

1

Round Band Puzzle Ring

Puzzle Goal:

Disassemble and re-assemble the ring.

Materials:

Brass

Classification:

Take-apart



2

Camera Conundrum

Puzzle Goal:

- Find the hidden drawer.
- Take the puzzle entirely apart into seven pieces and put it together again.

Materials:

palisander and maple woods

Classification: Take-apart, 3D interlocking puzzle



3

Topsy-Turvy Triangles

Puzzle Goal:

The puzzle comes with the faces engraved in a triangular pattern. The goal is to put all the pieces in the tray with the engraved side down—in other words, flip over all the pieces and put them back into the tray.

Materials:

Wood

Classification: 1.1 Put-Together, Two Dimensional assembly



Trickbox

Puzzle Goal:

Free the marble.

Optionally you can disassemble and reassemble, but be forewarned, try not to disassemble this puzzle completely—only a little open is needed to free the marble. Putting back together this puzzle is difficult.

Materials:

maple, plum-tree

Classification: Take-apart Puzzle



5

Sandwich

Puzzle Goal:

Put eight pieces into stand.

Materials:

elm, beech, maple, plum-tree

Classification:

Put Together Puzzle



6

Tritresor

Puzzle Goal:

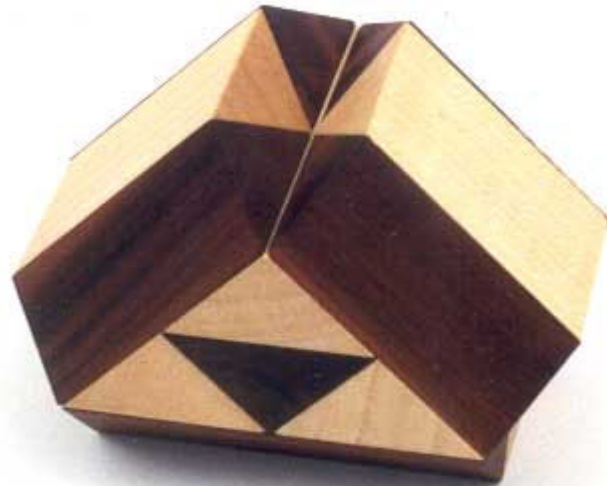
Free the marble

Materials:

maple, plum-tree

Classification:

Take-apart Puzzle



7

The Trapped Man

Puzzle Goal:

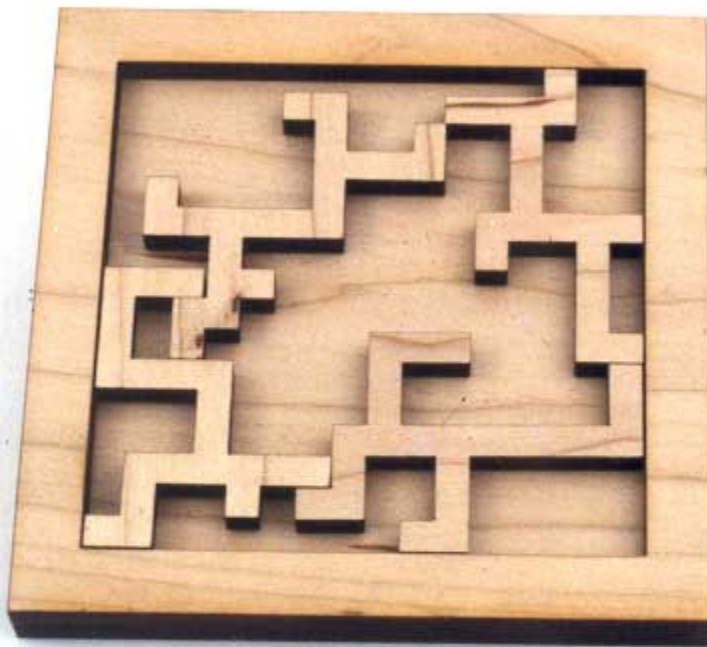
Insert the 5 pieces into the tray such that they interlock, that is, they cannot slide or rotate. Having done that, do the same thing with any subset of 4 pieces, and any subset of 3 pieces. Additionally, arrange 5 pieces so that each piece touches only one edge, and arrange 5 pieces outside the tray so that the pieces are interlocked.

Materials:

Walnut or Cherry wood

Classification:

Put together



PATHS

Puzzle Goal:

The aim of the puzzle is to achieve the best results possible for the following:

- A. Path: the longest open path between two different places
- B. Circuit: the longest closed path
- C. Shards: the shortest path, the greatest number of non-sequenced stages
- D. Circles: the greatest number of closed paths
- E. Spider: the greatest sum of lengths of open paths coming from piece #18 ("star")
- F. Flower: the greatest sum of lengths of closed paths coming from piece #18 ("star")

Materials:

paper/plastic

Classification: 2D Put-together



Raindrops Puzzle

Puzzle Goal:

The mirror represents a pool of water in which raindrops are falling. The ripples caused by the raindrops are represented by rings. The object is to arrange a flat composition of overlapping rings on the pool.

Materials:

transparent acrylic rings and acrylic mirror

Classification: 3D assembly



Mirror Frame Puzzle

Puzzle Goal:

Use the short book screws to attach the seven wooden triangles to each other in the right order to make a uniform closed loop. Attach the mirror to the triangle with the two extra holes. Use the longer book screw and the hole nearest to the center of the triangle. Now hang your Mirror Frame Puzzle against the wall using the hole left in the upper triangle. Remember the fun solving this puzzle each time you look into this mirror.

