UNITED STATES
PATENT AND TRADEMARK OFFICE



Intellectual Property 101

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Quality Assurance Specialists, Technology Center 3700
Puzzle and Board Game Conference
May 13, 2022



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Discussion Topics

- What is intellectual property (IP)?
 - Trade secrets, copyrights, trademarks, patents
- Searching Patents
- USPTO Resources



Overview of IP: types

Patents

- Protects inventions
- Source: U.S. Const., Art. 1, Sec. 8

Trademarks

- Protects marks in commerce that indicate the source or origin of goods or services
- Source: Federal, State, and Common Law

Copyrights

- Protects original (art) works fixed in a tangible medium
- Source U.S. Const., Art. I, Sec. 8

Trade Secrets

- Protects commercially valuable information
- Source: State and Common law



Types of intellectual property



New, inventive ideas







Trademark

Identifies the origin of goods or services







Copyright

Creative expression stored in a tangible form







Trade secret

Any information that is valuable & kept confidential



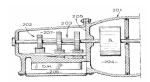




Overview of intellectual property

	Utility/Plant Patent	Design Patent	Trade Secrets	Copyrights	Trademarks
What is protected	Inventions – process, machine, manufacture, or composition of matter	Ornamental design embodied in, or applied to, an article of manufacture	Commercially valuable information (e.g., formulas, techniques, processes)	Forms of creative expression, in an all- encompassing sense – original works fixed in a tangible medium	Marks in commerce that indicate the source or origin of goods or services
Protects Against	Making, using, selling, offering for sale, and importing into the U.S.	Making, using, selling, offering for sale, and importing into the U.S.	Misappropriations	Copying, performing, displaying, and creating derivative works	Using a mark in a way that causes likelihood of confusion
Endures until	Generally, from the patent grant date to 20 years from the earliest effective U.S. filing date	15 years from patent grant date for applications filed on or after May 13, 2015	Publicly disclosed	The life of the author +70 years for works created on or after 1/1/78	Abandoned or loss of distinctiveness or secondary meaning
Rights of Independent Third Party Creators	None	None	Full	Full	None

Examples











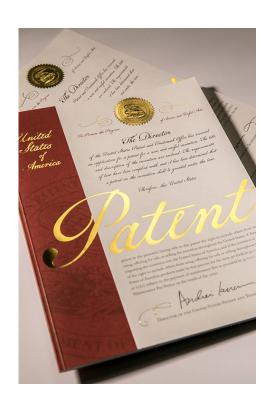


Patents

A U.S. patent is

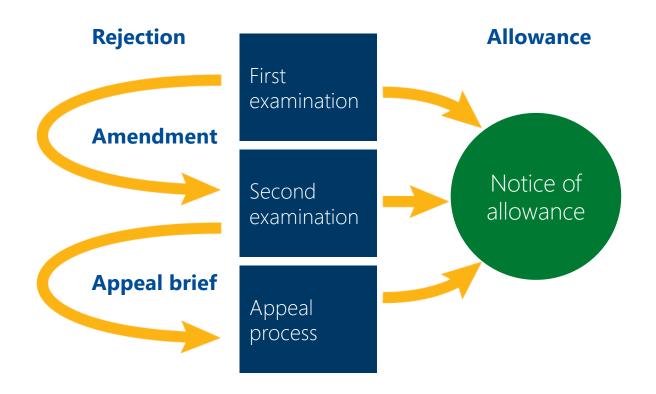
- A property right granted by the United States government to an inventor
- To exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States
- For a limited time in exchange for public disclosure of the invention
- Patent term, generally
 - Plant or utility patent: 20 years from the date on which the application for the patent was filed in the United States
 - Design patent: 15 years from the date of patent grant

The U.S. patent system provides innovators with exclusive rights—for a limited period of time—to their inventions, which permits them to raise capital, build their businesses, and bring new, innovative products and services to the marketplace.





The examination process



Primary statutory requirements:

- 35 USC 101: Is the invention based on eligible subject matter?
- **35 USC 102**: Is the invention truly novel?
- 35 USC 103: Is the invention non-obvious?
- **35 USC 112**: Has the inventor fully disclosed the invention, and how to make it?



