

(No Model.)

F. W. LEINBACH.
PAPER BAG.

2 Sheets—Sheet 1.

No. 391,805.

Patented Oct. 30, 1888.

Fig. 1

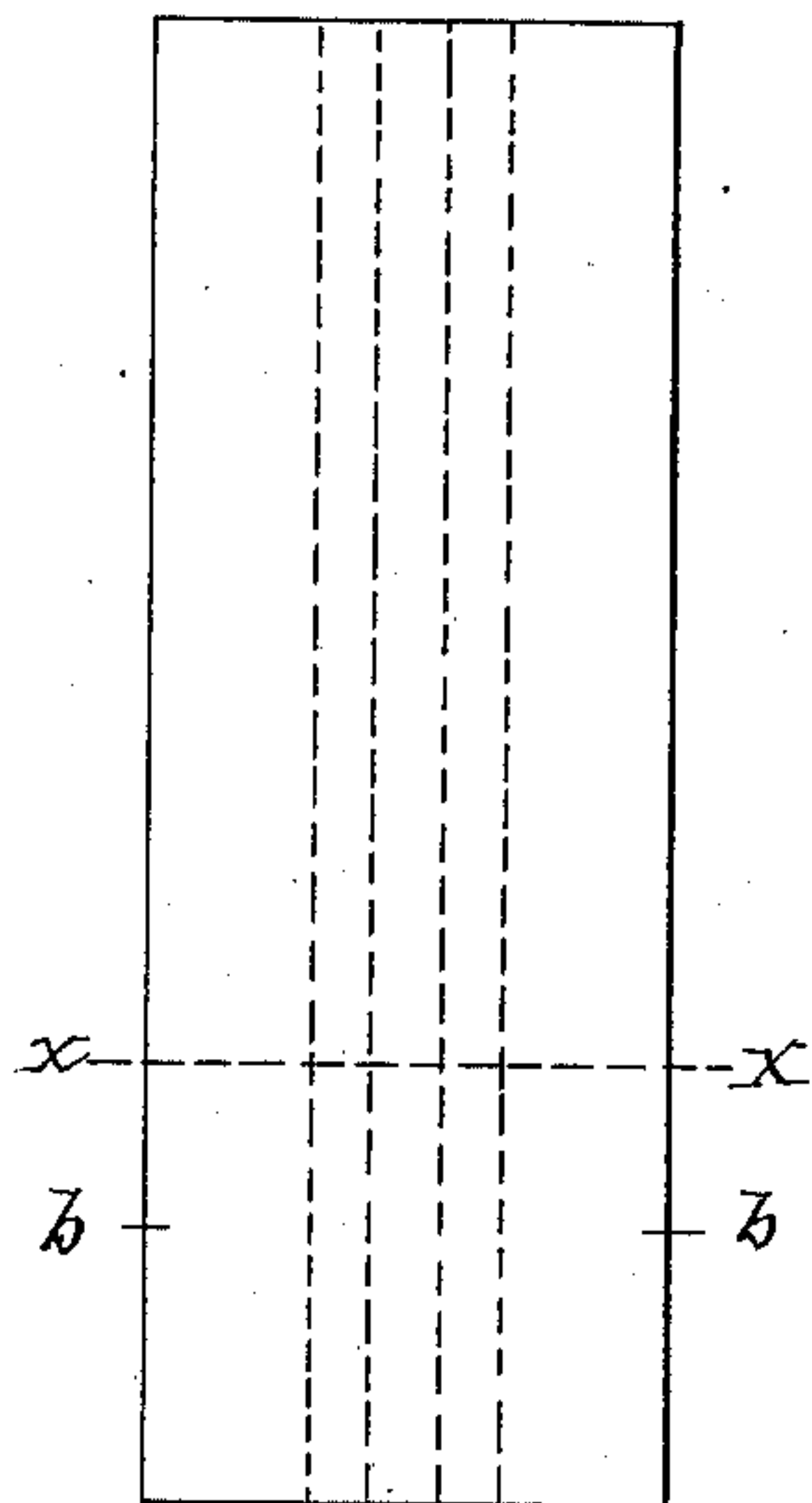


