

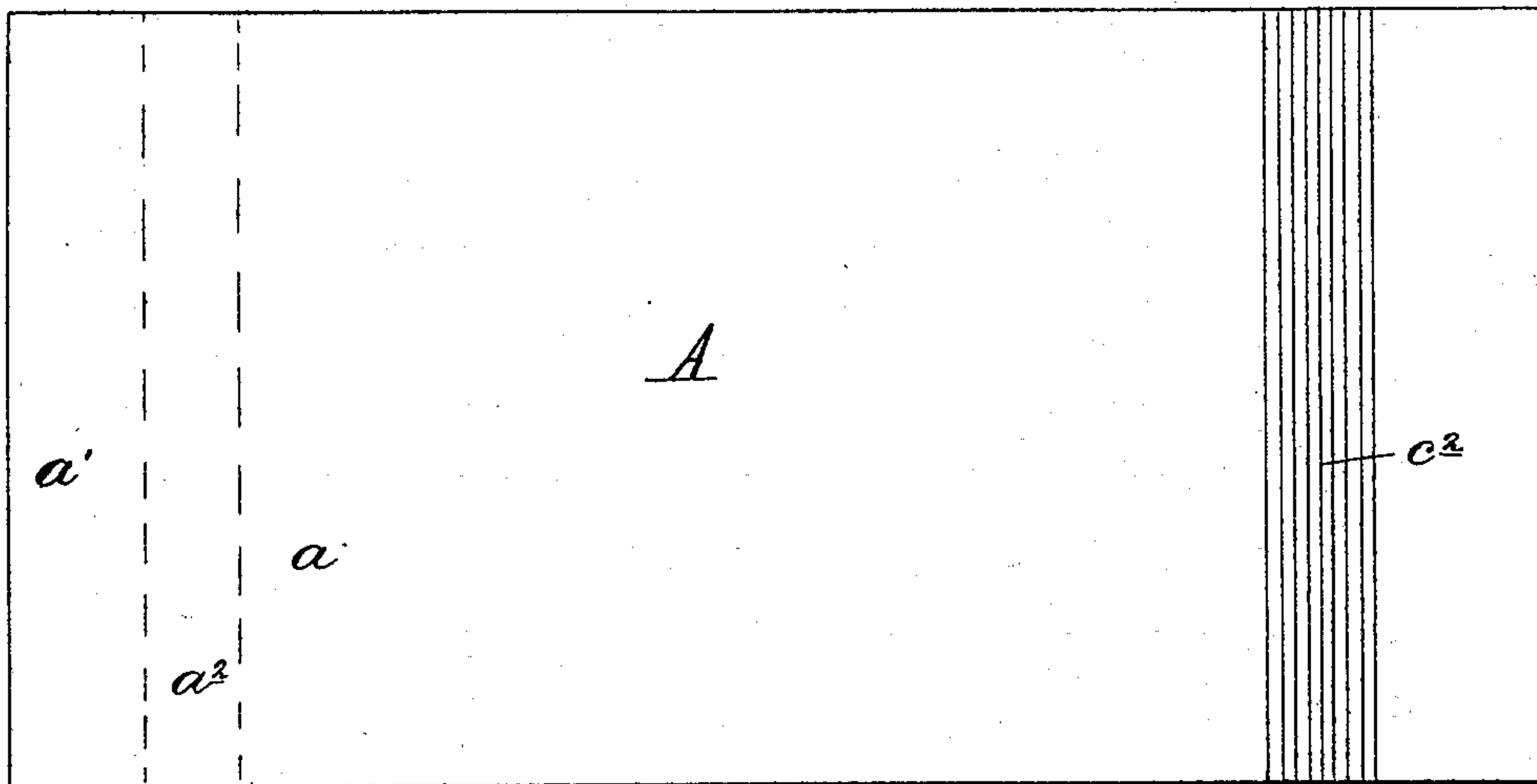
No. 622,986.

Patented Apr. 11, 1899.

W. A. VAWTER.
LEAF FOR BOOKS.

(Application filed Sept. 13, 1894.)

(No Model.)



WITNESSES:

F. L. Ormand.

Howell Bartle.

INVENTOR:

Wm A. Vawter.

BY

Paul W. Brown

ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM A. VAWTER, OF CHICAGO, ILLINOIS.

LEAF FOR BOOKS.

SPECIFICATION forming part of Letters Patent No. 622,986, dated April 11, 1899.

