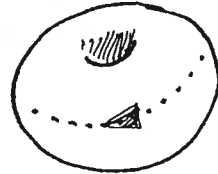
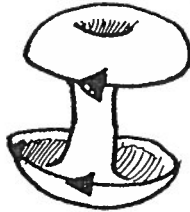
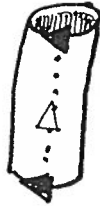
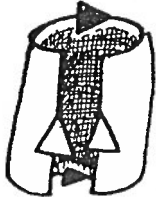
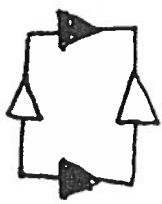




THE FLAT SURFACES



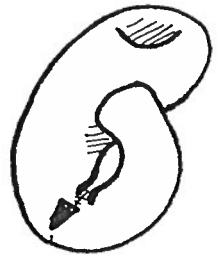
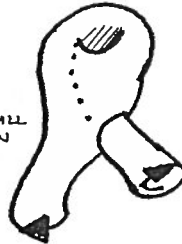
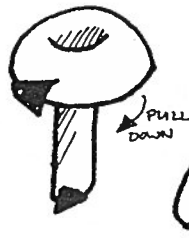
Both the TORUS and the KLEIN BOTTLE can be obtained by Rolling up a square into a tube and fastening the ends



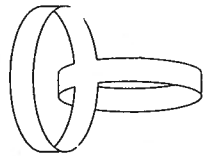
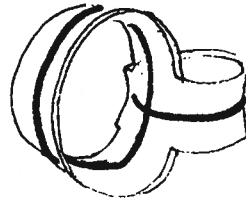
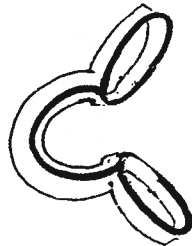
TORUS

KLEIN BOTTLE

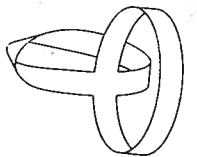
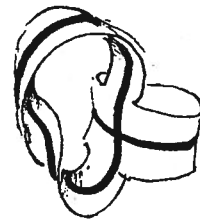
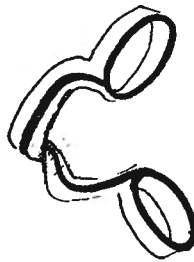
IMPORTANT:
THE ARROWS
SHOW HOW
TO GLUE
THE SIDES



HOWEVER:



This →
requires
a clever
trick of
the
wrist



If we remove the centers of the square before gluing, we can perform the band trick IN REVERSE.

THUS

A torus =



And a Klein bottle =

