## Enigma



Purchased from Rubik Fans 2007; a similar puzzle is described in the patent of R. Massimiliano 1996. ("Type 1" and "Type 6" puzzles shown above, plastic, 3.25" diameter, 7/8" thick)

On top of the puzzle, eight outer circles and a center circle with ring around it can be rotated (there are no circles on the bottom). There are two dials, one around the edge of the top and one around the edge of the bottom (the center ribbed portion of the puzzle is just for holding it). Internal gears are arranged in a way so that the two dials can rotate different portions of the puzzle. This puzzle has been made with different graphics and different arrangement of internal gears. For example, with the "Type 1" puzzle shown on the left above, the top dial rotates 4 consecutive outer circles and the center ring, and the bottom dial turns rotates all eight outer circles and the center ring (also, the entire center platter rotates slowly as the bottom dial is rotated).

*Jaap's Page* describes an Enigma puzzle with an arrangement of gears that rotate disjoint subsets of circles / rings, and having taken it apart, gives the number of teeth on the gears. The general idea of his solution, which seems to apply to all of these puzzles, is to start by solving a portion and then turn rings a number of times to match up with common multiples of ring revolutions.

## **Further Reading**

Jaap's Page, from: http://www.geocities.com/jaapsch/puzzles/enigma.htm Massimiliano WO Patent, from: www.epo.org - patent no. WO9602307