

# Finding and Protecting the Invention In Your Ideas

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Presented to:

BET 320

University of Waterloo

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# Topics

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- Patent filing strategies
- Patent inventorship issues
- Patentability searches
- Drafting patents

# Patent Filing Strategies

## Take your pick!

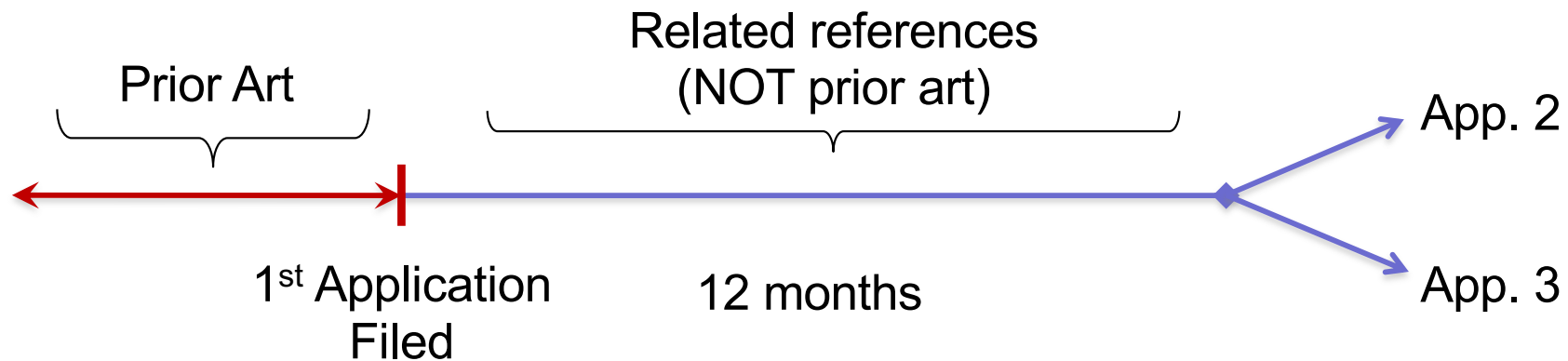
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- U.S. Provisional
- U.S. Formal
- Canadian
- European
- PCT

Different strategies  
Different approaches that you  
can take, look at your business,  
goals and then decide what  
strategy to take

# Getting priority

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**Everything you did right  
before the day you filed  
is Prior Art, everything  
else is \*NOT\***

**You can file more patents**

*Blakes*

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# U.S. Provisional Patent Application

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- Gives patent pending status
- Gives a priority date
- Low filing cost
- Remains a secret
- Is not examined
- Cannot become a patent
- Expires after one year

cheap (U\$250), less requirement, the one you want to file before giving a pitch

Establishes your priority date, and expires in that year, and you have to refile in an year to actually \*get\* that patent

# U.S. Formal Patent Application

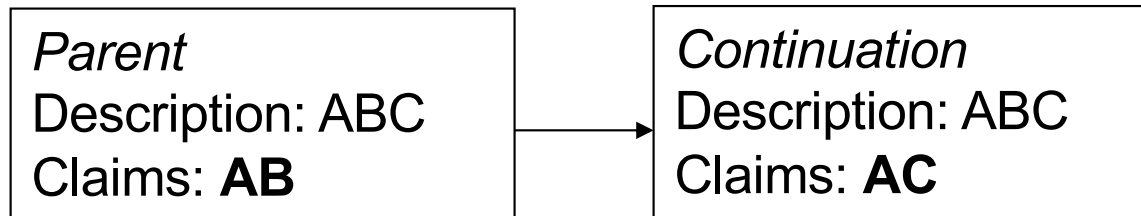
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- Gives patent pending status
- Gives a priority date
- Higher filing cost
- Will be published *More restrictions*
- Is automatically examined
- Can become a patent

