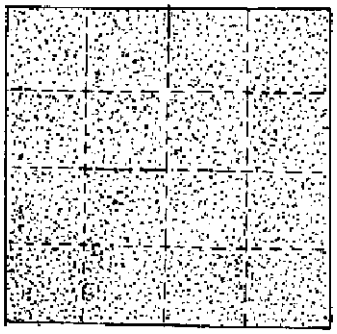

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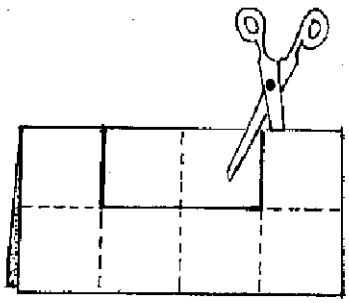

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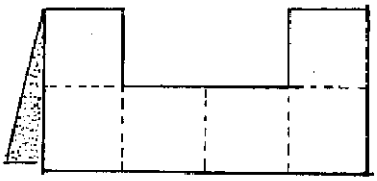

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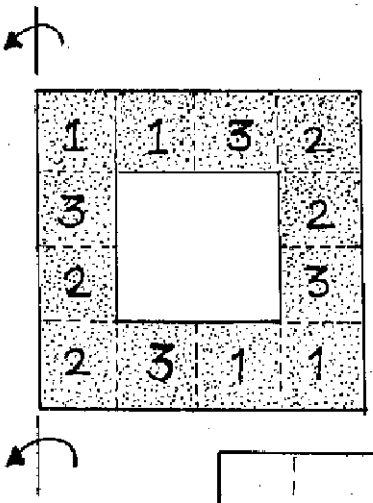

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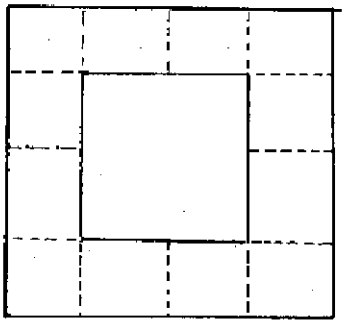

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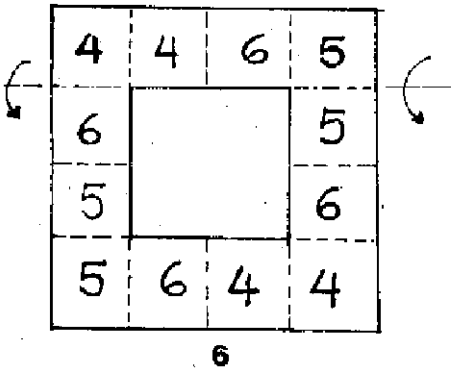

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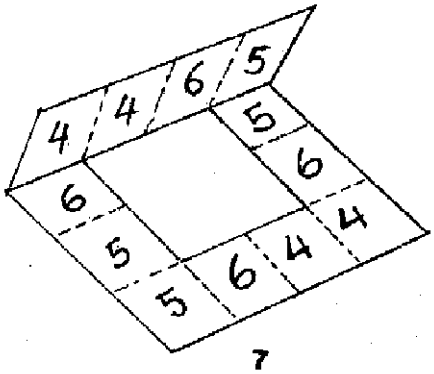

