

No. 698,600.

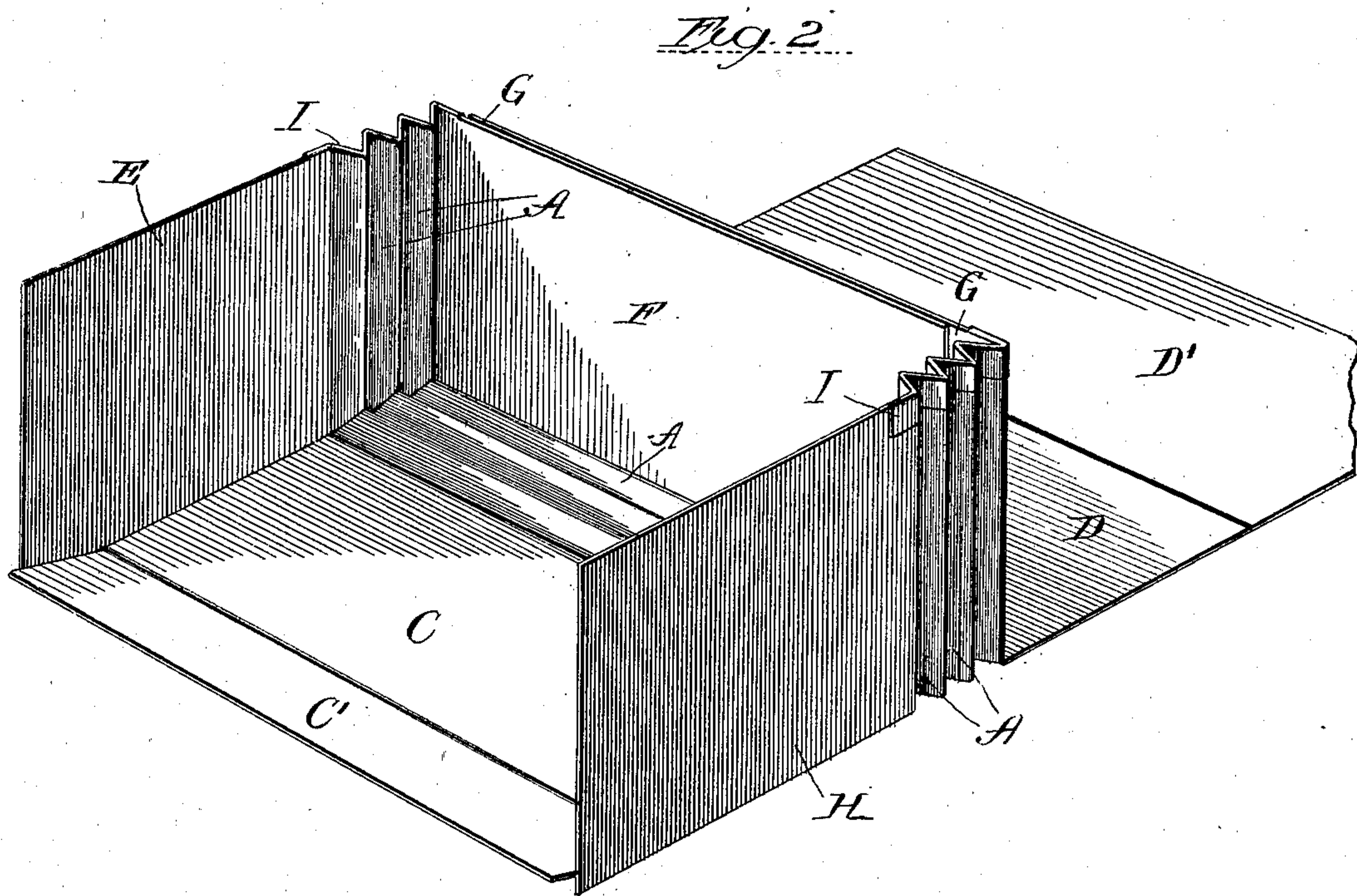