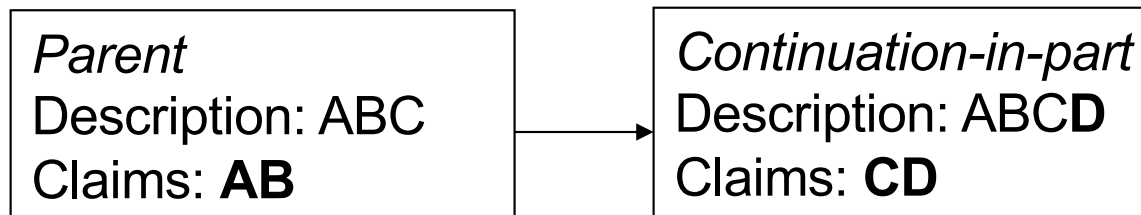
# Extending the U.S. family

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- Continuation or Divisional applications
  - *Same* description, different claims



- Continuation-in-part application
  - *Added content* to description, different claims



# Canadian Patent Application

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- Gives patent pending status
- Gives a priority date
- Moderate Cost
- Will be published
- Will need to request the patent office to examine the application
  - can become a patent

This  
patent  
will only  
be valid  
in Canada



# European Patent Application

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- Unified patent application process for European countries (all EU countries and more)
- Gives a priority date
- Will be published
- Is automatically examined
- After it is allowed, the EP patent application must be validated in European countries

By law, you're required to  
file first in country of  
citizenship

# PCT Patent Application

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- Patent Cooperation Treaty involving 152 countries
- Gives a filing date in all member countries
- Will be published *reduces your cost of filing*
- High cost
- Must file national applications within 20, 30, or 31 months from priority date, depending on the country
- International Search Report provided
- PCT application will not become a patent

# Which filing strategy is best for you?

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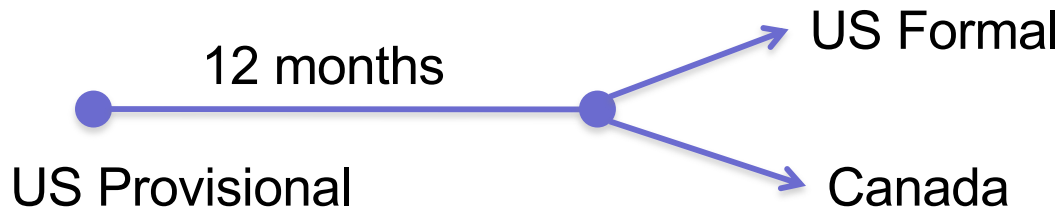
- What is your budget for patent filing?
- Where do you think your business, customers, competitors, or manufacturing will be located?
- Will you keep improving the technology within the next year?
- Is getting an issued patent as soon as possible important?

Catch-22  
basically  
because  
they are  
saying that  
they won't  
sue if you  
don't

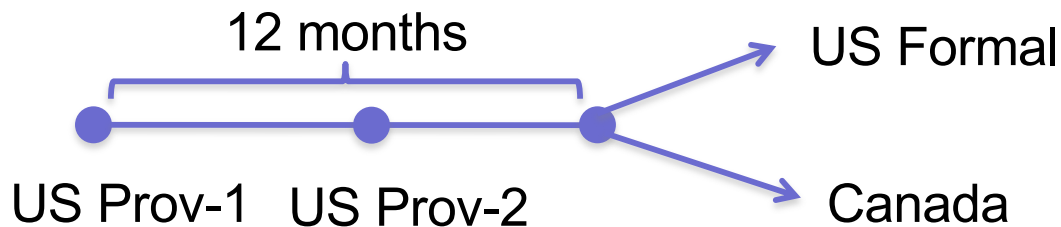
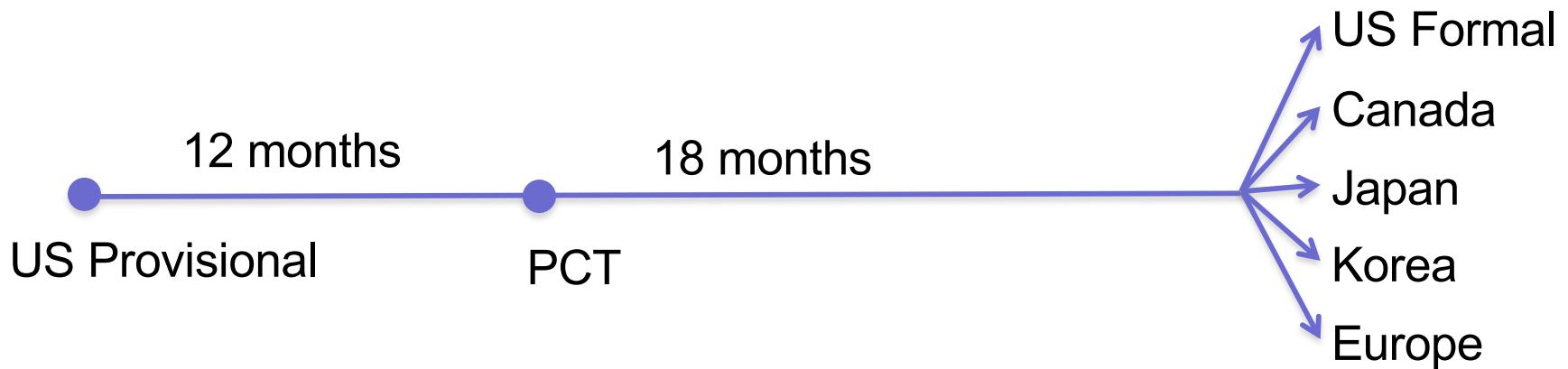
Tesla, is not going to  
enforce any of their  
patents  
David's hatred of  
Telsa is consistent  
across

