

(No Model.)

D. S. CLARK.  
ANGULAR PAPER BOX.

No. 356,747.

Patented Feb. 1, 1887.

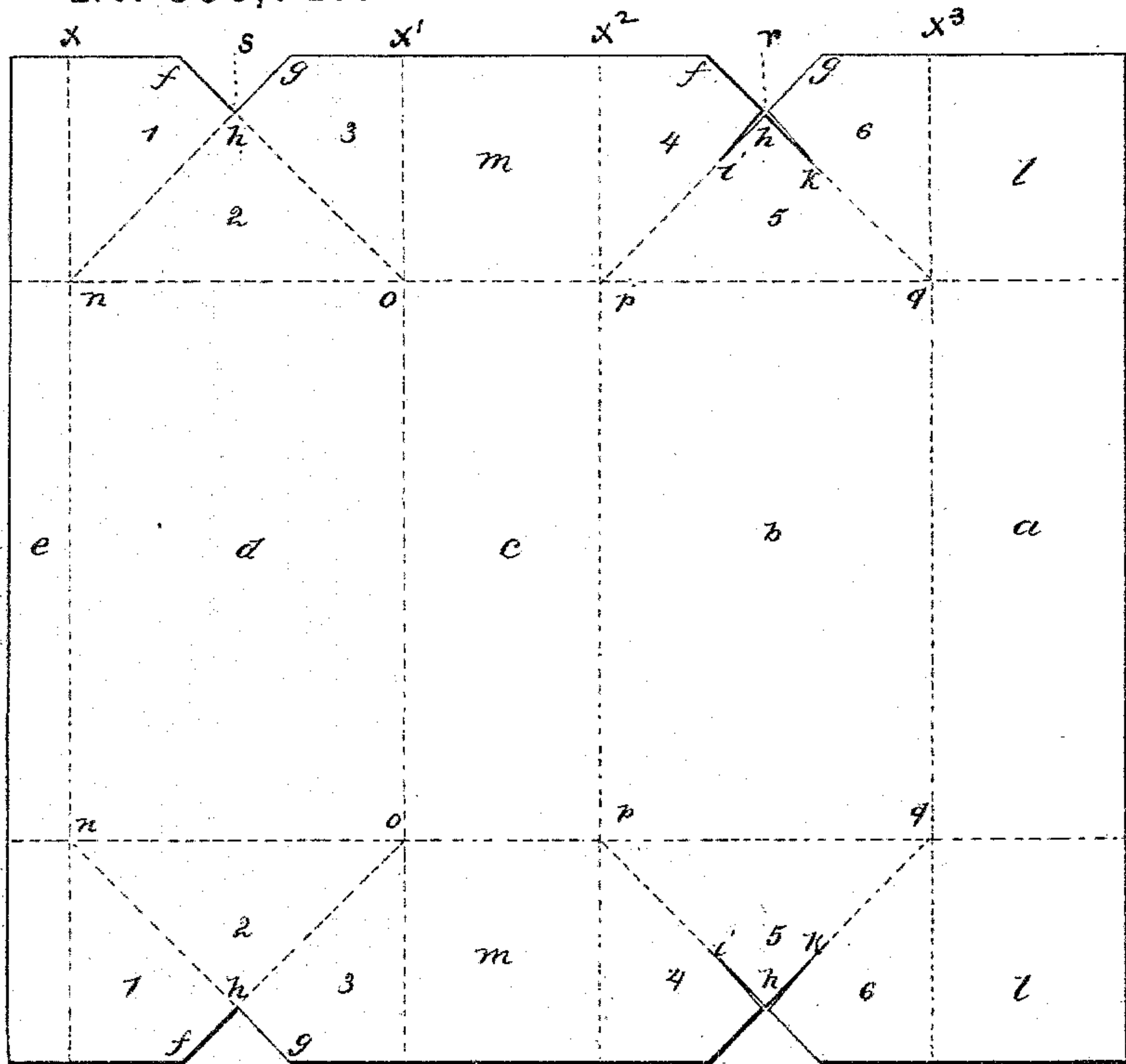


Fig. 1.