Fig. 3

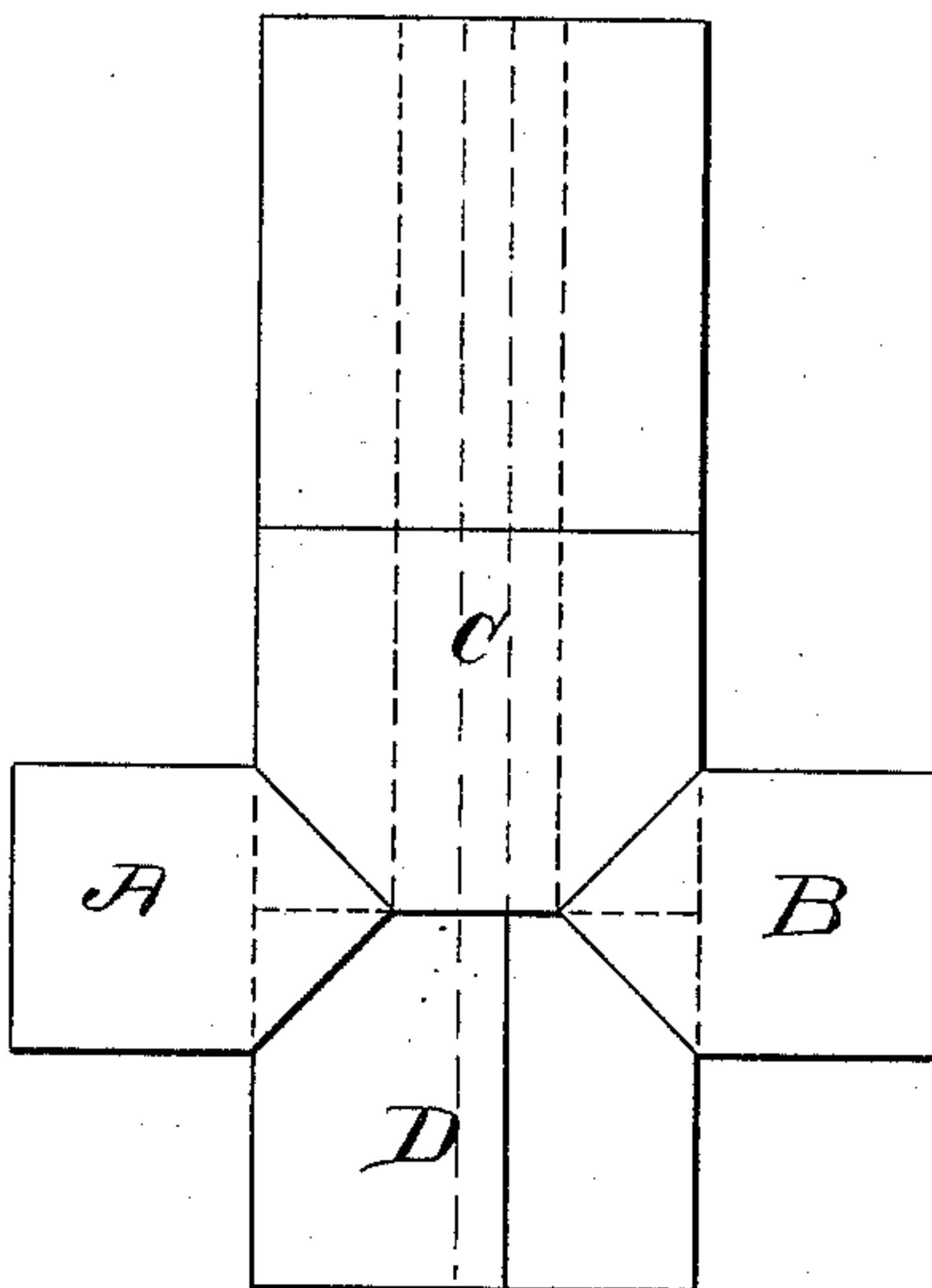


Fig. 4

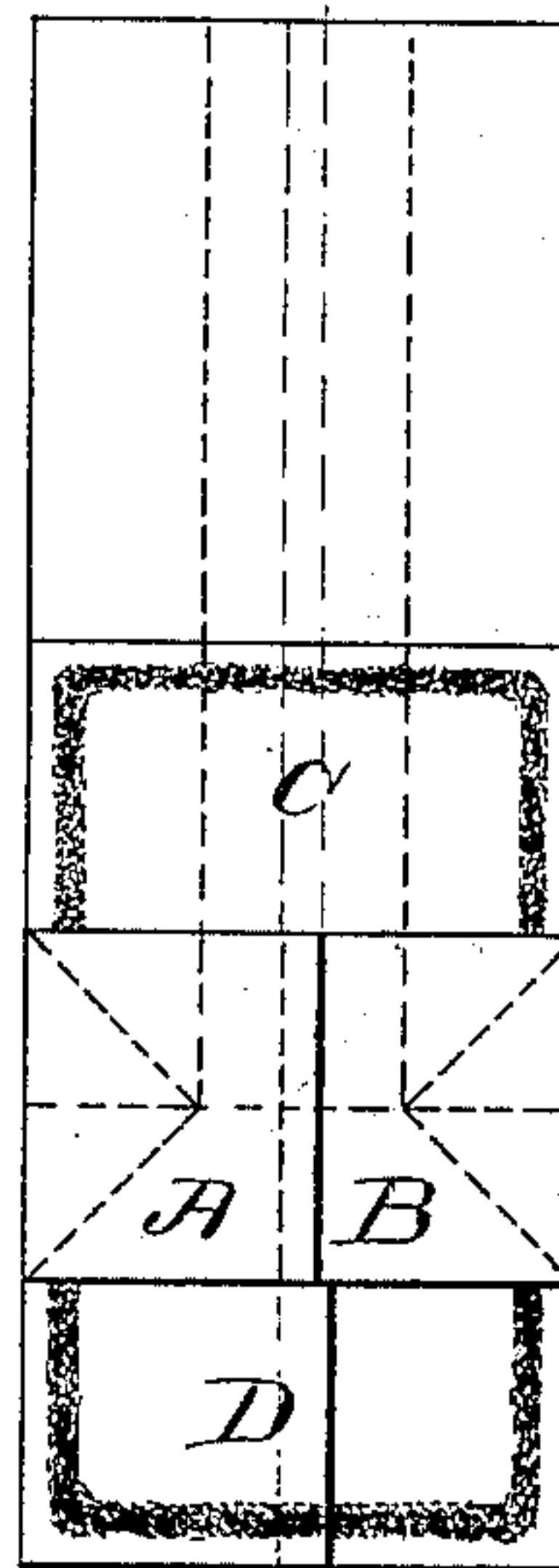


Fig. 2