Materials:

acrylic mirror, 7 plywood triangles, book screws

Classification: 3D assembly



Archipelago Challenge

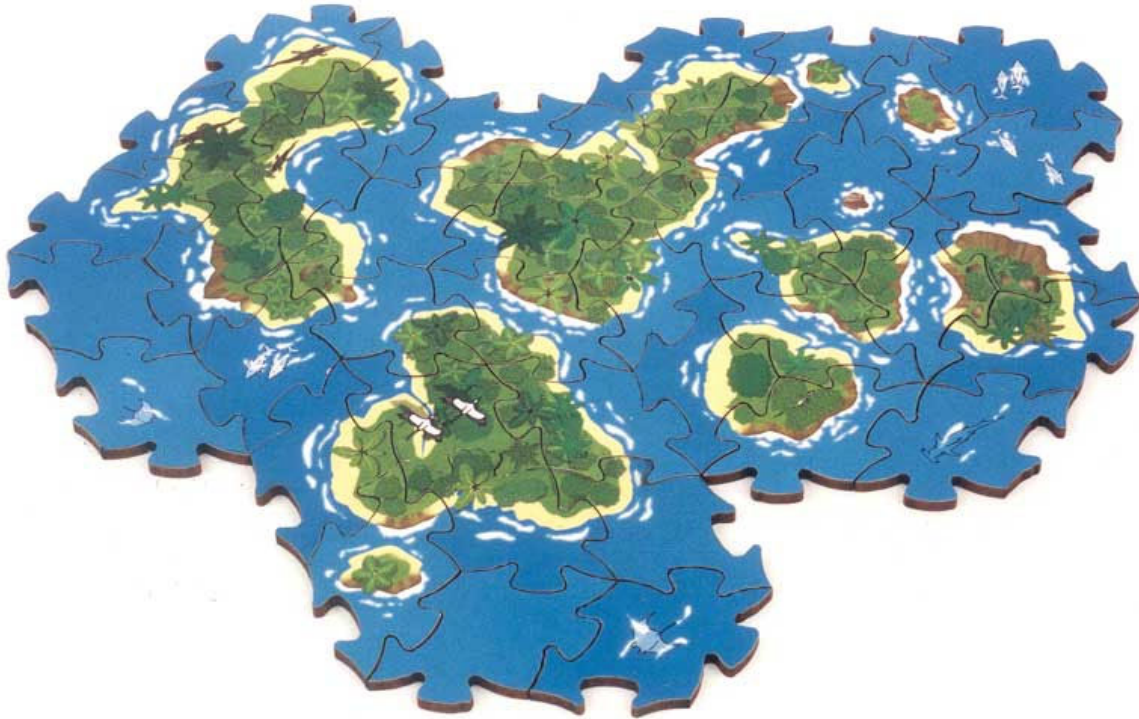
Puzzle Goal:

Using all of the 136 different tiles, form an archipelago of islands in which all of the islands are complete.

Materials:

3mm MDF

Classification: Put-together puzzle with edge matching



12

Birds of a Feather

Puzzle Goal:

To entertain!

Materials:

Honduras Rosewood, Curly Maple, Sterling Silver. Associated stand is Nogal

Classification:

Put together, jigsaw



13

Loris

Puzzle Goal:

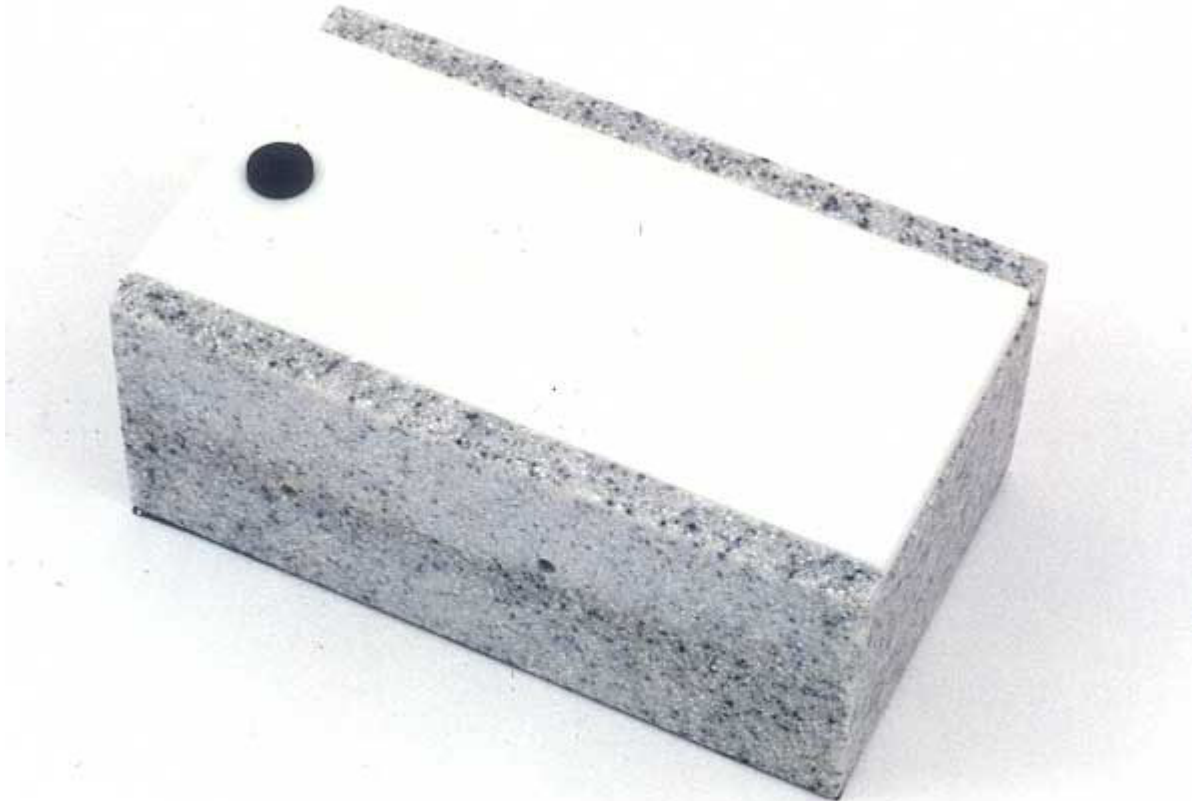
Open the box by sliding the lid.

Important: No banging or rapping! Treat the box gently.