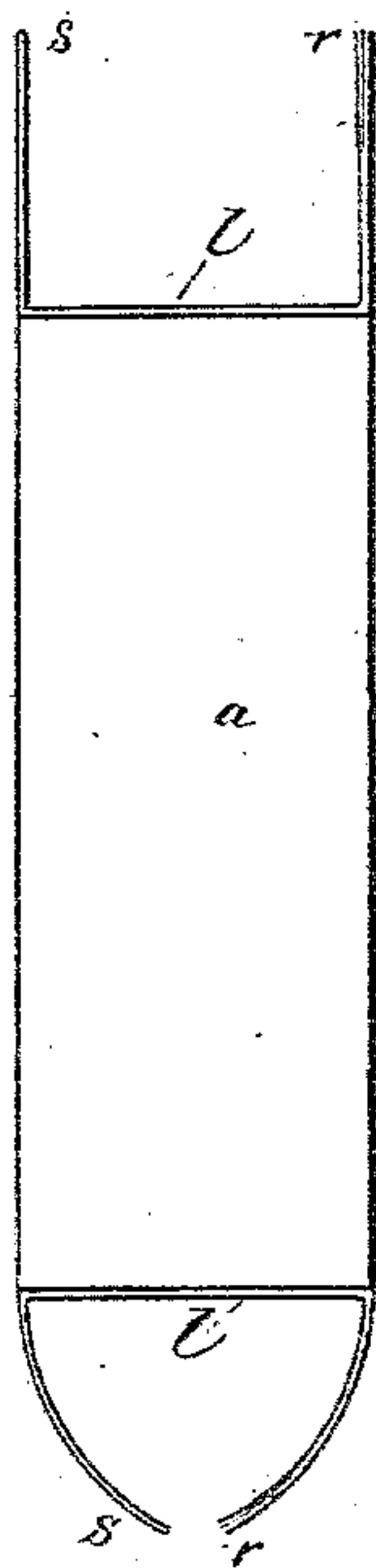


Fig. 2.

