PhD+ 2015

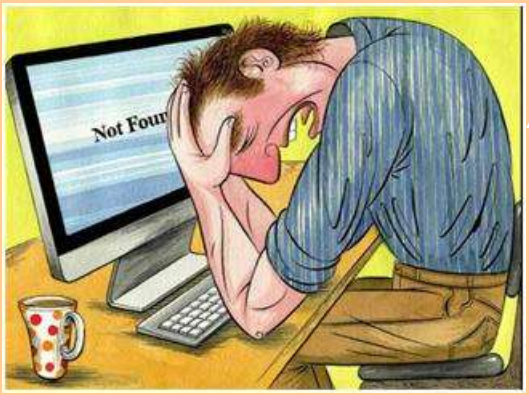
How to write a patent and attract interest on an invention

Dr. Eng. Marco Celestino
European Patent Attorney
ABM - PISA

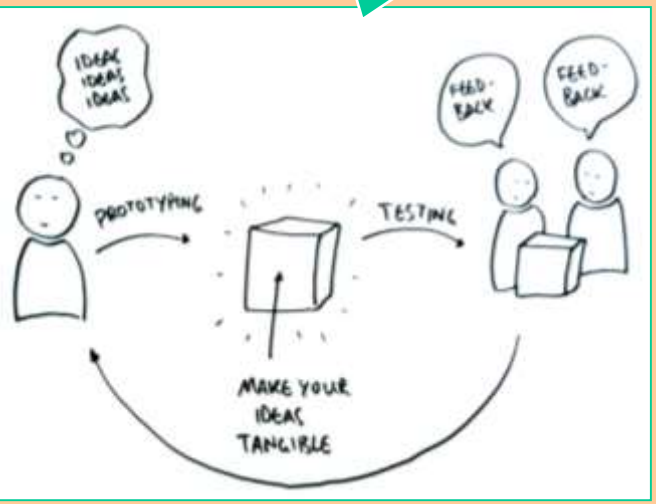
Invention cycle

Technical problem

Inventive effort

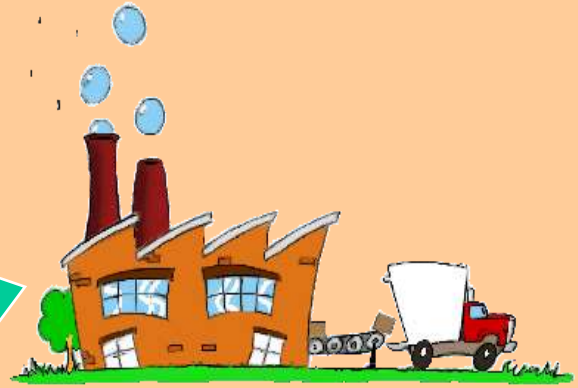


Solution to the problem



Prototyping and testing

Finding potential clients and investors

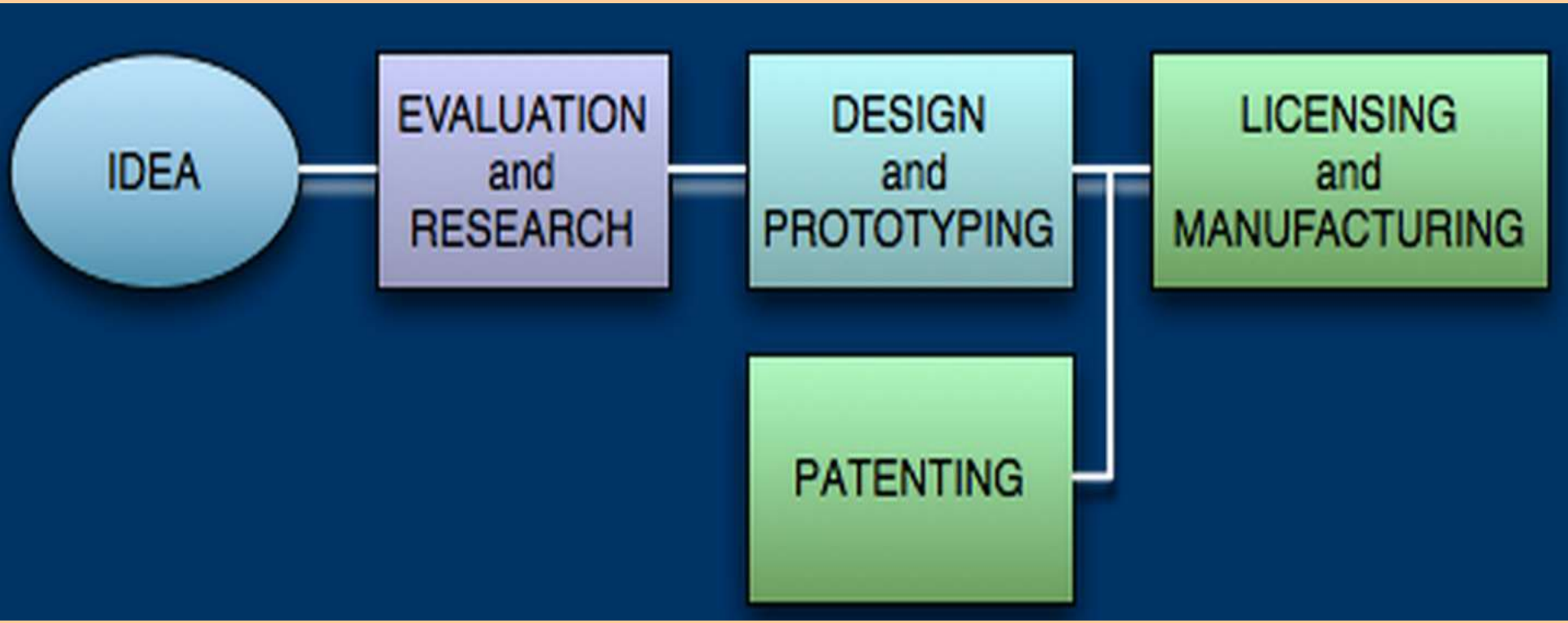


Engineering and production

Sales and commercial success

Forgot something?

Yes, protecting IP!



Patent = fence

An invention can be a gold mine, the patent is the “fence”, that defines the inventor’s property

If no gold in the mine, the fence is useless,

If no fence, everyone can get the gold, and the inventor can only get its own share

New Beehive

Video

Patent Family

	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
1. IMPROVEMENTS TO APICULTURE	ANDERSON CEDAR [AU] ANDERSON STUART [AU]	ANDERSON CEDAR [AU] ANDERSON STUART [AU]	A01K47/02 A01K47/04 A01K59/00	A01K47/00 A01K47/04 A01K59/00 (+1)	WO2013091018 (A1) 2013-06-27	2011-12-21
2. Improvements to apiculture	ANDERSON CEDAR ANDERSON STUART	ANDERSON CEDAR ANDERSON STUART	A01K47/02 A01K47/04 A01K59/00	A01K47/00 A01K47/04 A01K59/00 (+1)	AU2012357650 (A1) 2014-07-24	2011-12-21
3. IMPROVEMENTS TO APICULTURE	ANDERSON CEDAR [AU] ANDERSON STUART [AU]	ANDERSON CEDAR [AU] ANDERSON STUART [AU]	A01K47/02 A01K47/04 A01K59/00	A01K47/00 A01K47/04 A01K59/00 (+1)	CA2857701 (A1) 2013-06-27	2011-12-21