Fig. 5

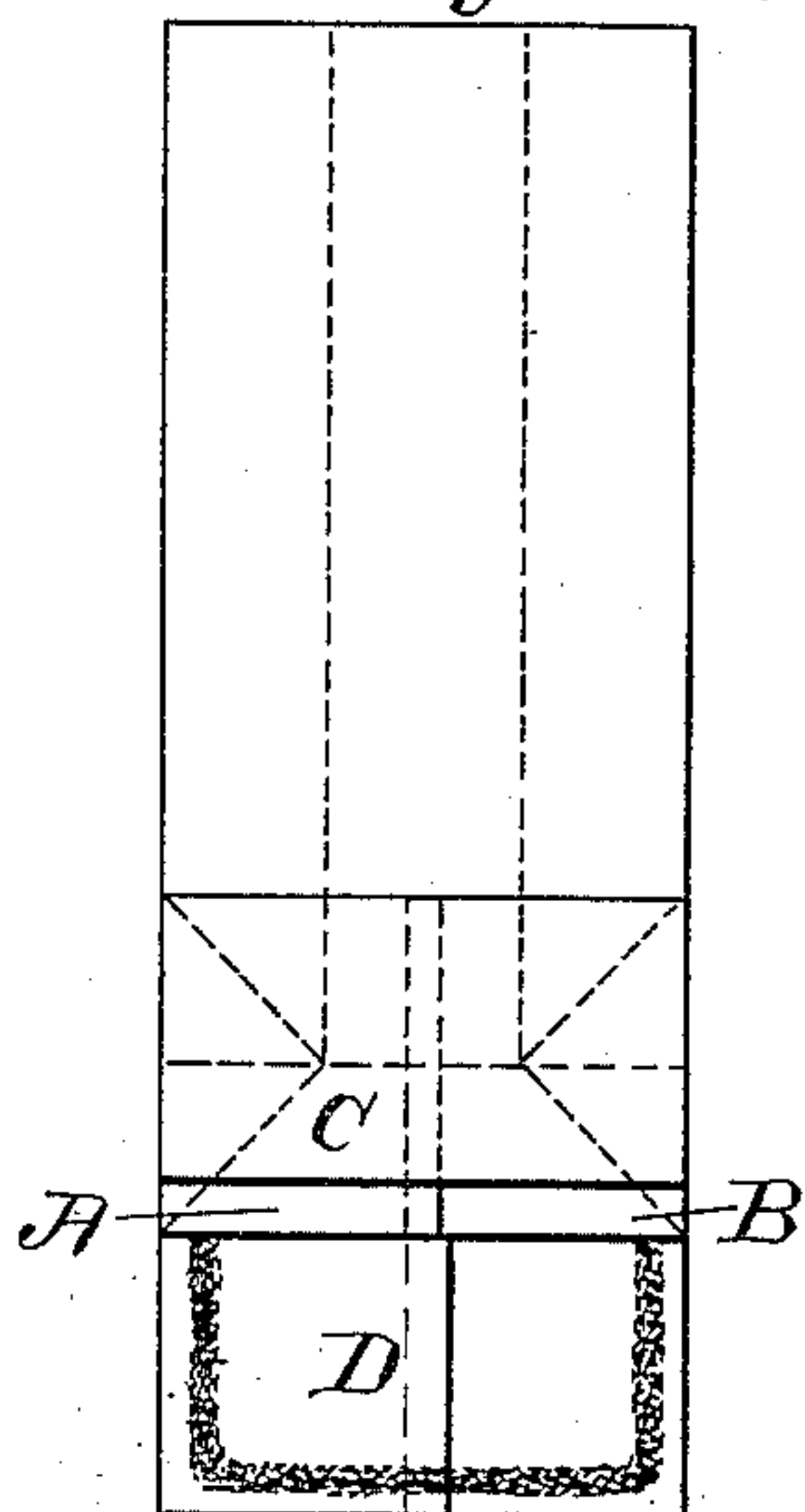


Fig. 6

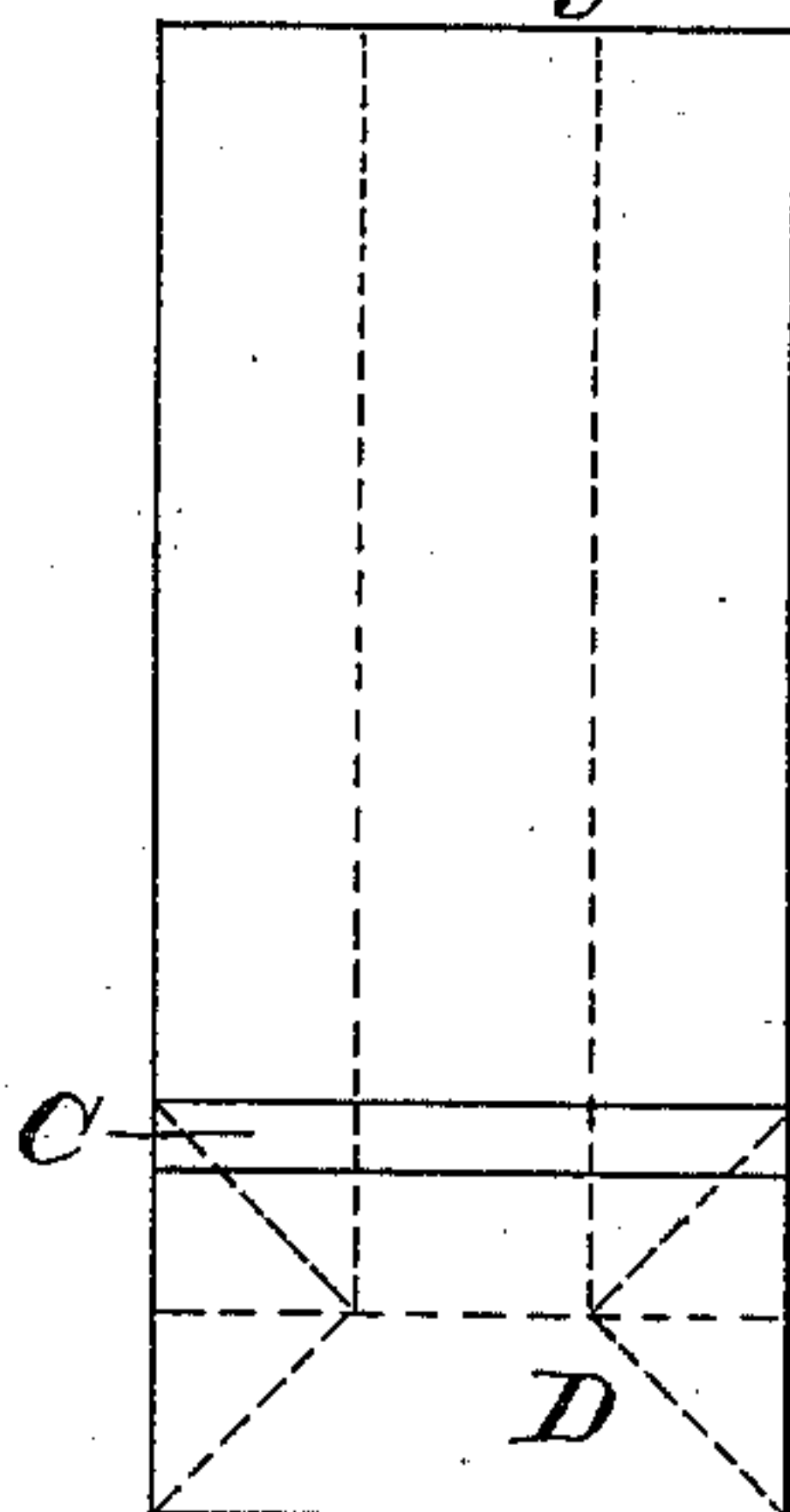
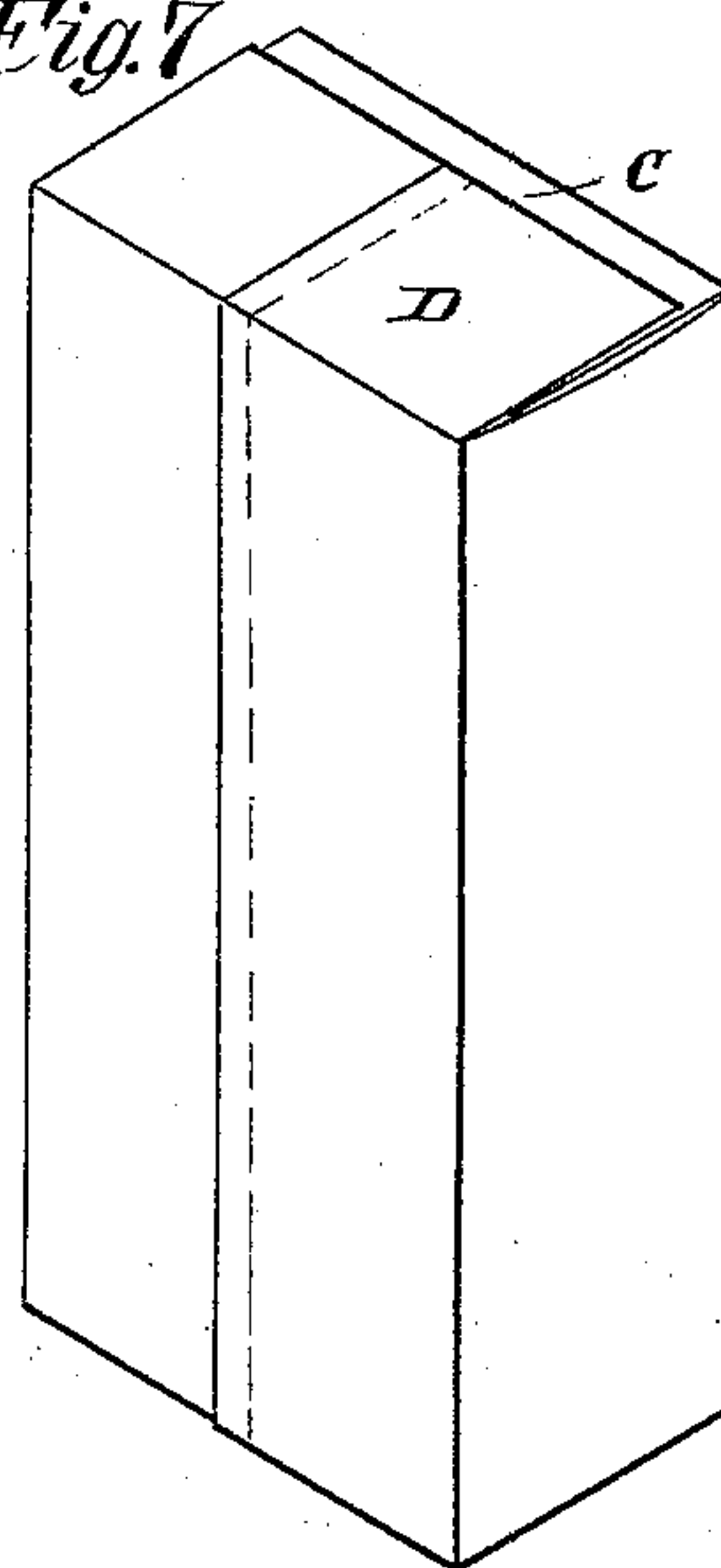


Fig. 7



Witnesses:

John St. White.

Harry R. Williams.

Inventor:

Felix W. Leinbach.
by Albert H. Walker his Attor.

