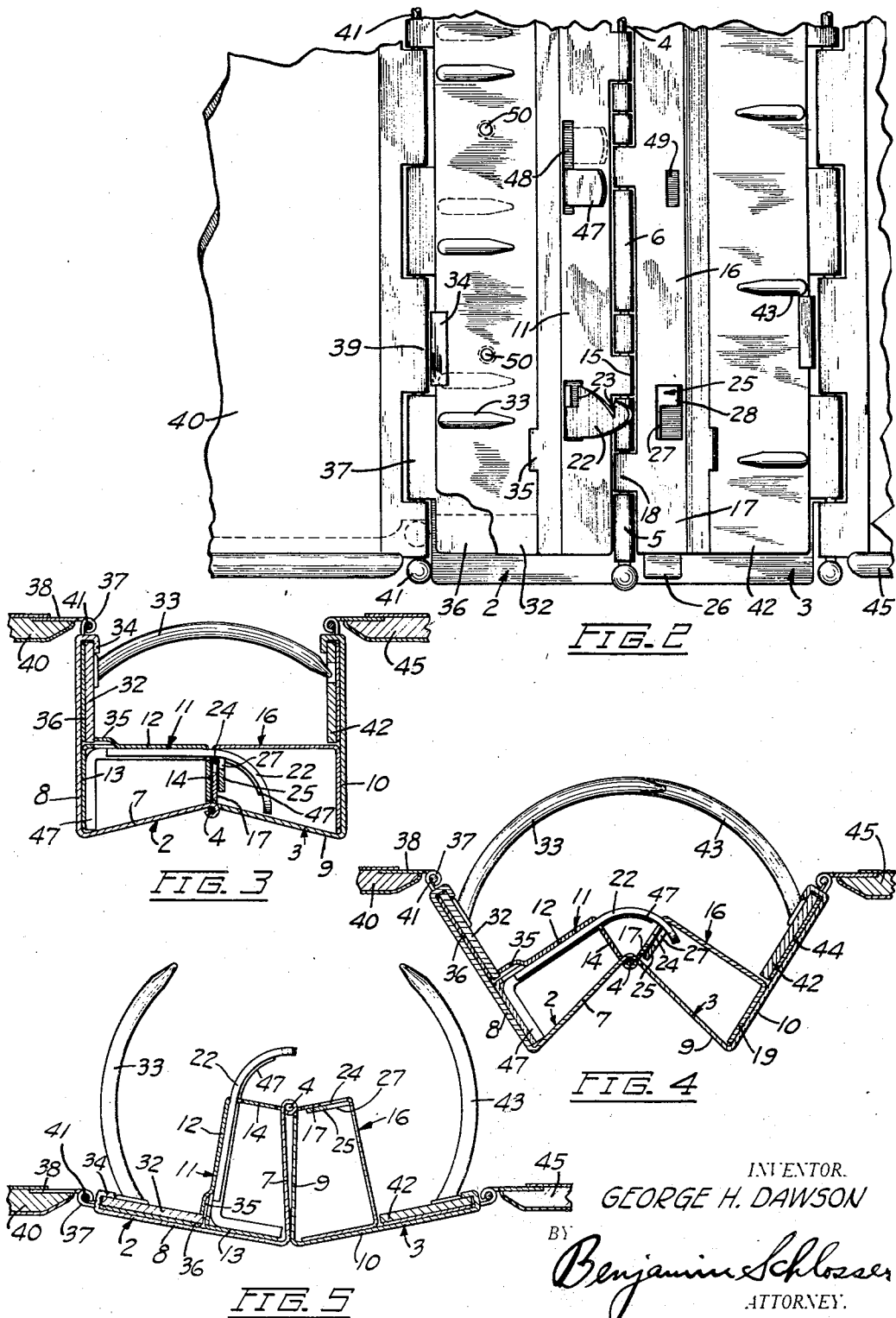


FIG. 2

FIG. 3

FIG. 4

FIG. 5

INVENTOR.
GEORGE H. DAWSON

BY
Benjamin Schlosser
ATTORNEY.

UNITED STATES PATENT OFFICE

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LOOSE LEAF BINDER

George H. Dawson, Chicago, Ill., assignor to
Wilson-Jones Company, Chicago, Ill., a cor-
poration of Massachusetts

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6 Claims. (Cl. 129—17)

This invention relates to a loose leaf binder particularly adapted to receive a plurality of banks of overlapping sheets and to shift a portion of the contents relative to the rest of the contents.

