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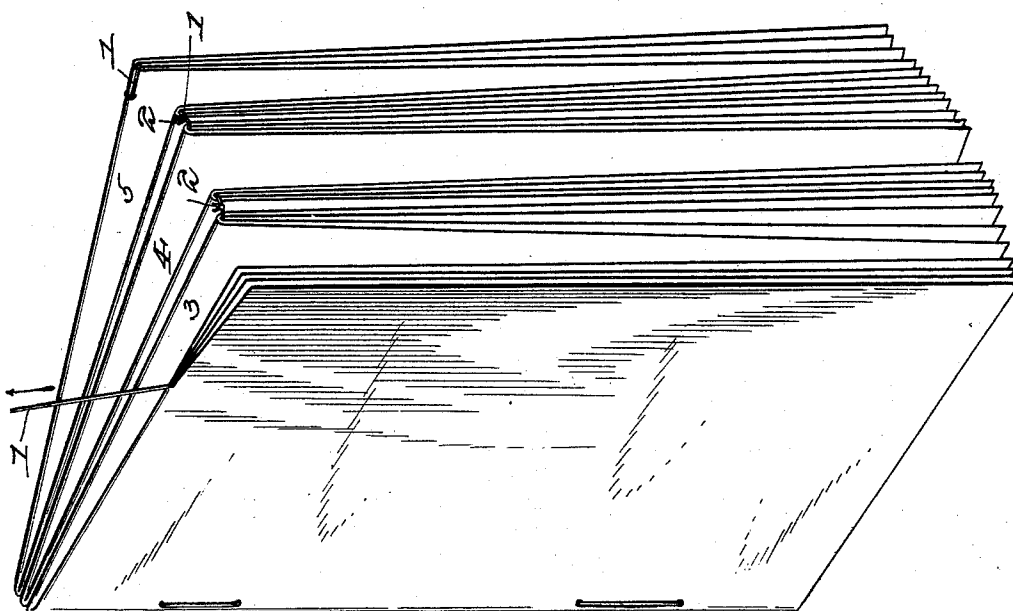
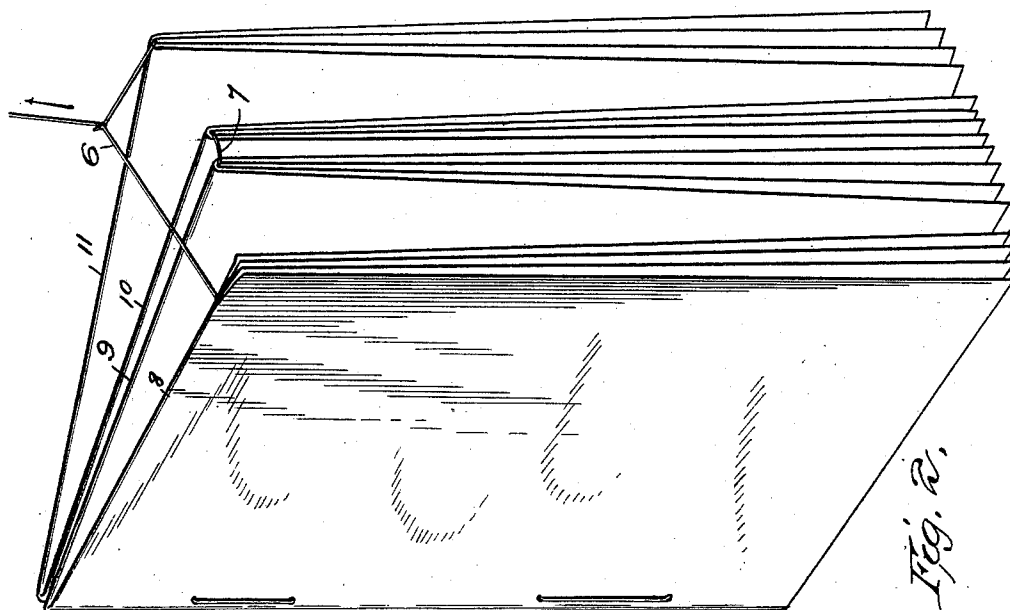
3 Sheets—Sheet 1.

W. S. ABBOT.

MEANS FOR SEVERING UNCUT EDGES OF LEAVES IN MAGAZINES,
BOOKS, &c.

No. 578,687.

Patented Mar. 9, 1897.



