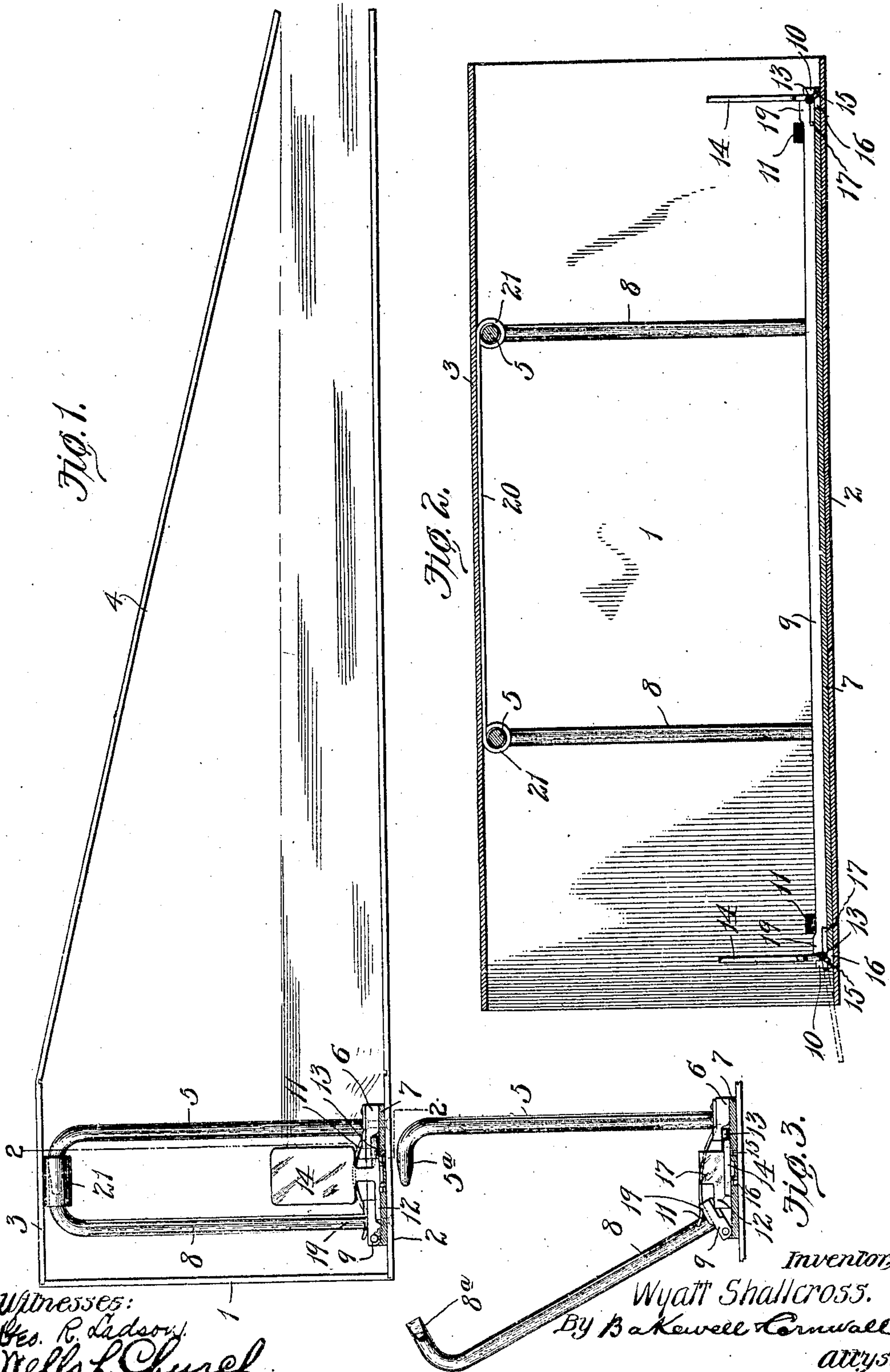


No. 849,430.

PATENTED APR. 9, 1907.

W. SHALLCROSS.
LOOSE LEAF BINDER.
APPLICATION FILED OCT. 8, 1906.

2 SHEETS—SHEET 1.



Witnesses:
Geo. R. Ladson,
Wells L. Church.

Inventor,
Wyatt Shallcross.
By Bakewell Cornwall
attys.

