

(No Model.)

J. ARKELL.

PAPER BAG.

No. 325,147.

Patented Aug. 25, 1885.

FIG. 1.

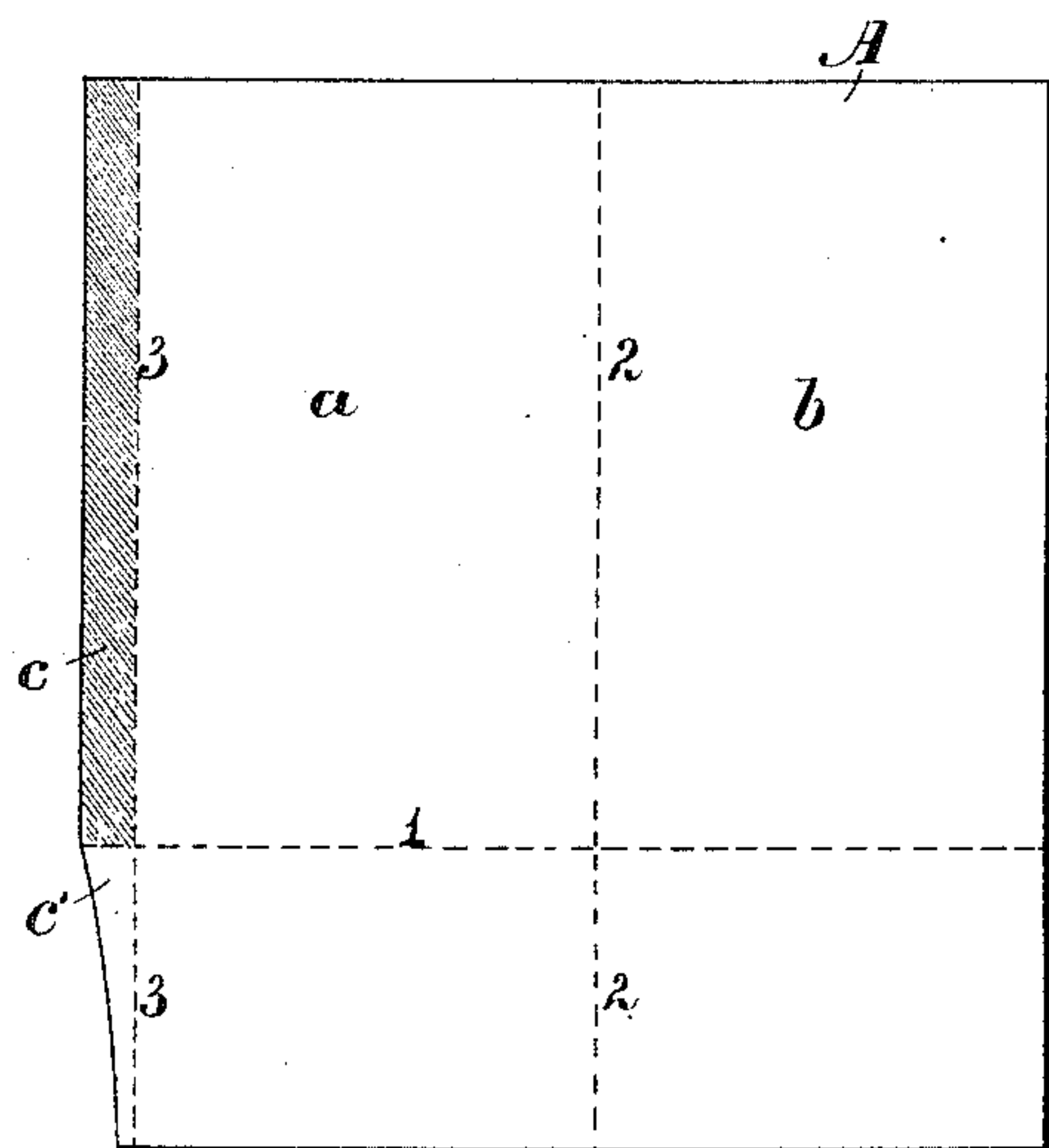


FIG. 2.

