

No. 676,217.

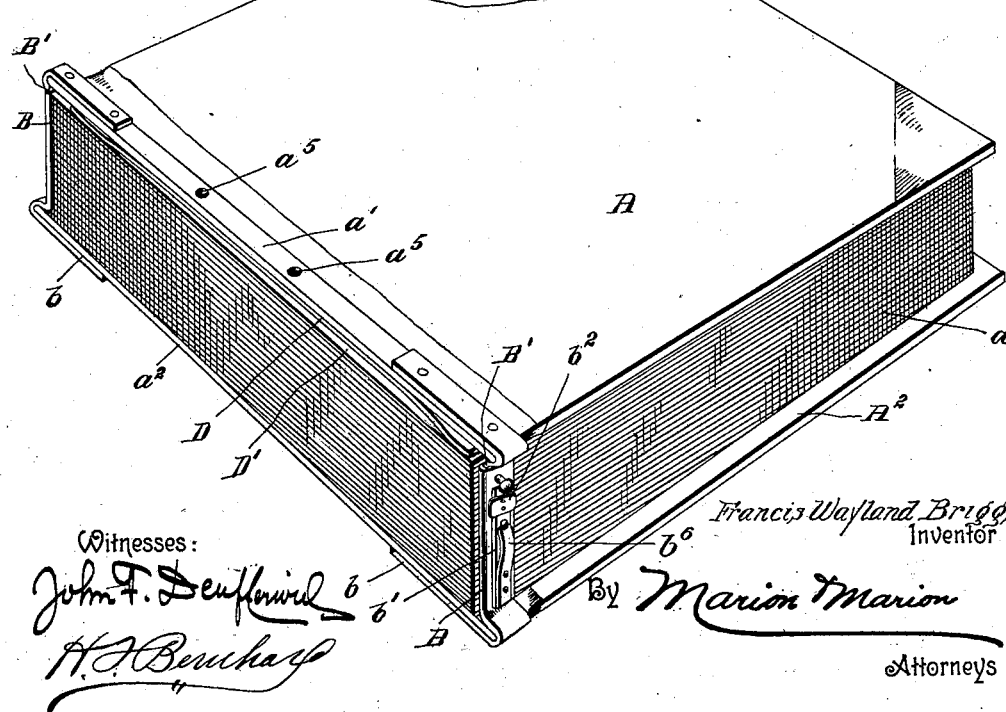
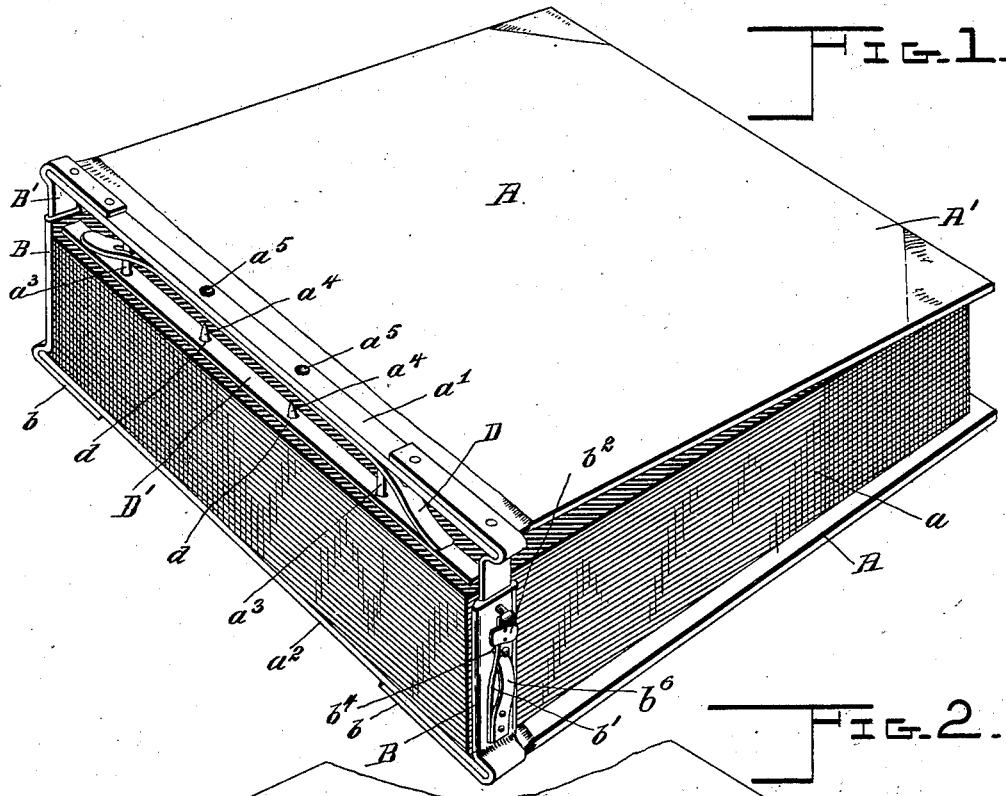
Patented June 11, 1901.