*Blakes*

# US Provisional Examples

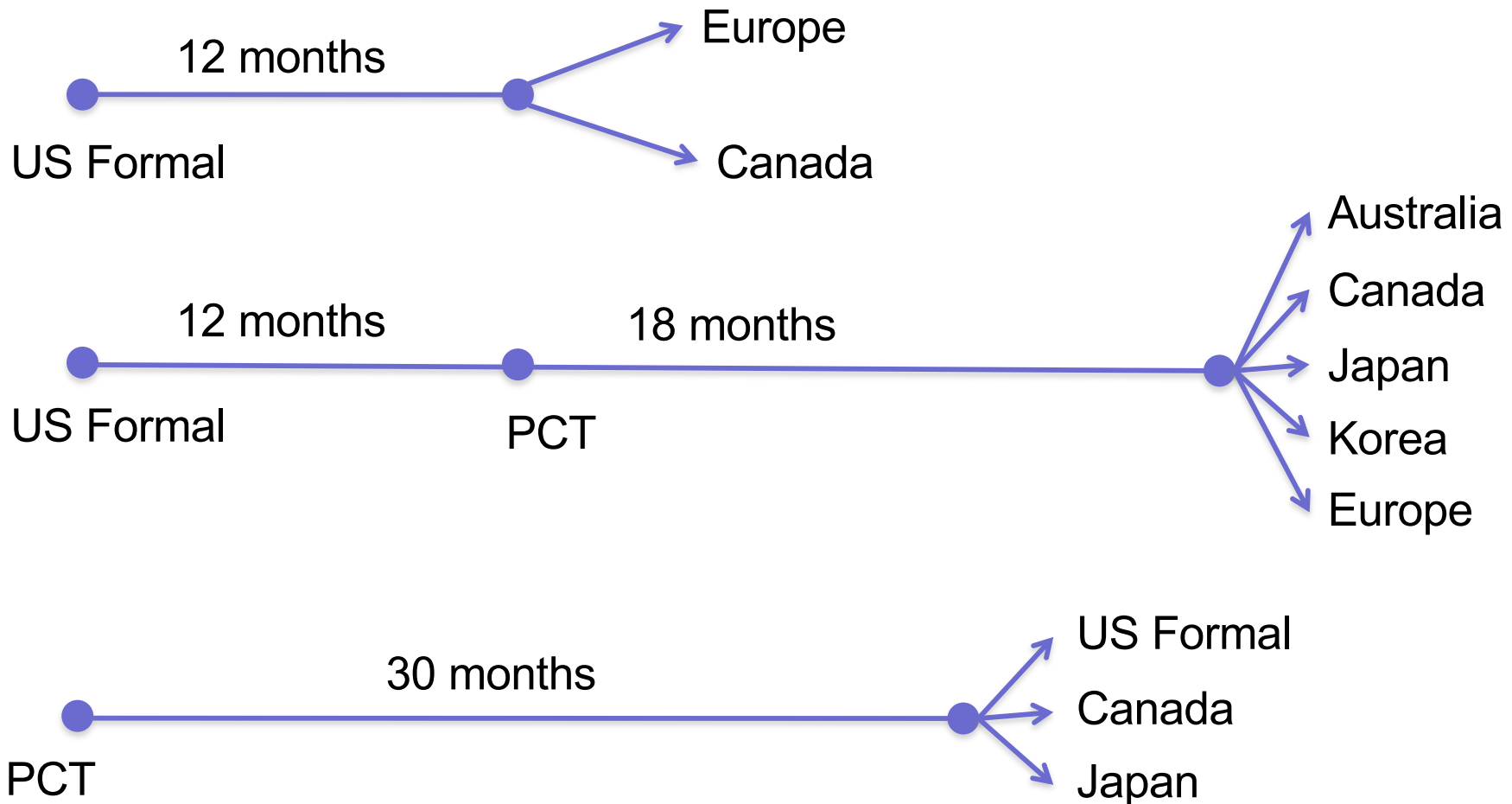


**Big Pharma protects everywhere**

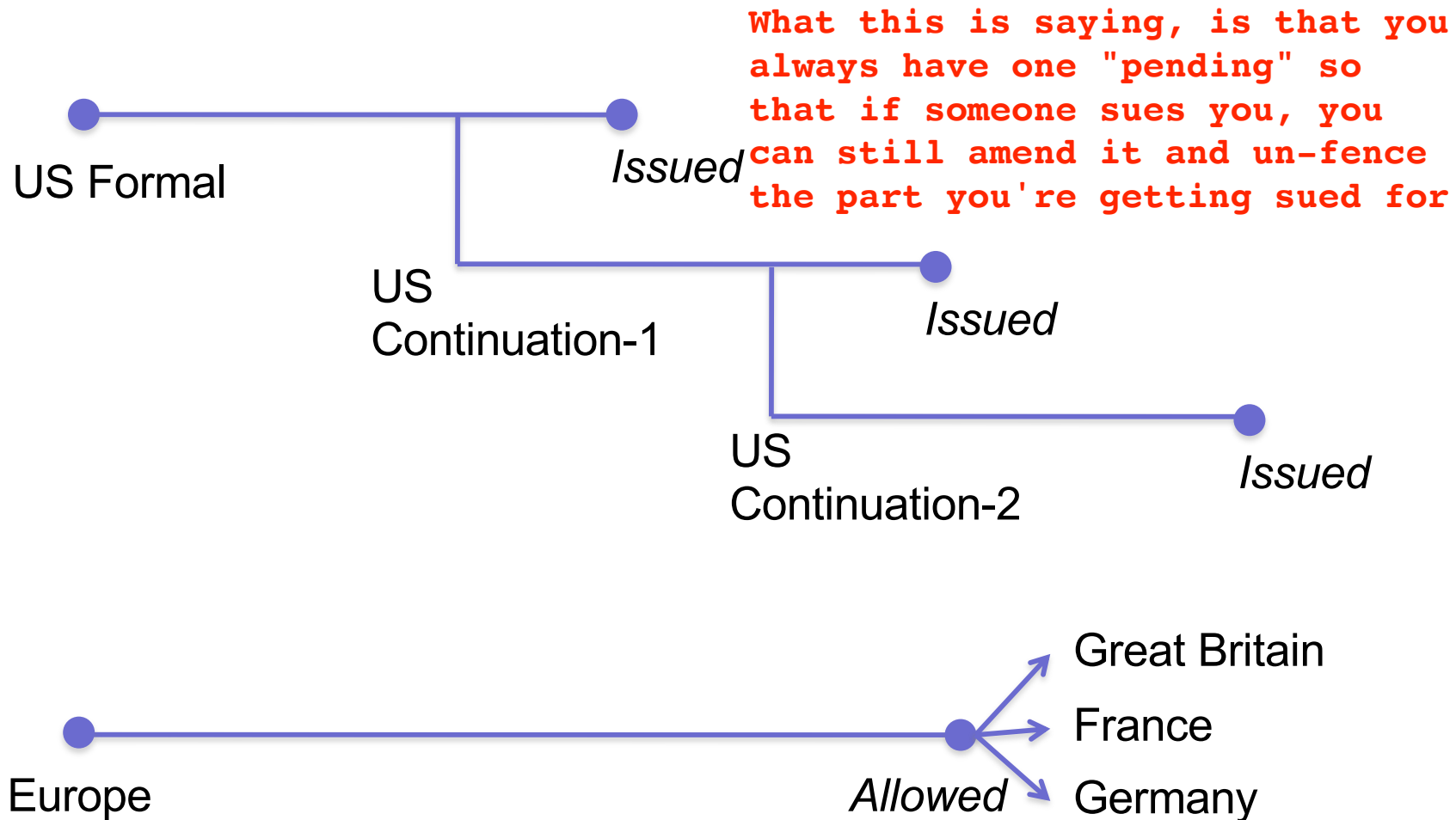


**ThermaBlade only  
Canada cause  
Africa does not  
make sense**

# Other Examples



# Other Examples



# Who owns the patent application?

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- Inventors own the invention, unless there is an agreement
  - Employment agreement, IP agreement, assignment, etc.
- Get signatures for **assignment** ASAP
- Waterloo Policy 73 states:
- IP creators get full right of ownership\*\*

\*\*Not always true, check with your project supervisor

# Performing your own search

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- [Google Patents](#)
- [US](#)
- [WIPO](#)
- [EPO](#)
- [CIPO](#)




# Performing your own search




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- Identify keywords to describe your invention
- Identify synonyms of keywords
- Identify alternate environments for the invention



