

(No Model.)

F. O. PAIGE.
PAPER BAG.

No. 448,142.

Patented Mar. 10, 1891.

Fig. 1.

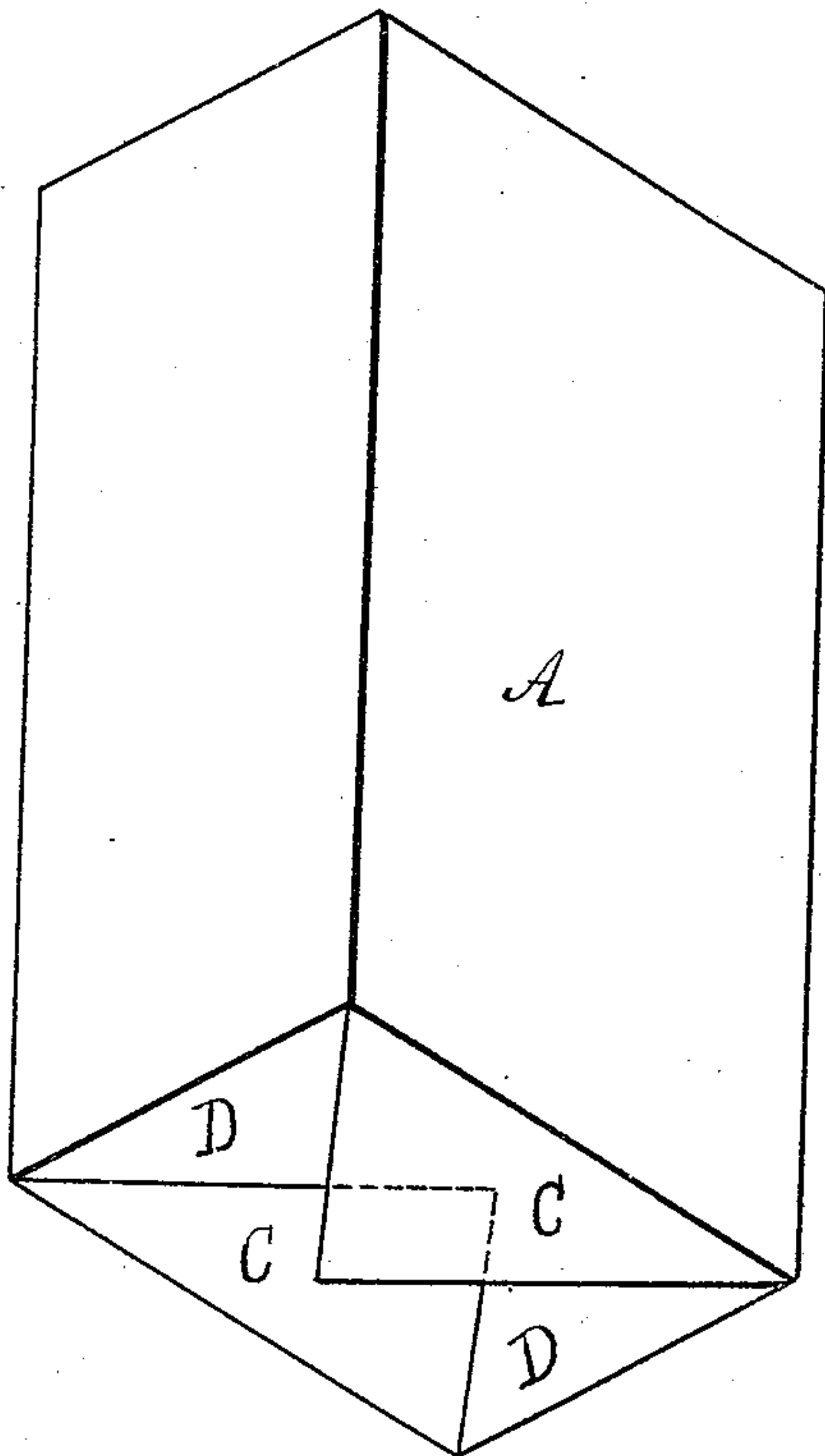


Fig. 2.

