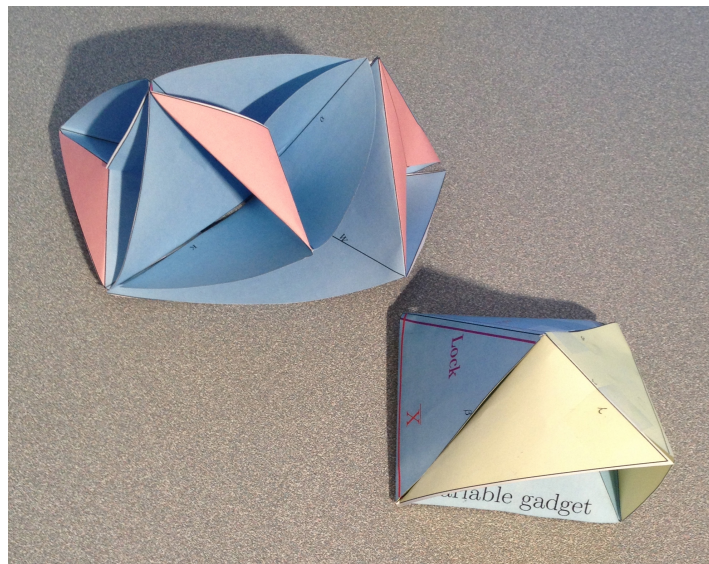


Construction of gadgets

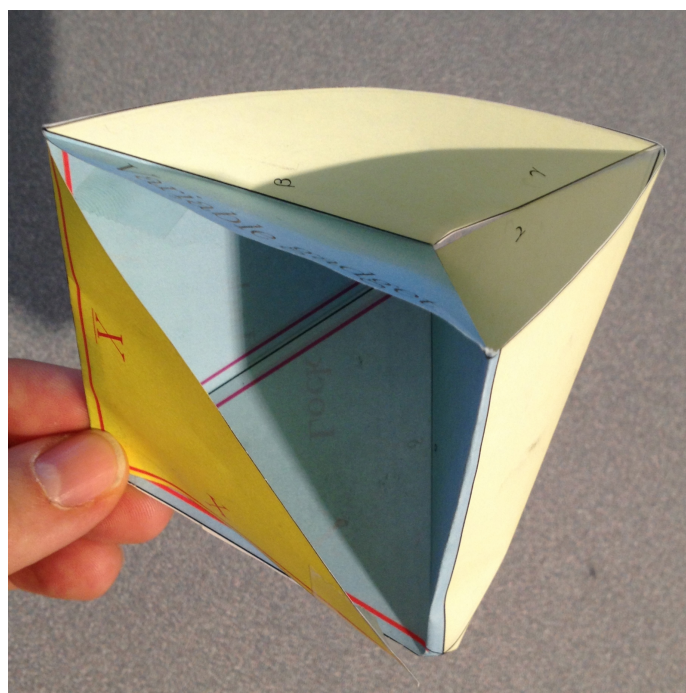


Print this file (A4 recto-verso).

Cut the different models, fold the solid lines convex and the dashed lines concave.

Glue the edges with matching labels or colors together.

variable gadget



clause gadget

The clause gadget is made of three parts that have to be assembled according the labels of edges,

Construction of the non shrinkable and non collapsible complex

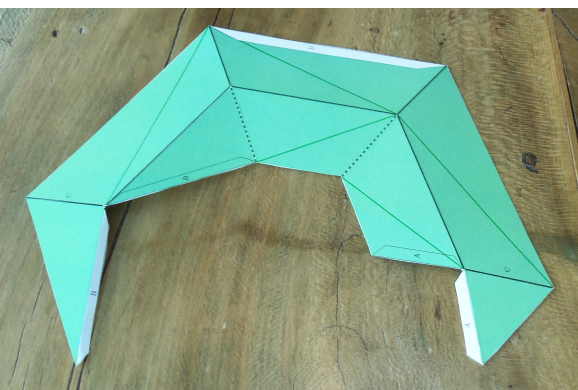
The model is a triangulated Bing's house, so that all edges belong to a blocker.