# Patent Search Example




(lego)





SEARCH TERMS 


lego  or  *Synonym*


 *Synonym*



SEARCH FIELDS



 Date · Priority 


YYYY-MM-DD — YYYY-MM-DD

 *+ Inventor*




 *+ Assignee*

Patent Office  Language 

Status  Type 

Litigation 

About 6,894 results

Sort by · Relevance  Grouped by · None  Results / page · 10 

**Lego-type module of dye-sensitized solar cells**

ON JP KR · [KR100567331B1](#) · 강만구 · 한국전자통신연구원

Priority 2004-08-04 · Filing 2004-08-04 · Grant 2006-04-04 · Publication 2006-04-04

It presents the **Lego**-type dye-sensitized solar cell module. According to the invention, the mutually opposing aligned introduction of the transparent two first substrates, the first becomes the relatively stretched out as compared to the first substrate doedoe introduce overlap shifted to the ...

**lego-type triangle structure for cat play**

WO KR · [KR101588557B1](#) · 김윤수 · 김윤수

Priority 2015-11-30 · Filing 2015-11-30 · Grant 2016-01-28 · Publication 2016-01-28

The present invention relates to pets, especially cats cats play **Lego**-type triangular structure as possible to take advantage of a structure such as a possible addition to bookshelves and other furniture paper provides a fun playground. The main configuration of the present invention for achieving ...

**Lego type insulation panel and method of it**

WO KR · [KR101246631B1](#) · 김태훈 · 주식회사 흥성이엔지

Priority 2012-06-25 · Filing 2012-06-25 · Grant 2013-03-25 · Publication 2013-03-25

PURPOSE: A **lego** type insulating panel and a manufacturing method thereof are provided to simultaneously implement sound absorption, soundproofing, dustproofing, thermal insulation and finishing, to conveniently assemble the panels, and to correspond to eco-friendly low-carbon green growth entirely ...

# LEGO Patent

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- Identify Keywords:
  - Toy, build\*, block
- Identify Synonyms:
  - Play\*, construct\*, stack\*, brick
- Identify Alternate Environments
  - Can be used for construction (housing etc.)