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Fig. 8

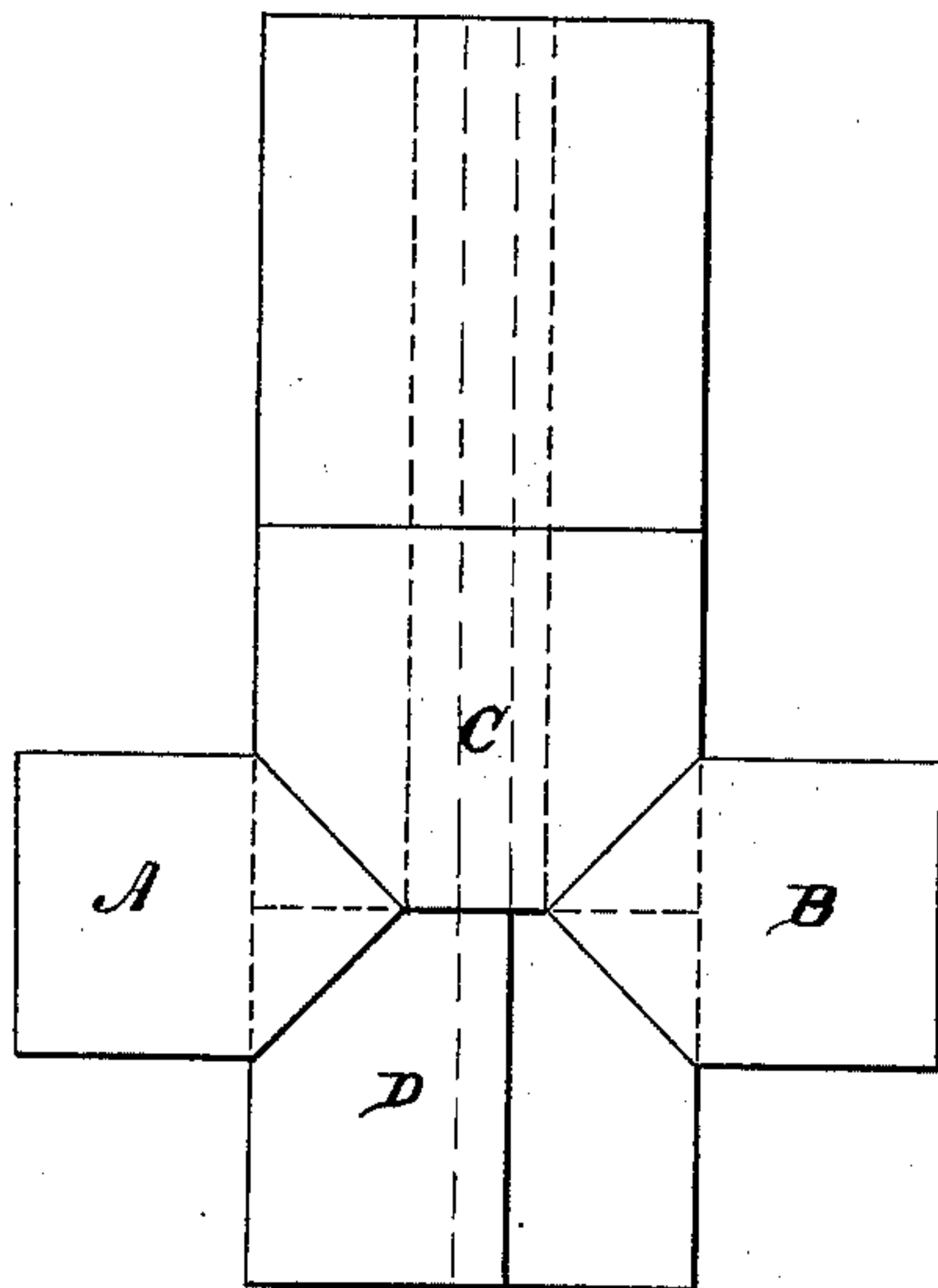


