## THE INSIDE - OUTSIDE CUBE



This is very ingenious puzzle. Imagine a box white on all sides. Give it a few turns and twists, and it is black on all sides!

Using stiff card sheet cut six squares, with a $5-\mathrm{cm}$ edge. The squares we white on one side, black on the other. Cut two squares along diagonal to make four triangles Fig (1). Using adhesive tape stick the four squares and the four triangles into a W' formation Fig (2). Now bring edges AB and CD together and join them with tape to get a square formation Fig (3). Twisting Fig (3) results in an all white cube shown in Fig (4).

Fold the square in Fig (3) along its middle horizontal line to get the rectangle in Fig (5). Open out the rectangle in Fig (5) on its bottom edge to get a black hexagon Fig (6), which is closed into a rectangle Fig (7). When this rectangle is opened up a large square Fig (8) is obtained, which can be twisted to give an all black cube Fig (9).

It is almost magical how a few turns and twists can turn a six faceted cube completely inside-out.