Materials:

Frank Chambers and Ken Stevens

Classification: Take Apart, Secret opening box



14

C1QB

Puzzle Goal:

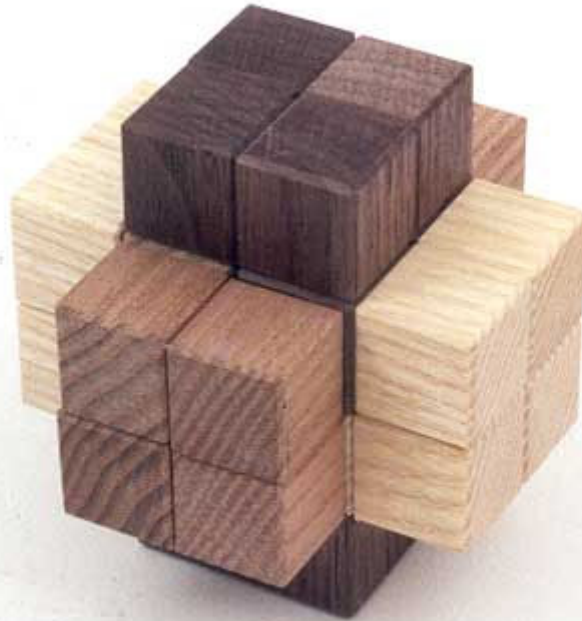
Take the puzzle apart in its 4 pieces and reassemble the puzzle.

Materials:

Ash, elm, Baltic nut

Classification:

Take-Apart (Interlocking)



15

Kringloop

Puzzle Goal:

Fill the box by assembling into the correct pattern

Materials:

Wood

Classification:

Put Together



Notes:

The puzzle is named after a drawing of M.C. Escher (in English: "Cycle"). The roof drawn on "Kringloop" has the same arrangements of the cubes. With the two different woods, this pattern is nicely emphasized.



16

Casino Royale

Puzzle Goal:

Fold to make a 3x2x2 block, without stretching or twisting the tape.

Materials:

Casino dice, Polypropylene packing tape

Classification:

Folding



The Chicago Cubes

Puzzle Goal:

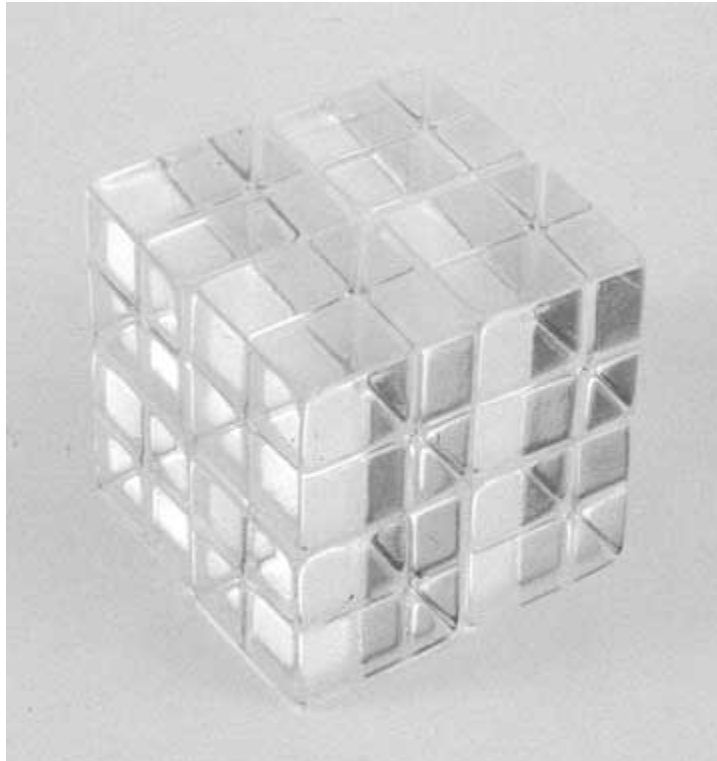
Fold to make a 2x2x2 cube, without stretching or twisting the tape

Materials:

Acrylic cubes, Polypropylene packing tape

Classification:

Folding



Six-Hand Burr

Puzzle Goal:

Take apart the six-piece burr.

Self-assembly will occur automatically if the pieces are correctly oriented. Alternatively you can reassemble the pieces differently so that the puzzle will automatically self-disassemble after the first move.

Materials:

Walnut

Classification: Burr puzzle; INT-CART



19

Toccata

Puzzle Goal:

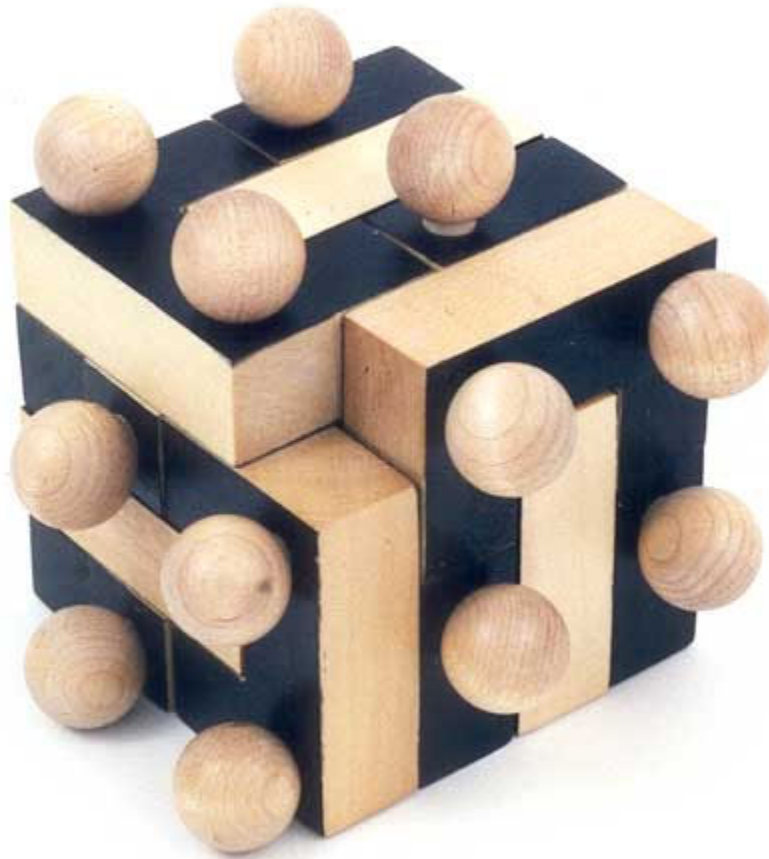
The object of the puzzle is to assemble the pieces into a size-4 cube in such a way as to align holes through the pieces to allow the introduction of rods (two different diameters) through the cube.