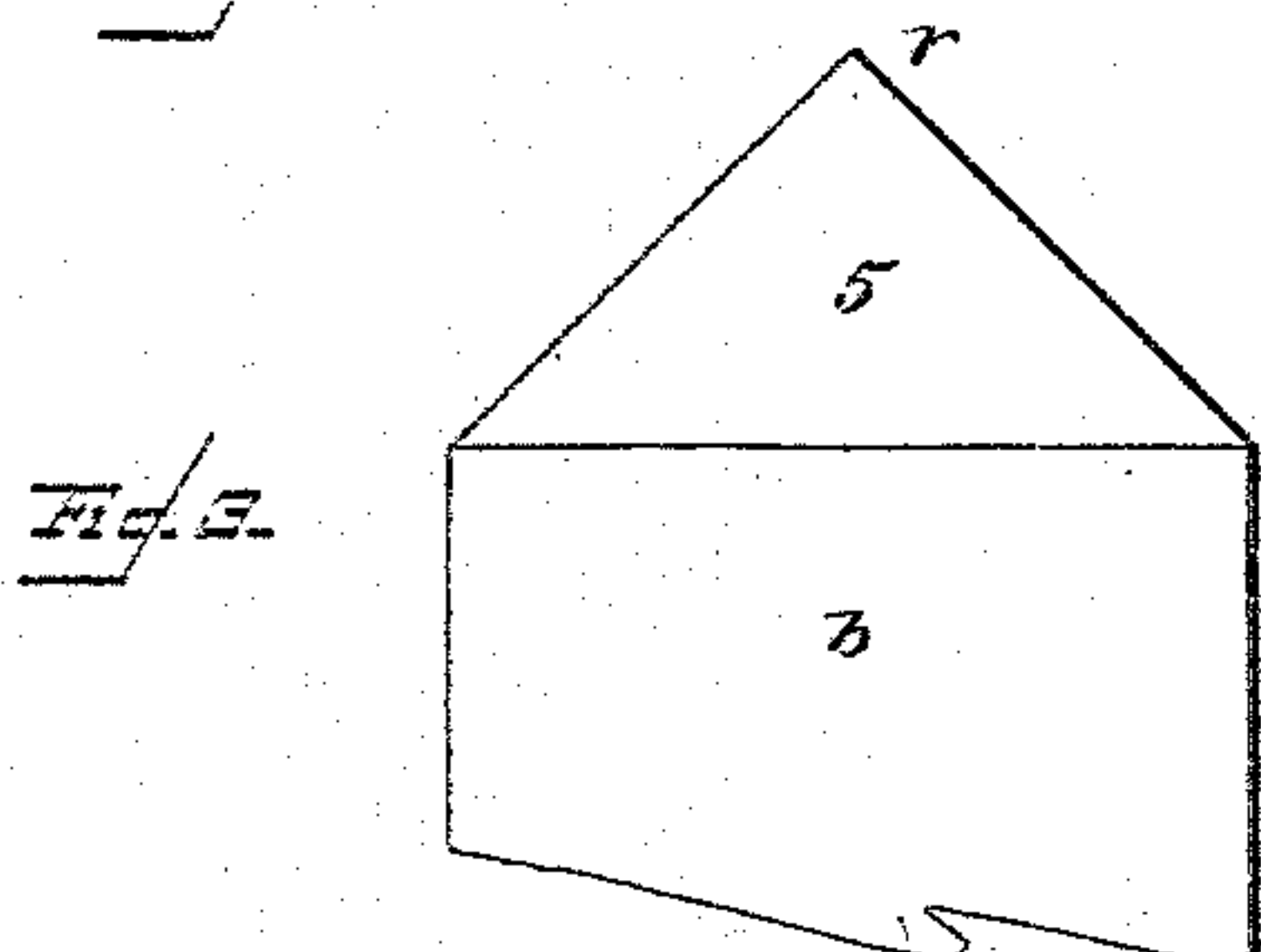


Fig. 3.

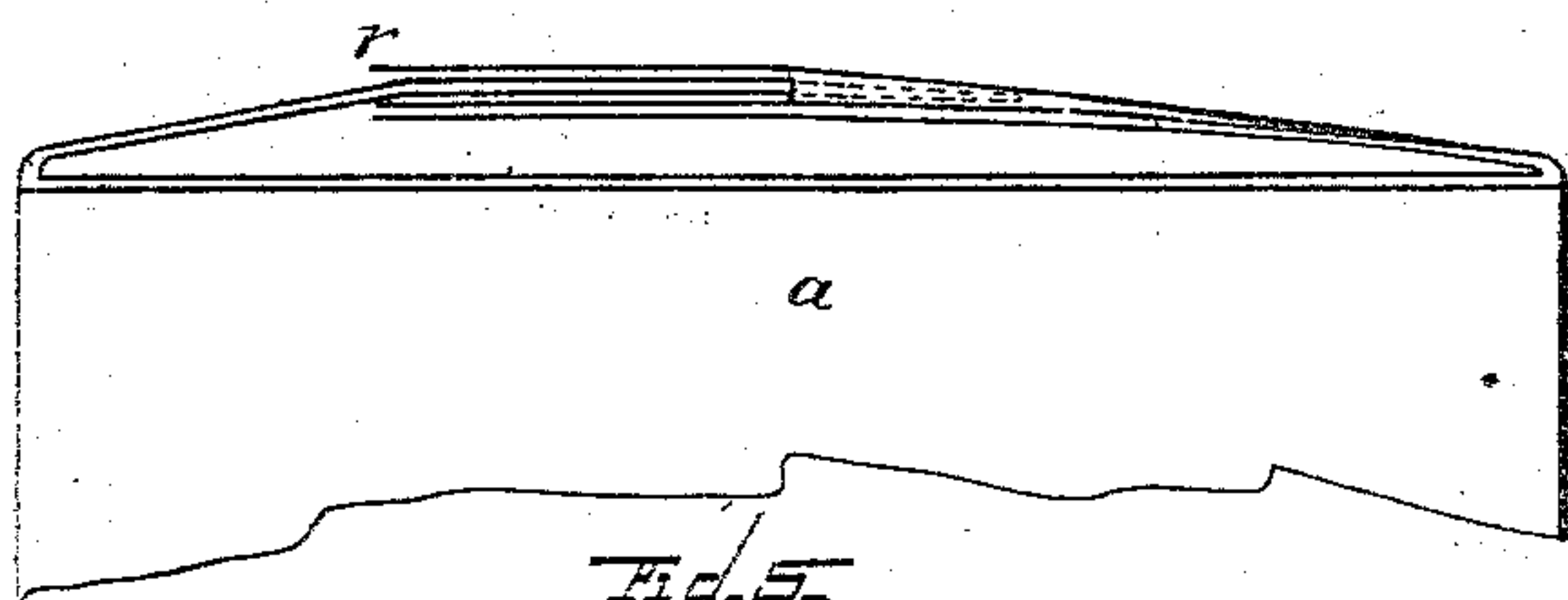


Fig. 4.