Witnesses
Alfred T. Gage

Fig. 1.

Inventor
W. S. Abbot
by *R. E. Hansen*
Attorney

(No Model.)

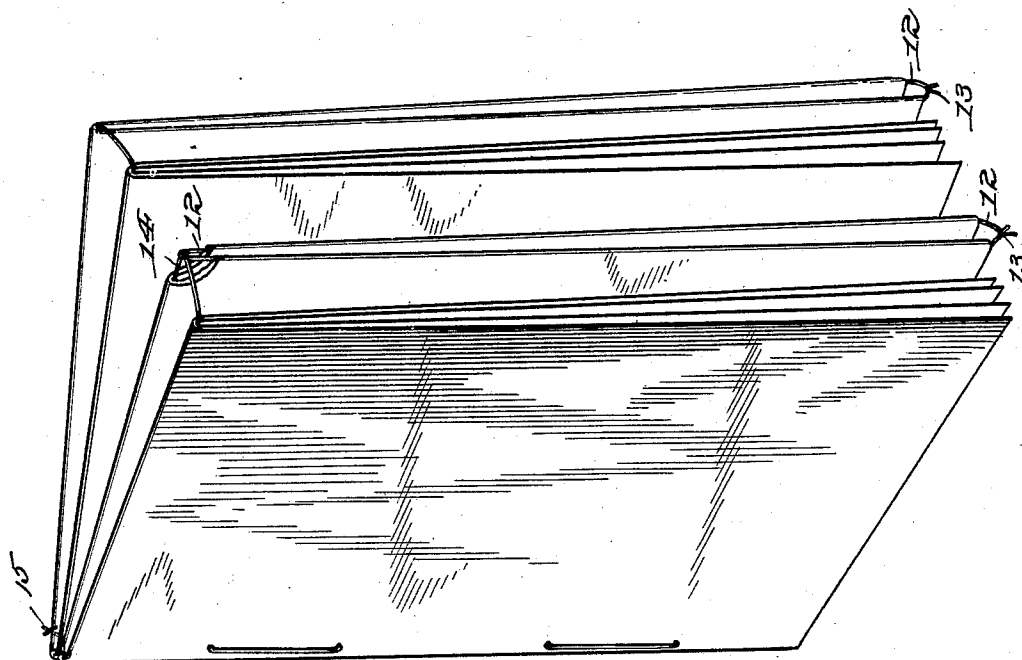
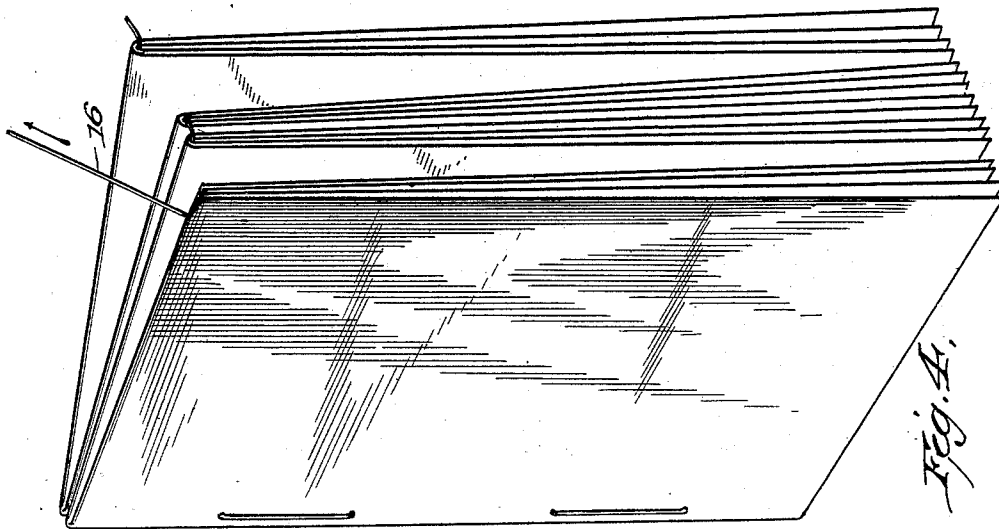
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Witnesses
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Fig. 3.

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(No Model.)

