Early Mechanical Puzzles
10th Century B.C. to 19th Century
by Jerry Slocum
Puzzle Classification

- Put Together
- Take Apart
- Interlocking

- Disentangle
- Vessels
- Impossible

- Sequential Movement
- Dexterity

- Vanish
- Folding
Major Historical Sources
Pacioli, Catel, Crambrook, Novra, etc.
Luca Pacioli, Italy, 1500
Chinese Ivory Puzzles, 1840
Put Together Puzzles
Putting the object together is the puzzle.

Form one square from five.
Archimedes Stomachion
[Greece, 250 B.C.], Modern
Sei Shonagon’s Wisdom Plates
（清少納言智恵の板）
Japan, 1743
Jigsaw Puzzle
Spilsbury, England, 1760
Daishinpan-chie-no-ita
Takashima, Japan, 1795

Shin-hatsumei chie-no-ita
Japan, 1795
Utamaro
歌麿
Tagasode
誰袖
Japan, 1804
Emblematical Puzzle
England, 1788
Tangram Puzzle

七巧图

[China, 1813], Japan Replica: 1839, China: 1825
Tangram Problems
China, 1825; Germany 1818
Tangram Craze
France, 1818
Take Apart Puzzles
Taking the object apart or open is the puzzle.

Find the secret compartment.
Rings With Secret Compartments
[Rome, 2nd C.B.C; 16th C.; Jewish, 16th C.], Modern

Closed

Open
Roman Trick Lock
Rome, 100 to 400 A.D.
Masterpiece Trick Lock
Germany, 1831
“Key” Trick Knife Opened
France, 18th C.
Spanish Puzzle Knife
Victoria & Albert, Spain, 1699
Indian Puzzle Purse

Ozanan, France, 1725; America, 1890

4 Dice

Stitches
Brass & Leather Puzzle Purse

Scandinavian, 1813
Puzzle Casket

Germany, 17th C.
Slope With Secret Compartments

England, 1800
Opening Slope’s Secret Compartments
Desk With Secret Compartments
Rijksmuseum - Netherlands, 1760-65
Hakone Four-Direction Trick Boxes
Youngblood, Kaneko (金子皓彦); Japan, mid-19th century
Four Direction Boxes
National Museum of Ethnology - 1818 - 1826
Trick Springboxes

National Museum of Ethnology, Leiden; Japan, 1822
Trick Springboxes

National Museum of Ethnology, Leiden - 1813-1829
Interlocking Puzzles
Disassemble & assemble to solve the puzzle.

Assemble a 7-piece burr.
Le Clerc Engraving
France, 1698
Early Interlocking Burr Puzzles
Spain, 1733; Germany, 1785

C16: The Small Devil's Hoof

C20: The Large Devil's Hoof
Burrs (6, 7, 9, 12 and 24 pieces) [Japan, 1830]; China, 1840 (Ivory)
Baudenbrecher Catalog
Germany, 1862
Disentanglement puzzles
Disentangle and entangle to solve the puzzle.

Remove the Ring.
Pacioli String Puzzles
[Italy, 1500], China 1840, Modern
Chie-no-ito
智恵の糸
(Ingenious String)
Japan, 1830
Chinese Rings Puzzles

[China, 200 A.D.]
China, 1840
Japan, 1755
Germany, 1785
India, 1832
Puzzle Vessels

Drinking without spilling, or filling a vessel is the puzzle.

Drink without spilling.

Solution
Puzzle Jugs
England, [15th C.], 1834, 1859
Puzzle Jugs
China, 1700; Russia, 1785
Bottom-Fill Vessel
Metropolitan, Cyprus, 1,000 B.C.
Chinese Bottom-Fill Vessels

China, [960], Modern; 1770
Tantalus Cup
[Greece, 6th C.B.C.], Japan. 1800-1850
Goblets with Siphons
Russia, 1700
Impossible Puzzles

The puzzle is to explain how an object was made.

How did the balls get in the bottle?

• Solution:
• The balls were compressed and squeezed through the hole in the top of the bottle.
Impossible Bottle Puzzle
England, 1719
American Indian Puzzle Peace Pipe
U.S.A., [1825], 1890
Spouting Bowl
[China, 220 B.C.] China, Modern
Hero’s Fountains  ヘロンの噴水、自動噴水器
[Egypt, 1st C.], Japan, 19th Century

(L) 鈴木一義「からくり人形」（学研）、(R) http://www.ishibi.pref.ishikawa.jp
Magic Mirrors
[China, 220 A.D]
Japan, Modern
China, Modern