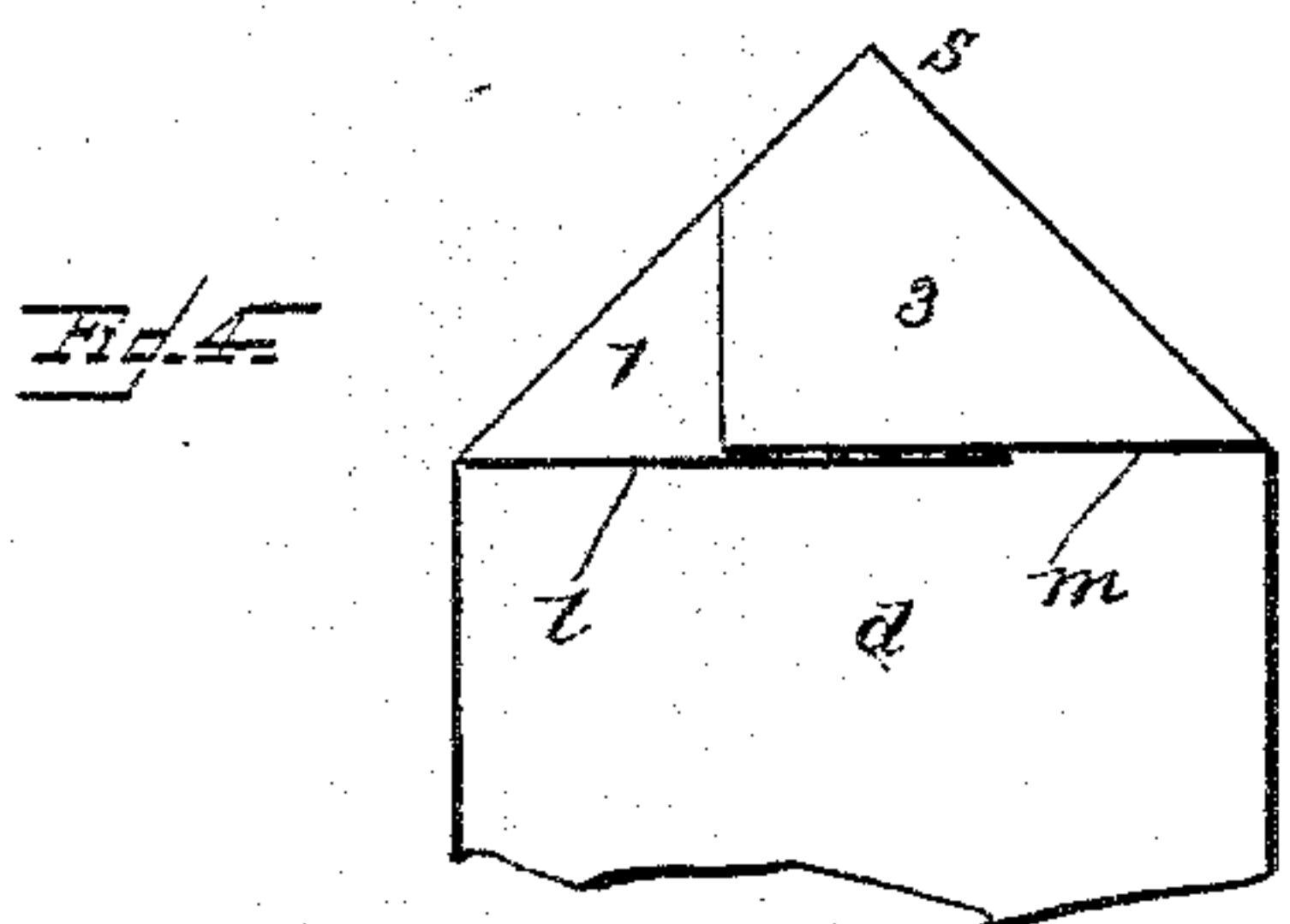


Fig. 5.