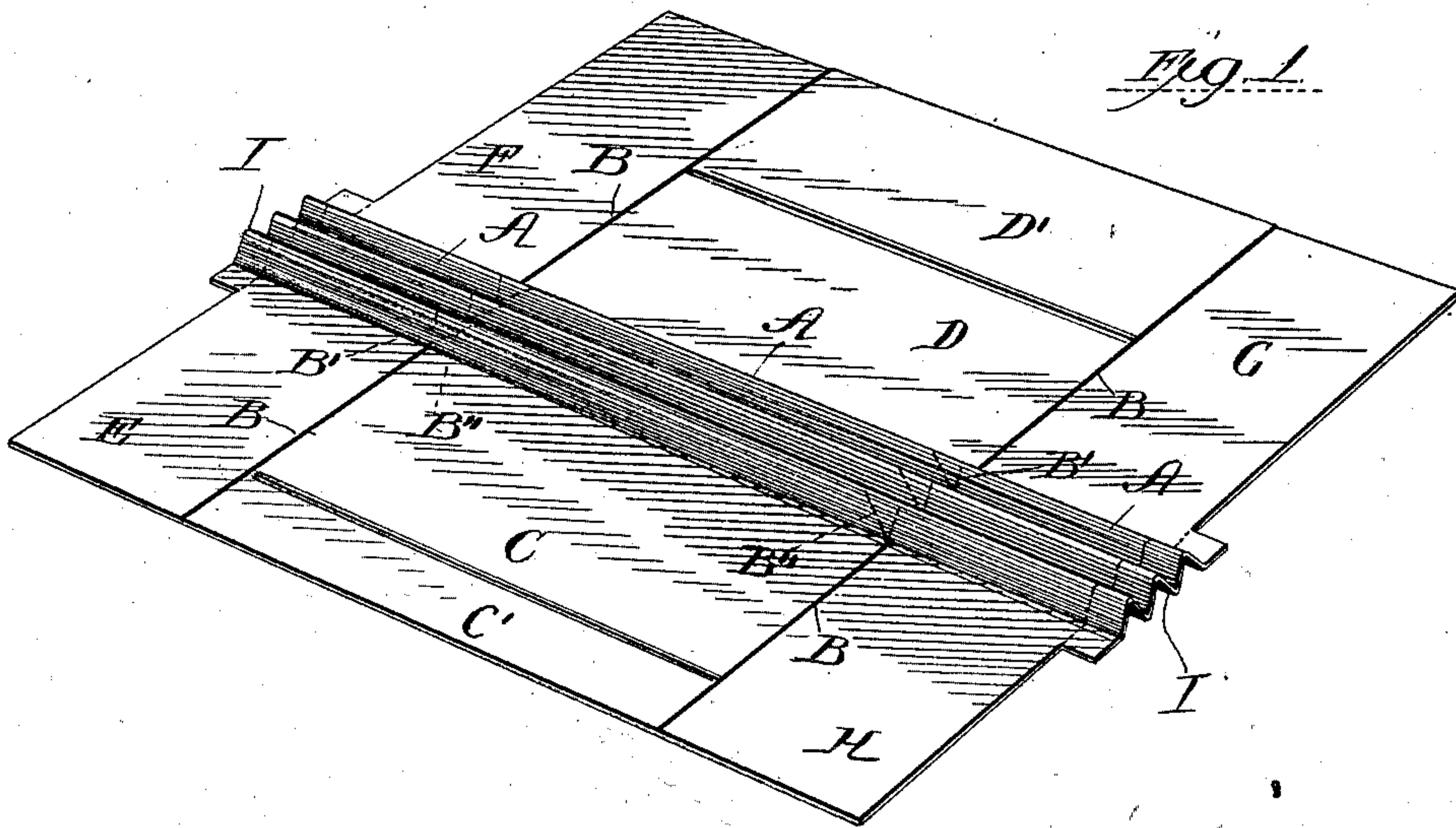
Patented Apr. 29, 1902.

