

# Peter's Black Hole / Vadasz Cage

a.k.a. *Inside Out, Magic Jack, IQ Cube*



*Peter's Black Hole, circa 1990's.*  
(plastic, 3.25 inches)



*Vadasz Cage 2x2x2,*  
*Hungary circa 1990's.*  
(plastic, 2.1 inches)



*Vadasz Cage 3x3x3,*  
*Hungary circa 1990's*  
(plastic, 3 inches)



*Vadasz Cage 4x4x4,*  
*Hungary circa 1990's.*  
(plastic, 3.75 inches)

One can reach in with a finger to move cubes inside a cage. The design of the Vadasz cage is often credited to *Jozsef Vadasz* circa 1995, although this basic idea is described in a number of patents dating back to the early 1900's; the patent of *Peter Kassan* shows a slightly more complex mechanism with a central cage. These puzzles can be viewed as generalizations of the *Fifteen* puzzle to three dimensions. It is most fun to use them in a more limited way where you just push from the ends (the only way needed for the 2x2x2 version), but the cubes can be moved individually (and you have to assume that this may have been done when you pick it up after someone else has used it). *Jaap's Page* gives analysis and a solution.

## Further Reading

*Jaap's Page*, from: <http://www.geocities.com/jaapsch/puzzles/blackhole.htm>

*Coe Patent*, from: [www.uspto.gov](http://www.uspto.gov) - patent no. 785,665

*Wooster Patent*, from: [www.uspto.gov](http://www.uspto.gov) - patent no. 1,518,889

*Kosarek Patent*, from: [www.uspto.gov](http://www.uspto.gov) - patent no. 3,845,959

*Kassan Patent*, from: [www.uspto.gov](http://www.uspto.gov) - patent no. 4,432,548

*Copyright J. A. Storer*