Materials:

painted wood

Classification:

Put together



The Devil's Half "Doven"

Puzzle Goal:

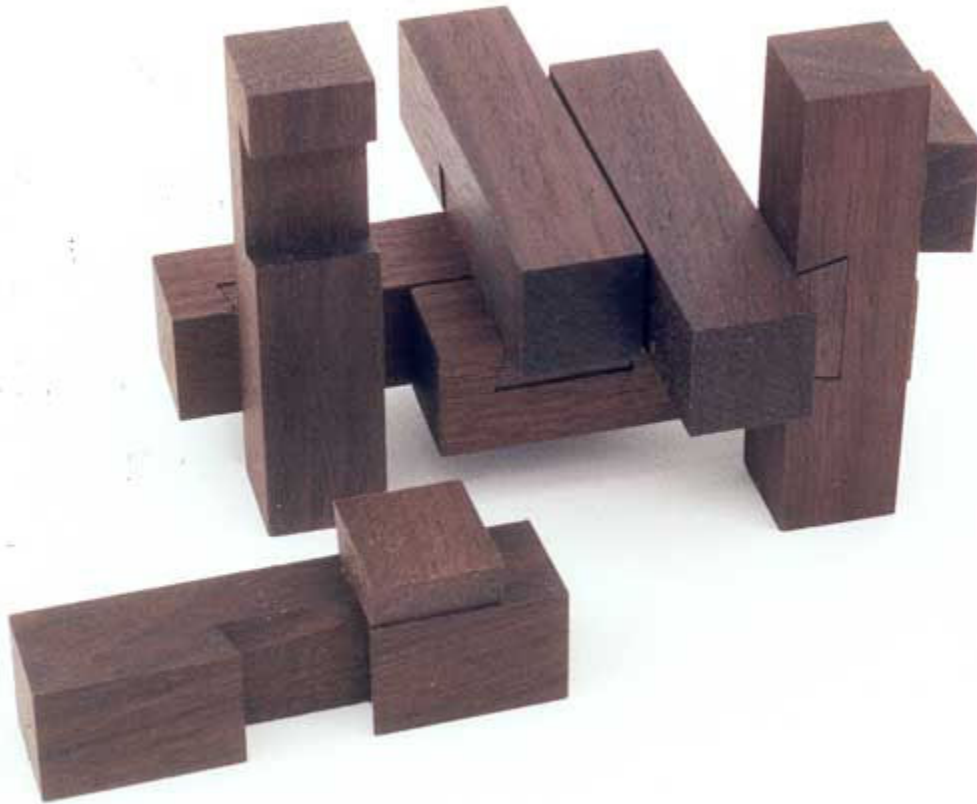
Assemble the seven pieces such that every dovetail tab is fitted into a dovetail notch. Note that pieces will always be at right angles to each other when a tab is properly fitted into a notch.

There are four distinct solutions, of which two will "stand on one foot".

Materials:

Walnut

Classification: Interlocking



21

30-60-90 Triangle Puzzle

Puzzle Goal:

Goal 1 – Make a 30-60-90 triangle with all 10 pieces

Goal 2 – Put the puzzle away in the rectangular tray.

Materials:

Walnut

Classification: Put-together



Salt & Pepper Shakers

Puzzle Goal:

Open both shakers and find the salt and pepper

Materials:

Red Oak and Walnut

Classification:

Secret Opening Boxes



23

The 3 Chains Ring Puzzle

Puzzle Goal:

Place the pieces in such way to make 3 chain rings joined with a common center point.

Materials:

Zebrawood and pallisander rosewood

Classification:

Interlocking



Livecube 5x5x5-1

Puzzle Goal:

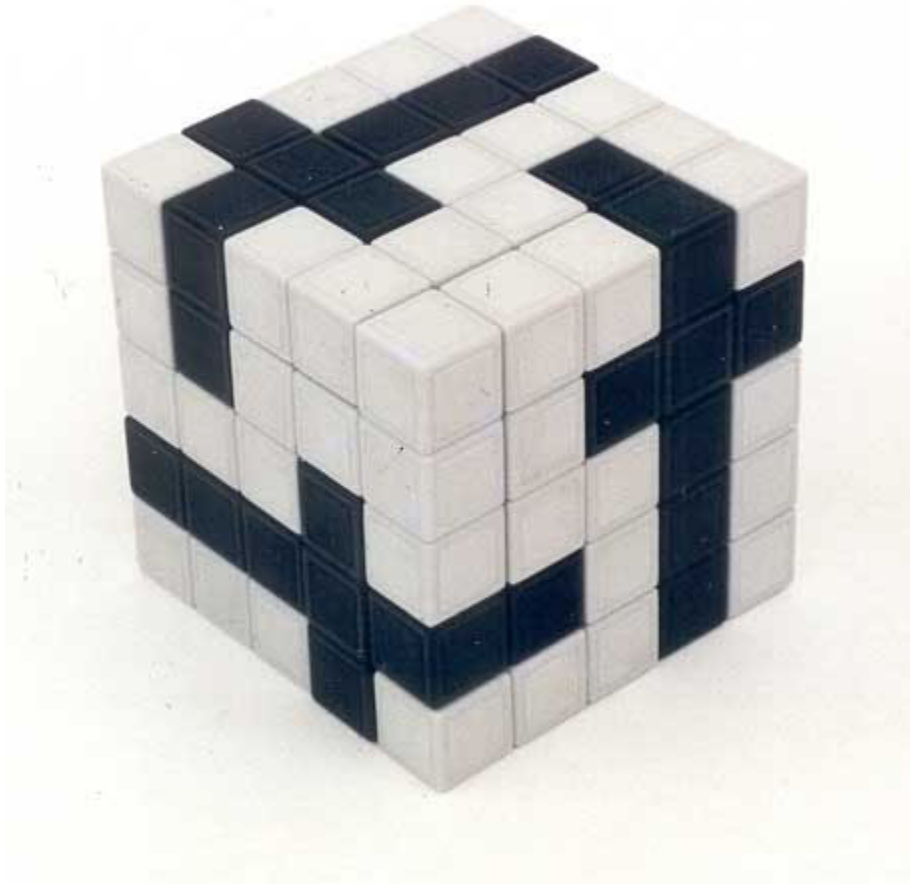
The goal is to build a 5x5x5 cube.

