W. H. BAYLES.

LOOSE LEAF BOOK.

APPLICATION FILED AUG. 4, 1906.

944,653. Patented Dec. 28, 1909.

FIG. 1

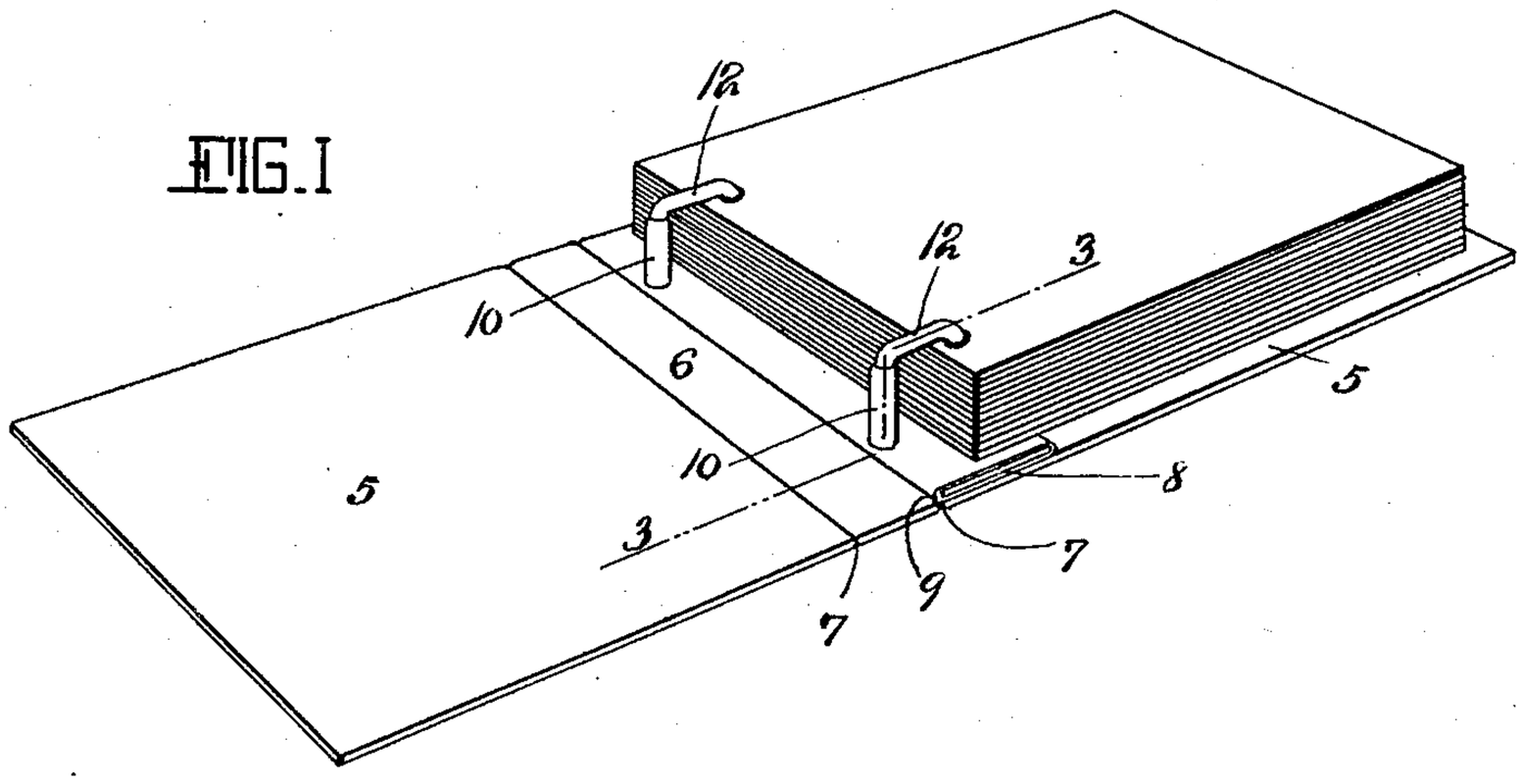


FIG. 2

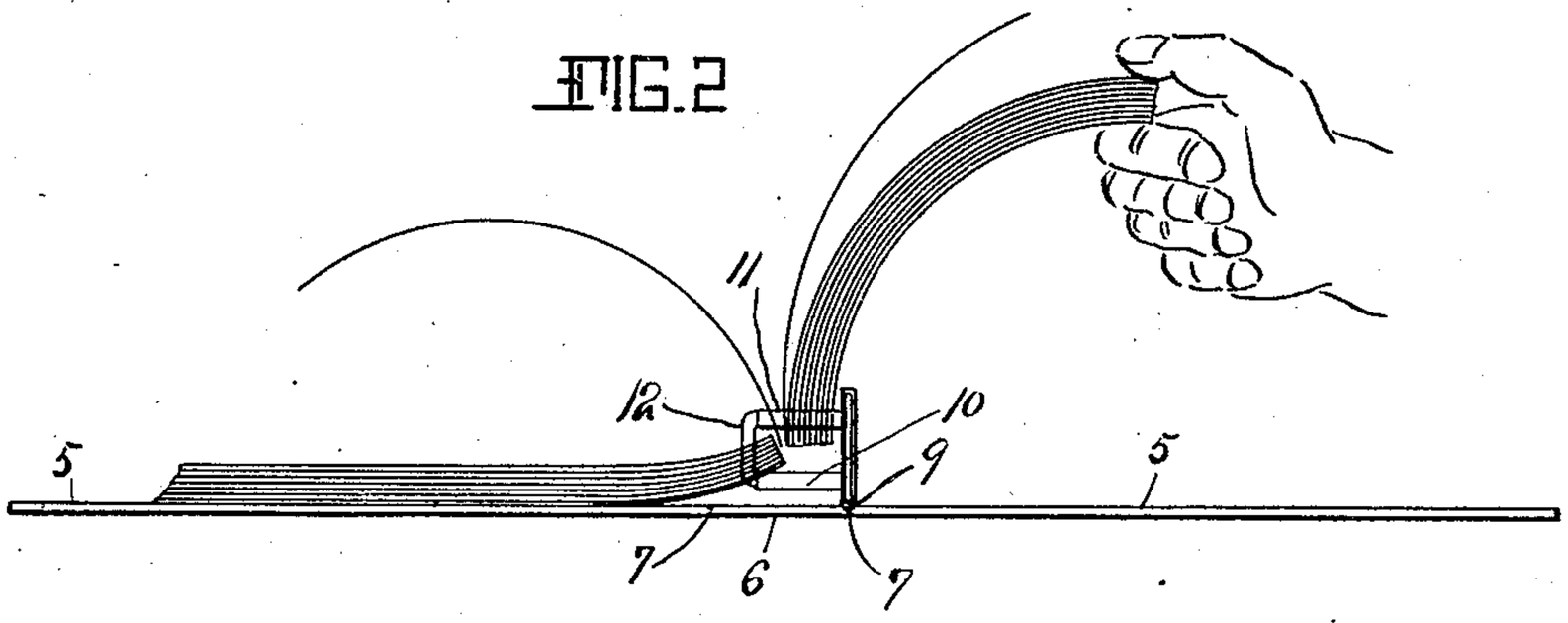


FIG. 4

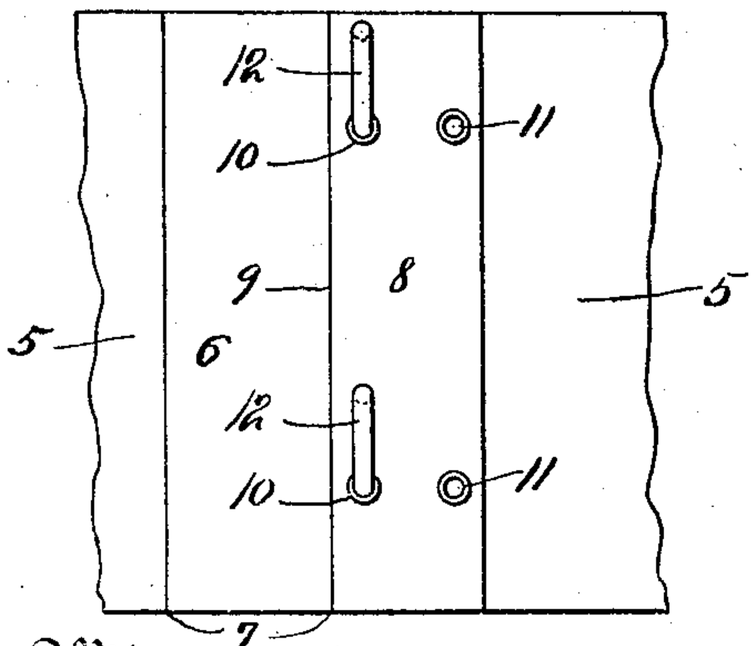
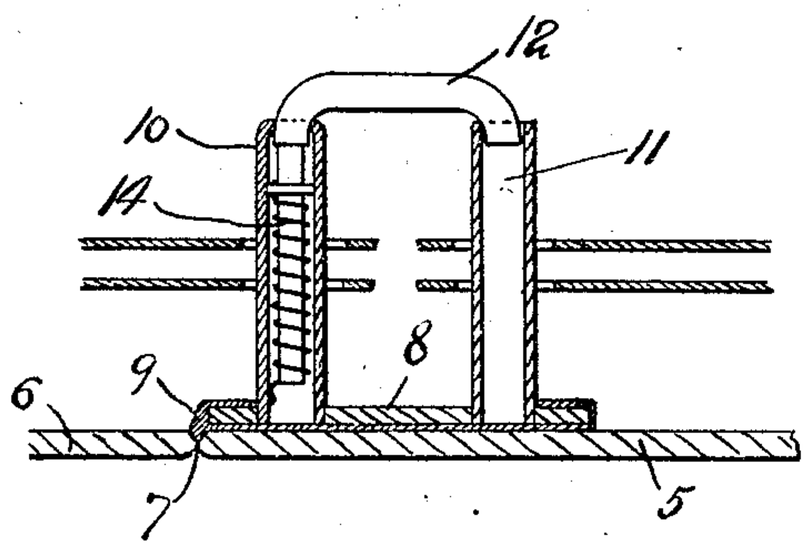


FIG. 3



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM HARRISON BAYLES, OF NEW YORK, N. Y.

LOOSE-LEAF BOOK.

944,653. Specification of Letters Patent. **Patented Dec. 28, 1909.**

Application filed August 4, 1906. Serial No. 329,144.

To all whom it may concern:

Be it known that I, WILLIAM HARRISON BAYLES, a citizen of the United States of America, residing in the borough of Manhattan, in the city, county, and State of New York, have invented certain new and useful Improvements in Loose-Leaf Books, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same.

Figure 1, is a perspective view of a book embodying my invention: Fig. 2, is a side elevation of such a book with the leaves in the position they assume when the book is taken in hand for the purpose of finding a given interior page thereof; Fig. 3, is a vertical, longitudinal, sectional view, on line 3—3 of Fig. 