J. G. WALLACE.  
DOCUMENT ENVELOP.

(Application filed Nov. 25, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:

Harold H. Banett.

Louis B. Erwin

Inventor:

John G. Wallace

By Rector & Hebbert

His Attys.



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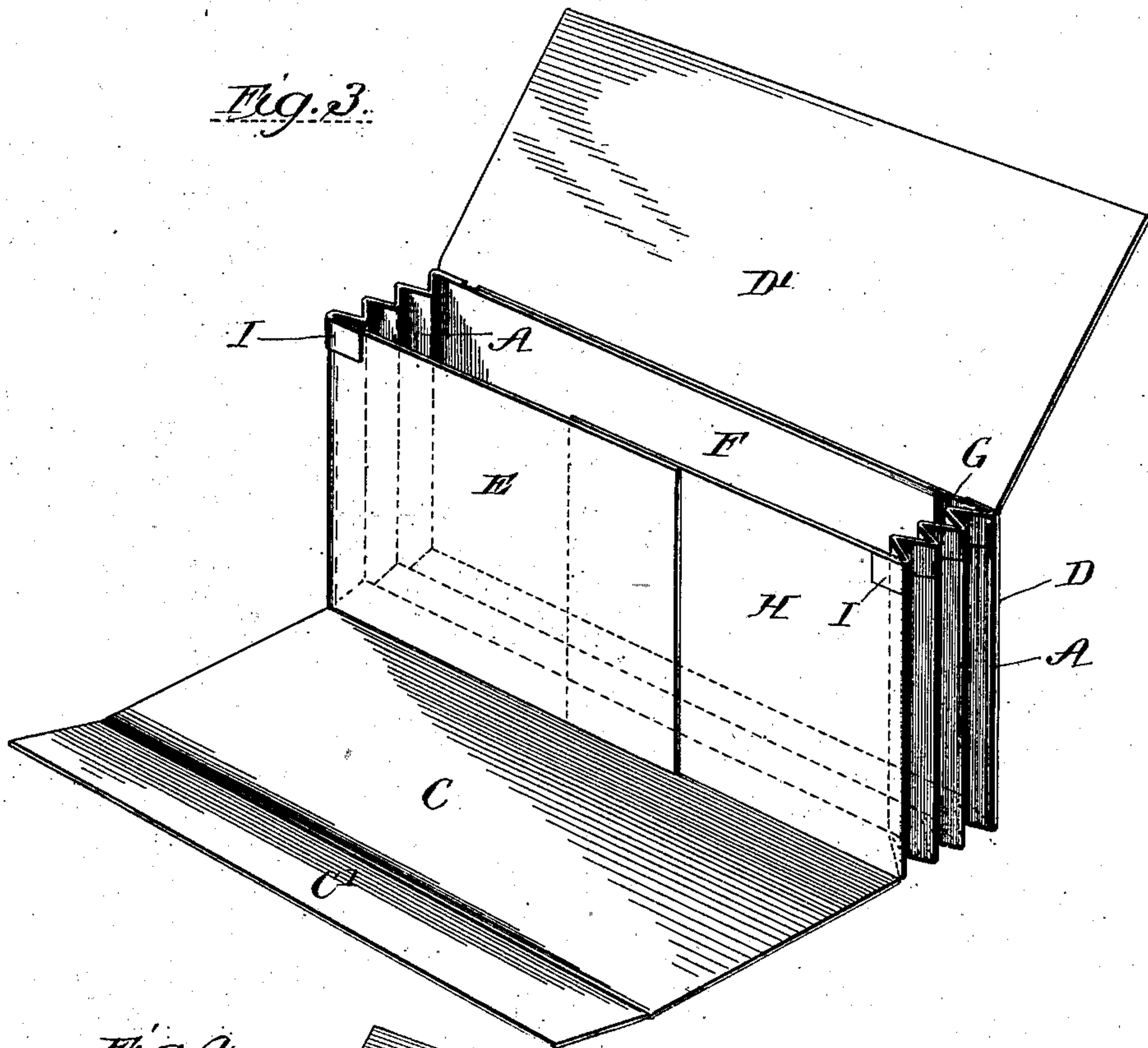
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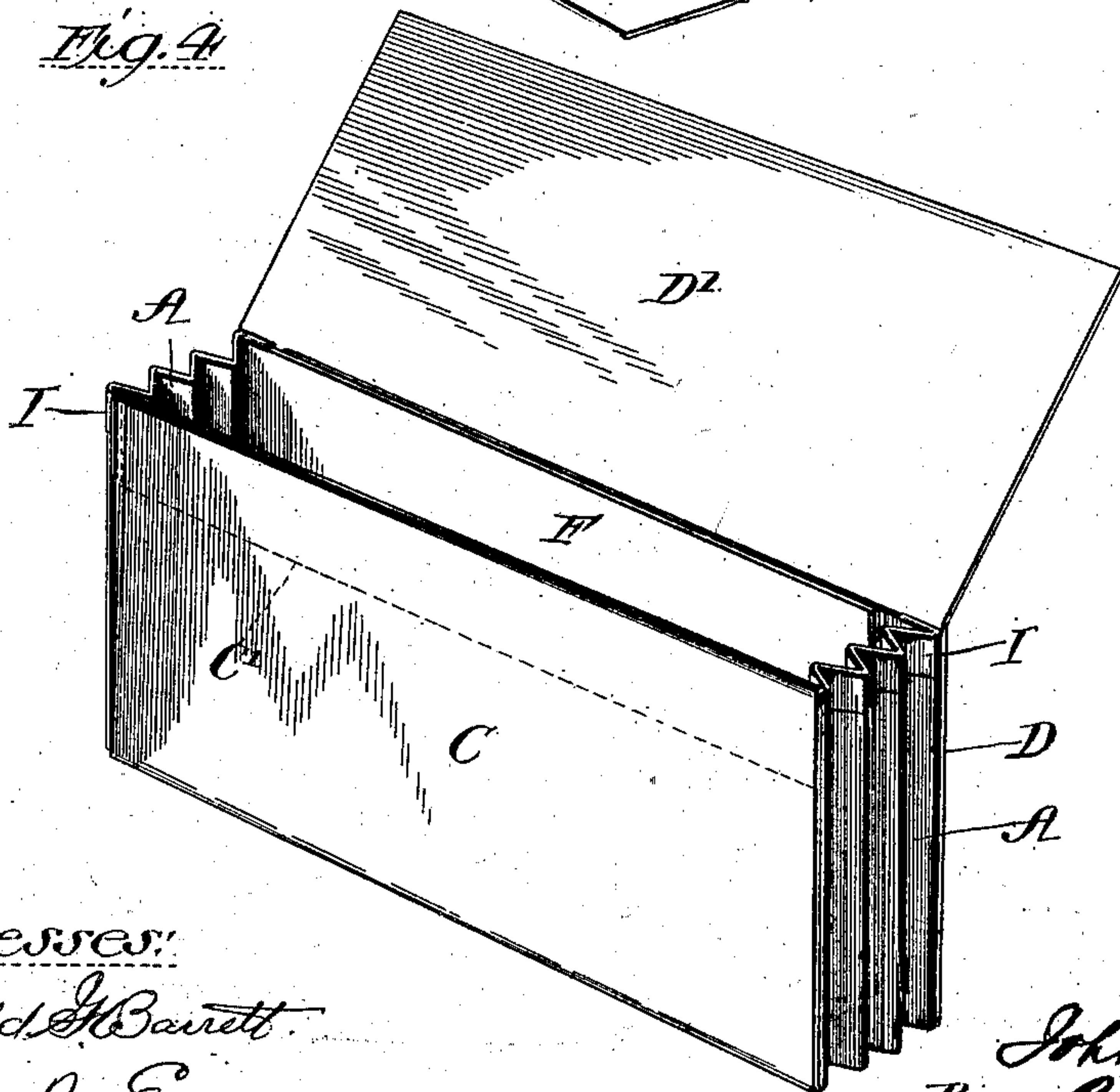
(No Model.)