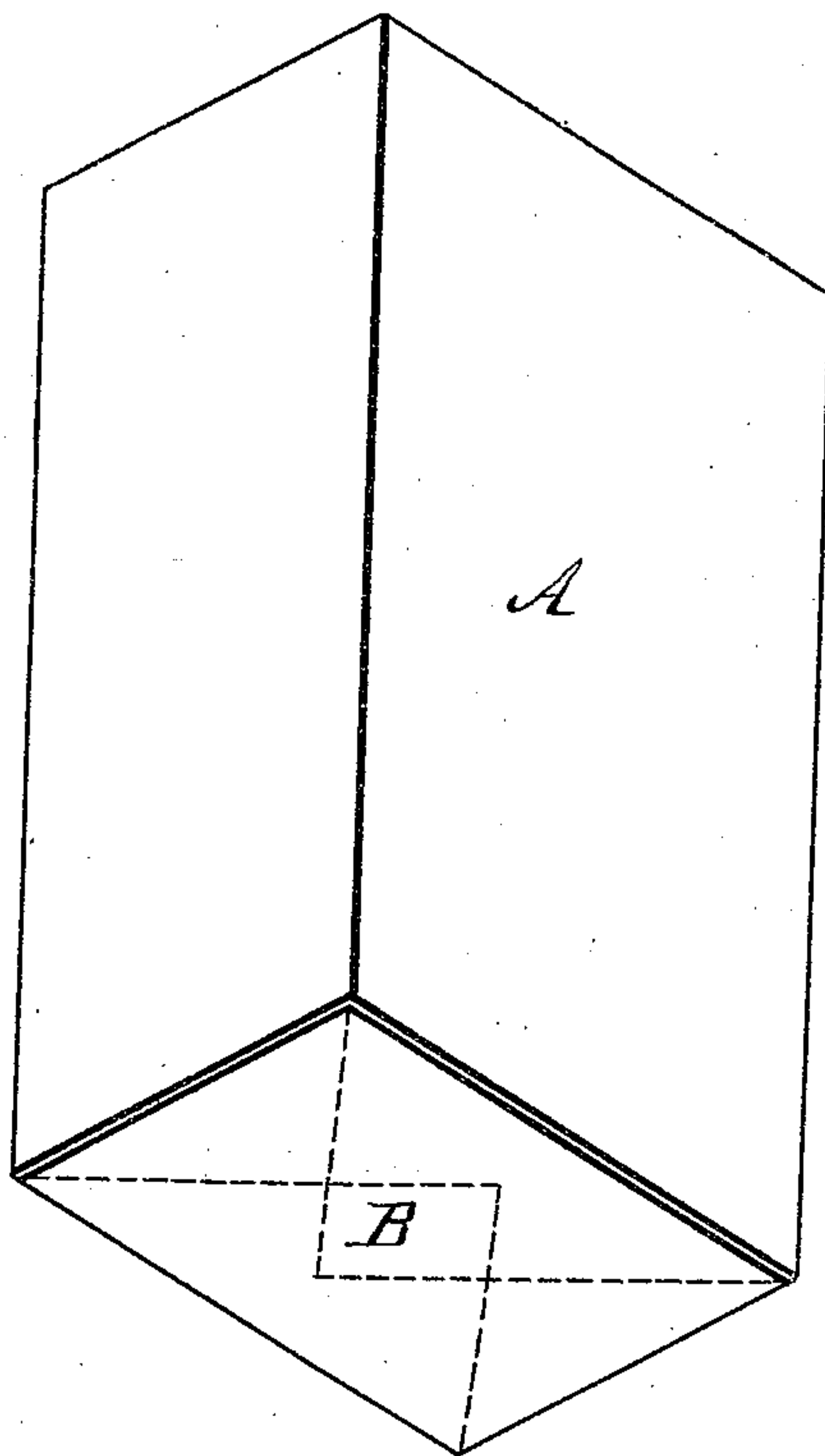
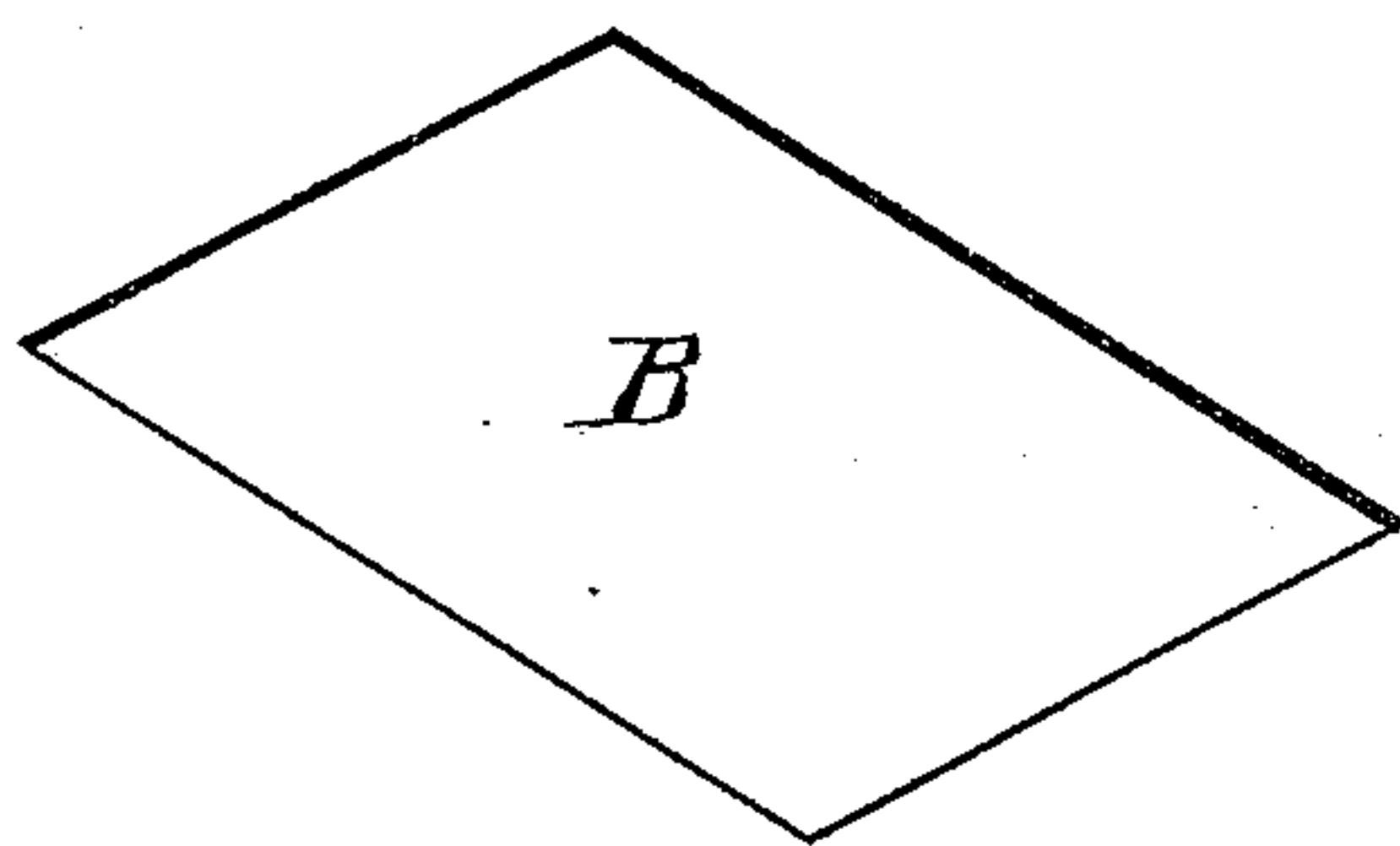