Searching Patents

Patent Example

United States Patent [19]

[11] 4,378,116

Rubik

[45]

Mar. 29, 1983

[54]	SPATIAL	LOGICAL TOY
[75]	 Inventor: Ernö Rubik, Budapest, Hungary 	
[73]	Assignee:	Politoys Ipari Szövetkezet, Budapest, Hungary
[21]	Appl. No.:	289,192
[22]	Filed:	Aug. 3, 1981
[30]	Foreig	n Application Priority Data
Oct	. 28, 1980 [H	U] Hungary 2598/80
[51]	Int. Cl.3	
[52]	U.S. Cl	
[58]	Field of Sea	rch 273/153 S, 155
[56]		References Cited
	FOREIG	N PATENT DOCUMENTS
	170062 2/1	978 Hungary 273/153 S

OTHER PUBLICATIONS

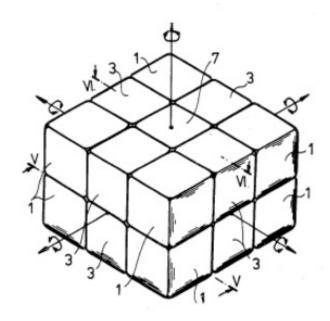
Scientific American, Mar. 1981, p. 39.

Primary Examiner—Anton O. Oechsle Attorney, Agent, or Firm—Gabriel P. Katona

[57] ABSTRACT

A spatial logical toy is formed from a total of eighteen toy elements, out of which two sets of eight identical toy elements two connecting elements are provided. The elements of the two sets have cam members with hollows with spherical convex or concave surfaces in-between. The elements are connected by the aid of the cams and the two remaining centrally positioned substantially identical connecting elements each having a T-shape cross-section and when assembled the toy is in the form of a regular or an irregular solid. Fixation is performed by one single screw passing through bores in the connecting elements. In such a manner the toy elements forming the lateral faces of the spatial logical toy can be rotated along the spatial axes and by yielding several variation possibilities the toy is well suitable for stimulating logical thinking activity.

7 Claims, 12 Drawing Figures





Patent Public Search Tool

- Convenient, robust full-text search of US patents and published patent applications
 - Free, cloud-based platform available to all users via the internet, with no account necessary
- Combines capabilities of legacy search tools and is based on the current search tools used by USPTO patent examiners
- https://ppubs.uspto.gov/pubwebapp/



Search Resources

Other USPTO resources

- Public Search Facilities and Patent and Trademark Resource Centers (PTRCs) https://www.uspto.gov/learning-and-resources/support-centers/patent-and-trademark-resource-centers-ptrcs
- Cooperative Patent Classification (CPC) Index: https://www.uspto.gov/web/patents/classification/cpc/html
 ml/cpc.html
- United States Patent Classification (USPC) Index (G): <u>https://www.uspto.gov/web/patents/classification/uspcindex/indexg.htm</u>

Search Resources (cont.)

- Examples of external resources:
 - Google Patents: https://patents.google.com/advanced
 - Espacenet: https://worldwide.espacenet.com/
 - Patentscope: https://patentscope.wipo.int
 - IPC Scheme (searchable): https://ipcpub.wipo.int/



IPC Scheme

-	A	HUMAN NECESSITIES
		HEALTH; LIFE-SAVING; AMUSEMENT
	A63	SPORTS; GAMES; AMUSEMENTS
+	A63B	APPARATUS FOR PHYSICAL TRAINING, GYMNASTICS, SWIMMING, CLIMBING, OR FENCING; BALL GAMES; TRAINING EQUIPMENT (apparatus for passive exercising, massage A61H)
+	A63C	SKATES; SKIS; ROLLER SKATES; DESIGN OR LAYOUT OF COURTS, RINKS OR THE LIKE (water skis B63B 32/00, B63B 34/00) [5]
+	A63D	BOWLING GAMES, e.g. SKITTLES, BOCCE OR BOWLS; INSTALLATIONS THEREFOR; BAGATELLE OR SIMILAR GAMES; BILLIARDS (balls A63B 37/00)
+	A63F	CARD, BOARD OR ROULETTE GAMES; INDOOR GAMES USING SMALL MOVING PLAYING BODIES; VIDEO GAMES; GAMES NOT OTHERWISE PROVIDED FOR [5]
+	A63G	MERRY-GO-ROUNDS; SWINGS; ROCKING-HORSES (swings or rocking horses as nursery furniture A47D 13/10); CHUTES; SWITCHBACKS; SIMILAR DEVICES FOR PUBLIC AMUSEMENT
+	A63H	TOYS, e.g. TOPS, DOLLS, HOOPS OR BUILDING BLOCKS
•	A63J	DEVICES FOR THEATRES, CIRCUSES, OR THE LIKE; CONJURING APPLIANCES OR THE LIKE
•	A63K	RACING; RIDING SPORTS; EQUIPMENT OR ACCESSORIES THEREFOR (stop watches G04F 7/06; timing G07C 1/22; indicating arrangements for variable information by selection or combination of individual elements G09F 9/00)