Materials:

ABS & TPR plastic material

Classification:

Put Together and Interlocking



Livecube Puzzling Toy

Puzzle Goal:

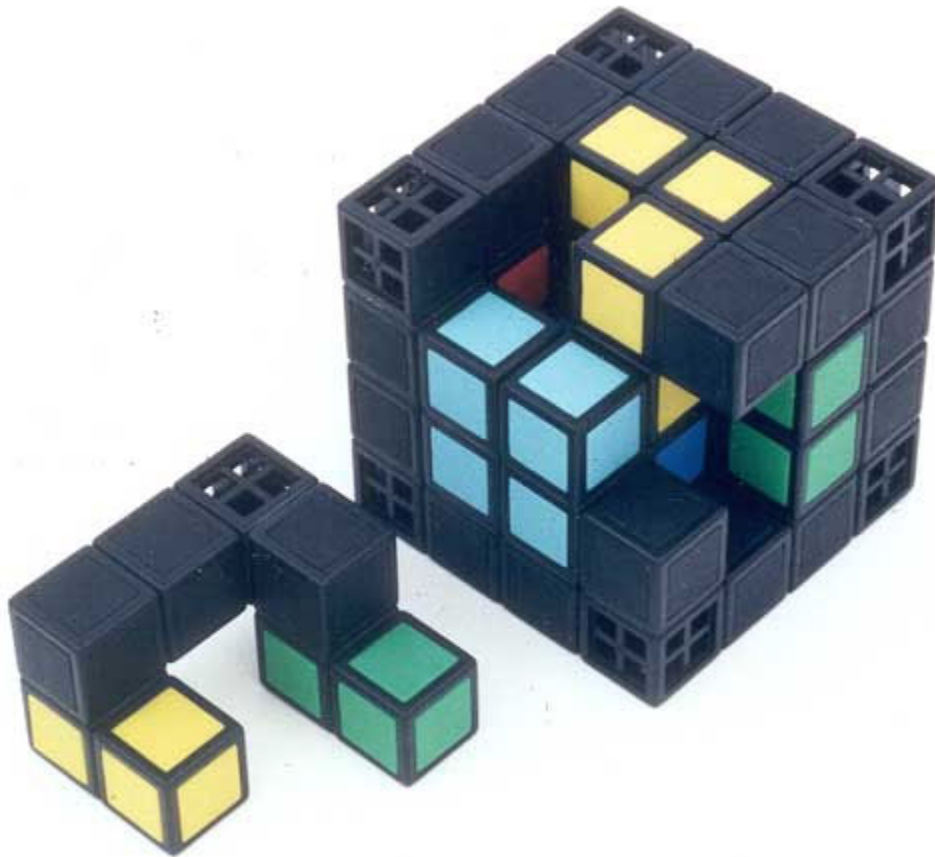
To build a 4x4x4 cube with eight pieces.

Materials:

ABS & TPR plastic material

Classification:

Put Together, Take Apart



CUBE in CAGE 333

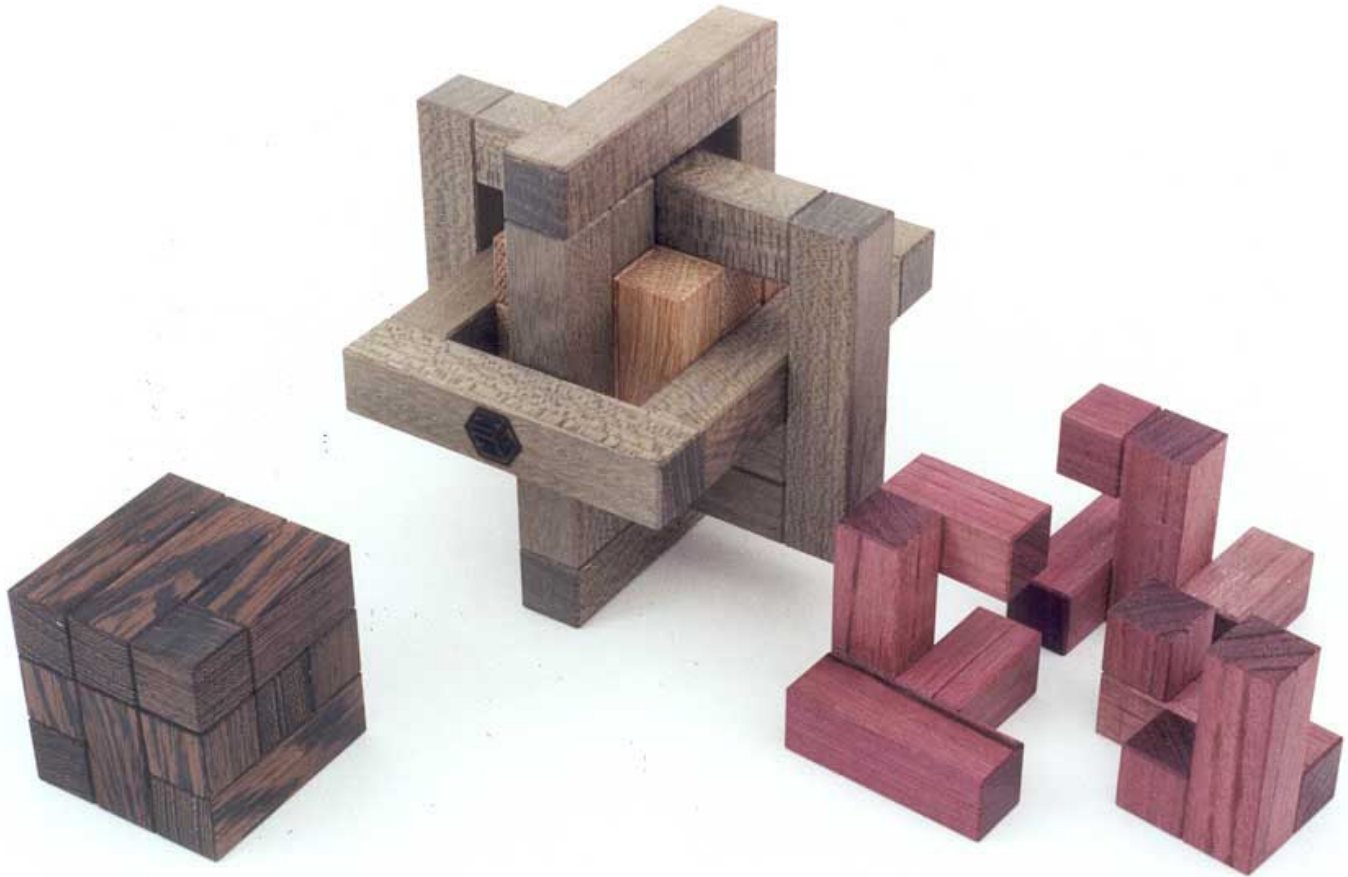
Puzzle Goal:

Put 3 pieces together into a CUBE(3x3x3) inside the CAGE, whose frames slide back and forth, right and left, and up and down. Each CUBE has a different secret.