Fig. 3.



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UNITED STATES PATENT OFFICE.

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PAPER BAG.

SPECIFICATION forming part of Letters Patent No. 448,142, dated March 10, 1891.

Application filed September 13, 1890. Serial No. 364,892. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK O. PAIGE, a citizen of the United States, residing at Detroit, Michigan, have invented a new and useful Improvement in Satchel-Bottom Paper Bags, of which the following is a full, clear, and exact specification.

This invention relates to satchel or square bottom paper bags which are produced and placed on the market as articles of manufacture for sale and subsequent use in putting up pulverulent material.

It is difficult to manufacture satchel or square bottom paper bags with great speed owing to the necessity of holding down the folding flaps for a greater or less period of time until the paste sets sufficiently to retain the parts in folded condition. This folding of the bag necessarily involves some delay in the production of each bag, and the manufacture of large numbers of the bags involves loss of much time. This is particularly the case where the bags are produced of stout or thick paper, for in this type of bag it is very difficult to retain the folding parts of the satchel bottom in their folded position unless they be well supplied with paste and are held temporarily for the purpose of permitting the paste to set, or the parts to sufficiently adhere, before the bag-bottom be released, as otherwise the folded flaps would immediately fly open.

The object of my invention is to facilitate the manufacture of satchel or square bottom paper bags, whereby a much greater number can be practically produced in a given time than is possible in the ordinary construction of paper bags, particularly if the latter are composed of stout or thick paper and are produced as articles of manufacture for sale and subsequent use in putting up pulverulent material.

The invention also has for its object to provide novel means whereby the folded flaps of satchel-bottom paper bags need not be pasted on their surfaces prior to being pressed upon each other to complete the bag-bottom.

The invention also has for its object to provide novel means for cementing and holding the folded flaps of a satchel-bottom bag, whereby it is unnecessary to temporarily hold

the bag in the bag-machine for the purpose of securing the flaps in their folded condition.

The invention also has for its object to provide novel means for cementing and holding the folding flaps to complete the satchel bottom of a paper bag, and at the same time close all bottom folding seams to prevent egress of pulverulent material, to strengthen and render the bag more durable, and to provide a smooth unbroken exterior surface co-extensive with the satchel bottom of the bag, and especially adapted to receive impressions of type in printing names, advertisements, and the like on the satchel bottom of the bag.