IPC Scheme

- 1	A63	SPORTS; GAMES; AMUSEMENTS
-	A63F	CARD, BOARD OR ROULETTE GAMES; INDOOR GAMES USING SMALL MOVING PLAYING BODIES; VIDEO GAMES; GAMES NOT OTHERWISE PROVIDED FOR [5]
-	A63F 1/00	Card games (aspects of games using an electronically generated display having two or more dimensions showing representations related to the game A63F 13/00) [2006.01]
	A63F 1/02	Cards; Special shapes of cards (card-printing methods B41K, B41M) [2006.01]
	A63F 1/04	Card games combined with other games [2006.01]
+	A63F 1/06	Card game appurtenances [2006.01]
-	A63F 3/00	Board games ; Raffle games (racing games, traffic games, or obstacle games characterised by figures moved by action of the players A63F 9/14; aspects of games using an electronically generated display having two or more dimensions showing representations related to the game A63F 13/00) [2006.01]
	A63F 3/02	Chess; Similar board games [2006.01]
	A63F 3/04	Geographical or like games [2006.01]
	A63F 3/06	Lottos or bingo games; Systems, apparatus or devices for checking such games [2006.01]
	A63F 3/08	• Raffle games that can be played by a fairly large number of people [2006.01]
-	A63F 5/00	Roulette games (aspects of games using an electronically generated display having two or more dimensions showing representations related to the game A63F 13/00) [2006.01]
	A63F 5/02	Roulette-like ball games [2006.01]
	A63F 5/04	Disc roulettes; Dial roulettes; Teetotums; Dice-tops [2006.01]
+	A63F 7/00	Indoor games using small moving playing bodies, e.g. balls, discs or blocks (board games, raffle games A63F 3/00; roulette games A63F 5/00; aspects of games using an electronically generated display having two or more dimensions showing representations related to the game A63F 13/00; miniature bowling games A63D 3/00; bagatelle or similar games A63D 13/00; billiards, pocket billiards A63D 15/00) [2006.01]
+	A63F 9/00	Games not otherwise provided for (aspects of games using an electronically generated display having two or more dimensions showing representations related to the game A63F 13/00) [2006.01]
+	A63F 11/00	Game accessories of general use [2006.01]
+	A63F 13/00	Video games, i.e. games using an electronically generated display having two or more dimensions [2014.01]



USPC Scheme

Game	
Amusement railways	104 / 53+
Annunciator systems	340 / 323 R
Board games	273 / 236+
Board or surface	D21 / 334+
Checkerboard	D21 / 348+
Cribbage	D21 / 343
Dart	D21 / 387
Domino	D21 / 391
Horseshoe	D21 / 387
Tic-tac-toe	D21 / 344
Carrier	224 / 103
Other than stringer	224 / 921*
Check or coin control	194
Computer	463 / 1+
Computer analysis, management, or	700 / 91+
Monitoring	700 / 91+
Computer scoring	700 / 92
Design	D21 / 300+
Electronic type	D21 / 324+
Fluid filled	D21 / 311
Game apparatus	273
Projectile	473
Handicapping, computer	700 / 93
Peg tally board	235 / 90
Pieces	273 / 288+
Design, misc	D21 / 386+
Score boards	116 / 222+
Spinners & indicators for	D21 / 374+
Tables	D21 / 397
Tally sheet	283 / 49+
Target	D21 / 302+
Tv	463 / 1+
Tv, input control	463 / 36+

```
      Puzzle
      273 / 153 R+

      Design
      D21 / 478

      Jigsaw type
      428 / 33

      Locks
      70 / 289
```