5 It is an object of this invention to provide a loose leaf binder with simple and efficient means for shifting one series of sheet retaining prongs relative to the other series of sheet retaining prongs. It is a further object of this invention to provide means for permitting shifting movement of one series of sheet retaining prongs when the binder is in either its open or intermediate position. It is a further object of this invention to provide means for readily converting a shift-binder to a non-shift binder or a non-shift binder to a shift binder. Other objects of this invention will become apparent upon reading the following description, taken in conjunction with the accompanying drawings, in which

20 Figure 1 is a fragmentary perspective view of a loose leaf binder embodying the invention; Figure 2 is a fragmentary top plan view of the binder in open position;

25 Figure 3 is a cross sectional view of the binder in closed position;

Figure 4 is a view similar to Figure 3, showing the binder in intermediate position; and

Figure 5 is a view similar to Figures 3 and 4, showing the binder in open position.

30 In the drawings, the reference numerals 2, 3 indicate a pair of back sections hinged together by means of a hinge pintle 4 which passes through a plurality of hinge sleeves 5 and 6, extending from the inner edges of the back sections 2 and 3, respectively. The back section 2 comprises two wall members 7 and 8, and the back section 3 comprises two similar wall members 9 and 10.

40 A box member 11 is secured in the back section 2. The box member 11 comprises a top wall 12, approximately parallel to the wall 7, and a pair of side walls 13 and 14 extending substantially perpendicular to the wall 12. The wall 14 is provided with a plurality of integral extensions which are curled to form hinge sleeves, as indicated at 45 15, Figure 2, to secure one side of the box member in the back section. The other side wall 13 is secured to the wall 8 by means of tongues (not shown) projecting from the wall 8 through slots in the wall 13, or by welding or riveting. The other back section 3 has a box member 16, similar to the box member 11, secured therein. The side wall 17 of the box member is provided with integral hinge sleeves 18, by which it is secured to the back section 3, and the other side wall 19

is secured to the wall 10 in the same manner as the side wall 13 is secured to the wall 8. Each box member is closed at its ends by cap members, indicated at 20 and 21, Figure 1. It will be understood that the outer exposed surfaces of the back sections 2 and 3 may be covered with fiber, leather, fabric or any suitable material to enhance the appearance of the completed book.

5 A flat curved bar 22 is welded or riveted to the underside of the top wall 12 adjacent each end of the binder and has its curved end projecting through the side wall 14. The curved end of the bar 22 is provided with a pair of teeth 23 adapted to project through a slot 24 into the box member 16. A slide bar 25 is secured adjacent the inner side of the wall 17 in any suitable manner. The slide bar has a turned end 26 projecting through the end cap 21 to facilitate manipulation of the slide bar. The slide bar 25 is provided with a notch 27 adjacent each bar 22 so that the teeth 23 may be engaged with the edge 28 adjacent the notch 27 to retain the binder in either closed or intermediate position.

25 When the bar 25 is moved inwardly the edge 28 is disengaged from the teeth 23 so that the binder may be moved to open position. A spring 29, having one end secured to a pin 30 projecting from the bar 25, and its other end secured to a pin 31 projecting inwardly from the top wall of the box member 16, opposes the inward movement of the bar 25 and forces the bar 25 back to its normal position as soon as the end 26 is released. Consequently, if the end 26 is pushed in and then released as soon as the opening movement of the binder is started, the back sections will be stopped in their intermediate position by the engagement of the edge 28 with the outer tooth 23. If the end 26 is held against the action of the spring 29, the sections may be moved from closed to open position in one continuous movement.

45 A plate 32, carrying a plurality of prongs 33, is mounted in the back section 2. The plate 32 is held against lateral or vertical movement by a plurality of ears or projections 34, bent from the outer edge of the back section, and 35, struck out from the wall 12. The inner edge of the plate 32 abuts the wall 12 of the box member 11.

50 A hinge plate 36 is rigidly secured to the prong carrying plate 32 by welding or riveting. The outer edge of the hinge plate 36 is provided with a plurality of extensions curled to form hinge sleeves 37. A complementary hinge plate 38 provided with hinge sleeves 39 is rigidly secured to a cover member 40. A hinge pintle 41, threaded

through the hinge sleeves 37 and 39 hinges the cover member 40 to the hinge plate 36.

From the foregoing it can be seen that the cover member 40 is free of any direct connection with the back section 2, but is secured to the prong carrying plate 32 through the hinge plate 36. The prong carrying plate 32 may be moved longitudinally of the back section 2. The cover member 40 shifts longitudinally with the prong carrying plate. The ears or projections 34 fit in between the hinge sleeves 37 so as to limit the shifting movement.