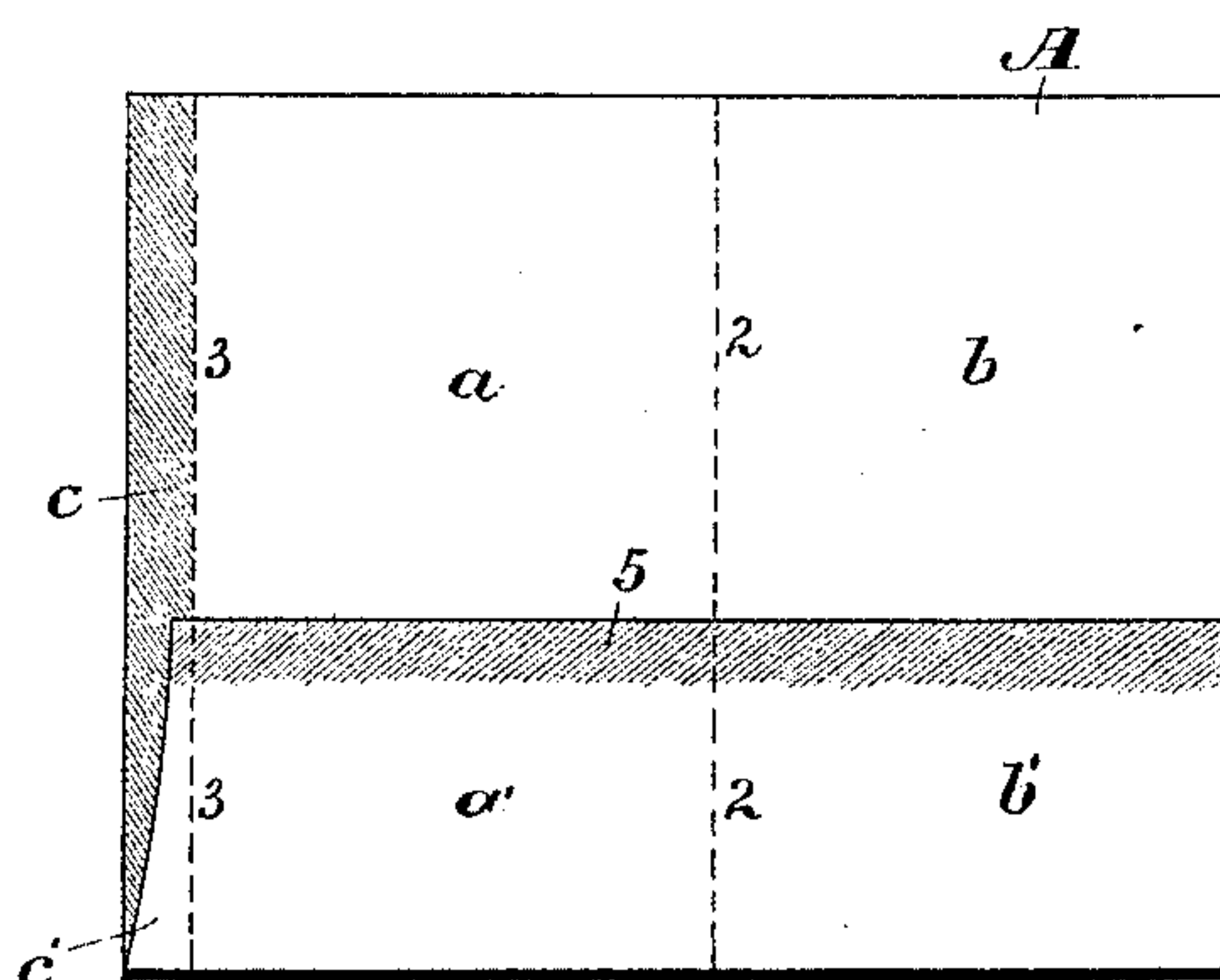


FIG. 3.