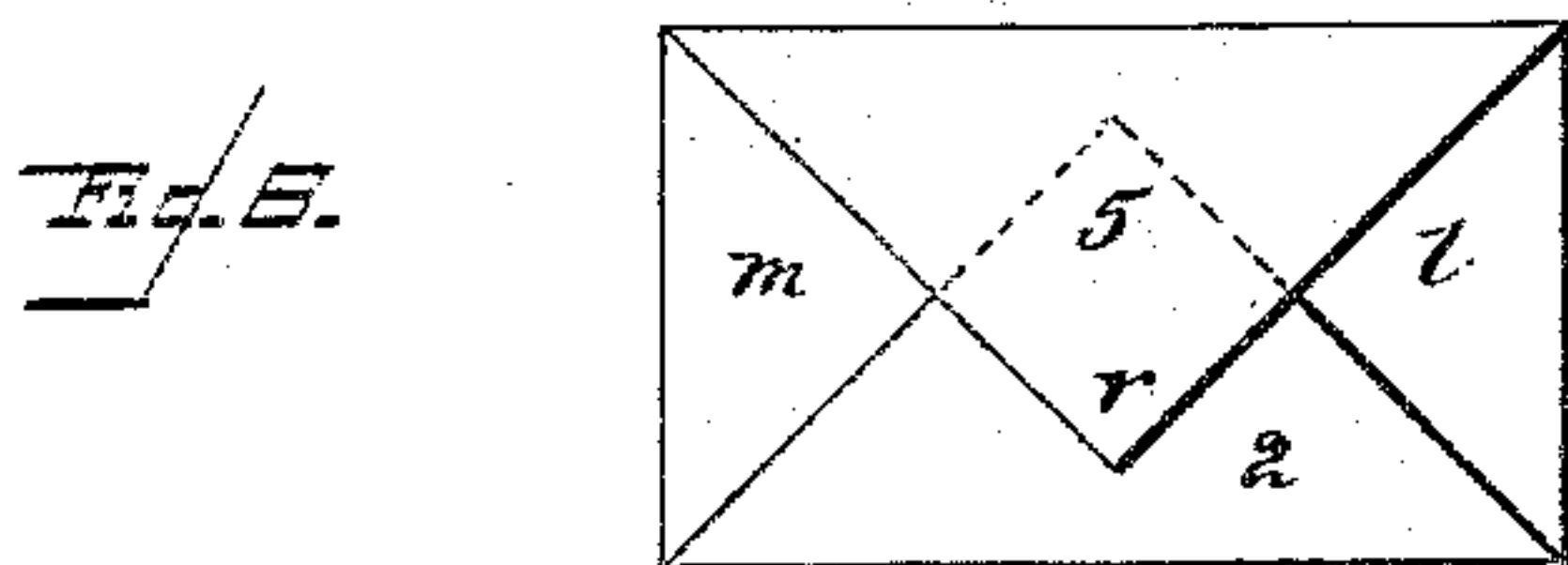


Fig. 6.

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## ANGULAR PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 356,747, dated February 1, 1887.

Application filed July 17, 1886. Serial No. 208,259. (No model.)

*To all whom it may concern:*

Be it known that I, DWIGHT S. CLARK, a citizen of the United States, residing at Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Angular Paper Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to that class of folded paper or card-board boxes which are used for packing finely-divided or ground substances—such as starch, oatmeal, washing-powders, &c.; and its object is to provide a receptacle which may be readily and securely closed.

In the accompanying drawings, Figure 1 shows the blank from which the box is made. Fig. 2 is an elevation of the narrower side, the ends being partially closed. Fig. 3 is a similar elevation of the wider side. Fig. 4 shows part of the box in section and the inner surface of one of the folded points before closing it finally. Fig. 5 is a side elevation of the narrow side, similar to Fig. 2, save that it is greatly magnified and shows the flaps all folded, though not pressed down flat and tight. Fig. 6 is an end view of the closed box.

The blank delineated in Fig. 1 has a generally rectangular shape, and when formed into a box it is folded (as will be hereinafter described) upon the dotted lines. To facilitate this said lines are scored or indented upon the blank when or after it is cut from the sheet, a suitable die being used for that purpose. The lines upon which the notches and slits  $h i$  and  $h k$  are cut are those sides of right-angled triangles  $n g x$ ,  $n f x$ ,  $p g x$ ,  $q f x$ , &c., which are opposite their right angles, each notch occupying that space which is common to two such triangles, as is clearly shown in Fig. 1, where each hypotenuse of these triangles is represented by one edge of the notch and an extended dotted line terminating at the points  $n o p q$ , respectively. The four quadrilateral spaces marked, respectively,  $a$ ,  $b$ ,  $c$ , and  $d$  form the sides of the box. The fifth space,  $e$ , is a strip for pasting purposes only, and has its outside attached to the inner surface of  $a$ , when the box is made up, in the well-known way.