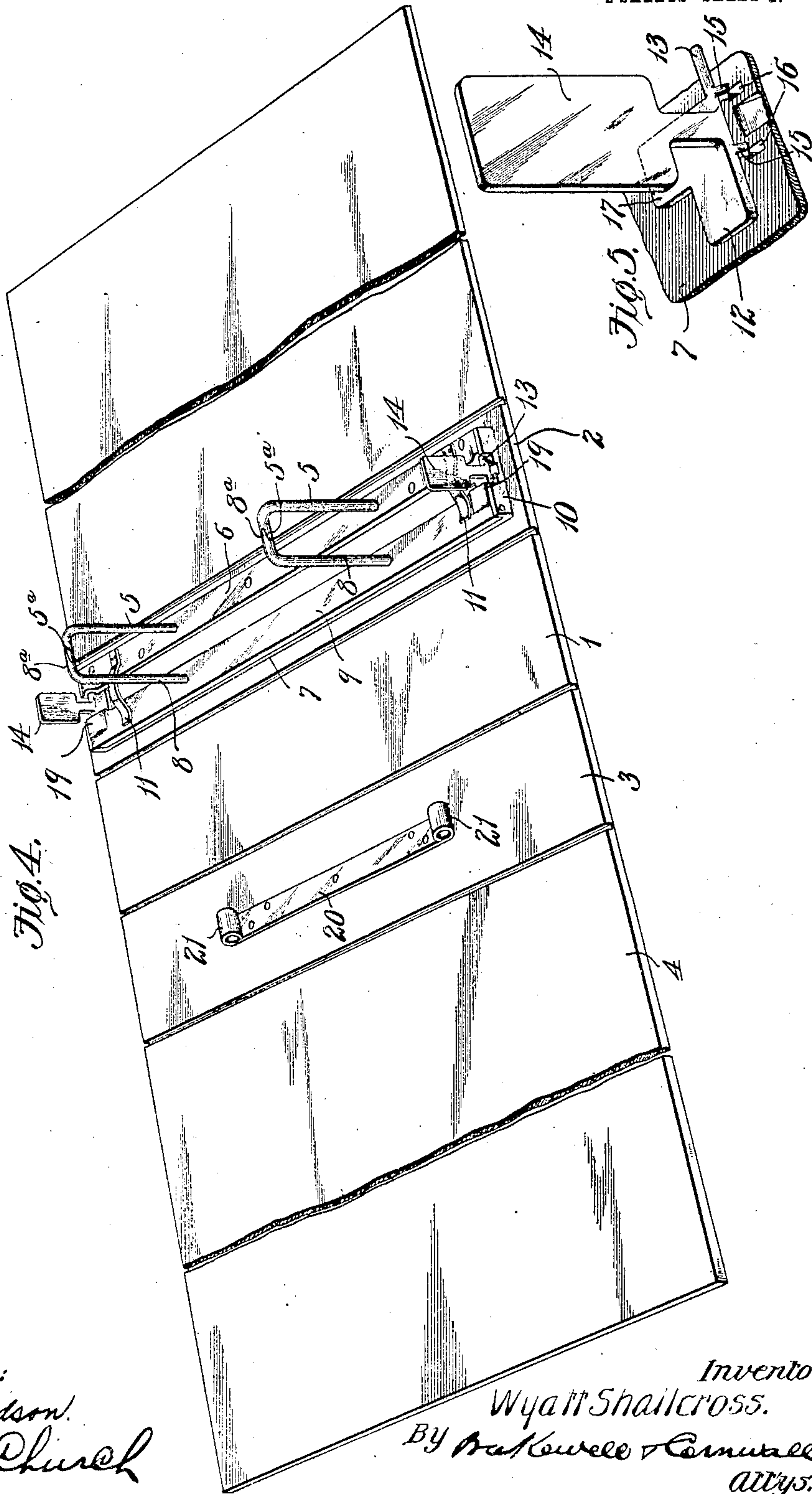
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2 SHEETS—SHEET 2.



Witnesses:
Geo. R. Radson.
Nells L. Church

Inventor,
Wyatt Shallcross.
By *W. Kewell & Company*
attys.

UNITED STATES PATENT OFFICE.

WYATT SHALLCROSS, OF ST. LOUIS, MISSOURI.

LOOSE-LEAF BINDER.

No. 849,430.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed October 8, 1906. Serial No. 337,982.

To all whom it may concern:

Be it known that I, WYATT SHALLCROSS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Loose-Leaf Binders, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an end elevation of a device constructed in accordance with my invention. Fig. 2 is a sectional view taken on about the line 2 2 of Fig. 1. Fig. 3 is a detail view showing the leaf-holding prongs separated. Fig. 4 is a perspective view showing the cover opened out and the leaf-holding prongs closed, and Fig. 5 is an enlarged view of one of the actuating members for the plate which carries the movable prongs.

This invention relates to temporary binders for loose sheets or leaves; and the object of my invention is to provide a loose-leaf binder which will be strong and inexpensive to manufacture and which can be operated easily.

Another object of my invention is to provide a loose-leaf binder of book form which is particularly adapted for holding invoices, tariff-sheets, and similar documents.

The loose-leaf binder which I have herein shown as representing the preferred form of my invention consists of a plurality of stationary prongs on which the sheets or leaves are mounted and a plurality of cooperating prongs carried by a pivoted member, means being provided for actuating said pivoted member to separate the leaf-holding prongs.