The model is made of three parts:

the walls of the lower room (pink)

the walls of the upper room (green)

and the limit between the two rooms (blue)



Cut the different pieces.

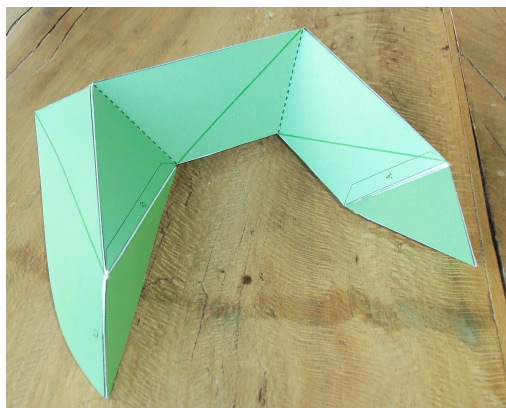
The picture shows the upper room before folding.

The result is much better if the model is rigid enough. Use some card-board and mark the edges to be folded with a cutter.

Fold convex the solid black lines and concave the dashed black lines.

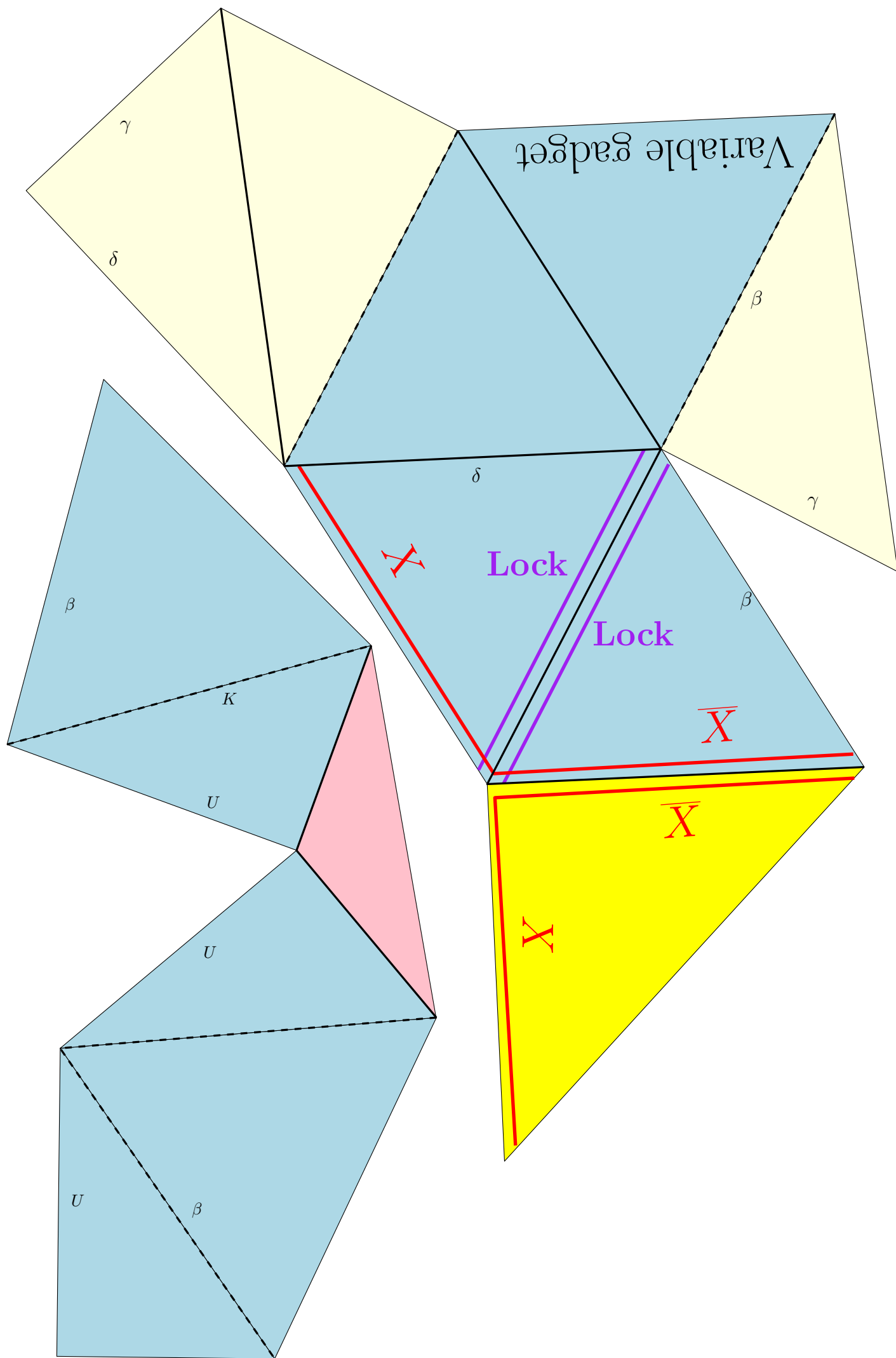
The picture show the upper room folded with edges A and B glued in the relevant way, but degree-4 edge C not yet assembled.

