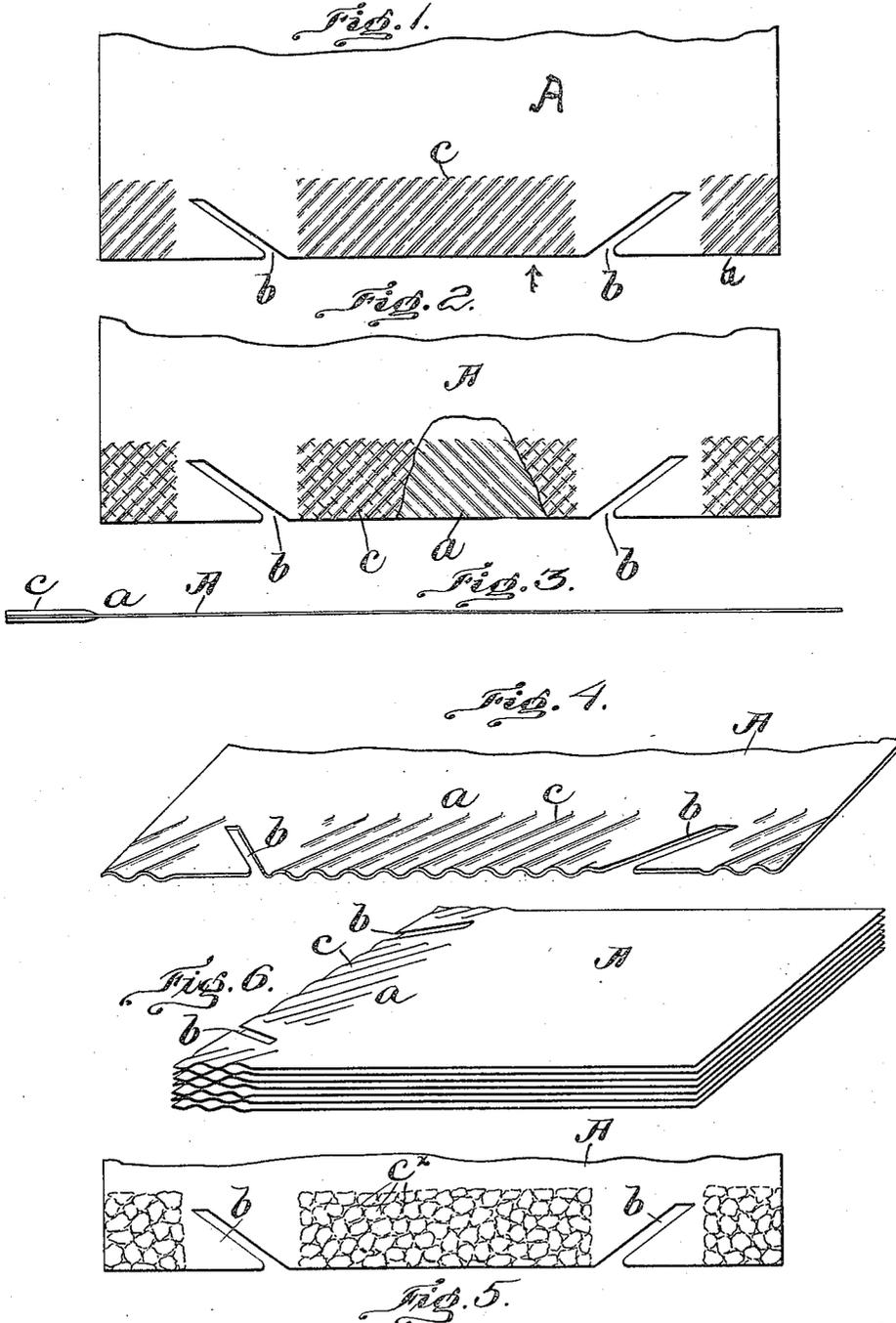


F. E. HOUSH.
 LOOSE LEAF BOOK.
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1,069,700.

Patented Aug. 12, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK E. HOUSH, OF WINTHROP, MASSACHUSETTS.