# LEGO Patent

The screenshot shows the Google Patents search interface. The search bar at the top contains the query "(toy) (build\*) (block)". Below the search bar, the results are displayed. The first result is titled "Magnetic toy or building block" and is associated with patent US 3601921A by Robert F Strohmaier. The second result is titled "Toy building-block" and is associated with patent US 1236234A by Oscar R Troje. The third result is titled "Magnetic toy building blocks" and is associated with patent US 2939243A by Robert G Duggar. The search results are sorted by Relevance, and there are 24,878 results found. The left sidebar shows the search terms and fields, and the right sidebar shows download and side-by-side options.

Google Patents

(toy) (build\*) (block)

SEARCH TERMS

toy x or + Synonym

build\* x or + Synonym

block x or + Synonym

+ Synonym

SEARCH FIELDS

Date · Priority

YYYY-MM-DD — YYYY-MM-DD

+ Inventor

+ Assignee

Patent Office · Language

Status · Type

About 24,878 results

Sort by · Relevance · Grouped by · None · Results / page · 10

Download Side-by-side

**Magnetic toy or building block**

US • US3601921A • Robert F Strohmaier • Robert F Strohmaier

Priority 1969-07-22 • Filing 1969-07-22 • Grant 1971-08-31 • Publication 1971-08-31

A magnetic **toy** or **building block** having four of the six faces provided with magnetic pieces, with the same polarity being provided with the opposite faces, whereby the **blocks** upon being assembled together need to be assembled so faces of unlined polarity are joined and wherein the faces of line ...

**Toy building-block.**

US • US1236234A • Oscar R Troje • Oscar R Troje

Priority 1917-03-30 • Filing 1917-03-30 • Grant 1917-08-07 • Publication 1917-08-07

4. A **toy building block** having a permanent magnet embedded therein and having 'one exposed side disposed flush with a side of the **block**. 5. A **toy building block** having a permanent magnet embedded therein and having two sides disposed flush with two sides of the **block**. 6. A **toy building block** having ...

**Magnetic toy building blocks**


US • US2939243A • Robert G Duggar • Robert G Duggar

Priority 1957-08-08 • Filing 1957-08-08 • Grant 1960-06-07 • Publication 1960-06-07

June 7, 1960 R. G. DUGGAR MAGNETIC **TOY BUILDING BLOCKS** Filed Aug. 8, 1957 INVENTOR: v ATTORINYS. 2,939,243 Patented June 7, 1960 Unified Safes Pam' Once V2,939,243 MAGNEnc **TOY BUILDING BLOCKS** Robert G. Duggar, Rte. 3, Box 28, Jasper, Ala. Filed Aug. 8, 1957, Ser. No. 677,065 s claims. (cl. 1s-424) ...

[https://patents.google.com/?q=toy&q=build\\*&q=block](https://patents.google.com/?q=toy&q=build*&q=block)

# LEGO Patent



((toy) OR (Play\*)) ((build\*) OR (construct\*)) ((block) OR (brick) OR (stack))

SEARCH TERMS ⓘ

×

About 4,448,141 results

Sort by · Relevance ▾ Grouped by · None ▾ Results / page · 10 ▾

toy × or Play\* × or + Synonym

build\* × or construct\* × or  
+ Synonym

block × or brick × or stack × or  
+ Synonym

+ Synonym

SEARCH FIELDS

📅 Date · Priority ▾  
YYYY-MM-DD — YYYY-MM-DD

👤 + Inventor

🏢 + Assignee

## Toy construction block set

US • [US3224137A](#) • John H Wright • Spalding A G & Bros Inc  
Priority 1963-03-04 • Filing 1963-03-04 • Grant 1965-12-21 • Publication 1965-12-21

1. IN A **TOY CONSTRUCTION SET**, THE COMBINATION INCLUDING A PLURALITY OF **CONSTRUCTION BLOCKS** HAVING THE SAME WIDTH BUT HAVING VARIOUS LENGTHS AND PROFILES, SAID **BLOCKS** HAVING HOLLOW BASE PORTIONS WITH AT LEAST ONE WALL OF SAID BASE PORTIONS DEFINING A GENERALLY KEYHOLE-SHAPED RECESS HAVING AN ...