US patent number:

0053561 A

USPC:

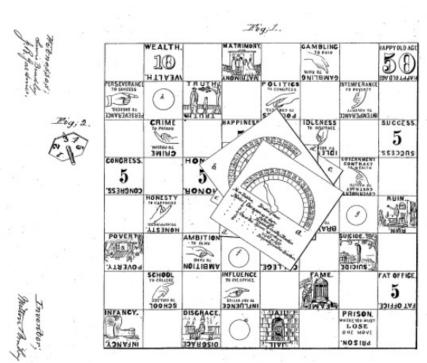
273/243 - Chance device controls amount or direction of movement of piece

283/49 - Printed Matter: Game

CPC:

A 63 F 3/00006 - Board games played along a linear track, e.g. game of goose, snakes and ladders, along an endless track

M. Bradley, Game Board. N°53561. Patented Apr.3,1866.



US patent number:

US 0524212 A

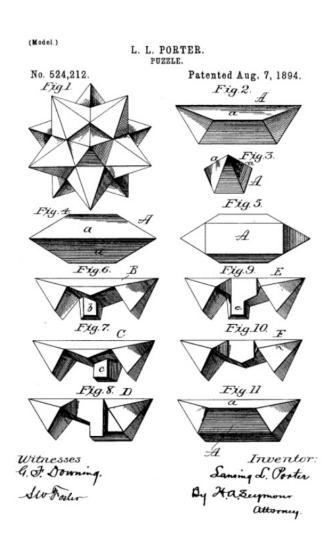
USPC:

273/160 - Mortised blocks,

D21/479 - Interfitting elements (e.g., take apart and put together)

CPC:

A 63 F 9/12 - Threedimensional jig-saw puzzles





US patent number:

US 0748626 A

USPC:

273/256 - Property or commodity transactions

CPC:

A 63 F 3/00072 - Board games concerning economics or finance, e.g. trading; played along an endless track, e.g. monopoly

No. 748,626.

PATENTED JAN. 5, 1904.

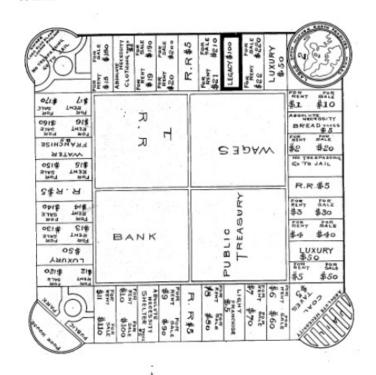
L. J. MAGIE.

GAME BOARD.

APPLICATION FILED MAR. 21. 1903.

NO MODEL.

2 SHEETS-SHEET 1.



Witnesses F. L. Orwand M. Dusand

Lizzie J. Magie by John adaul.



No. 779,861.

PATENTED JAN. 10, 1905.

US patent number:

G. J. MARINGER.
PUZZLE.
APPLICATION FILED JULY 12, 1904.

US 0779861 A

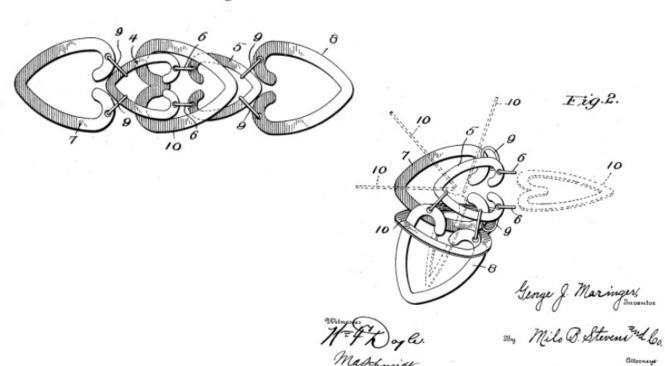
Fig.1.