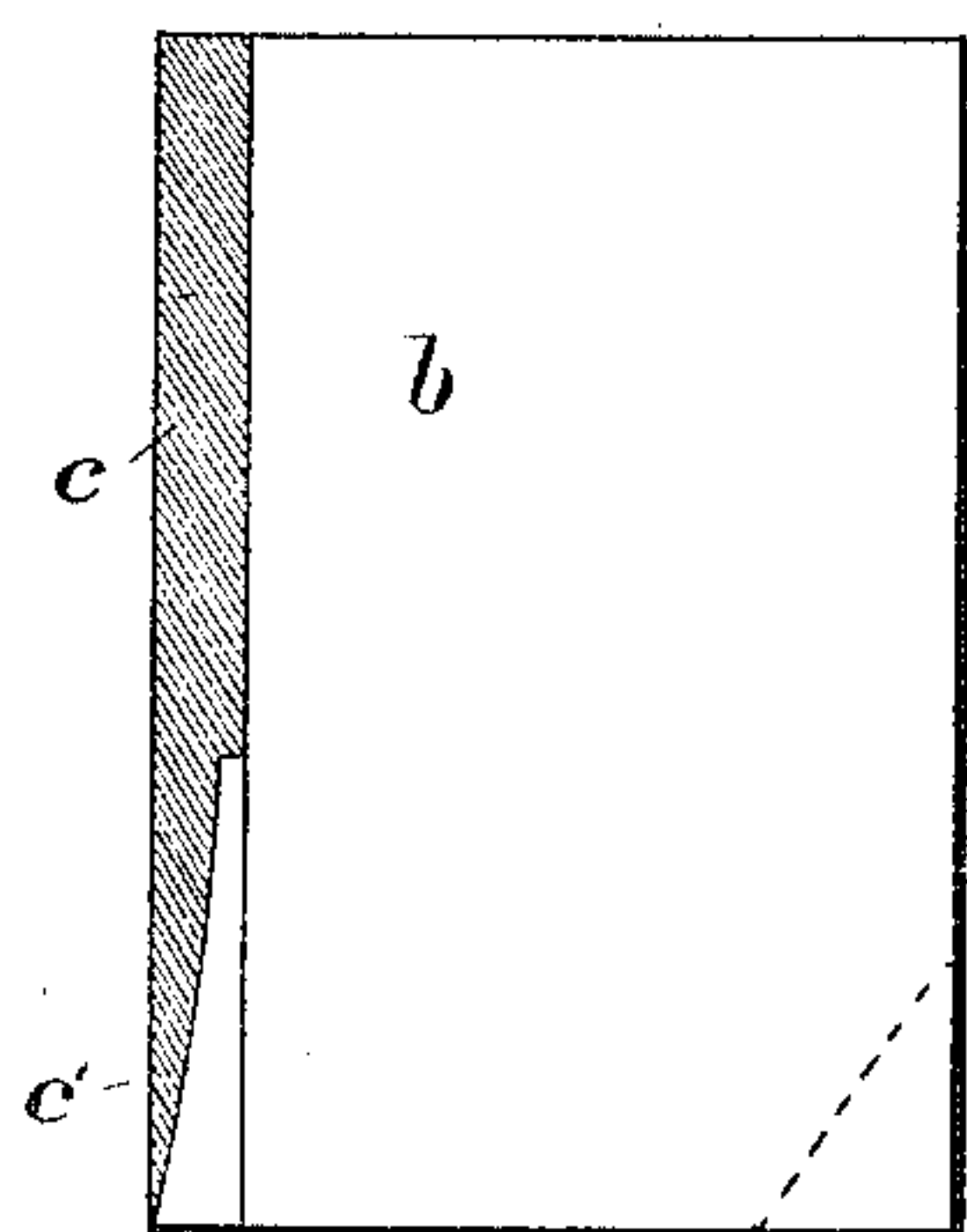


FIG. 4.