The back section 3 is provided with a plate 42 carrying a plurality of prongs 43. The plate 42 has a hinge plate 44 rigidly secured thereto. A cover member 45 is hinged to the hinge plate 44. The cover 45 and the prong carrying plate 42 could be made shiftable in the same manner as the cover member 40 and the prong carrying plate 32, but it is preferred to weld or rivet the prong carrying plate 42 to the back section 3 so that only one cover may be shifted.

The prongs 33 and 43 are adapted to retain a plurality of banks of overlapped sheets 46. When it is desired to create a space between two consecutive sheets 46, all the sheets in front of the proposed space are thrown on to the left side of the binder and the binder is then moved to either the intermediate or open position. Then the cover member 40 is moved to its shift position and the sheets of the bank in which the space is to be created are moved to the right side of the binder and the cover is then returned to its normal position and the binder is closed.

If a space is to be closed between two consecutive sheets, the cover member is moved to its shift position before the sheets in front of the space to be closed are moved to the left of the binder. After these sheets are moved to the left of the binder it is necessary only to move the cover to its normal position and then to close the binder.

The prong plate 32 is provided with an arm 47 (Figure 2) which projects through an elongated slot 48 in the wall 14 of the box member 11. The wall 17 of the box member 16 is provided with a slot 49 which is long enough to receive the arm 47 only when the prong carrying plate 32 is in its normal position. Accordingly, it is impossible to close the binder when the prongs are in shift position.

The prong carrying plate 32 and hinge plate 36 are provided with a plurality of threaded apertures 50, and the back section 2 is provided with a plurality of threaded apertures (not shown) adapted to register with the apertures 50 when the prong carrying plate 32 is in its normal position. A plurality of screws (not shown) may be threaded into said apertures to convert the binder to a non-shift binder. If it is desired to re-convert the binder to a shift binder, the screws may be removed.

Although I have described my invention in considerable detail, it will be understood that the description thereof is illustrative, rather than re-

strictive, as many details may be modified or changed without departing from the spirit or scope of the invention. Accordingly, I do not desire to be restricted to the exact details of construction described, except as limited by the appended claims.

I claim:

1. In a loose leaf binder, a back section, a prong carrying plate slidably secured to said back section, and an outer cover member hinged to said prong carrying plate whereby said prong carrying plate may be slid by manipulation of said outer cover member.

2. In a loose leaf binder, a pair of back sections hinged together, a prong carrying plate secured to each of said back sections, and a pair of outer cover members, one of said cover members being movable longitudinally relative to said back sections, one of said prong carrying plates being connected to said last mentioned cover member so as to be longitudinally movable therewith.

3. In a loose leaf binder, a back section, a prong carrying plate slidably secured to said back section, an outer cover member hinged to said prong carrying plate, said prong carrying plate being slidable by manipulation of said outer cover member, and a plurality of ears on said back section adapted to limit the sliding movement of said prong carrying plate and said cover member.

4. In a loose leaf binder, a back section, a prong carrying plate slidably positioned on said back section, a plurality of hinge sleeves projecting beyond the outer edge of said prong carrying plate, and a plurality of ears integral with said back section projecting from the outer edge thereof between said hinge sleeves and overlying the outer edge of said prong carrying plate to cooperate with said hinge sleeves to limit the sliding movement of said prong carrying plate.

5. In a loose leaf binder, a pair of back sections hinged together, a pair of prong carrying plates mounted on said back sections, and a hinge plate permanently secured to each of said prong carrying plates, an outer cover member hinged to each of said hinge plates, one of said prong carrying plates being movable longitudinally of its back section by manipulation of its outer cover member.

6. In a loose leaf binder, an outer cover member, a back section, a prong carrying plate slidably secured to said back section, a plurality of hinge elements projecting from one edge of said prong carrying plate, a plurality of complementary hinge elements projecting from one edge of said cover member, a pintle inserted in said hinge elements to hingedly connect said cover member and said prong carrying plate, and means on said back section cooperating with said first mentioned hinge elements to limit the sliding movement of said prong carrying plate.

GEORGE H. DAWSON.

DISCLAIMER

2,073,049.—*George H. Dawson*, Chicago, Ill. LOOSE LEAF BINDER. Patent dated March 9, 1937. Disclaimer filed May 24, 1940, by the assignee, *Wilson-Jones Company*.

Hereby enters this disclaimer to claims 1 and 3 of said patent.
[*Official Gazette June 25, 1940.*]