USPC:

273/156 - Takeaparts and puttogethers



A 63 F 9/12 - Threedimensional jig-saw puzzles



G. S. PARKER.

GAME CARDS.

APPLICATION FILED APR. 7, 1909.

Patented Mar. 22, 1910.

US patent number: 952,939.

US 952939 A

USPC:

273/303 - Suits

CPC:

A 63 F 1/02 -Cards; Special shapes of cards





Witnesses: Francis of Bishop. Heracl A. Crossman Inventor: George S.Parker by Emery & Booth Ittrys.



DESIGN.

W. G. YOUNG.

GAME BOARD.

APPLICATION FILED OCT. 27, 1917.

51,623.

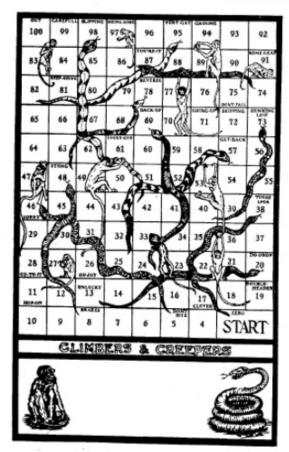
Patented Dec. 18, 1917.

US patent number:

US D051623 S

USPC:

D21/360 - GAME OR GAMBLING ARTICLE: Board or surface: Simulative: Animate





US patent number:

US 1903661 A

USPC:

273/248 - Race to a finish (e.g., backgammon)

CPC:

A 63 F 3/00088 - Board games concerning traffic or travelling

A 63 F 3/00006 - Board games played along a linear track, e.g. game of goose, snakes and ladders, along an endless track

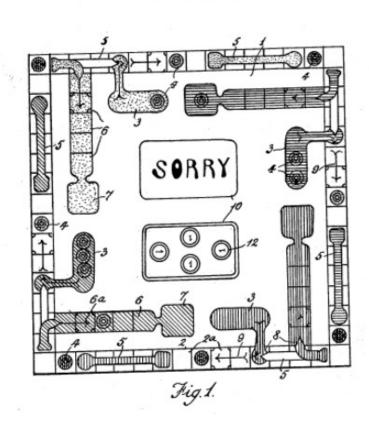
April 11, 1933.

W. H. STOREY

1,903,661

PPLIANCE FOR PLAYING GAMES

Filed Aug. 4, 1930





US patent number:

US 2026082 A

USPC:

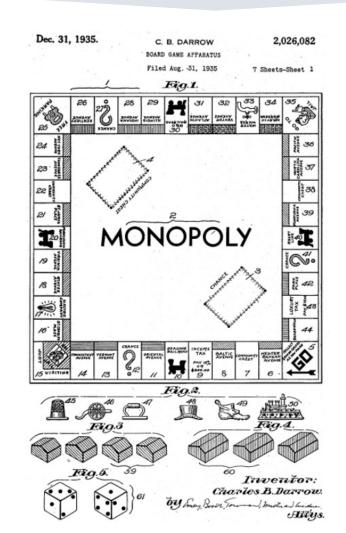
273/256 - Property or commodity transactions

D21/350 - Board or surface; Simulative

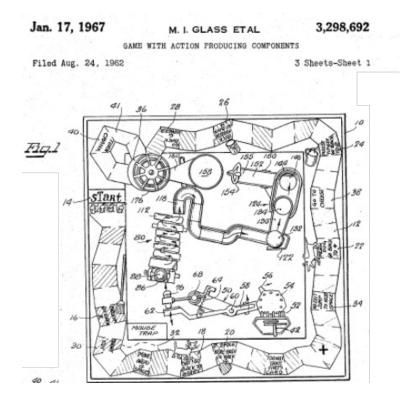
CPC:

A 63 F 3/00072 - played along an endless track, e.g. monopoly

A 63 F 3/00006 - Board games played along a linear track, e.g. game of goose, snakes and ladders, along an endless track







US patent number:

US 3298692 A

USPC:

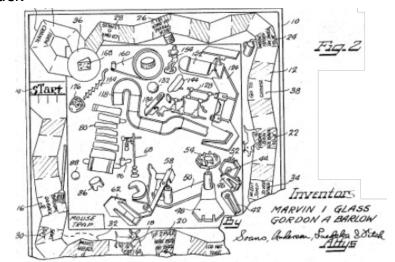
446/169 - For moving figure or figure portion **446/102** - Having parts assembled for relative movement **273/276** - Construction or assembly games