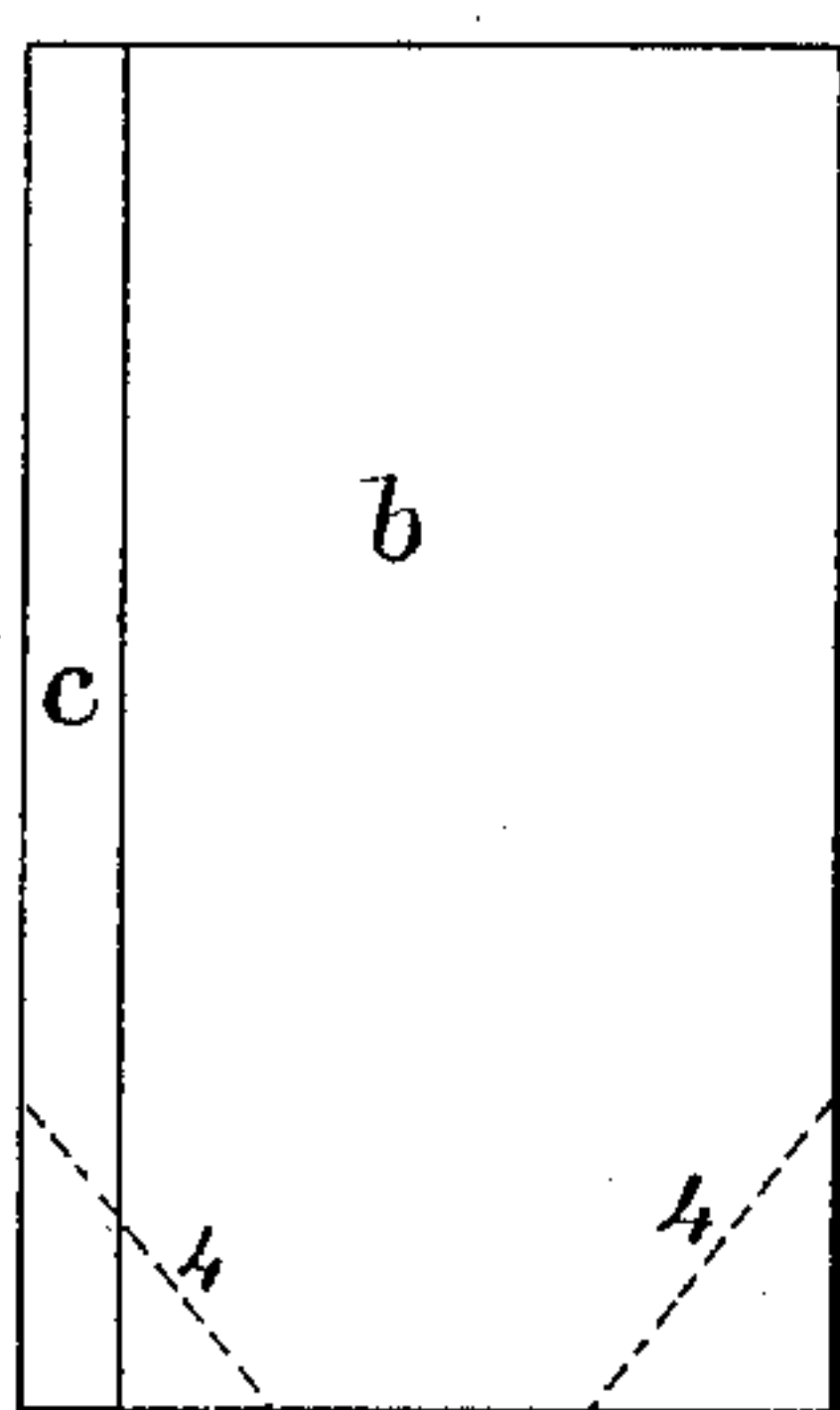


FIG. 5.