F. W. BRIGGS.
LEDGER HOLDER.

(Application filed Aug. 18, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
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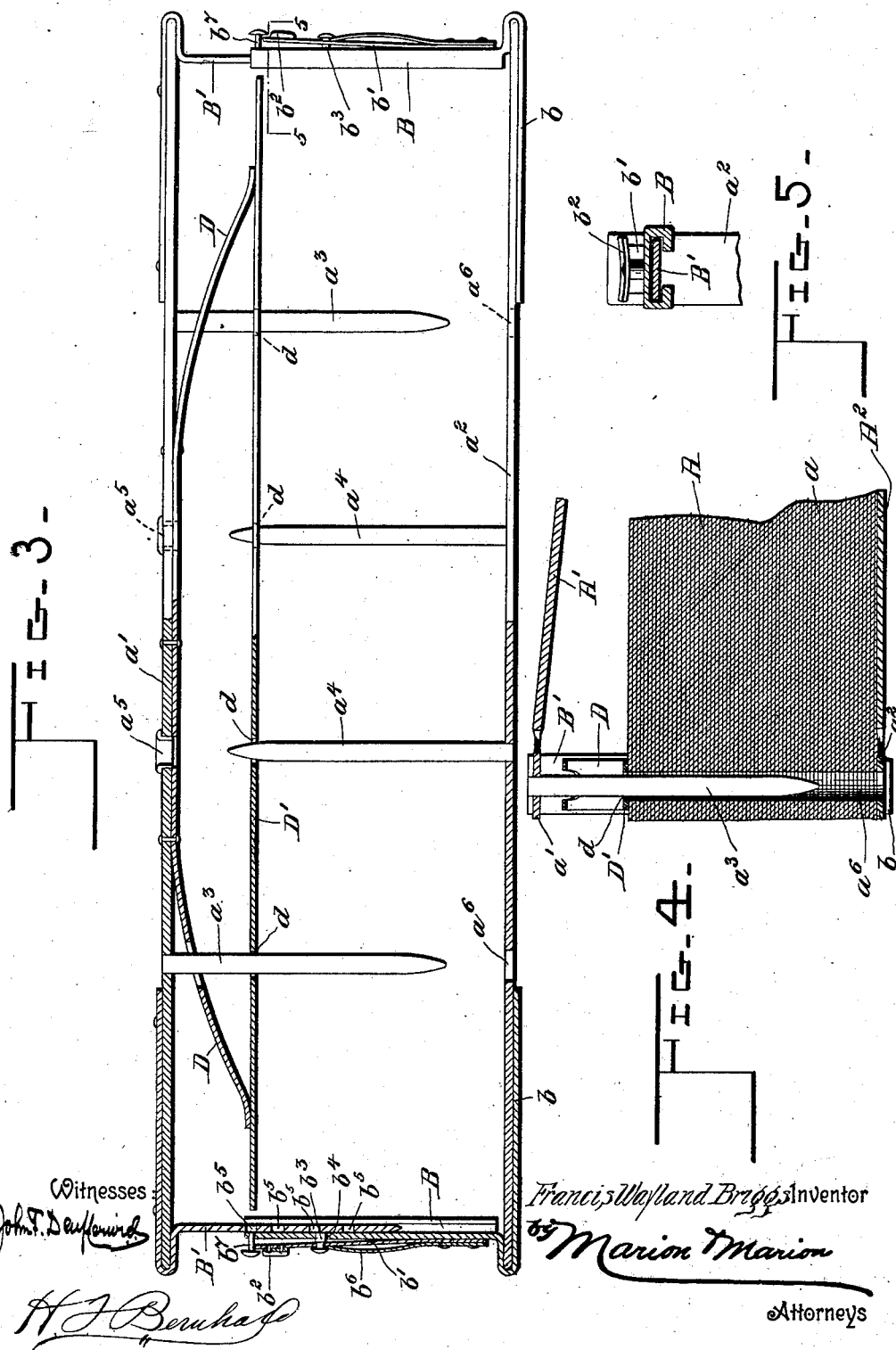
Patented June 11, 1901.