3 Sheets—Sheet 3.

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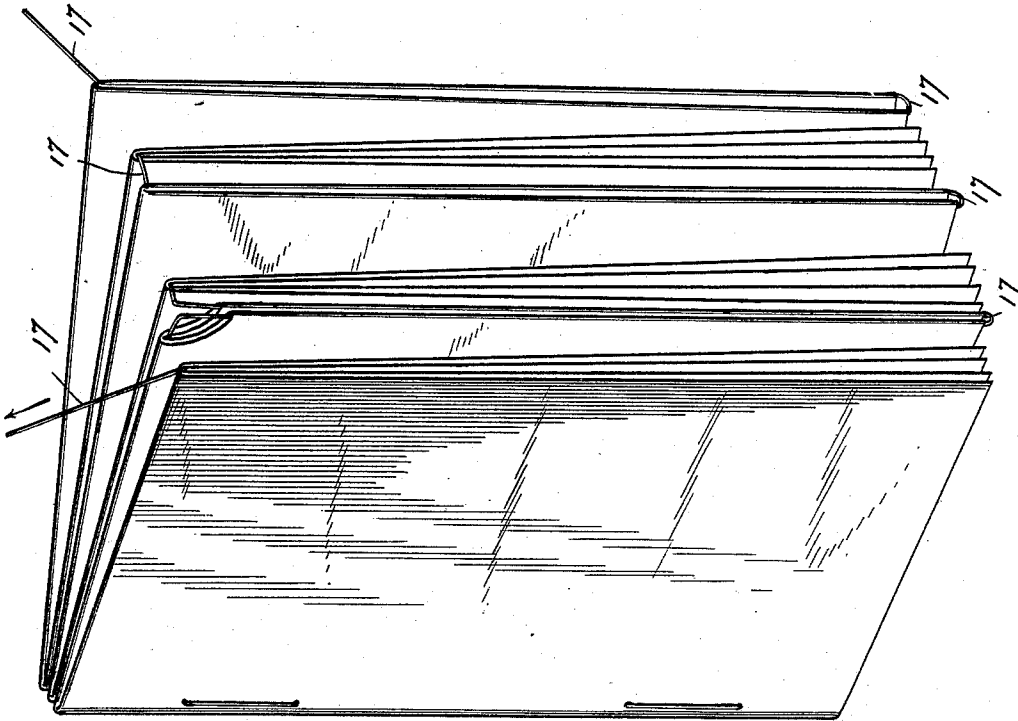


Fig. 5.

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W. S. Abbot Inventor
by *H. E. Hansen* Attorney

UNITED STATES PATENT OFFICE.

WYLLYS S. ABBOT, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE ABBOT LEAF CUTTER COMPANY, OF LOS ANGELES, CALIFORNIA.

MEANS FOR SEVERING UNCUT EDGES OF LEAVES IN MAGAZINES, BOOKS, &c.

SPECIFICATION forming part of Letters Patent No. 578,687, dated March 9, 1897.

Application filed June 10, 1896. Serial No. 594,980. (No model.)

To all whom it may concern:

Be it known that I, WYLLYS S. ABBOT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Means for Severing the Uncut Edges of Leaves in Magazines, Books, &c.; and I do declare the following to be 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to means for severing the uncut edges of the leaves in magazines and books after the same have been bound and put upon the market and other publications or periodicals.

It has primarily for its object to enable the publishers to place the magazines or books before the public and dealers with uncut edges, so that the publisher has a check upon agents and dealers as to the number of magazines or books unsold and returned for the purpose of receiving credit for unsold copies, and at the same time to put the magazines or books in the hands of purchasers with means attached for conveniently and readily severing or cutting the uncut edges preparatory to reading the magazine or book.

To the accomplishment of the foregoing ends I contemplate placing a thread, cord, or light wire or other equivalent means within the folds of the uncut edges in such manner that by pulling upon the severing means the leaves will be cut or separated along the line of the uncut edges. This can be effected in different ways, and I will illustrate and describe several of the various ways or the manner of placing the severing means as an illustration of some forms of the invention, as will hereinafter more particularly appear, reference being had to the accompanying drawings, forming a part hereof.

Figure 1 is a perspective of several "forms," showing one application of my invention; Figs. 2, 3, 4, and 5, perspective views of other forms, showing different applications of the same invention.