2 Sheets—Sheet 2.

*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

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## DOCUMENT-ENVELOP.

SPECIFICATION forming part of Letters Patent No. 698,600, dated April 29, 1902.

Application filed November 25, 1901. Serial No. 83,557. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN G. WALLACE, 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 Document - Envelops, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to that class of expandible envelops, commonly called "documents," which are composed of two plain sides connected by bellows-folded ends and bottom which permit the envelop to be expanded to receive documents to the limit of its capacity and yet permit its sides to lie flat or close to each other when empty or only partially filled; and it has for its object a simplification and cheapening of the construction as well as increased efficiency of envelops of this class.

In the accompanying drawings, Figure 1 represents a plan view of the single blank from which my improved envelop is formed, said blank being provided with a longitudinal series of plaits or bellows folds for the bottom and opposite ends of the envelop; Fig. 2, a perspective view of the blank with its inner side walls and its opposite ends bent upward to vertical position and with said inner walls at one side of the envelop bent inward and overlapped longitudinally of the envelop; Fig. 3, a corresponding view at an additional stage in the folding operation, and Fig. 4 a similar view of the completely-folded envelop.

The same letters of reference are used to indicate like or corresponding parts.

My improved envelop is formed from a single blank, and this blank is of such shape and character that it may be cut without any waste of stock whatever, although my preferred construction illustrated in the drawings involves a very slight waste of stock, as hereinafter explained.

The blank of Fig. 1 consists in the present instance of a substantially square sheet of paper, and extending longitudinally of it, at one side of its middle line, is a series of plaits or bellows folds A, in the present instance three in number, which constitute the bottom and opposite ends of the completed envelop.

The blank is divided by transverse cuts B, terminating at their inner ends, at the folds A, into outer side walls C D, inner side walls E F G H, and outer side wall extensions C' D', the former constituting a finishing and strengthening flap for its side of the completed envelop, as hereinafter explained, while the latter constitutes the usual closing-flap of envelops of this character. As thus far described the blank of Fig. 1 may be exactly square or of other exact rectangular shape, so that no waste whatever would be involved in cutting it from proper stock. In the present instance, however, I provide the opposite ends of the blank with narrow strips I, extending across the ends of the folds A and suitably scored to fold with and as continuations of the latter in the completed envelop for a purpose hereinafter explained. The junction-lines of the bottom and opposite ends of the envelop are coincident with the transverse cuts B, and the longitudinal plaits or folds A are provided at these points with transverse creases B', in line with and connecting the cuts B upon the opposite sides of the folds, and with angular creases B'' on the inner side of such transverse creases to facilitate the bending of the folded ends of the envelop into vertical position at right angles to the bottom thereof.

The blank thus described is folded to and secured in envelop form as follows: The narrow strips I at the opposite ends of the series of folds A having been first bent backward beneath or upon the outer side of the blank, the inner side walls E F and G H at the opposite ends of the blank and their intermediate connecting-folds A are first bent to vertical position and the inner side walls F G swung inward and overlapped against each other along and parallel with one side of the bottom folds A, as in Fig. 2. The outer side wall D is then swung upward to vertical position against the overlapped inner side walls F G, and the three having been secured together, as in Fig. 3, complete that side of the envelop. The side walls E H at the opposite side of the envelop are swung inward in the same manner as the inner side walls F G, above described, and overlapped against each other along and par-



allel with the opposite side of the bottom folds A, as in Fig. 3, and the outside wall C then swung upward to vertical position against their outer sides and its extension-flap C' bent over their upper edges and down inside the envelop, and the parts having been properly secured together in this position complete the envelop, as shown in Fig. 4.

It will be understood that the blank will be folded into envelop form in the manner described around a suitable block or former and that paste will be properly applied to the overlapping side walls to secure the parts together in final form. The entire operation can of course be performed by hand; but I contemplate the employment of suitable machines for doing the work automatically.