F. W. BRIGGS.
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(Application filed Aug. 16, 1900.)

(No Model.)

2 Sheets—Sheet 2.



UNITED STATES PATENT OFFICE.

FRANCIS W. BRIGGS, OF LEWISTON, MAINE.

LEDGER-HOLDER.

SPECIFICATION forming part of Letters Patent No. 676,217, dated June 11, 1901.

Application filed August 16, 1900. Serial No. 27,024. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS WAYLAND BRIGGS, a citizen of the United States, residing at Lewiston, in the county of Androscoggin, State of Maine, have invented certain new and useful Improvements in Ledger-Holders; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to binders especially adapted to the loose-leaf system of bookkeeping; and one object is to provide a loose-leaf binder which is simple in construction, certain and reliable in operation, and which may be manufactured at a moderate cost.

A further object is to provide a binder which when in its unlocked position preparatory to removing or inserting a leaf will always retain the loose leaves in their proper position.

A further object is to provide a binder which when separated for the purpose of removing or inserting a leaf the leaves of each part of the separated book will be retained in their proper position, thus preventing their accidental confusion and loss.

To these ends the invention consists in a binder for loose leaves constructed substantially as hereinafter illustrated and described, and defined in the appended claims.

Referring to the drawings, in which similar letters of reference indicate similar parts, Figure 1 is a view in perspective of a binder constructed in accordance with this invention, the parts being in the position assumed when unlocked and preparatory to separating the leaves of the book. Fig. 2 is a similar view, the parts being in their locked position. Fig. 3 is a view in elevation of the binder separated from the covers and in the position shown in Fig. 1, parts being in section. Fig. 4 is a vertical transverse section through the middle portion of the binder shown by Fig. 3. Fig. 5 is a partial horizontal section on the line 5 5 of Fig. 3.

In the drawings, A represents a volume of any desired dimensions containing loose or separated and removable leaves a , which may be adapted for any particular purpose, as a ledger, &c., and having suitable covers A'

and A^2 , between which the loose leaves are held. The rear edge of each cover is reinforced by a metal strip $a' a^2$, which strips are secured to the covers in any suitable manner. In each of the strips a' and a^2 are secured one or more pins a^3 and a^4 , which are adapted to engage openings or perforations a^5 and a^6 , formed, respectively, in the strips a' and a^2 , as clearly shown in Fig. 3. These pins may be secured to the binder-strips in any suitable way; but I prefer to pass each pin through a suitable opening in one strip and to rivet or head the pin against the strip, thereby firmly securing the parts together.

By reference to Fig. 3 of the drawings it will be noted that a series of two pins a^4 are secured to the strip a^2 , while a like series of pins a^3 are attached to the other strip a' . The pins a^4 on the strip a^2 are parallel with each other and are comparatively close together; but the pins a^3 on the strip a' , while parallel to each other, are spaced a suitable distance apart, so as to lie on opposite sides of the pins a^4 .

The strip a^2 is provided on opposite sides of the group of pins a^4 with apertures a^6 , that are arranged in line with the pins a^3 on the strip a' , and in like manner the last-named strip a' is provided with openings or eyelets a^5 , which are in alinement with the pins a^4 on the strips a^2 , whereby the two strips may be pressed toward each other for the pins of one strip to enter the openings of the other strip. It will thus be observed that each of the two strips is provided with a group of pins adapted to have engagement with the leaves of the book, which are likewise engaged with the pins of the other strip, and this engagement by the pins of the strips with the leaves affords a means by which the leaves can be separated at the middle or end portions of the book, whereby this engagement of the strips $a' a^2$ and their pins with the leaves permits the leaves to be taken apart in a way to permit each group to remain in engagement with certain pins when it is desired to separate the book at a particular point for the insertion or removal of one or more pages—that is to say, a book containing, say, three hundred pages may be opened at, say, page 100. The first one hundred pages may remain in engagement with

the pins a^3 and the strip a' on the removal of the latter from the book, while the remaining two hundred pages of the book will remain in engagement with the pins a^4 , attached to the strip a^2 , whereby all the leaves will be held in proper relation against disengagement during the operation of inserting certain additional pages or of removing certain filled-up pages.