Fig. 9

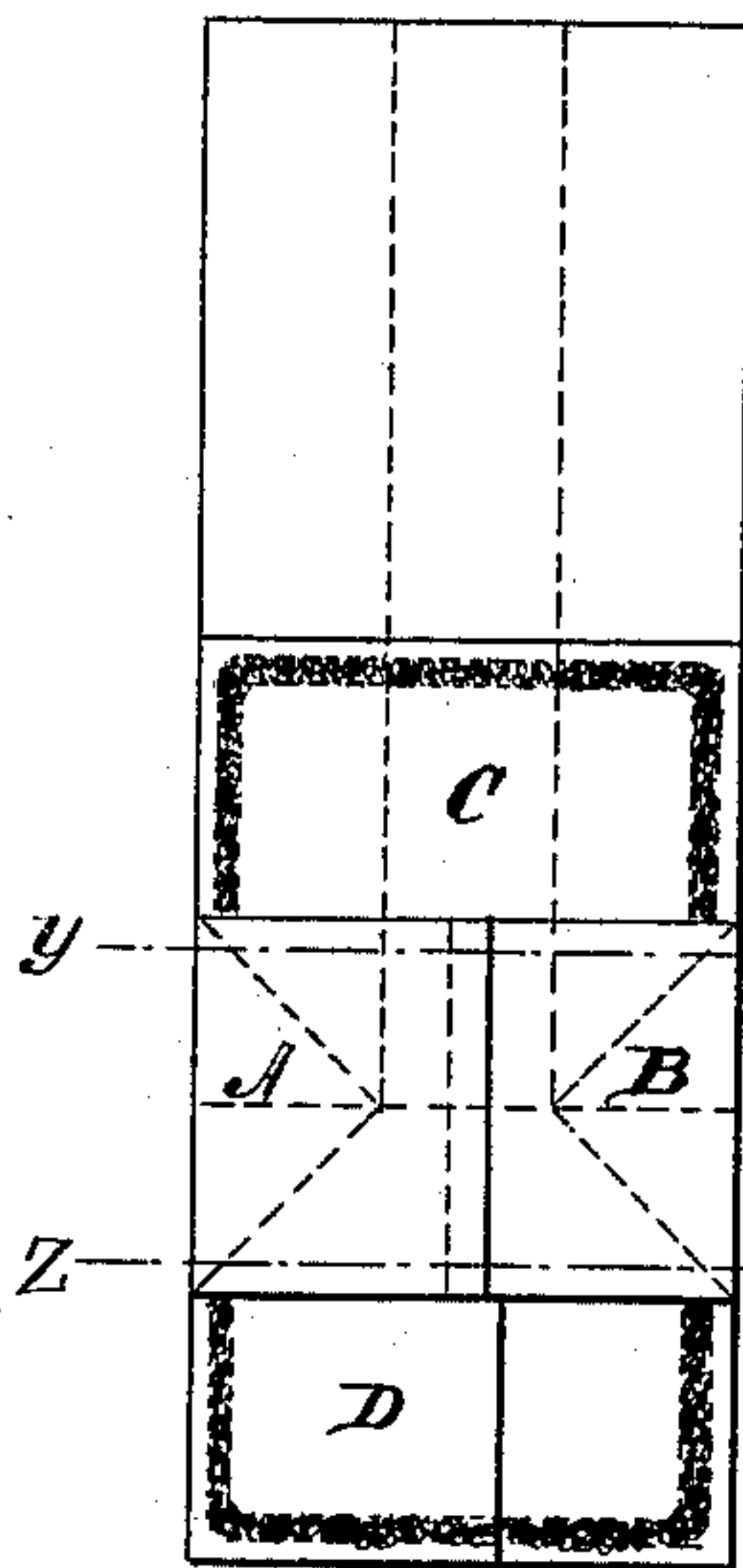


Fig. 10

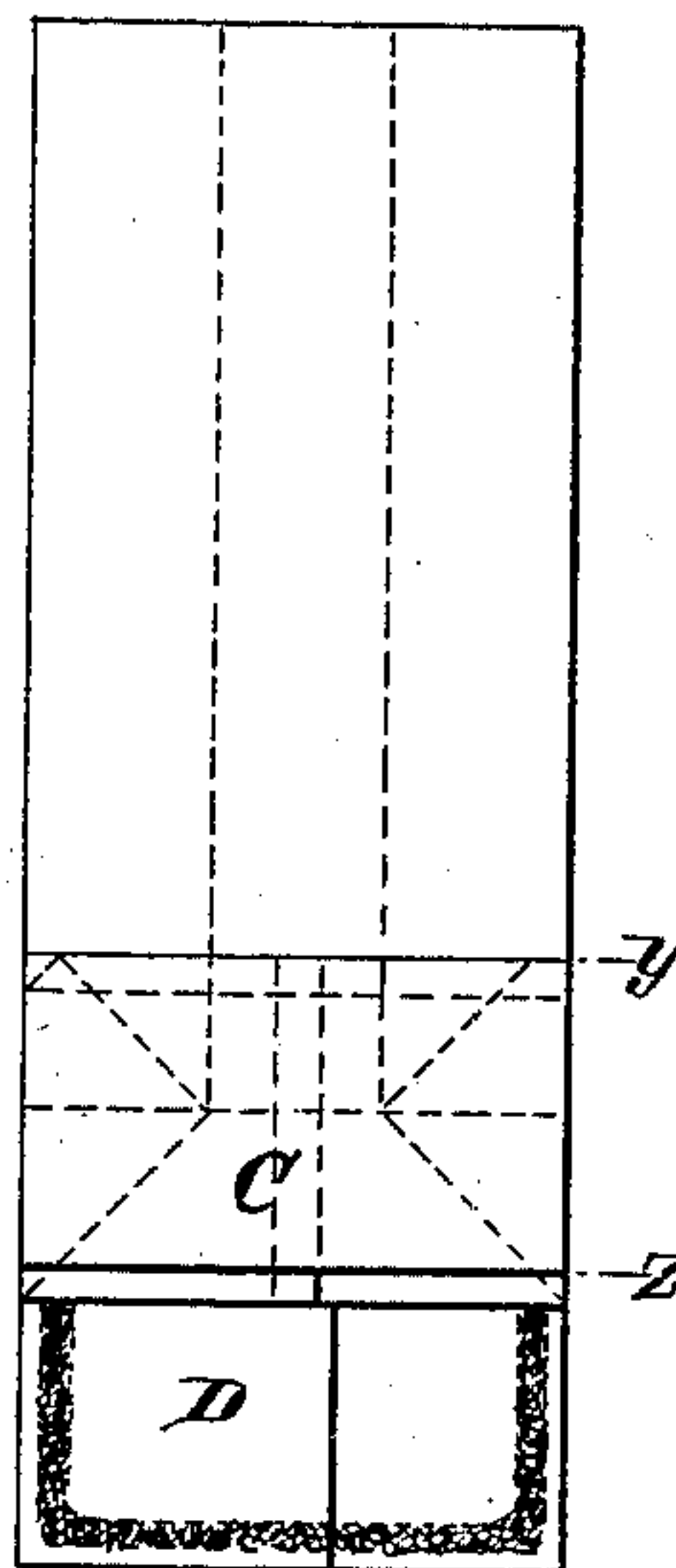