The preferred manner of carrying out the invention is to place the thread or severing means along the line which will describe the fold forming the uncut top edge of the form after the sheet has been folded to make the form, the thread or severing means being laid in position before the sheet is folded, thus bringing the thread or severing means inside the fold in position to cut the edges of the sheet along the fold by simply pulling on the string or severing means. This method also brings the thread in such position that by pulling on the end the first leaves of the form are severed from the upper front corner backward and thence around and forward to the front upper edge of the back leaves of the form, the cord being continuous. By making each form in the manner described and tying together the thread which passes under the uncut edges of the last leaves of one form and the thread which passes under the uncut edges of the first leaves of the next form, and so throughout all the forms constituting the magazine or book, I am enabled to cut or sever all the uncut edges from the first to the last form by simply pulling on the end of the cord passing under the uncut edges of the first form and continuing to pull on the cord until it has been drawn through the uncut edges of all the forms, thus by one operation severing or cutting all of the uncut leaves of the pamphlet or book, as the thread is practically one continuous thread winding its way through all the forms of the magazine.

It is obvious, however, that if it be not desired to sever all the uncut edges at one time I can sever only a few of the leaves at one time and sever the succeeding leaves as the same may be reached by the reading of the magazine or book. This form of the invention is illustrated in Fig. 1 of the drawings, wherein the numeral 1 designates a strong thread passed under the uncut edges of one form of the magazine, and the numeral 2 the point of tying together the threads of two forms, thus making practically a continuous cutting-thread passing under the uncut edges of the leaves of all the forms, the numerals 3, 4, and 5 designating three of the forms entering into the make-up of the magazine or book, any desired number of forms being ar-

ranged in the same manner. It is obvious that, if desired, the threads of each two adjoining forms need not be tied together but left disconnected, so that the uncut edges of each form can be severed as the pages of each

form are reached in the reading of the book or magazine by simply pulling the thread of each form or each series of uncut edges as the pages thereof are used.

Another form of the invention is illustrated in Fig. 2 of the drawings, wherein the cutting or severing thread is laid so as to bring it under the uncut top edges of two forms of sixteen pages each, said thread after passing from under the uncut edges of one form passing under the uncut edges of the other form, the thread where it passes from one form to the other forming a bend or fold, the two ends of the thread extending one in front of the front pages of the first form and the other in front of the last pages of the second form, which two extending ends may be tied together, so that by pulling thereon the uncut edges of the front pages of one form and the last pages of the other form will be severed from the front rearwardly, and by continuing to pull on the thread the last pages of the first form and the first pages of the other form will be severed from the rear forwardly. In this illustration of the invention the numeral 6 designates the cutting-thread, 7 the point where the thread bends or folds in passing from one form to the other, and the numerals 8 9 and 10 11 designate the uncut edges of the two forms, respectively.

The illustrations so far given show some of the modes of applying the cutting thread or wire where the front edges are already cut and the top edges alone are to be cut or severed by a thread or wire. It is obvious that if the bottom edges instead of the top edges remain uncut the thread or wires would be run in the same manner as that already illustrated for the top edges, and as the same would be a mere transposition from top to bottom the invention would be the same and therefore needs no further illustration, and for that reason it is to be understood that when the "top edges" are referred to it is meant to include therein the bottom edges as well.

Another illustration of the invention is shown in Fig. 3 of the drawings, wherein is shown one manner of running the threads or wires for the purpose of cutting both the side edges and top edges of the uncut pages. In this illustration one thread or wire will be placed so as to come under the fold that will describe or make the front uncut edges of the form, the numeral 12 designating the thread or wire, the free ends of which will be tied together as illustrated at 13. The other thread or wire (designated by the numeral 14) is laid so as come under the fold that will describe or make the uncut top edges of the form, the free ends of said cord being tied together in the manner indicated by the numeral 15. It will

be observed that when the two threads or wires 12 and 14 are laid as described and the form is folded to bring its pages in consecutive order the thread or wire 12 will loop around the thread or wire 14 at the upper front corner of the uncut leaves, and that when the thread or wire 12 is pulled, so as to sever the front edges, said cord will pull on the cord 14 after the front edges have been severed, and thus cause the thread or wire 14 to sever the top uncut edges of the leaves of the form. It is obvious that if both the top and bottom edges are already cut and it remains only to sever the front edges the thread or wire 12 only need be used. It is also obvious that it is immaterial whether the free ends of the cord be tied together at the front or at the rear of the edges of the pages of the form, as the result is the same in each case, and the point at which the ends will be tied will depend on the manner in which the cords will be laid in position, although it may be preferred to lay the threads or wires so that the ends can be tied at the front of the pages or leaves.

