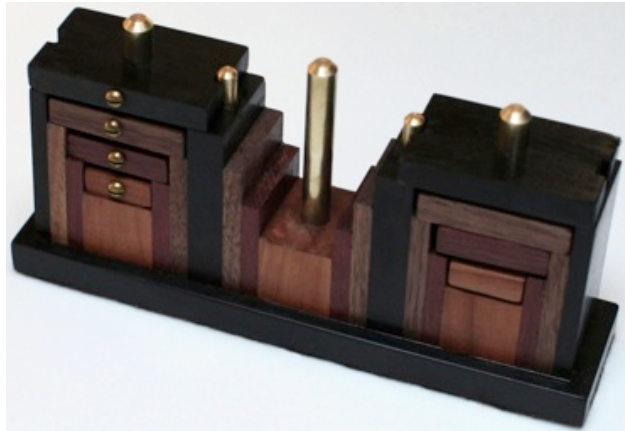


Panex



*Designed by Toshio Akanuma, originally made by TRICKS Co. Tokyo Japan, 1983;
this one made by J. A. Storer, 2009.*

(Ebony, Walnut, Purple Heart, Apple, brass, 2" x 8" x 3.75")

In the theme of the *Towers Of Hanoi* puzzle, but with a more complex analysis. Exchange the 4 tiles on levels 1, 2, 3, 4 on the left (marked with brass screws) with the 4 tiles on the corresponding levels on the right; tiles must be moved by sliding off one post and on to another, where the posts are long enough to hold a tile at level 5. The puzzle is constructed so that no tile can move below its initial level.

The original version made in 1983 has 10 identical tiles on each side that move in a board, where tracks on the back of the tiles enforce the condition that no tile can move lower than its first position. *Baxter's Page* has references to an analysis of the general solution for a puzzle of n tiles on each side (see also *Jaap's Page*), and *Baxter's paper* gives the following table of the number of moves required for puzzles of size 1 through 10 (where the entry for 10 is an upper bound and the others have been verified by computer to be optimal).

1	3	6	881
2	13	7	2,189
3	42	8	5,359
4	128	9	13,023
5	343	10	31,544

Further Reading

Baxter's Page, from: <http://baxterweb.com/puzzles/panex>

Baxter's Paper, from: <http://baxterweb.com/puzzles/panex/panex2rev.pdf>

Jaap's Page, from: <http://www.jaapsch.net/puzzles/panex.htm>

Manasse and Sleator paper, from: <http://baxterweb.com/puzzles/panex/panex-v1d.pdf>

Manasse, Sleator, Wei, Baxter paper, from: <http://baxterweb.com/puzzles/panex/panex5.pdf>

Panex Search Program, from: <http://baxterweb.com/puzzles/panex/program.htm>

Bagley Play Panex Page, from: <http://gwyn.tux.org/~bagleyd/java/PanexApp.html>

Henderson Play Panex Page (4 high), from: <http://www.cheesygames.com/panex>