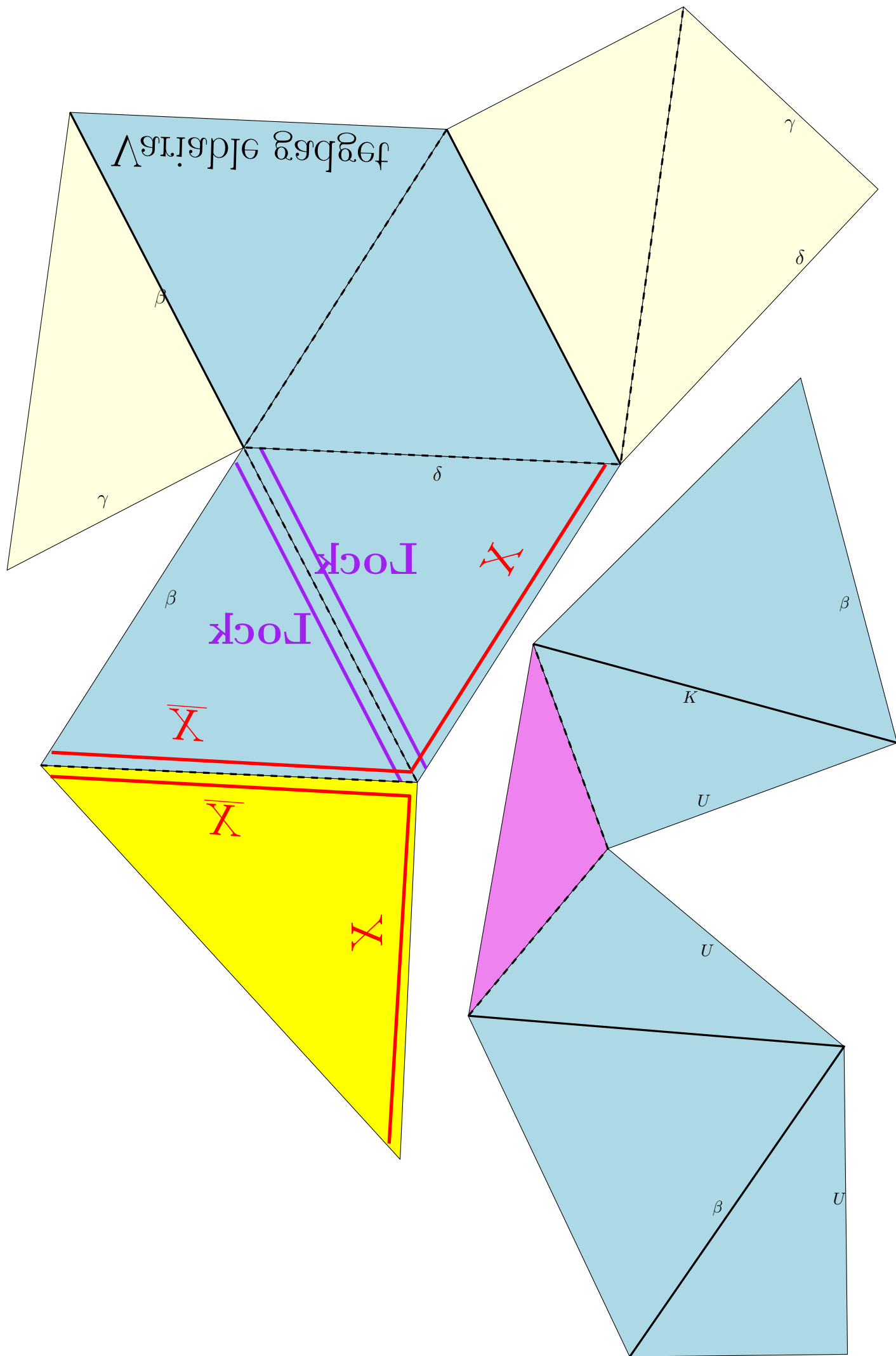
The lower room is identical to the upper room, the limit between the two rooms is flat and does not need to be folded.