LOOSE-LEAF BOOK.

1,069,700.

Specification of Letters Patent. Patented Aug. 12, 1913.

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To all whom it may concern:

Be it known that I, FRANK E. HOUSH, a citizen of the United States, residing at Winthrop, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Loose-Leaf Books, of which the following is a specification.

My invention is an improvement in loose leaf books, designed to reduce the cost of production while improving the quality of the finished article.

In the drawings: Figure 1 is a plan view of a loose leaf, made according to my invention; Fig. 2 is a plan view of a loose leaf, a second leaf in reversed position being indicated underneath; Fig. 3 is an edge view of the sheet of Fig. 1; Fig. 4 is a perspective end view of Fig. 1 looking in the direction of the arrow; Fig. 5 shows an irregular crimped pattern, and Fig. 6 shows a stack of leaves, assembled to form a book.

I have shown my invention as applied to the loose leaf book of my Letters Patent of the United States, No. 1,029,369, dated June 11, 1912, but it is obvious that it may be applied to other loose leaf books.

My invention is especially applicable to loose leaf books designed for use as post-card albums or scrap-books, in which the articles to be filed are pasted or otherwise secured upon the surface of the leaves. It is obvious that in doing this the leaf is in effect thickened, and unless proper provision is made, as the book fills, the unbound end of the book would become much thicker than the back or bound end. It has been customary heretofore to provide for this condition by inserting between the leaves at the back or binding edge, filling strips which thickened the back of the book and thus allowed for the gradually filling and thickening of the front of the book as the photographs, post-cards or clippings were secured upon the leaves. The use of these filling strips is a source of expense in making and assembling the books, if the strips are secured to the base of the leaves by paste or the like, and of trouble in use if they are not.

In my invention the binding end of each leaf of the loose leaf book is passed between dies and subjected to pressure, thinning and extending the paper and folding the excess

in size thus formed in waves or crimps as shown in Figs. 1, 4 and 5, these waves extending beyond the plane of the leaf. In the form shown in Fig. 1, the crimps are oblique to the edges of the leaf and in use, every other leaf, is, in the process of assembling a stack of leaves to form a book, reversed, the object being to cause the waves or crimps of each leaf to cross the waves or crimps of the adjacent leaves and thus to prevent the crimps on one leaf from fitting or nesting into the crimps on the adjacent leaf and thus, to a greater or less extent, neutralize the effect desired. This matter is illustrated in Fig. 2 and indicates the easiest and cheapest method known to me of attaining the desired end, namely, to reverse every other leaf, in the assembling, causing the crimps to cross each other and preventing nesting. But the end can of course be attained by using different or irregular crimpings on adjacent sheets, as, for example, the crimpings on one sheet might be parallel with the sides of the sheet, while those on the adjacent sheet might be parallel with the ends of the sheet.

In the drawings A indicates the leaf; *a*, the binding end, suitably slotted at *b* to receive binding and securing devices, while the waves or crimps are marked *c*.

In the modified form shown in Fig. 5, the irregular crimps or indentations are marked *c'*.

I claim:—

1. The loose leaf book above described, made up of a stack of loose leaves, each leaf being of one integral piece, thickened at its binding end by indenting the material of the leaf, the indentations on adjacent leaves being non-corresponding, to prevent the nesting of the indentations on adjacent leaves.

2. The loose leaf book above described, made up of a stack of loose leaves, each leaf being of one integral piece, thickened at its binding end by crimps oblique to the edges of the leaf and assembled with the crimps in adjacent sheets in crossed relation.

Signed by me at Boston, Massachusetts, this 29th day of January, 1913.

FRANK E. HOUSH.

Witnesses:

JOSEPH T. BRENNAN,
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