Referring to the drawings, 1 designates the back of the book, which is hinged to two pieces 2 and 3, one of which carries the leaf-holding prongs and the means for separating them, the cover-boards 4 of the book being hinged to the pieces 2 and 3, as shown in Fig. 1 of the drawings.

The stationary prongs 5, on which the sheets or leaves are mounted, are carried by a plate 6, which is rigidly connected to a base-piece 7, that is fastened to the piece 2, and the cooperating prongs 8 are carried by a plate 9, which is pivoted to upwardly-projecting ears 10 at the opposite ends of the base-piece 7. The movable prongs 8 are held normally in engagement with the stationary prongs 5 by means of flat springs 11, fastened to the

plate 6 and bearing upon the pivoted plate 9. The means which I have herein shown for actuating the pivoted plate 9 to separate the prongs consists of members arranged at each end of the base-piece 7, one of said members being shown in detail in Fig. 5. Each of said members consists of a part 12, that is arranged under the end of the pivoted plate 9, and a journal 13, mounted in a bearing in the plate 6, said bearing being formed by bending portions of the plate 6 upwardly, as shown clearly in Figs. 1 and 3. Each of said members is provided with a finger-piece 14, that is preferably arranged at right angles to the part 12, so that the means for operating the leaf-holding prongs will be located entirely within the cover.

To prevent the actuating members from being displaced from their bearings, I have provided them with lugs 15, which extend into recesses 16, formed in the base-piece 7, as shown in Fig. 5, and also with an auxiliary guiding member 17, that is located between the stationary plate 6 and the pivoted plate 9. The pivoted plate 9 can be formed in any way to receive the parts 12 of the actuating members; but I prefer to bend portions 18 of said plate upwardly, as shown clearly in Fig. 4.

Preferably the piece 3 of the cover, which corresponds to the piece 2, is provided with a retaining device 20, having eyes 21, through which the bent ends 5^a and 8^a of the leaf-holding prongs project when the cover is closed, as shown in Fig. 1, thereby holding the back of the book in upright position and the two cover-boards in alinement.

To operate the device, the finger-pieces of the actuating members are forced outwardly, thereby causing the parts 12 of said members to move into an upright position, as shown in Fig. 3, and thus swing the plate 9 on its pivot to cause the prongs 8 to move away from the stationary prongs 5, and thus release the piece 3, so that the cover can be moved into the position shown in Fig. 4. If new sheets are to be added, they are slipped over the prongs 5, the prongs 8 being retained in their open position, as shown in Fig. 3, by reason of the fact that the parts 12 of the actuating members stand approximately vertically, or, in other words, on a dead-center.

While I have herein shown the preferred embodiment of my invention as being of book form, it will be obvious that the leaf-

holding prongs and the means for actuating them could be carried by a flat plate or board, and thus serve as a file. Furthermore, it should be understood that I do not consider my invention limited to the exact construction herein shown, for, if desired, only one actuating member for the plate 9 could be employed, and instead of providing said member with lugs 15 the guiding portion 17 could be used alone for retaining said member in position.

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

1. A loose-leaf device comprising a base-piece having a plate rigidly connected thereto, leaf-holding prongs connected to said base-piece, a plate pivotally connected to the base-piece and being provided with cooperating leaf-holding prongs, actuating members provided with journals which are mounted in bearings formed in the plate which is rigidly connected to the base-piece and having portions which extend underneath the pivotally-mounted plate, and lugs on said members which project into openings in the base-piece; substantially as described.

2. A loose-leaf device comprising a base-piece having a plate rigidly connected thereto, leaf-holding prongs connected to said base-piece, a plate pivotally connected to the base-piece and being provided with cooperating leaf-holding prongs, actuating members provided with journals which are mounted in bearings formed in the plate which is rigidly connected to the base-piece and having portions which extend underneath the pivotally-mounted plate, and lugs on said members which project into openings in the

base-piece, said actuating members being provided with guiding portions that are arranged between the plates on the base-piece; substantially as described.

3. A loose-leaf binder consisting of a back and two pieces to which cover-boards are connected, cooperating leaf-holding prongs carried by one of said pieces, and a device carried by the other piece and cooperating with the leaf-holding prongs for retaining the back in an upright position; substantially as described.

4. A loose-leaf binder consisting of a back and two pieces to which cover-boards are connected, cooperating leaf-holding prongs carried by one of said pieces, and a device connected to the other piece and provided with eyes into which said leaf-holding prongs project; substantially as described.

5. A loose-leaf device comprising a base-piece provided with leaf-holding prongs, a pivoted member mounted on said base-piece and carrying cooperating prongs, an actuating member having a portion which extends underneath said pivoted member and provided with a journal which rests in a bearing on the base-piece, and a portion on said actuating member arranged between the pivoted member and a shoulder on the base-piece for retaining said actuating member in position; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 3d day of October, 1906.

WYATT SHALLCROSS.

Witnesses:

WELLS L. CHURCH,
GEORGE BAKEWELL