1, but showing a portion only of the book; Fig. 4, is a plan view of the plate piece, and the binders, showing the closing arches of the binders, in the positions they assume when they are opened for the reception or removal of leaves.

My invention relates to loose-leaf books and it consists in the manner in which and means by which the leaves are secured in place.

In the book shown, 5, 5, are the covers of the book, 6, is the back, and 7, are the usual flexible hinges of the back, which permit the front or back cover to be raised. 8, is a metal strip, usually about an inch or less in width, and nearly as long as the cover is from top to bottom. It is connected to the cover or the back, usually at the joint 7, between the bottom cover and the back, by a flexible hinge 9, preferably of cloth. Seated in the plate or strip 8, and secured thereto are posts 10, 11 &c., and I prefer to have at least four (4) and as many more couples as may be required to firmly hold the leaves. If the book is very long, there may be six (6) or eight (8) or even more. The rear posts 10, are preferably hollow, and the front posts 11, may be. If not hollow, they are preferably recessed for a distance from their upper ends for a purpose to be described. Flat arches or staples 12, are provided, the rear legs of which are seated and secured in the hollow posts 10, and the front legs of which are adapted to seat themselves in the recesses in the upper ends of posts 11, the dimensions of the staple being such as to permit such adjustment. The particular means by which the staples are secured are not important, provided they are left free to turn and to slide up and down to a limited degree.

Surrounding the rear leg of the staples, preferably within the hollow post 10, and secured to staple 12, and to post 10, or plate 8, are springs 14. I have shown them as coil springs, coiled around a reduced portion of staple 12, and soldered to it and to the post 10. The purpose of the springs is twofold, first to hold the staple down, so that its front leg shall remain in the recess of post 11, though permitting it to be raised sufficiently to clear the top of post 11, when desired; and second, to throw the staple around when it is raised out of the recess in post 11, that it may be out of the way when leaves are to be removed from or placed upon the posts 11.