CPC:

A 63 F 9/00 - Games not otherwise provided for

A 63 F 7/3622 - Specially shaped rolling boards for the balls, e.g. ball tracks

A 63 F 3/00895 - Accessories for board games A 63 F 3/00006 - Board games played along a linear track, e.g. game of goose, snakes and ladders, along an endless track



US patent number:

US 3485496 A

USPC:

273/157R - Geometrical figures, pictures, and maps **446/110** - CONSTRUCTION TOY: Including connectable panels or strips: And door, window or perfecting structure for building

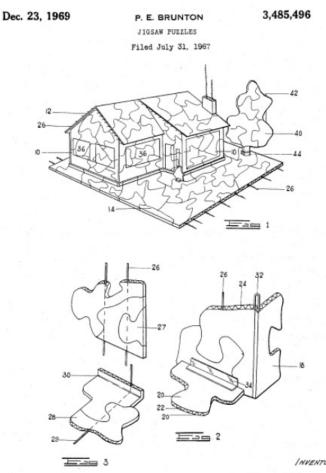
CPC:

G 09 B 1/36 - Manually or mechanically operated educational appliances using elements forming, or bearing, symbols, signs, pictures, or the like which are arranged or adapted to be arranged in one or more particular ways: comprising elements to be used without a special support: the elements being connectible by corresponding projections and recesses

A 63 F 9/10 - Two-dimensional jig-saw puzzles

A 63 F 9/12 - Three-dimensional jig-saw puzzles

A 63 F 2009/1248 - with a final configuration representing a house or other building



PHILLIP E. BRUNTON ON Young & Thornfred

US patent number:

US 4378116 A

USPC:

273/153S - Shifting movement

CPC:

A 63 F 9/0834 - Puzzles provided with elements movable in relation, {i.e. movably connected}, to each other: Three-dimensional puzzles with slidable or rotatable elements or groups of elements, the main configuration remaining unchanged, e.g. Rubik's cube: comprising only two layers, e.g. with eight elements

United States Patent [19]

[11] 4,378,116

Mar. 29, 1983

| SPATIAL LOGICAL TOY |
| To | Inventor: Ernő Rubik, Budapest, Hungary |
| Assignee: Politory Ipari Szövetkezet, Budapest, Hungary |
| Appl. No.: 289,192 |
| Filed: Aug. 3, 1981 |
| To | Foreign Application Priority Data |
| Oct. 28, 1980 [HU] Hungary | 2598/80 |
| To | Spatial Spatial

170062 2/1978 Hungary OTHER PUBLICATIONS

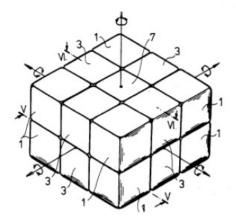
Scientific American, Mar. 1981, p. 39.

Primary Examiner—Anton O. Oechsle Attorney, Agent, or Firm—Gabriel P. Katona

ABSTRACT

A spatial logical toy is formed from a total of eighteen toy elements, out of which two sets of eight identical toy elements two connecting elements are provided. The elements of the two sets have cam members with hollows with spherical convex or concave surfaces in-between. The elements are connected by the aid of the cams and the two remaining centrally positioned substantially identical connecting elements each having a T-shape cross-section and when assembled the toy is in the form of a regular or an irregular solid. Fixation is performed by one single screw passing through bores in the connecting elements. In such a manner the toy elements forming the lateral faces of the spatial logical toy can be rotated along the spatial axes and by yielding several variation possibilities the toy is well suitable for stimulating logical thinking activity.