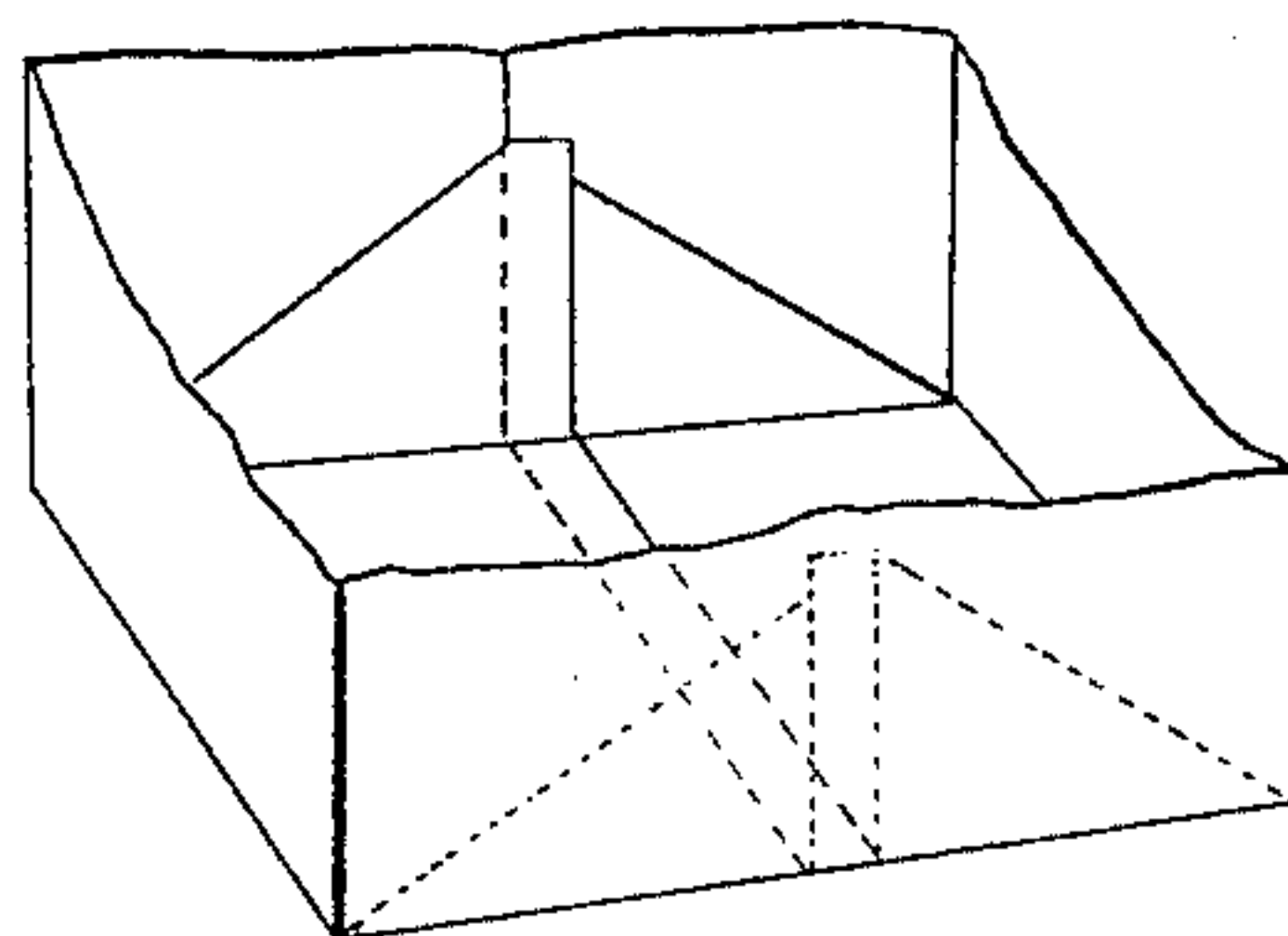
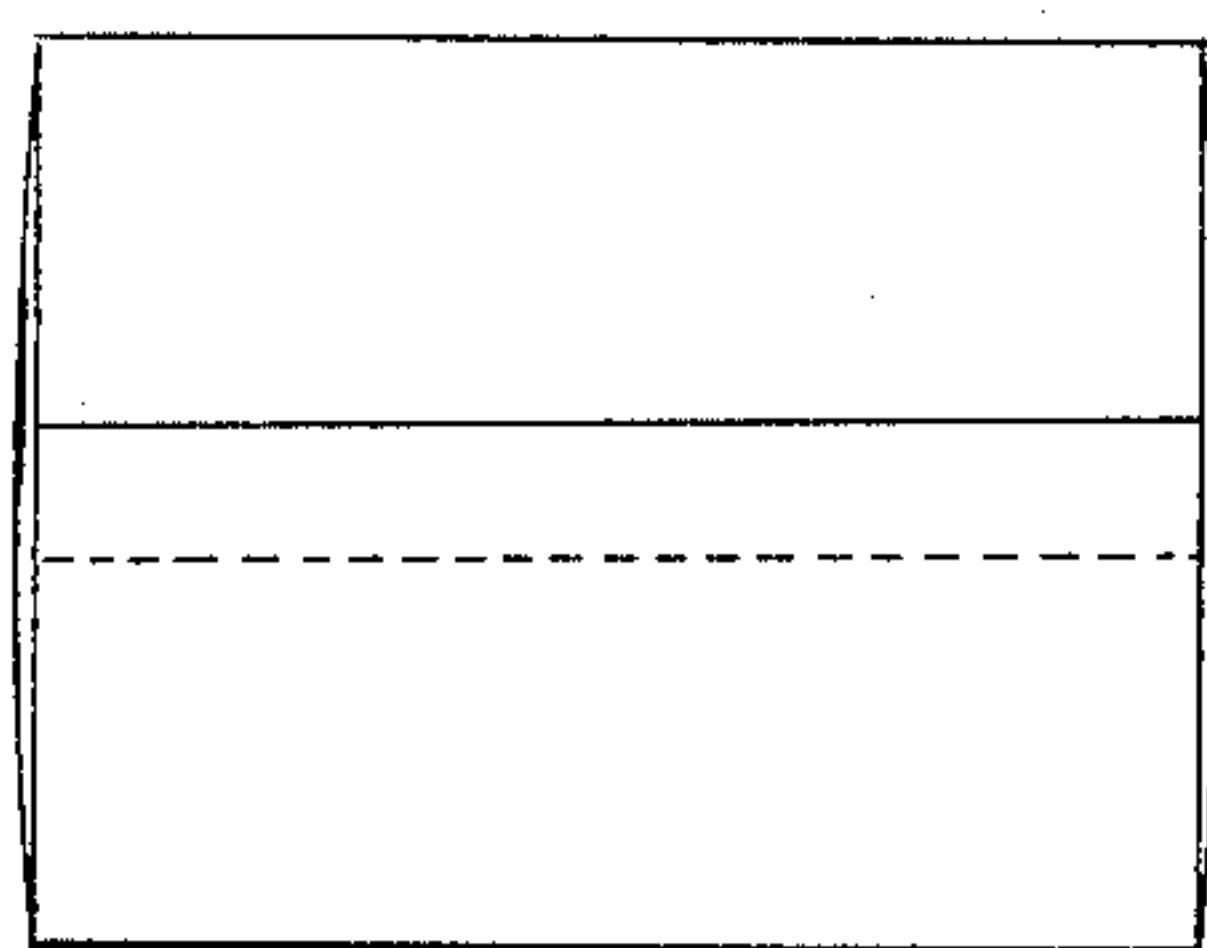