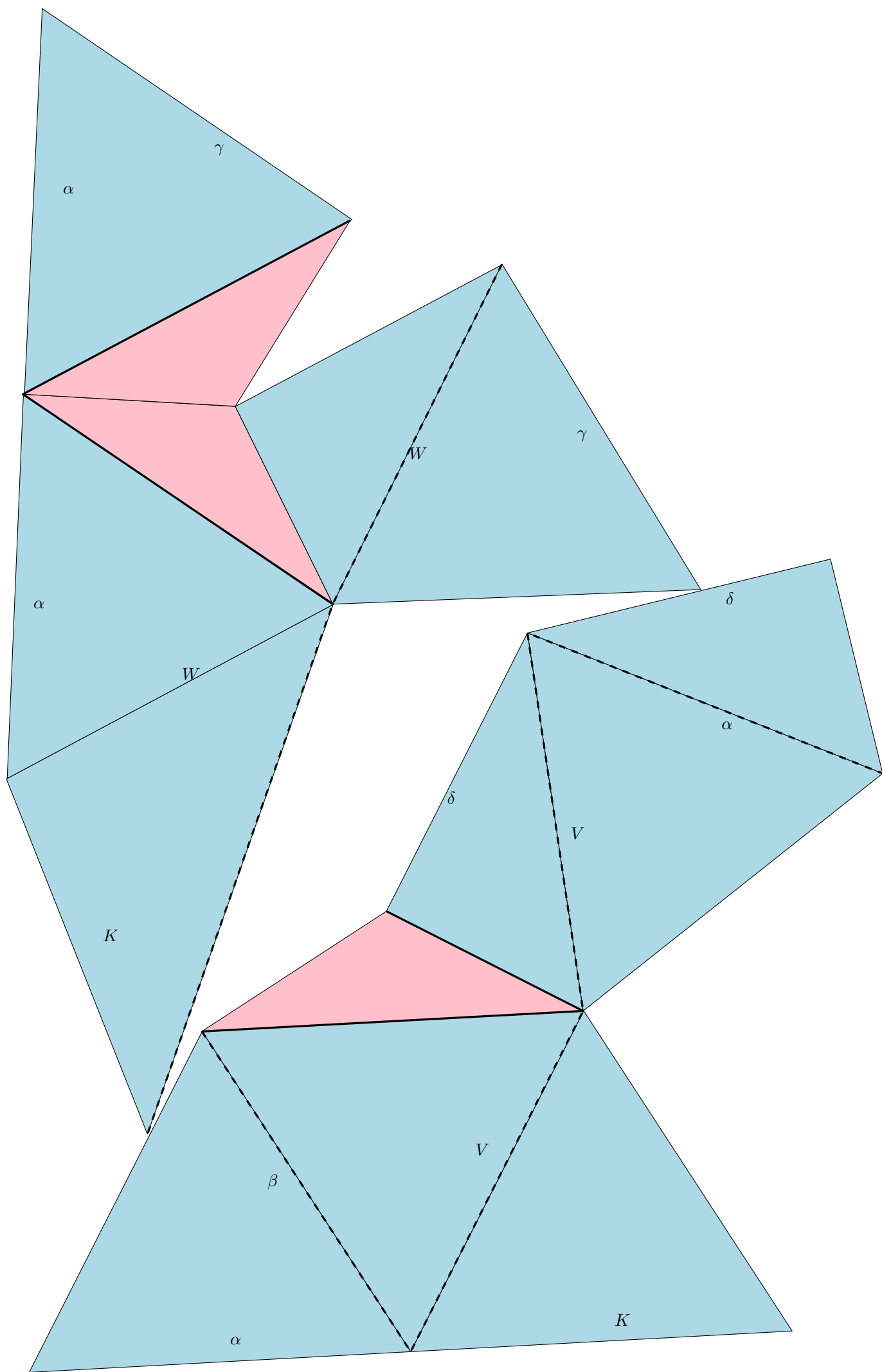


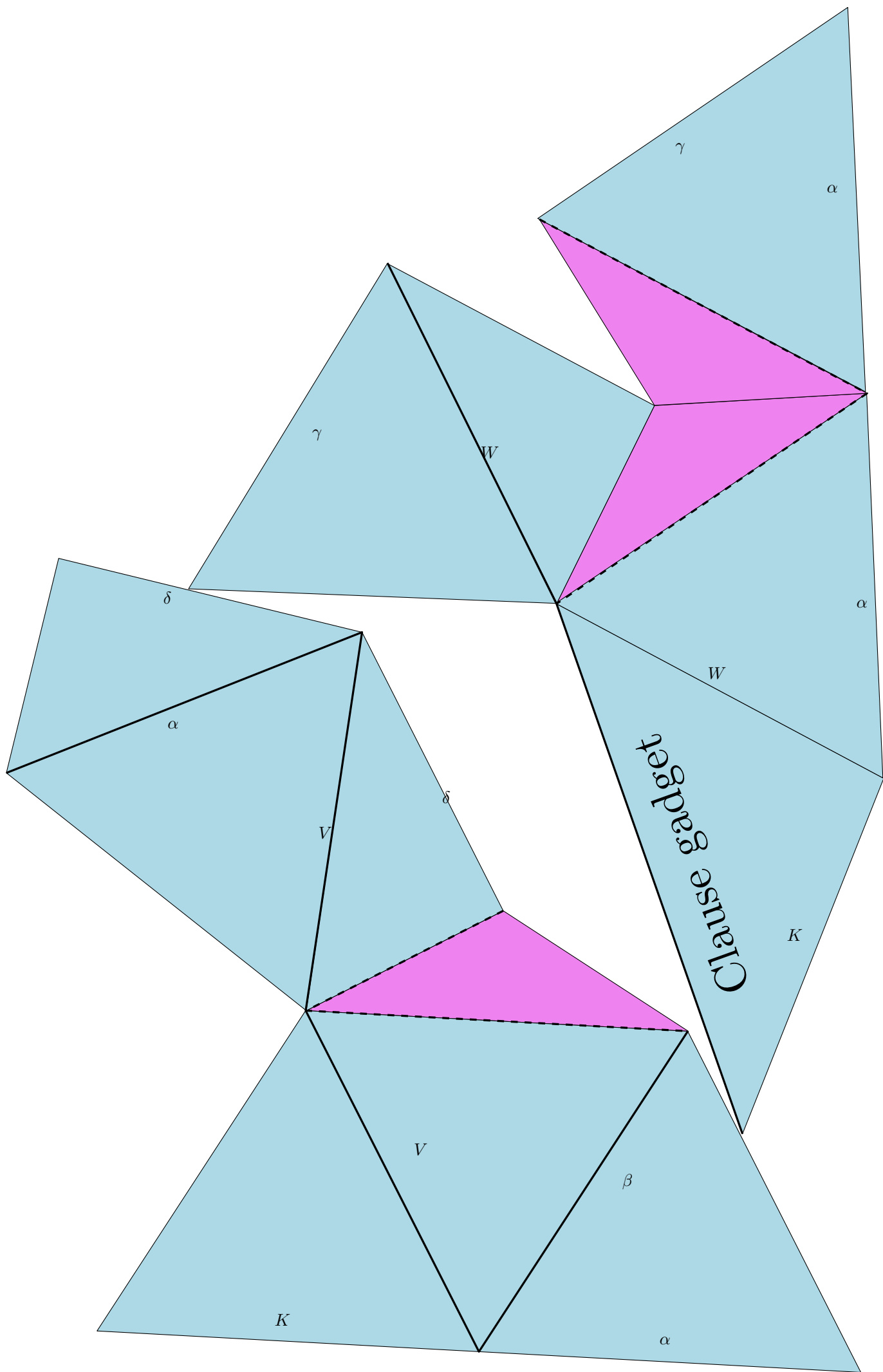
Assemble the three pieces by identifying the three occurrences of edge D .