Application filed September 13, 1894. Serial No. 522,895. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM A. VAWTER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Leaves for Books; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which forms a part of this specification.

This invention relates to an improved sheet for use in making books or folders of any kind wherein it is desirable that the leaves or sheets when opened out will lie perfectly flat; and the invention is to provide a sheet or leaf having, as nearly as possible, perfect flexibility in those parts or sections principally subject to flexure in the use of the same, and at the same time having strength, durability, and neatness in said flexible section or part.

Among the different classes of books in which this invention will be of special utility may be mentioned blank-books of all kinds for bookkeeping purposes, sales-books, text-books, Bibles, whether bound in permanent covers or in temporary "binders" or "holders," also folders and maps, and in fact all sheets in which it is necessary or desirable that the body of the leaves be of such thickness or substance as to afford any substantial resiliency in the sheet, and thus interfere with the free folding of the sheet or opening of the book to its widest extent.

The invention consists in the matters hereinafter described, and more particularly pointed out in the appended claims, and for convenience will be described in connection with an illustrative diagram, in which is represented a plan view of a single sheet embodying my invention.

Referring to said drawing, A designates as a whole a sheet or leaf which may be of any size or form, as desirable or necessary. The main body or "sight" a of the leaf may be of any ordinary or desirable thickness and quality of paper or the like, as may also the end or side portion a' , by which the sheet is bound into the book. At the point of principal flexure the parts a and a' are connected by a relatively more flexible section, portion, or strip a^2 , formed integrally with the portions a and a' and indicated in the drawing as be-

tween the two transverse dotted lines. The increased flexibility of the strip or section a^2 as compared with the other portions of the sheet may be secured in various ways—as, for instance, by forming the portion a^2 less compactly or of more spongy texture than other parts of the sheet. This can readily be done by supplying a less quantity of pulp to a certain strip or portion of the sheet of pulp from which the paper is formed. The subsequent compression and calendering of the sheet will leave it of even thickness throughout, but more open or spongy in texture throughout the flexible portion forming the strip a^2 . The flexibility of the section or part a^2 may also be secured by first folding or crimping the sheet, as indicated at c^2 , back and forth, accordion fashion, and then straightening or flattening out the sheet again. This will produce a flexible section at the folded portion without in any manner disturbing the texture of the paper or weakening it.

From the foregoing description it will be apparent that a leaf for a book having an integral section or portion more flexible than the remaining portions of the leaf is capable of being made in very many ways, and I do not therefore wish to be limited to any specific method of producing the flexible section or part, provided the same may be so smoothed or flattened out that the entire leaf will present a substantially flat or smooth surface.

A book embodying this invention opens out perfectly flat, so that writing may be placed on the sheet with the greatest facility. This is a great desideratum in blank as well as printed or written books.

The invention is of special value where a plurality of separate sheets are held in a so-called "temporary binder or holder," such as order-sheet holders and the like.

The present invention is not to be confounded with the method of providing a sheet or leaf having a separate flexible strip of a different material from the sheet and either pasted, glued, sewed, or otherwise secured thereto, nor with a sheet having a single line of perforations or the like, nor again with a leaf having a thin section with a line of perforations running therethrough, whereby the two parts of the leaf may be torn apart and then joined again by superposing one thin sec-

tion of the leaf upon the other thin section. Such expedients have proved either impractical or limited to some particular purpose and not capable of general adoption. It is
5 to be noted in this connection that in all the above-described methods of obtaining the desired flexibility the inherent strength of the sheet is not materially affected, and in no case is there any increased liability of catching or
10 tearing by reason of projecting edges, seams, or the like.

I may obviously in some cases combine the folded section $c^2 c^2$ with other forms of flexible section, and any such combinations I regard
15 as within the scope of my invention. In fact, I do not regard the above-stated methods or means of producing an integral flexible strip in a sheet of paper as the gist of my inven-

tion, nor as the only means for accomplishing it; but

What I do claim as my invention is—

1. A leaf for a book having an integral transverse portion or band more flexible than the remainder of the leaf, the entire leaf presenting a substantially smooth surface. 20

2. A leaf for a book having an integral transverse portion comprising a plurality of substantially flat accordion plaits. 25

In testimony that I claim the foregoing as my invention I affix my signature in presence
30 of two witnesses.

WILLIAM A. VAWTER.

Witnesses:

TAYLOR E. BROWN,
WM. S. HALL.