FIG. 6.



ATTEST.

J. Henry Kaiser
Jacob Felbel

INVENTOR.

James Arkell
By atty.
J. N. McIntire

UNITED STATES PATENT OFFICE.

JAMES ARKELL, OF CANAJOHARIE, NEW YORK, ASSIGNOR TO ARKELL & SMITHS, OF SAME PLACE.

PAPER BAG.

SPECIFICATION forming part of Letters Patent No. 325,147, dated August 25, 1885.

Application filed September 13, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES ARKELL, of Canajoharie, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Paper Bags; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to certain new and useful improvements in paper bags of the kind known as "bellows bottom bags," and to that species having a seam in the bottom and one side seam only; and it consists in certain features of structure, which will be hereinafter more fully described, and particularly pointed out in the claim of this specification.

In the drawings which accompany this application and form part thereof, Figure 1 is a plan view of a preferred form of blank from which to make a bag embodying my invention. Fig. 2 is a similar view of the blank after the first folding operation toward the making of a bag. Fig. 3 is a plan view of the blank subsequent to the second folding operation. Fig. 4 is a like view after the third and last fold has been made. Fig. 5 is a perspective view of the bag-bottom opened out, and looking at the interior thereof; and Fig. 6 is a plan view of the exterior surface of the bottom of the bag spread out as in condition for use.

In the several views the same letter of reference indicates the same part.