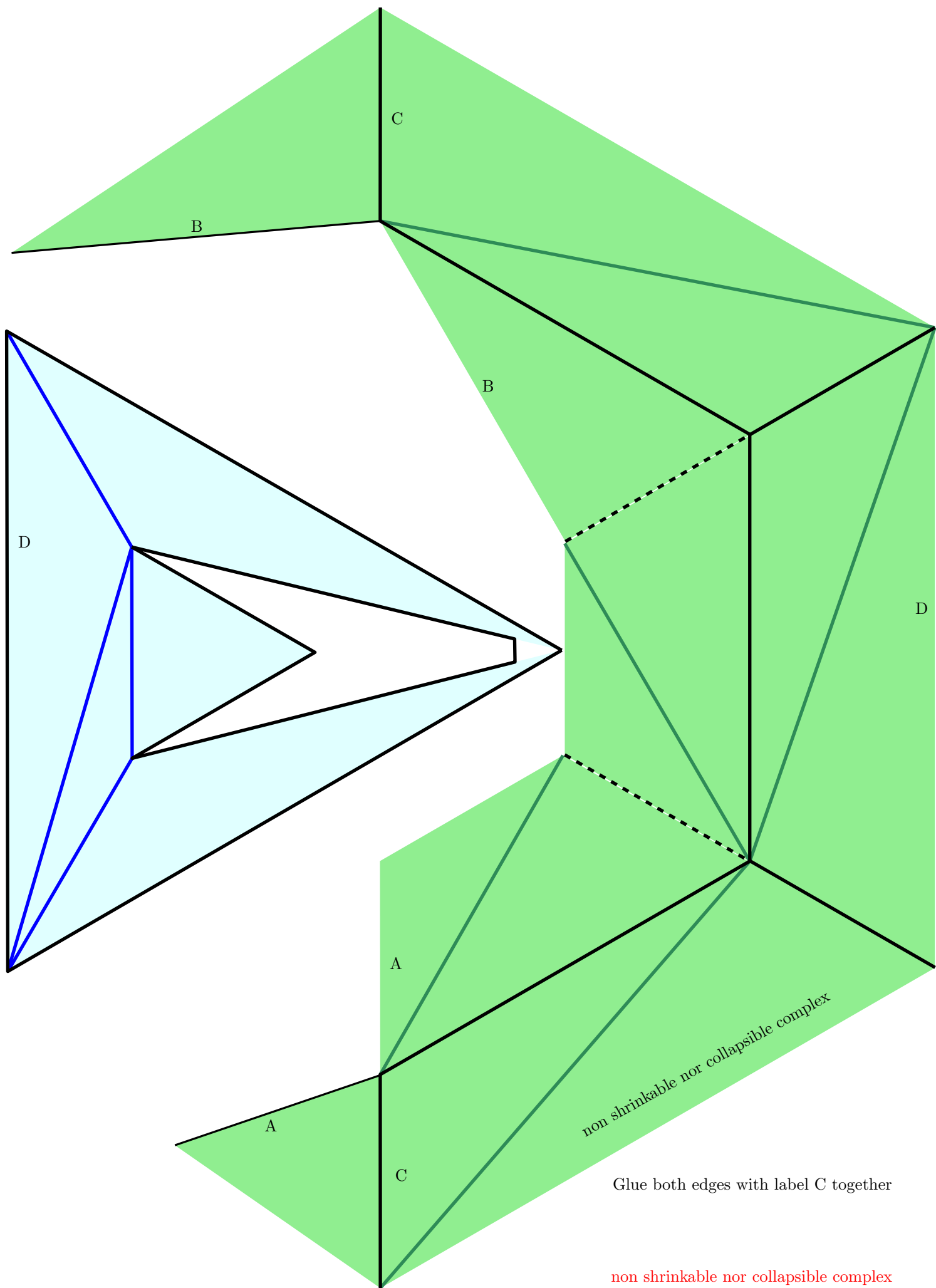
On the picture, the match shows the chimney dug in the lower room to access the upper room.