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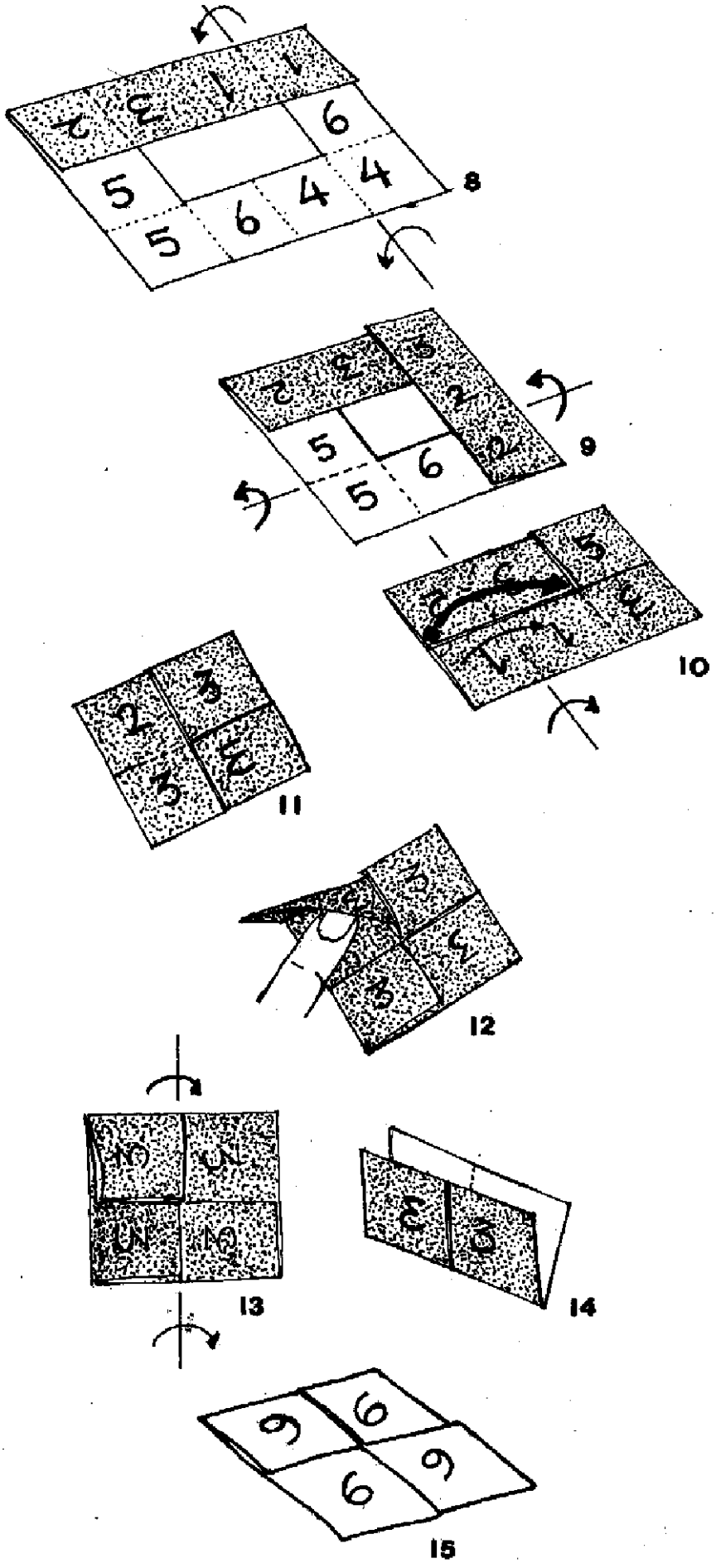

FLAT FLEXAGON

The great thing about this almost magical flexagon is that you do not require any tools to make it. All you need is a 10 cms. x 10 cms. square of bond paper. For convenience the paper is white on one side and tinted on the other. Fold the tinted side into 16 equal squares Fig (1). Fold into half and cut or tear accurately along the bold line Fig (2). Remove the central cut square Fig (3). Write numbers' 1, 2 and 3 on the twelve tinted squares as shown in Fig (4). Then turn the paper over as shown in Fig (4). On turning twelve white squares will be exposed Fig (5). Write numbers 4, 5 and 6 on these twelve squares as shown and then turn the edge numbered 4, 4, 6,5 inwards along the axis shown in Fig (6). An intermediate stage is shown in Fig (7).

Now keep folding one edge in the clockwise direction. Fold edge 1, 6, 4 as shown in **Fig** (8). Now fold edge 5, 6, 2 as shown in **Fig** (9). Also fold edge 1, 5 in **Fig** (10). The square **Fig (11)** thus obtained has three 3's but one odd man number 2. We want all the four numbers to be the same - namely 3. For this we come back to the stage in Fig (10). Lift up the corner marked with the black dot and bring it to the centre, locking the flexagon in the process **Fig** (12). This lock is very crucial so try making it a few times. Now all the four small squares will have the number 3 on them **Fig** (13). Flex it along the axis shown in **Fig** (13) to get the face with number 6 on it **Fig (14,15).** This flexagon can be endlessly rotated / flexed to get faces with 1, 2, 3, 4, 5 and 6 (not necessarily in the same order) written on them. You could draw different pictures on this flexagon and use it to depict a cycle or a sequence.