A, Fig. 1, is the blank, (of paper or other suitable material,) which is preferably creased along the lines 1, 2, and 3, to facilitate folding, as well understood, and which is supplied with suitable adhesive matter along the narrow flap-like portion *c*, at the extremity of one of the longer sides of the sheet, and also along the edge or edge portion, 5, of one of the shorter sides of the sheet, but on the opposite side or face of the blank, as seen at Fig. 2.

A portion of the stock of the blank is removed from the flap-like portion *c* from at about a point opposite the line 1 to the lower edge of the sheet, as shown, and the remaining triangular portion, *c'*, of flap *c*, from line 1 to the bottom edge of the blank, is preferably not supplied with paste or other adhesive matter.

To make a bag from a blank of the form shown at Fig. 1, and supplied with paste, as described, and preferably preliminarily creased on the lines indicated, I should proceed as follows: Fold on the line 1 the lower portion of the blank and double it upon itself lengthwise of the sheet, and bring the blank into the condition illustrated at Fig. 2. Next fold on the line 2 and bring the parts *a b a' b'* face to face, with the pasted portions on *a'* and *b'* coinciding, and the blank will then be in the condition illustrated at Fig. 3. Then fold on the line 3 and turn over the pasted flap *c* down onto and secure it to the portion *b*, as represented at Fig. 4. In making this last fold it will be understood, of course, that the triangular portion *c'* of the flap *c* is also turned over against the portion *b*, and is confined between the latter and the flap *c* when these parts shall have been pasted together.

The finished bag (shown at Fig. 4) is now preferably, though not necessarily, creased obliquely along the dotted lines 4 4, to facilitate the opening out of the bag into square-bottom form.

It will be seen from Figs 4 and 5 that by folding and pasting a blank of the form shown at Fig. 1 (which is the best form now known to me) in the manner described a bag is produced with a bellows-bottom, which may be opened out or distended in square or rectangular form, and which has two seams, one at the middle of the bottom of the bag and the other at one side only thereof. A bag of such construction may be readily and cheaply made by machinery, as will be clearly understood by those skilled in the art to which my invention relates.

The employment of the flap *c'* in the structure is to insure a tight joint at that side of the bottom of the bag adjacent to the flap *c*; and it will be seen that, by reason of the oblique or slanting cut from the line 1 to the lower edge of the blank, the flap *c'* provided is of such a shape that the flap *c* may be pasted onto the side *b* from end to end, thus avoiding the necessity of any separate pasting operation for the flap *c'*, and thus producing a bag of the kind referred to in which there is a less quantity of paste and paper at that corner of the bag at which the side flap

is located than in any bag made heretofore, so far as my knowlence extends.

The flap *c'*, it will be understood, may be of other shape than that shown, so long as it is of less width for all or a greater portion of its length than the width of the closing-flap *c*, and is overlapped by the latter in the side seam of the bag.

It will be seen that a bag-bottom made according to my invention is composed of only one thickness of paper throughout its whole extent, excepting at the locality of the middle seam, (which latter is composed of two thicknesses of paper,) and a bag so constructed may be readily opened out or distended in square form, and will present a neat and perfect bottom.

The blank may have its paste applied either while in a perfectly open condition, as at Fig. 1, or in a partially-folded condition, as at Fig. 2, and if done while in the last-named state the triangular portion *c'* may be conveniently pasted simultaneously with the side flap, *c*; but, as before intimated, there is no actual necessity to paste this supplemental portion *c'*,

as the pasted flap *c* overlaps it when folded down onto the part or side *b* of the bag.

The method herein described and illustrated of making the bag forming the subject of this application is disclaimed in this case, as said method is claimed by me in a separate application.

Having now so fully described my invention that those skilled in the art to which it appertains may make and use bags involving the same, what I claim as new, and desire to secure by Letters Patent, is—

A bellows-bottom bag having a seam at the middle of its bottom, and a side seam composed of the part *b* and flap *c*, and having also a supplemental flap *c'*, which is of less width than the flap *c*, and which is located between the latter and the part *b*, all substantially in the manner and for the purpose set forth.

In witness whereof I have hereunto set my hand this 10th day of September, 1884.

JAMES ARKELL.

In presence of—

S. L. FREY,

WILLIAM N. SMITH.