## Magnetic toy or building block

US • [US3601921A](#) • Robert F Strohmaier • Robert F Strohmaier  
Priority 1969-07-22 • Filing 1969-07-22 • Grant 1971-08-31 • Publication 1971-08-31

A magnetic **toy** or **building block** having four of the six faces provided with magnetic pieces, with the same polarity being provided with the opposite faces, whereby the **blocks** upon being assembled together need to be assembled so faces of unlined polarity are joined and wherein the faces of line ...

## Toy building brick

US • [US3005282A](#) • Christiansen Godtfred Kirk • Interlego Ag  
Priority 1958-01-28 • Filing 1958-07-28 • Grant 1961-10-24 • Publication 1961-10-24

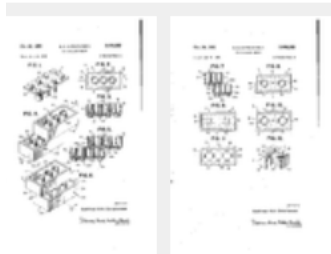
FIG. 1 is a view of a **toy brick** of the basic type comprising a base plate provided with projections at both faces. FIGURE 2 is aplan view in the direction of the open face of a preferred embodiment of the invention in the form of a **building block** inthe shape of a rectangular parallelepiped of ...



Back to results toy; build\*, construct\*; block, brick, stack;

## toy building brick

Images (2)



## Classifications

[A63H33/086](#) Building blocks, strips, or similar building parts to be assembled without the use of additional elements provided with complementary holes, grooves, or protuberances, e.g. dovetails with primary projections fitting by friction in complementary spaces between secondary projections, e.g. sidewalls

[https://patents.google.com/patent/US3005282A/en?q=toy&q=build\\*&q=block,brick](https://patents.google.com/patent/US3005282A/en?q=toy&q=build*&q=block,brick)

# US3005282A

United States



Download PDF



Find Prior Art



Similar

Inventor: [Christiansen Godtfred Kirk](#)

Current Assignee : [Interlego AG](#)

## Worldwide applications

1958 • [US](#)

## Application US751387A events

1958-01-28 • Priority to DK3005282X

1958-07-28 • Application filed by Interlego AG

*Blakes*

# Other Tips

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- Identify the classes of technology
- i.e. Class A63H33/086

## Classifications

A HUMAN NECESSITIES

A63 SPORTS; GAMES; AMUSEMENTS

A63H TOYS, e.g. TOPS, DOLLS, HOOPS, BUILDING BLOCKS

A63H33/00 Other toys

A63H33/04 Building blocks, strips, or similar building parts

A63H33/06 Building blocks, strips, or similar building parts to be assembled without the use of additional elements

A63H33/08 Building blocks, strips, or similar building parts to be assembled without the use of additional elements provided with complementary holes, grooves, or protuberances, e.g. dovetails

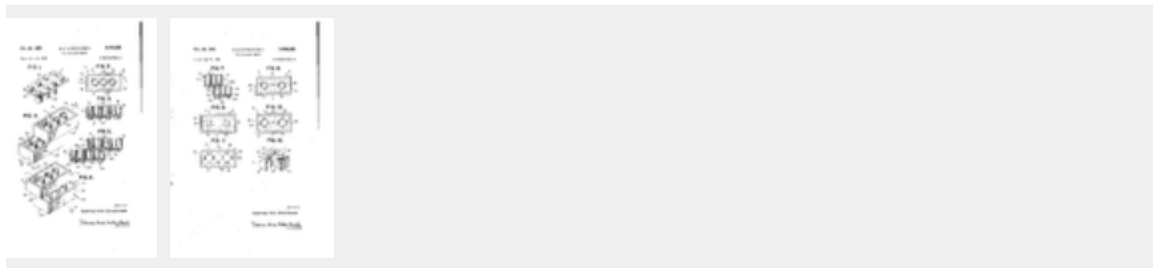
A63H33/086 Building blocks, strips, or similar building parts to be assembled without the use of additional elements provided with complementary holes, grooves, or protuberances, e.g. dovetails with primary projections fitting by friction in complementary spaces between secondary projections, e.g. sidewalls



Back to results toy; build\*, construct\*; block, brick, stack;