To accomplish all these objects my invention consists in the features of construction and the arrangement or combination of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view of a paper bag, showing the folding flaps which constitute the satchel or square bottom thereof. Fig. 2 is a similar view of the bag constructed in accordance with my invention; and Fig. 3 is a detail perspective view of the re-enforcing and flap-retaining sole-piece.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The letter A indicates a square paper bag, having its bottom portion formed with folded flaps C C and D D to constitute a satchel or square bottom bag, designed to be placed on the market as an article of manufacture for sale and subsequent use in putting up pulverulent material.

In the usual method of producing this type of paper bags the folded flaps are provided with paste, and are then pressed down into the position exhibited by Fig. 1, which obviously requires that these folded flaps be held a sufficient length of time for the paste to set and retain the parts in the folded condition, for otherwise the flaps would, if instantly released from pressure, fly outward and consequently destroy the bag unless the flaps were again pressed down and secured. The holding of the pasted and folded flaps

involves a greater or less period of time in the production of every bag, and therefore the loss of time is considerable in the manufacture of a large number of the articles, in consequence of which the speed of manufacture is in a measure limited.

To avoid applying paste to the folding flaps of a satchel-bottom bag prior to pressing such flaps down to produce the satchel or square bottom, and to provide means whereby the flaps are held down and secured, and to strengthen and render the bag-bottom more durable, I provide a sole-piece B, composed of a square or approximately square sheet of fabric—such as paper—coextensive in size with the completed satchel or square bottom of the bag. To one surface of this sole-piece or sheet I apply paste, and after folding the flaps C D to the position indicated in Fig. 1 to produce the satchel bottom I press the sole-piece or sheet upon the exterior of the folded flaps, whereby the latter are properly held down and rendered incapable of flying out even though the bag-bottom be instantly released after the application of the sole-piece. The paper sole-piece is coextensive in dimensions with the satchel or square bottom of the paper bag, and therefore all of the folded flaps are completely covered and practically concealed from edge to edge of the satchel bottom, by which construction the egress of pulverulent material is effectually prevented, the satchel bottom of the bag is materially strengthened, and an extended smooth unbroken surface is provided, which is well adapted for receiving impressions of type, as in printing names, advertisements, and the like upon the bottom of the bags.

The invention is particularly useful in that type of satchel-bottom bags composed of paper somewhat stiff or thick, and consequently somewhat difficult to retain in folded condition, for when the paper is stout or thick the folding flaps C D cannot be secured in position to form a perfect satchel bottom unless such flaps are pasted and subsequently held down a sufficient length of time to enable the paste to set or the parts to adhere for maintaining them in their folded condition.

By my invention I facilitate the manufacture of satchel-bottom paper bags, which are designed to be placed on the market as complete articles for sale and subsequent use in putting up pulverulent or fine material, and inasmuch as I entirely avoid the necessity of holding down the folded flaps which constitute the satchel bottom I am enabled to produce the bags with far greater rapidity than satchel bottom bags of the ordinary construction, while at the same time the satchel bottom is materially improved, strengthened, smoothed, and rendered well adapted for re-

ceiving impressions of type in printing advertisements and the like.

In the manufacture of my improved paper bag the folding flaps are not supplied with paste, as is usually the case, and, in fact, as regards the production of the bag prior to the application of the paper sole-piece the only paste used is at the longitudinal seam of the bag. Therefore the paper blank to produce a bag is completely shaped into a satchel-bottom bag without paste, except as regards the longitudinal seam.

The paste by which the folded flaps are secured to complete the satchel bottom is applied to one surface of the sole-piece, and subsequently the latter is pressed upon the folded flaps, thereby securely holding them in proper position, while effectually covering the entire surface of the satchel bottom.

By my invention I avoid introducing paste into the interior of the bag to produce a satchel bottom, and I provide a very desirable paper bag which, owing to rapidity of production, can be more economically produced than ordinary paper bags, and I also place the improved bags on the market for subsequent use in putting up pulverulent material, in which respect my invention is an improvement on the type of paper bags to which my invention particularly relates.

Having thus described my invention, what I claim is—

1. A satchel bottom paper bag having one end folded to form a satchel bottom without the use of paste on any of its folded portions, and provided with a re-enforcing sole-piece coextensive in dimensions with the satchel bottom and pasted throughout its entire extent over the exterior thereof to secure and hold down the folded flaps, entirely cover the folding seams, provide a smooth surface, and prevent the egress of pulverulent material, substantially as described.

2. A satchel bottom paper bag having the folded flaps C C and D D to form a completely-closed satchel bottom without paste on any of such folded portions, and provided with a re-enforcing sole-piece composed of an approximately square sheet of paper coextensive in dimensions with the satchel bottom and pasted throughout its entire surface upon the satchel bottom from edge to edge thereof for the purpose of holding the folded flaps against flying out of place and preventing egress of pulverulent material contained in the bag, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

FREDERICK O. PAIGE.

Witnesses:

MARION A. REEVE,
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