The formation of my complete envelop from a single sheet of paper which requires merely to be folded to and secured in envelop form does away with the necessity for assembling and securing together a number of separate pieces of paper, as required in the case of built-up envelops of this character, thereby materially lessening the labor of making the envelop and proportionately decreasing its cost. One side wall of the envelop, in the present instance and preferably the side wall to which the covering-flap D' is hinged, is composed of three thicknesses of paper, thereby producing a side wall of sufficient thickness, stiffness, and strength, while permitting the employment of comparatively light stock for the envelop. The opposite side wall is composed of a double thickness of paper, reinforced by the overlapped extension C' of the outer side wall, which gives a triple thickness and consequent additional strength to the upper edge of that side of the envelop, and at the same time produces a neat finish, leaving no raw edge of paper exposed to wear or mutilation. The narrow strips I at the upper edges of the end folds A serve to strengthen those folds and produce a finish of them which does not leave the raw edge of the paper exposed. The opposite ends of these strips are confined between the inner and outer side walls at the opposite sides of the box, and it is not essential that the strips be pasted to the end folds A intermediate their ends, although this may be done, if desired.

I am aware that the advantages of making paper receptacles of various kinds from single pieces of paper is generally recognized, and I am also aware that it has been proposed to construct document-envelops whose folded bottoms and ends and opposite sides should be formed from a single blank; but while my improved envelop embodies all of the advantages generally attained from such single-piece construction it also presents advantages and embodies features of novelty not found in such prior construction.

Having thus fully described my invention, I claim—

1. The herein-described document-envelop comprising the folded bottom and ends hinged together, the pairs of inner side walls E, H, and F, G, hinged to the folded ends A respectively and the outer side walls C D hinged to the folded bottom, the outer side wall D having a closing-flap D'; substantially as described.

2. The herein-described document-envelop comprising the folded bottom and ends A hinged together, the inner side walls E, H, hinged to one side of the folded ends A respectively and overlapping each other for approximately the full length of the envelop, the inner side walls F, G, hinged to the other side of the folded ends A respectively and similarly overlapping each other, and the outer side walls C, D, hinged to the folded bottom, the latter of which has a hinged closing-flap D'; substantially as described.

3. The herein-described document-envelop comprising the folded bottom and ends A hinged together, a suitable side wall hinged to the bottom at one side of the envelop and having a hinged closing-flap, the inner side walls E, H, hinged to the ends A at the opposite side of the envelop, and the outer side wall C hinged to the bottom and provided with the extension-flap C' folded inward over the top edges of said inner side walls; substantially as described.

4. The herein-described document-envelop comprising the folded bottom and ends A hinged together, suitable inner side walls hinged to the ends respectively, outer side walls hinged to the bottom, one of which outer side walls has a hinged closing-flap and strengthening-strips I integral with the upper ends of the folds of the ends A and folded over upon and secured to such ends; substantially as described.

5. The herein-described document-envelop comprising the bottom and end folds A, the latter provided at their upper edges with the integral strengthening-strips I, the inner side walls F, G, at one side of the envelop, the outer side wall D secured thereto, and provided with the hinged closing-flap D', the inner side walls E, H, at the opposite side of the envelop and the outer side wall C secured thereto and provided with the extension-flap C' bent inward over the upper edges of said side walls and secured to the inner faces thereof; substantially as described.

6. The herein-described blank for a document-envelop comprising a bottom and ends hinged together and provided with a series of plaits or bellows folds A extending longitudinally thereof from end to end, the inner side walls E, F, G, H, hinged to the ends respectively, and the outside walls C D, hinged to opposite sides of the bottom, and separated from the inner side walls by the transverse cuts B terminating at the folds of the bottom, and said folds having transverse creases B' in line with said cuts and angular creases B'' at the inner sides of the transverse



creases, and the closing-flap D' hinged to the side wall D; substantially as described.

7. The herein-described blank for a document-envelop, substantially rectangular in shape and comprising the inner side walls E, F, G, H, and the outer side walls C, D, separated therefrom by the cuts B and having the extensions C', D' and the series of longitudinal folds A connecting the side walls of the opposite sides of the blank; substantially as described.

8. The herein-described blank for a document-envelop, substantially rectangular in

shape and comprising the inner side walls E, F, G, H, and the outer side walls C, D, separated therefrom by cuts B and having the extensions C' D' and the series of longitudinal folds A connecting the side walls of the opposite sides of the blank; and provided at their extremities with the strips I; substantially as described.

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Witnesses:

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