## toy building brick

Images (2)



## classifications

**A63H33/086** Building blocks, strips, or similar building parts to be assembled without the use of additional elements provided with complementary holes, grooves, or protuberances, e.g. dovetails with primary projections fitting by friction in complementary spaces between secondary projections, e.g. sidewalls

# US3005282A

United States



Download PDF



Find Prior Art



Similar

Inventor: [Christiansen Godtfred Kirk](#)

Current Assignee : [Interlego AG](#)

## Worldwide applications

1958 • [US](#)

## Application US751387A events

1958-01-28 • Priority to DK3005282X

1958-07-28 • Application filed by Interlego AG



# Other Tips

Forward search – look for patents or applications that cite this patent

Backward search – look for patents or applications that were cited during the prosecution of the patent

## Patent Citations (8)

Publication number	Priority date	Publication date	Assignee	Title
<a href="#">BE504134A</a> *				
<a href="#">US556271A</a> *		1896-03-10		Building-brick
<a href="#">FR940270A</a> *		1900-01-01		
<a href="#">US879455A</a> *	1907-05-29	1908-02-18	Charles W Frost	Toy building-block.
<a href="#">GB191506610A</a> *	1915-05-03	1916-04-27	Marc Schopfer	Building Blocks.
<a href="#">US1191884A</a> *	1916-02-08	1916-07-18	Stanley W Finch	Building-block.
<a href="#">GB676469A</a> *	1950-02-24	1952-07-30	Die Casting Machine Tools Ltd	Improvements in or relating to toy building blocks
<a href="#">US2703487A</a> *	1949-09-30	1955-03-08	Ossoinack Andrea	Interlocking hollow building block
Family To Family Citations				

\* Cited by examiner, † Cited by third party

## Cited By (204)

Publication number	Priority date	Publication date	Assignee	Title
<a href="#">US3195266A</a> *	1962-05-07	1965-07-20	Richard A Onanian	Construction toy comprising blocks and coupling means
<a href="#">US3234683A</a> *	1961-10-19	1966-02-15	Interlego Ag	Toy building element including a rotatable bushing

*akes*

# Next Steps

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- Read the disclosure
- Review the figures
- Figure out what makes your invention:
  - Novel  
Prior Art  $\neq$  Your Invention
  - Inventive  
Prior Art 1 + Prior Art 2 + ... + Prior Art X  $\neq$  Your Invention
  - Useful

# Analyzing Search Results

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- Keep a record of your search parameters
- Identify similarities
- Identify differences and corresponding advantages
- If you think a document is relevant, you must keep a record of it and submit it to the USPTO in an Information Disclosure Statement

# Writing your own patent application

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- Title
- Background
- Brief Description of the Figures
- Detailed Description
- Claims
- Abstract
- Figures

# A well-written description

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- Describes all the inventive aspects of invention
- Enables a skilled person to recreate the invention
- Describes different embodiments or variations
- Describes advantages of features
- Avoids narrowing language (e.g. must, only, requires)
- Keep in mind: the claims can change, but the description cannot change

Claims are actually what are contested, you can add more in the description and amend in the claim after

# Claim your IP territory

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- Claims must be supported by the description
- The independent claim is the most broad
- The dependent claims are sub-features

1. In a toy building set, a hollow building block of rectangular parallelepiped shape comprising a bottom and four side walls, at least four cylindrical projections extending normally outwardly from said bottom and arranged in two rows of opposed projections to define a square, a tubular projection extending normally from the inner face of said bottom, and parallel to said side walls, the longitudinal axis of said tubular projection passing through the center of said square, and the peripheries of said cylindrical projections contacting said tubular projection and at least one side wall when said peripheries are geometrically projected normally to said bottom, whereby the cylindrical projections on one of said blocks may be inserted into clamping engagement with a tubular projection and a wall of another of said blocks.

# Resources

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- [CIPO Guide to Patents](#)

scrutiny is p gg so you should not generally do it on your own

- [IP Watchdog: How to Write a Patent Application](#)

- [shaivi.bhatt@blakes.com](mailto:shaivi.bhatt@blakes.com)

# Thank You

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