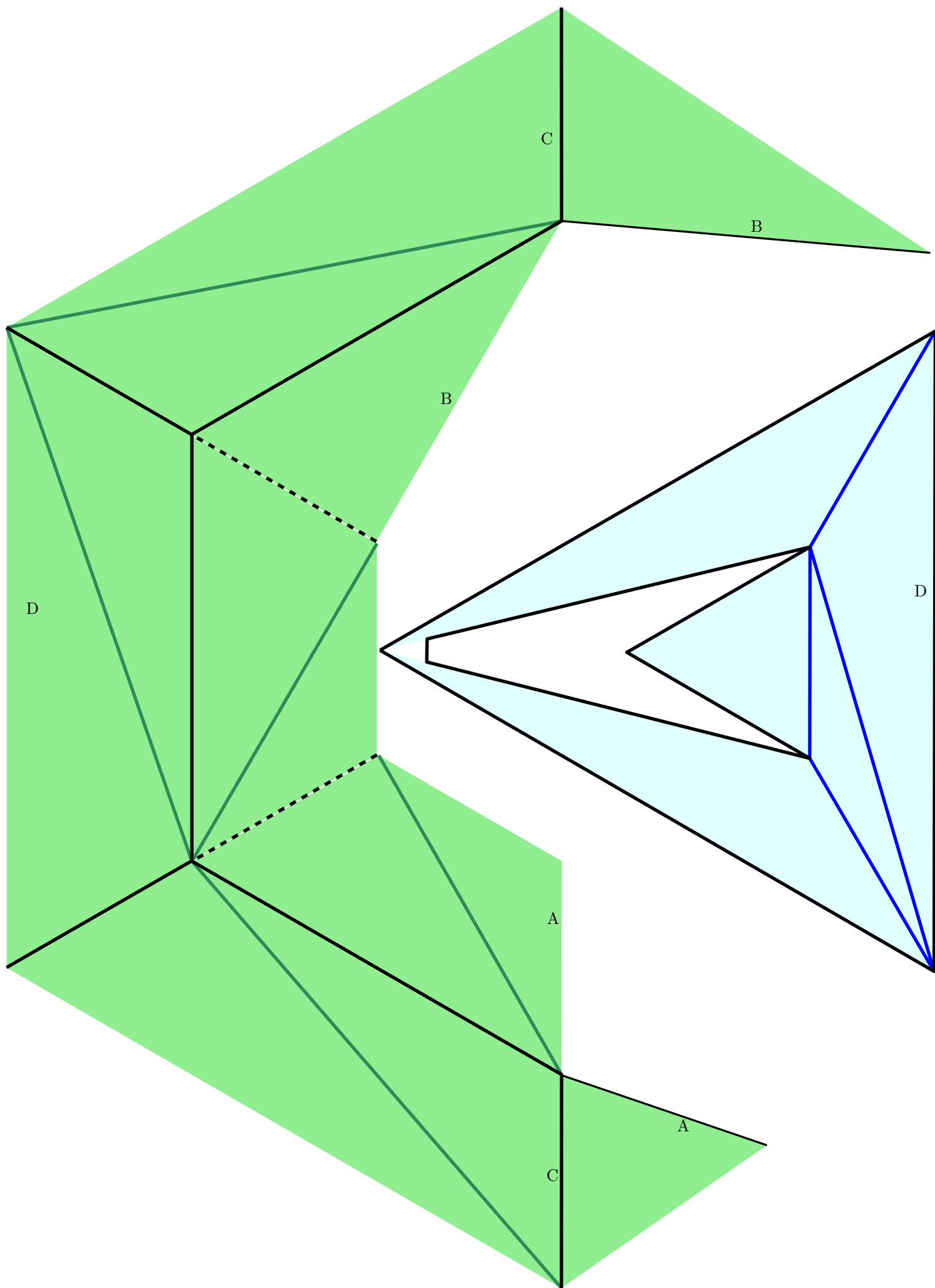


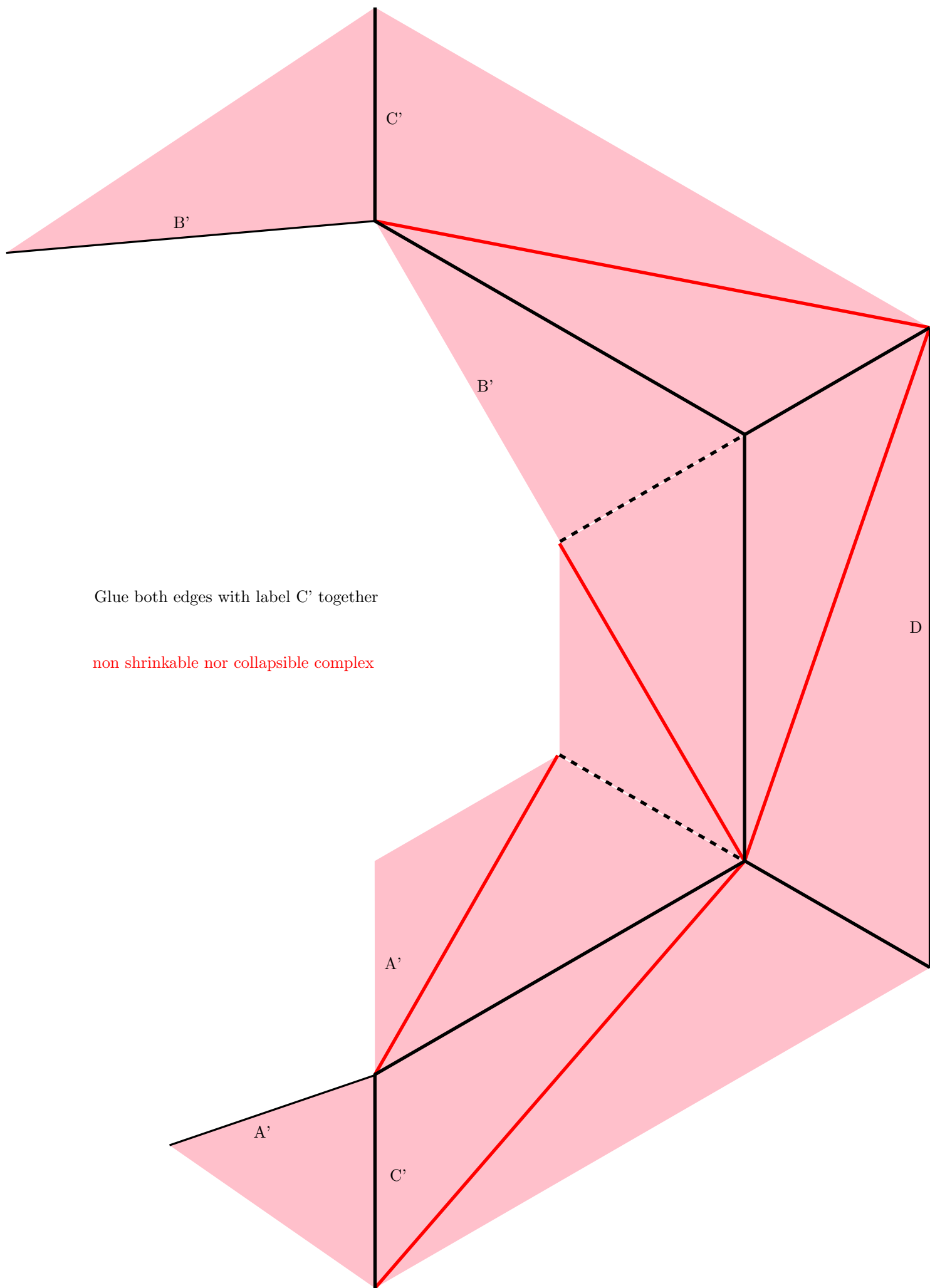












Glue both edges with label C' together

non shrinkable nor collapsible complex