Materials:

Tamo Jindai, Japanese Oak, Purple, Wenge

Classification: KUMIKI



27

Clutch Box

Puzzle Goal:

Open the box

Materials:

wood (koa, maple, ebony, cocobolo, new guinea rosewood) and metal (brass, copper, steel)

Classification: Secret Opening Box



Hexagon Kinato

Puzzle Goal:

Dot Game - match up the color dots in the same colors

Route Game - link up all the routes

Mathematical Game - the sum of the six numbers in each of the three main diagonals is equal to nine. (side with "equal to 9" in the center is not a puzzle)

Materials:

Plastic--ABS

Classification: Hexagon Puzzle



T-Kinato

Puzzle Goal:

Reconstruct the photo.

Materials:

Plastic--ABS

Classification:

Hexagon Puzzle



30

Magician's Tophat and Magic Wand

Puzzle Goal:

Pull a bunny from a magic hat

Trying to open the puzzle using centrifugal force (spinning the puzzle on the hat's brim) will damage the puzzle do to the force and speed in takes to move the pins. In fact, on the prototype the puzzle broke, before it opened. On this puzzle brawn is not the answer.

Materials:

Oak, Walnut, metal and wooden pins, ball bearing, screws, Tee nut and rare earth magnets

Classification: Secret Opening



St Mungo's Fish

Puzzle Goal:

To get the ring in the fish's mouth.

Materials:

Cast Bronze

Classification:

Route Finding



History:

This cast bronze puzzle was inspired by a Victorian puzzle found, incomplete, in a collection of buttons in 1981. As far as is known, it is the only surviving example found to date. The original was made of very thin and flimsy material which made it exceptionally easy to cheat by mistake; however it did incorporate an excellent original idea. The designer has enlarged and thickened it, totally redesigned its appearance, and, by altering the proportions, added some extra deceptions.



32

Shrinking Box

Puzzle Goal:

Open the box

Materials:

Walnut, magnolia, etc.

Classification:

Secret Opening Box



33

Arabesque

Puzzle Goal:

Disassemble and reassemble

Materials:

Padauk, Zebrano and Black Walnut woods

Classification:

Interlocking



34

Lili

Puzzle Goal:

Remove the bead

Materials:

Padauk wood, one bead, two nails, one magnet, four dowels and two marbles

Classification: Secret Opening



Ship in Bottle

Puzzle Goal:

Remove the six pieces of the ship from the bottle and put them back into the bottle with the ship facing the opposite direction.

Materials:

Cherry and Acrylic

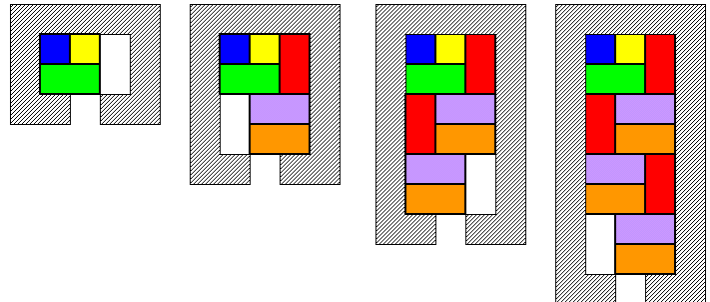
Classification:

Put-Together, Sliding-Piece



Notes:

The scheme used in The Ship in a Bottle puzzle can be iteratively applied to give puzzles having an increasing number of moves to remove the first piece. This is shown in the figure at right.



The number of moves to remove the first piece is 6, 28, 50 and 72 for the four puzzles shown in Figure-8. This can be increased indefinitely.

Whether these give the maximum number of moves required for such boxes given only dominoes and monominoes and two empty squares in the packing is yet to be proven. Of course, although the number of moves is large, the movements are largely repetitive. This is almost like the situation in Tower of Hanoi except that the solution to the Tower of Hanoi is recursive.



36

Hermaphroditic Blocks

Puzzle Goal:

Put together into a cube

Materials:

Masonite

Classification:

3D PAT-EDGE



37

Bent Board Burr #3

Puzzle Goal:

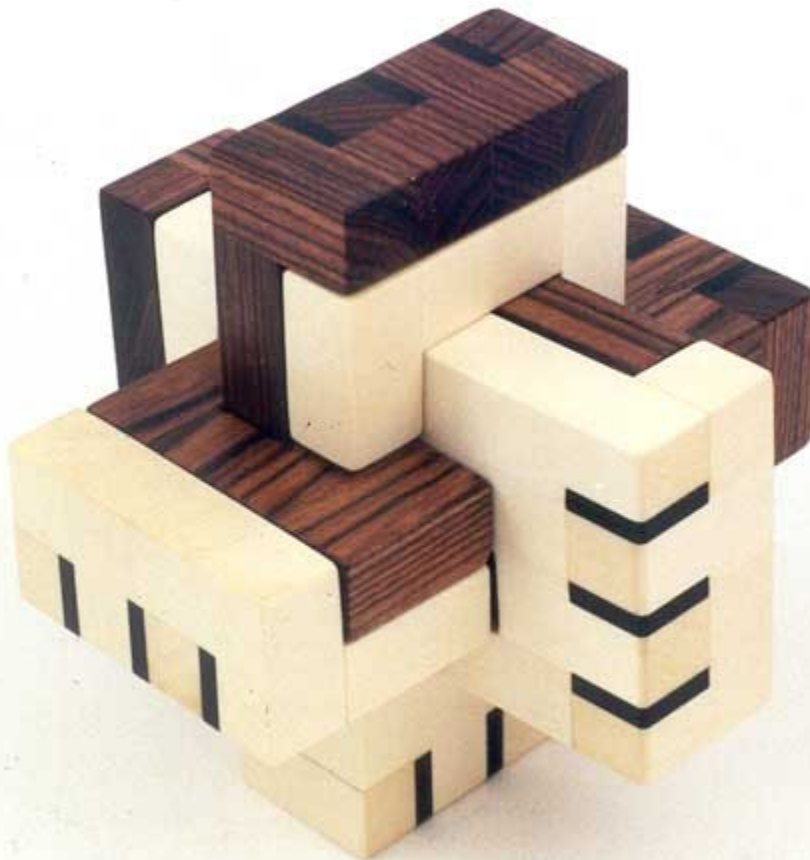
Assemble the six pieces to form a 3D-cross