The operation, (manifest from a view of the drawings) is as follows: With the staples in the positions shown in Fig. 4, the loose sheets, perforated to fit over posts 11, are placed thereon. Then the staples are lifted and swung around till their short legs register with the recesses in posts 11, when the springs 14, if permitted, will draw the staples down and force their ends into said recesses, thus locking the sheets in place.

The punched holes in the sheets are, preferably, located a distance from the edge, a little less than half that from posts 10, to posts 11, the result of which is that any portion of the leaves may, at will, be thrown over so that they are held by posts 10, the balance being still held by post 11, and each portion will lie entirely flat, and remain so, so that one may refer to a page without holding it open and may write upon the entire surface of the side which is upper without the necessity of leaving the margin, which all ordinarily bound sheets must have, and without the inconvenience which is ever present when a sheet, that is curved or bent, is to be written upon. This facility, as will be noted, is equally present as to each side of the sheet, for if the desire be to write upon the side which is now the under side, it is merely necessary to turn the leaf over till it is held by the other post, when said other side will be uppermost. It will then lie flat and may be written upon with the same facility which attended writing upon the face that was previously uppermost. The reading of what may have been written upon either side is equally convenient. Not only so, but the turning of the pages, to find

a given one, is particularly easy: The plate carrying the posts and leaves being hinged at one edge only to the hinge corner of the cover, may be readily turned up to the position of Fig. 2, when the leaves may be easily and rapidly passed under the thumb for examination.

If an additional leaf is needed, for instance, one supplemental to one already present, and for that reason or any other it is desirable that it should follow a given page, all that is necessary is to turn to the page to be succeeded by the new, throw it and the preceding leaves over upon posts 10, raise the staples, (which will instantly spring out of the way, to the positions of Fig. 4), place the new page, replace the staples, and the new leaf is immediately secured in proper position. To prevent the withdrawal of the staple to such a degree as to unduly strain the spring, a bead may be turned in the tube of posts 10, as shown in Fig. 3, which will effectively prevent such excessive movement.

A small pocket may be formed at the back of the cover to receive card bearing index letters or any other designation desired.

This book may be used to take the place of a card index, the leaves answering to the cards, and bearing such index numbers, colors or marks as are common in a set of index cards. They are much more readily handled than a drawer full of cards, and, being thinner, occupy much less space, are much more readily consulted, as already shown, and are much less expensive, being at the same time much more readily transferred from one place to another and susceptible of being kept in any desk or any table or other place without the necessity for a specially constructed receptacle, as required for cards. They are also equally adapted for use with large sheets of any and every character.

What I claim as my invention and desire to secure by Letters Patent, is:—

1. In a loose-leaf book, the combination of two posts secured to the cover, each provided with a hollow space, a staple with legs adapted to rest in said hollow spaces and a spring, connected to one leg of said staple and also to the post, whereby the staple will be removably retained in said recesses, except when leaves are to be inserted or removed, and will be automatically turned to the side when one leg of the staple is raised out of the recess in one post.

2. In a loose-leaf book the combination of a cover, a plate secured to said cover by an edge hinge, two posts secured to said plate each provided with a hollow space, a staple with legs adapted to enter and rest in said hollow spaces in the posts, and a spring connected to the post and to the staple, with its stress opposed to the lifting of the staple, and to the alinement of the staple in place from one post to the other, all substantially as set forth.

3. In a loose-leaf book, a cover with two sides, and a back joined thereto by two joints, a plate secured to said cover, at one joint, by an edge hinge, a hollow post secured to said plate, a second post with a socket recess at its upper end, secured to said plate in line with but at a distance from the first post, a flat topped staple provided with two legs, one of which is short and is adapted to rest removably in the socket recess of the second post and the second of which is adapted to rest in and turn within the first post, and a spring surrounding said second leg, within the hollow of the first post, and secured to the post and the leg, with its stress opposed to the lifting of the staple and to the alinement of the staple, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses, this 31st day of July, 1906.

WM. HARRISON BAYLES.

Witnesses:

A. G. N. VERMILYA,

WILLIAM K. GILCHRIST.