All above and below these five spaces is made use of for the construction of the ends of the box. It will be seen that from the top and bottom edges of the paper four triangular notches are cut out, (lettered  $f g h$ ), and the paper is, furthermore, cut through from  $h$  to  $i$  and from  $h$  to  $k$ , near one notch in the top and one in the bottom edge of the blank.

When the pasting-strip has been made fast to  $a$ , as already explained, each end is closed as follows: One of the flaps,  $l$ , is pressed down to a position at right angles to the length of the box, and over it the other,  $m$ , is then made to lie, as in Fig. 4. In doing this the paper will have been bent on all the dotted lines at that end of the box excepting  $n o$  and  $p q$ , and the result so far will be the formation of two upstanding points consisting each of three thicknesses of paper folded upon itself, said thicknesses being respectively the spaces or fields numbered 1 2 3 to form one point and 4 5 6 to form the other. These folded points are shown at the top end of Fig. 2, in which the partly-folded box is seen from the narrow side, and also in Figs. 3 and 4, in the former of which the elevation is of the wider side of the box and of the folded point  $r$ , while in the latter the box itself is shown in section and the folded point  $s$  in elevation of its inner surface. The point  $r$  differs from that opposed to it (marked  $s$ ) by reason of the slits shown in Fig. 1 from  $h$  to  $i$  and from  $h$  to  $k$ . It is in consequence open for part of its length in a way which is made clear by Fig. 2. The next step in closing the end is to bend the scored or indented lines  $n$  to  $o$  and  $p$  to  $q$ , thereby approaching the folded points, as in the lower part of Fig. 2, and then to enter the point  $s$  into the open slit portion of  $r$  under the outside paper forming that point. As the open or slit part of  $r$  is filled exactly by the unslit point  $s$ , the ends of the box when so put together and pressed down flat will be found to remain closed very firmly; but, if it is desired, paste or glue can be applied to both sides of the folded point  $s$ , which will then make necessary the destruction of the end when it has to be opened.

In Fig. 5 the last stage in the folding and closing of the box is shown greatly magnified,



and before the whole is pressed down flat and close.

In Fig. 6 a plan or elevation of the end after final closing is shown, and in it the dotted lines indicate the position taken by the folded point *s*, inserted under the outside paper forming one thickness of the folded point *r*.

In the drawings forming part of this specification, I have represented in all cases by a single black line the edge of the paper or card-board used in the construction of the box I have invented, whether the same be seen in elevation or section.

Having thus described my invention and the way in which it may be practically carried out, what I claim, and desire to secure by Letters Patent, is—

1. A blank for a rectangular box of paper or card-board having four fields and a pasting-strip for the body, each provided with flaps for the ends of the box and divided from each other and from the flaps by scored lines, scored lines dividing each alternate flap into three sections, as described, similar lines dividing the flaps from each other, a notch in each divided flap, and slits extending from the notches in the divided flaps of one field, substantially as described.

2. A blank for paper boxes, consisting of four fields and a pasting-strip for the body and alternating solid and notched flaps for the

ends of the box, scored lines dividing the fields and flaps from each other, scored lines dividing each notched flap into three sections, and slits upon such lines in the divided flaps of one field, substantially as described.

3. A prismatic paper box consisting of the sides *a*, *b*, *c*, and *d*, the rectangular flaps *l* and *m*, lapping upon each other when laid down to close the end, the scored fields 1, 2, and 3, to form one folded point, and 4, 5, and 6, partly scored and partly slit, to form the other, said points being adapted to lie over the flaps *l* and *m* and to enter one into the other, by which all the parts of the end are retained in place, substantially as and for the purpose described.

4. In the formation of a paper box, two folded points, as *s* and *r*, opposed to each other and extending from the body of the box on opposite sides of the same, one point being slit laterally enough to admit of the insertion of the other into the opening so formed when both are laid flat upon or coincident with the closed end, substantially as and for the purpose described.

In testimony whereof I have affixed my signature in presence of two witnesses.

DWIGHT S. CLARK.

Witnesses:

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