Materials:

Kingwood & Holly, with Ebony accents

Classification:

Burr



Puzzle Goal:

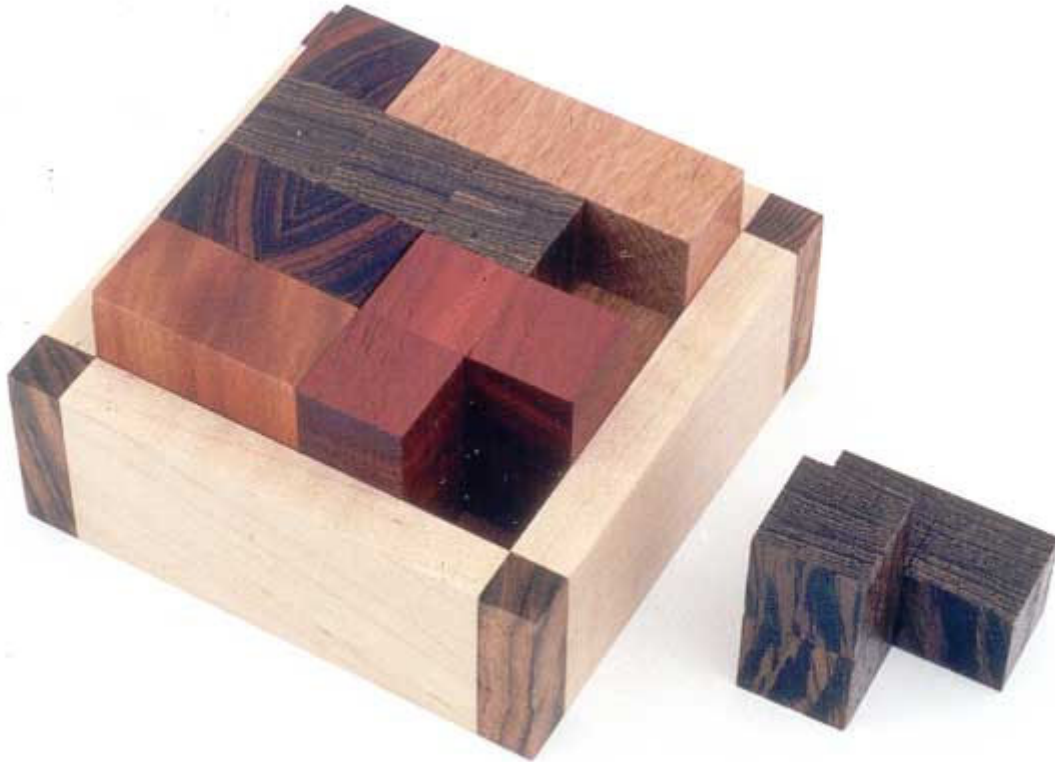
Pack the 6 pieces into the tray to form a 4x4x2 rectangle.

Materials:

Cocobolo, Wenge, Chakte Viga, Bocote, Bloodwood, Lacewood

Classification:

Put-Together



39

Nurby Puzzle #1

Puzzle Goal:

Arrange the eight blocks so ALL the curved edges alternate in an up and down pattern, in both directions.

Materials:

Walnut and maple

Classification:

Put Together



40

Cat Case

Puzzle Goal:

Place four Cat pieces flat in the frames

Materials:

MDF board

Classification: 2D put-together



41

Keyhole Puzzle

Puzzle Goal:

Assemble the six pieces in two layers (of course with no screws showing).

Materials:

Walnut pieces with brass screws

Classification:

Misc. Interlocking Solid Puzzle



W-hoops

Puzzle Goal:

Disassemble and re-assemble

Materials:

Pinewood

Classification:

Interlocking/Entanglement



43

Decorated Box

Puzzle Goal:

Open the box

Materials:

Walnut, Wenge, and Maple

Classification:

Take-apart puzzle



44

QuadraHex Prism

Puzzle Goal:

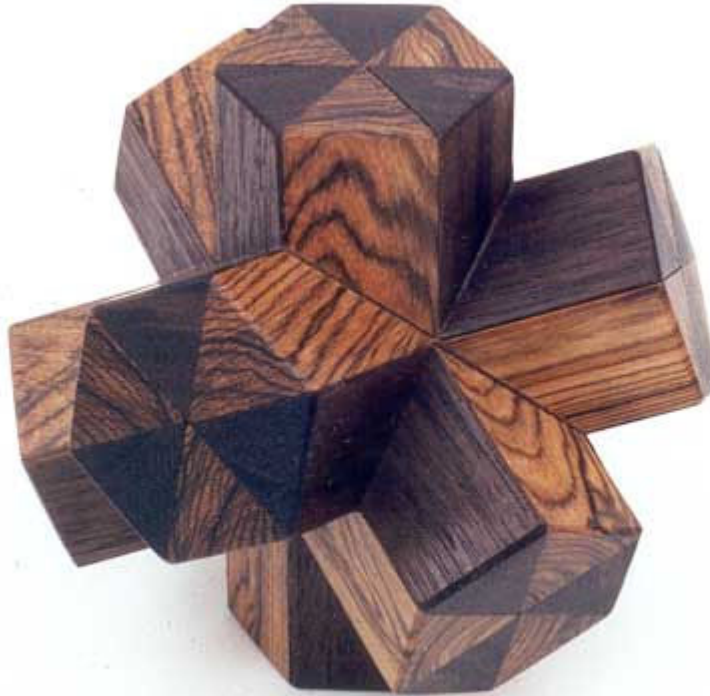
Totally disassemble all pieces, mix, then reassemble