Fig. 11

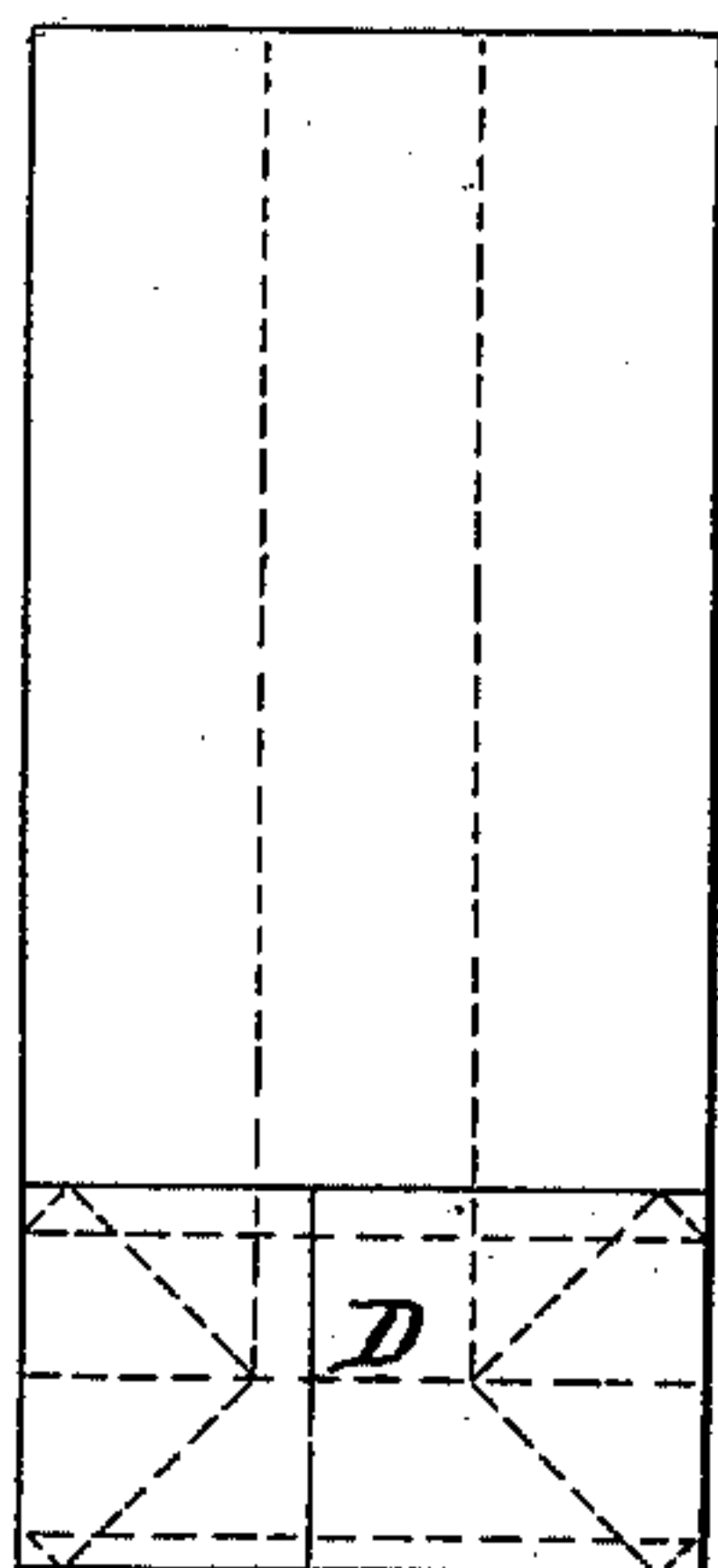
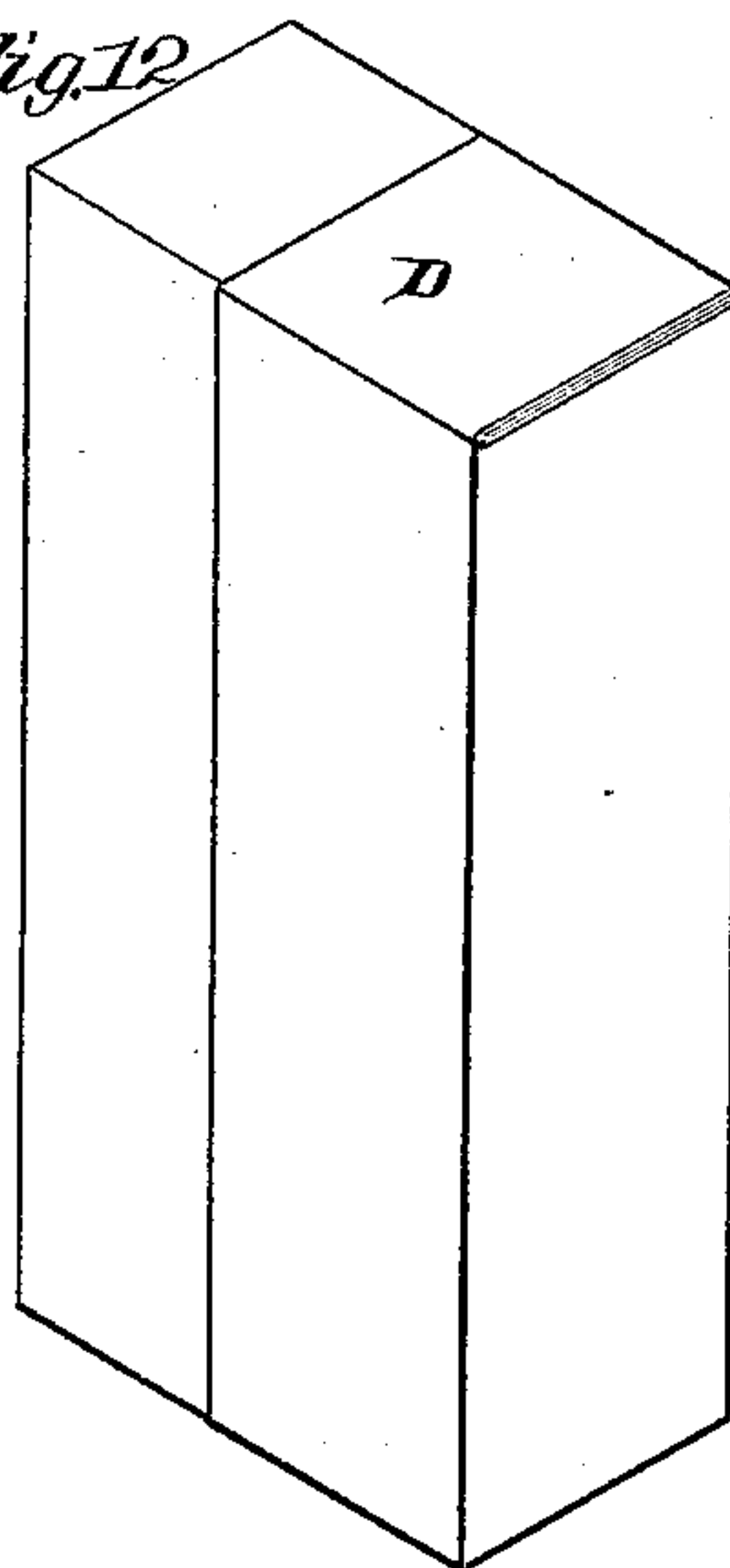