Another illustration of the invention is given in Fig. 4 of the drawings, where a continuous thread or wire is shown as passing under the uncut top edges of the several forms which may enter into the formation of the magazine or book, no matter how many forms may be used therein. In this illustration the numeral 16 designates the thread or wire, and after passing under the uncut edges of one form it will be carried under the uncut edges of the next form, and so on throughout the whole number of forms which may be employed. Under this construction the entire number of uncut edges can be severed by continuing to pull on the thread or wire, and if it be not desired to sever all at one operation the surplus thread or cord which has performed its function can be severed from the remaining cord, so as to dispose of the same if it should be so desired.

Another illustration of the invention is given in Fig. 5 of the drawings, wherein the thread or wire designated by the numeral 17 is one continuous strand and threaded so as to pass under the uncut edges at both the front and top edges of the pages of the several forms, so that by pulling on the thread or wire both the top and front edges will be severed along the entire length of the thread or wire.

The foregoing are illustrations of some of the different methods in which the threads or wires may be run so as to serve the purpose of severing the uncut edges, whether it be the front, top, or the bottom edges, and are sufficient to indicate that the invention can be carried into effect in different ways and need not be confined to any particular manner of running the thread or wire, as the invention contemplates and comprises various ways of running the thread or wire to serve the purpose of severing the uncut edges.

The threads or wires may be laid in position before the leaves of each form are folded or may be run or threaded after the sheets have been folded, but are preferably laid in position before the sheets are folded and prior to the binding of the forms together to constitute the magazine or book; but if the threads or wires should be threaded in position after the folding of the sheets and even after placing the several forms in position or after binding the same would be comprised within the scope of the invention.

The threads or wires can be placed in position either by hand or by mechanical means, but as the means employed for laying the wires constitute subject-matter for a separate patent the same will not be illustrated or described herein, and especially so as the operation may be performed by hand instead of by mechanical means. It is also preferred to secure the threads in position along the uncut edges and, for more perfect work, close to the edges by any suitable adhesive substance applied to the threads, so that the same will adhere to the position in which it may be laid, but this is not absolutely necessary and is merely mentioned to show that the same may be done and is contemplated. The application of the gum or adhesive substance can be made in any suitable way. It may also be here stated that, if desired, all of the projecting ends of the threads or wires from the several forms composing the magazine or book may be joined together, so that by pulling on all of them at one and the same time all of the uncut edges will be severed as the threads or wires are pulled together, but it is believed to be more satisfactory to pull the threads or wires for each form independently of the others and as occasion arises for cutting the edges.

I am aware that envelops have been provided with a thread laid along one fold thereof for the purpose of cutting along said line to open one edge of the envelop. Such is not my invention, which has primarily for its object to provide means which will enable a publisher to determine whether returned publications have been used before their return, said means also serving incidentally as a convenient device for the reader of the publication to cut the uncut leaves of each form of the

publication, so as to open up opposite pages throughout the publication.

Having described my invention and set forth its merits, what I claim is—

1. A magazine, book or other publication composed of a series of leaves made up into forms having connected edges, and having each form of the publication provided with a device secured to the publication and laid between the uncut leaves thereof in position to sever the uncut leaves so as to permit the pages to be opened up, substantially as and for the purposes described.

2. A magazine, book or other publication provided with means for severing the uncut edges of its leaves, said means comprising a thread or its equivalent lying within the fold constituting the uncut edges of each form embraced within the publication, said thread or its equivalent uniting the adjoining uncut pages of each two forms embraced within the publication, substantially as and for the purposes described.

3. A magazine, book, or other publication composed of a series of leaves made up into forms having connected longitudinal and transverse edges and provided with a thread or its equivalent secured to the publication and lying within the folds constituting the longitudinal and transverse uncut edges of each form of the publication, substantially as and for the purposes described.

4. A magazine, book or other publication provided with means for severing the uncut edges of its leaves, said means comprising a thread or its equivalent lying within the fold constituting the transverse uncut edges of the leaves, and a thread or its equivalent lying within the fold constituting the longitudinal uncut edges of the leaves, said two threads or equivalents being joined together so that they may coact to cut the longitudinal and transverse uncut edges of the leaves, substantially as and for the purposes described.

In testimony whereof I affix my signature in presence of two witnesses.

WYLLYS S. ABBOT.

Witnesses:

C. H. HOPKINS,
JOHN L. MOWATT.