Materials:

Peruvian Walnut and Bocote, with Imbuaya center

Classification:

Interlocking



45

WOODEN CHEST - M31-N-3

Puzzle Goal:

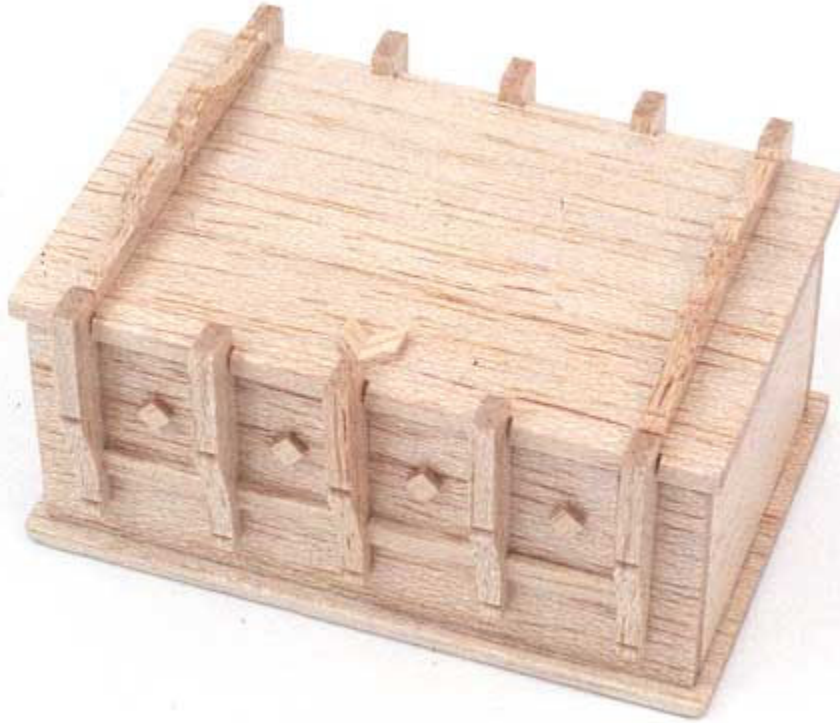
Open the box

Materials:

balsa, pine-wood, iron (gussets)

Classification:

secret Opening Box



46

The Binary Burr

Puzzle Goal:

Take apart and put back together

Materials:

walnut and cherry

Classification:

Burr



Notes:

The Binary Burr is a burr that functions like a 6-ring version of the Chinese Rings. The puzzle consists of 21 pieces. The key piece (piece Y in solution diagram) is equivalent to the 'bar' in a Chinese Rings puzzle, and pieces A, B, E, J, K and L are equivalent to the 'rings'. The other 14 pieces in the puzzle construct a 'cage' or 'box' that holds the other pieces in place.



47

Octo-Diamond

Puzzle Goal:

Seven pieces of four Octagons each all configured differently fit into a diamond with only one solution.

Materials:

Wood

Classification: Put-Together



Magicaland

Puzzle Goal:

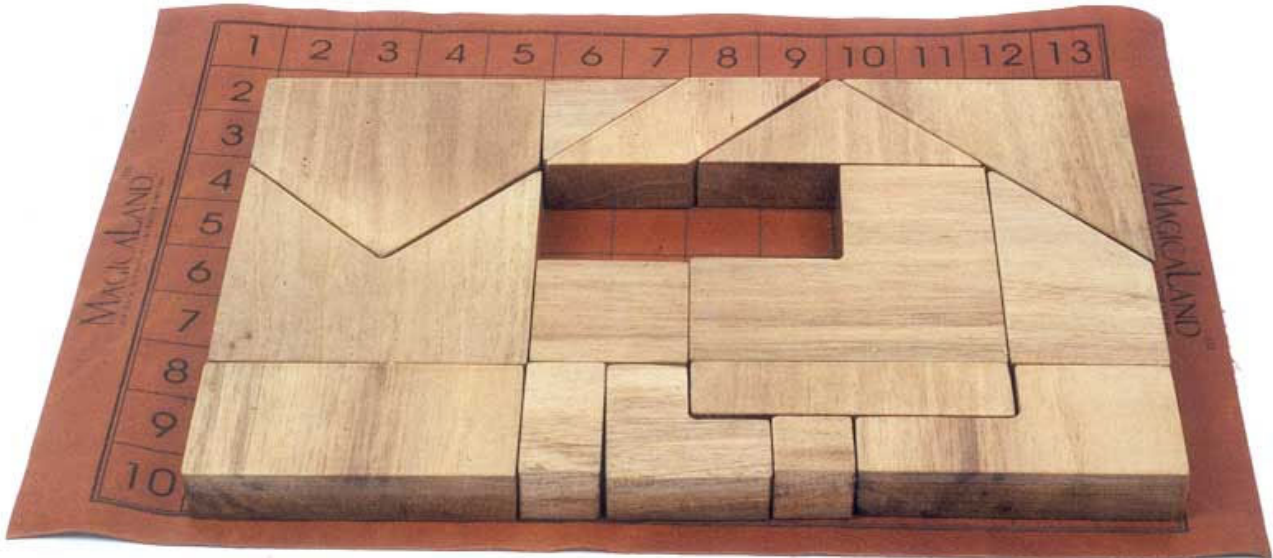
Combining all of 15 unique tiles, it is possible to make a huge number of pleasing figures geometrical, symmetrical, free-form shapes, etc.

Materials:

Wood, leather

Classification:

Put-together



49

Into The Groove

Puzzle Goal:

To navigate the ball from it's position between the two blue dots to both the orange dots.
Or the other way around.

Materials:

Acrylic sheet, metal ball, metal bolt

Classification: Labyrinth



50

Six Key Mine

Puzzle Goal:

The puzzle is complete by installing all six pegs into the ball.

Materials:

Anodized aluminum

Classification:

3D-Assembly



51

Dodecahedron

Puzzle Goal:

The puzzle is completed by interlocking all tongue & slots along each of the 30 seams.

Materials:

Nickel-plated steel, magnets

Classification:



52

Double Semi-Maze

Puzzle Goal:

Rotate the inner pieces 360 degrees.

Materials:

Anodized aluminum

Classification:

Seq. Movement