Fig. 12



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UNITED STATES PATENT OFFICE.

FELIX W. LEINBACH, OF BETHLEHEM, PENNSYLVANIA.

PAPER BAG.

SPECIFICATION forming part of Letters Patent No. 391,805, dated October 30, 1888.

Original application filed March 12, 1886, Serial No. 194,961. Divided and this application filed September 10, 1888.
Serial No. 234,980. (No model.)

To all whom it may concern:

Be it known that I, FELIX W. LEINBACH, of Bethlehem, Pennsylvania, have invented an Improvement in Processes for Making Paper
5 Bags, of which the following description and claim constitute the specification, and which is illustrated by the accompanying two sheets of drawings.

This invention is a process for making
10 square-bottom paper bags having inward bel-
lows folds.

Figure 1 is a view of a length of tucked-pa-
per tube. Fig. 2 is a cross-section of the same.
Fig. 3 is a view of a bag-blank which is made
15 by cutting four slits in the lower end of the
tucked tube of Figs. 1 and 2 and then open-
ing out and folding down sundry of the flaps
thus formed. Fig. 4 is a view of the blank of
Fig. 3 with its two side flaps folded back into
20 place and with paste applied to the presented
surfaces of the other two flaps. Fig. 5 is a
view of the blank of Fig. 4 with one of the
latter flaps folded and pasted down in place,
and Fig. 6 is a view of the same with both
25 flaps thus folded and thus pasted and the bag
thus completed. Fig. 7 is a perspective view
of the bag of Fig. 6 opened out for use, but
having its bottom upward in order to show the
final appearance thereof. Fig. 8 is a view
30 identical with Fig. 3. Fig. 9 is a view of the
blank of Fig. 8 with its two side flaps folded
back into place and with paste applied to the
presented surfaces of its other two flaps. Fig.
10 is a view of the blank of Fig. 9 with one
35 of the latter flaps folded and pasted down in
place, and Fig. 11 is a view of the same with
both flaps thus folded and pasted and the bag
thus completed. Fig. 12 is a perspective view
of the bag of Fig. 11 opened out for use, but
40 with the bottom upward to better show its
construction.

To make the bag of Fig. 6, a length of tucked-
paper tube like that of Fig. 1 is taken and lon-
gitudinal slits are cut in its outer bends at the
45 points indicated by the short lines *a a a a* in
Fig. 2. These slits terminate at the points in-
dicated by the short lines *b b* in Fig. 1. Then
the bottom of the tube is opened out and the
upper wall thereof is folded back on the trans-
50 verse dotted line *x x* of Fig. 1. That opera-

tion causes the formation of the blank of Fig.
3, having the four flaps A, B, C, and D. Then
the flaps A and B are folded down on lines co-
incident with the sides of the flaps C and D, and
after paste has been applied to the latter, as
55 shown in Fig. 4, the flaps C and D are suc-
cessively folded down on lines coincident with
the sides of the flaps A and B.

The bag of Fig. 11 is made in all respects
like that of Fig. 6, except that the folds C and
60 D in it are folded, finally, down upon the dotted
lines *y y* and *z z*, respectively, instead of upon
lines coincident with the sides of the flaps A
and B. This latter method of folding surely
closes the minute openings which otherwise
65 are apt to exist at the four corners of the bot-
tom of the completed article. The bag of Fig.
11 is therefore better than the bag of Fig. 6 in
that single respect, while the last-mentioned
bag is better than the other in respect that the
70 width of its bottom is coextensive with the
thickness of the opened bag, whereas the width
of the bottom of the bag of Fig. 11 is some-
what less than the thickness of that bag when
opened out.

The merit of this invention as compared
with prior processes of making square-bottom
bags resides in the ease with which it is per-
formed and in the uniform distribution of pa-
per throughout all parts of the bottom of the
80 resulting bag.

I do not herein claim the paper bag which I
describe and show, because I do claim it in my
application, No. 194,961, for Letters Patent of
the United States of America.

I claim as my invention—

That process of making a square-bottom pa-
per bag from a length of tucked - paper tube
which consists in cutting four slits in the lower
ends of the outer bends of the tube, and then
90 in opening out the lower end of the tube into
the form shown in Fig. 3, and then in folding
down and pasting together the four rectangular
flaps A, B, C, and D, all substantially as de-
scribed.

FELIX W. LEINBACH.

Witnesses:

J. B. KEMERER,
ROBT. H. WOLLE.