At each end of the strip a^2 is secured a metal socket-piece B, which is provided with an extension b , which is doubled under the strip a^2 and firmly riveted thereto, forming a strengthening for the corners of the covers, as clearly shown in Fig. 3. In a similar manner the other strip a' is provided with the locking-bars B' , which are folded around the ends of the strips a' and are attached thereto by riveting or other suitable means, so as to afford reinforcements to said strip a' . The depending portions of these locking-bars B' are provided with suitable perforations b^5 and are adapted to fit slidably in the sockets B on the strip a^2 , which is a companion to the strip a' , whereby the adjustment of the locking-bars B' in the sockets B provides for variation in the width of the space between the companion strips a' a^2 .

I have provided means for detachably locking the bars B' at different points with respect to the socket-pieces B, so that the companion strips a' a^2 may be separated or adjusted laterally at suitable intervals to accommodate an increased number of pages in the book. The sockets B are provided at their outer sides with the latch-plates b' , that are disposed compactly against the sockets, so as to be entirely out of the way. Each latch-plate b' is attached at its lower end to one socket B by a rivet or screw, as indicated more clearly at the left hand of Fig. 3; but this plate is provided at a point intermediate of its length with a latch-stud b^3 , which passes through a transverse opening of the socket-piece B and is adapted to fit in either of the series of apertures in the locking-bar B' , which is slidably fitted in the proper socket-piece. By reason of the compact location of the latch-piece against the socket-piece I have found that the desired elasticity or spring cannot be given to the latch-plate. Hence I resort to the employment of a leaf-spring b^6 , which is applied laterally against each plate, said spring being riveted to the latch-plate at its lower portion and having a bowed form, as shown more clearly by Fig. 3, which enables the free or unconfined portion of the spring b^6 to exert the proper tension against the latch-plate b' , whereby the stud b^3 will be impelled automatically into locking engagement with the perforated locking-bar B' .

A finger-piece b^7 enables the operator to readily grasp the latch-plate for moving against the tension of the spring b^6 and withdrawing the stud b^3 from the perforated locking-bar. A stop-pin b^7 is attached to the

socket-piece B adjacent to the free end of each latch-plate, and this stop is provided with a head that lies in the path of said free end of the latch-plate for the purpose of limiting the movement thereof in a direction to withdraw the stud b^3 from the perforated locking-bar B' , whereby the latch-plate is restrained against undue movement which would tend to disengage the stud b^3 from the transverse opening of the socket-piece B.

Upon the under side of the strip a' is secured a spring-plate D by means of rivets passing through its central portion and the strip, as clearly shown in Fig. 3.

The ends of the spring-plate D extend to a point near the socket-pieces B and are bent downwardly, bearing upon the ends of a guide-bar D' , which is provided with suitable perforations d , through which the pins a^3 and a^4 are guided when the parts are being pressed together and locked.

It will be seen from the construction above described that by simply withdrawing the lugs b^3 the strip a' will be forced up off of the leaves a by the action of the spring-plate D. The hand may now be readily inserted between the leaves at the desired point and the strips separated. The desired additions or alterations can now be made and the parts again returned to their former position. It is of course understood that the leaves or pages a are provided with suitable perforations for the passage of the pins a^3 and a^4 .

By reference to Fig. 3 of the drawings it will be noted that the guide-bar D' is slidably fitted on the pins of the two series, which are attached, respectively, to the companion strips a' a^2 ; but this guide-bar is pressed normally in one direction by the spring D, the end portions of which are slotted so as to play loosely on the pins a^3 of the strip a' . In the practical service of the binder this slidable bar D' is pressed down upon the leaves, so as to clamp the latter between itself and the strip a^2 , but in separating the members of the binder, so as to withdraw the leaves or pages with the respective binder members, the bar D' is withdrawn, with the pins a^3 attached to the strip a' .

I claim—

1. A binder comprising the disconnected binder-strips each provided with a series of pin-receiving openings, a leaf-spring secured to the middle portion of one strip and having the curved perforated ends, a series of pins attached to the strip and fitting in the openings of the leaf-spring and adapted to enter the openings of the other strip, another series of pins attached to the last-named strip in positions to enter the openings of the first-named strip, a perforated bar loosely fitted on the two series of pins on the respective strips and arranged to engage with the ends of said leaf-spring, coupling devices between the end portions of the companion strips, and latches for adjustably holding the coupling

devices firmly together, substantially as described.

2. A binder comprising companion strips provided with pin-receiving openings, two
5 series of pins attached to the respective strips and adapted to enter the openings therein, a bar slidably fitted on the pins of the two series of said strips, a spring attached to one strip and acting against the bar, and means for

adjustably connecting the end portions of the 10 companion strips, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

FRANCIS W. BRIGGS.

Witnesses:

J. A. MARION,
THOS. J. O'NEILL.