7 Claims, 12 Drawing Figures





US patent number: US 5681041 A

USPC:

273/157R - Geometrical figures, pictures, and maps

D21/615 - Animate Figure: Dinosaur or dragon **428/16** - THREE DIMENSION IMITATION OR "TREATED" NATURAL PRODUCT: Fauna

273/160 - Mortised blocks

446/114 - Connected with adjacent edges transversely oriented

428/33 - PLURAL PARTS WITH EDGES OR TEMPORARY JOINING MEANS EACH COMPLEMENTARY TO OTHER

446/377 - Having movably joined body parts: Walking

CPC:

A 63 F 9/12 - Three-dimensional jig-saw puzzles



United States Patent [19]

Coon

[11] Patent Number: 5,681,041

54]	THREE	DIMENSIONAL PUZZLE	

[76] Inventor: Raymond S. Coon, 109 Boley St., Oak Hill W Va. 25001

[21] Appl. No.: 721,916

[22] Filed: Sep. 26, 199

Related U.S. Application Data

[60]	Provisional application No. 60/004,629 Nov. 26, 1995.
[51]	Int. CL ⁶
[52]	U.S. Cl 273/157 R; 273/160; 446/114;

[6] References Cited

U.S. PATENT DOCUMENTS

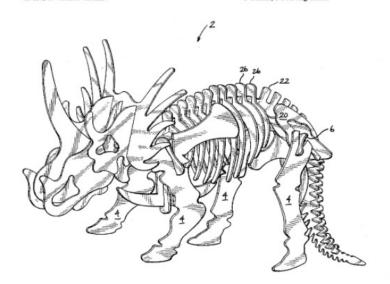
D. 257,369	10/1980	Kodaka .
D. 257,370	10/1980	Kodaka .
D. 257.371	10/1980	Kodaka .
D. 257.372	10/1980	Kodaka .
D. 257.373	10/1980	Kodaka

D. 257.514 11/1980 Kodaka .
1,211.590 1/1917 Kennedy 273/157 R
1,706,383 3/1929 Ashkenas 446/114
1,910,089 2/1933 Chomik 446/114
2,585,419 2/1952 Zadengo 273/157 R
3,468,056 9/1969 Gardel et al. 273/157 R
3,570,169 3/1971 Jacob 446/377
4,118,887 10/1978 Appleman .

[57] ABSTRACT

A three-dimensional, representational puzzle having frictionally mating pieces with selected pivoting pieces which allow motion of the puzzle when assembled. The exemplary puzzle is representative of a dinosaur, wherein a V-shaped cut-out is provided in a pivoting piece representing a leg, on which a slitted piece supporting the body of the dinosaur rests. A puzzle representing a dinosaur which can rock on its appendages or otherwise positioned is thereby created.

3 Claims, 3 Drawing Sheets



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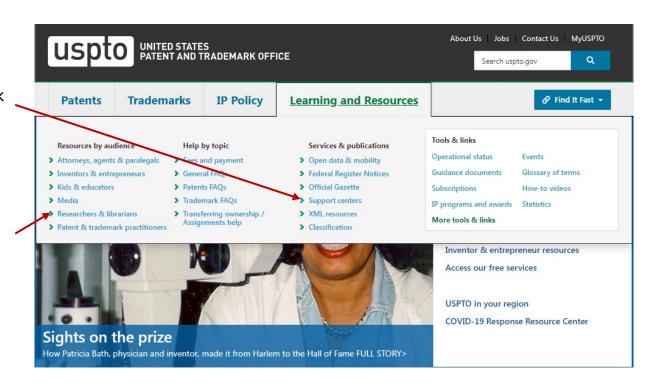
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Monday – Friday, 8:30 a.m. – 8 p.m. ET, except federal holidays

- 800-PTO-9199 (800-786-9199)
- 571-272-1000

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https://www.uspto.gov/learning-and-resources/support-centers/inventors-assistance-center-iac



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- Email
 - TrademarkAssistanceCenter@uspto.gov
- Webpage: <u>www.uspto.gov/TrademarkAssistance</u>



Other USPTO resources

General Information: 1-800-PTO-9199

Resource	Website
Utility patent application guide	www.uspto.gov/patents/resources/types/utility.jsp
Patent process	www.uspto.gov/patents/process
Patent search guide	www.uspto.gov/patents/process/search
Inventor and entrepreneur resources	www.uspto.gov/inventors
Pro se assistance	www.uspto.gov/ProSePatents
Micro entity Information	www.uspto.gov/PatentMicroentity





Thank you!

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Quality Assurance Specialists, TC 3700

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