4. Improvements to apiculture	ANDERSON CEDAR ANDERSON STUART	ANDERSON CEDAR ANDERSON STUART	A01K47/02 A01K47/04 A01K59/00	A01K47/00 A01K47/04 A01K59/00 (+1)	CN104053356 (A) 2014-09-17	2011-12-21
5. IMPROVEMENTS TO APICULTURE	ANDERSON CEDAR [AU] ANDERSON STUART [AU]	ANDERSON CEDAR [AU] ANDERSON STUART [AU]	A01K47/02 A01K47/04 A01K59/00	A01K47/00 A01K47/04 A01K59/00 (+1)	EP2793565 (A1) 2014-10-29	2011-12-21
6. Apiculture	ANDERSON CEDAR [AU] ANDERSON STUART [AU]	ANDERSON CEDAR [AU] ANDERSON STUART [AU]	A01K47/02 A01K47/04 A01K59/00	A01K47/02 A01K47/04 A01K59/00	US2014370781 (A1) 2014-12-18	2011-12-21

US 20140370781A1

(19) **United States**

(12) **Patent Application Publication**

Anderson et al.

(10) **Pub. No.: US 2014/0370781 A1**

(43) **Pub. Date: Dec. 18, 2014**

(54) **APICULTURE**

(71) Applicants: **Cedar ANDERSON**, St. Lucia (AU); **Stuart ANDERSON**, St. Lucia (AU)

(72) Inventors: **Cedar Anderson**, Broken Head (AU); **Stuart Anderson**, The Channon (AU)

(21) Appl. No.: **14/362,446**

(22) PCT Filed: **Dec. 21, 2012**

(86) PCT No.: **PCT/AU2012/001589**

§ 371 (c)(1), (2), (4) Date: **Jun. 3, 2014**

(30) **Foreign Application Priority Data**

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Feb. 2, 2012 (AU) 2012900368

Publication Classification

(51) **Int. Cl.**

A01K 47/04 (2006.01)
A01K 47/02 (2006.01)
A01K 59/00 (2006.01)

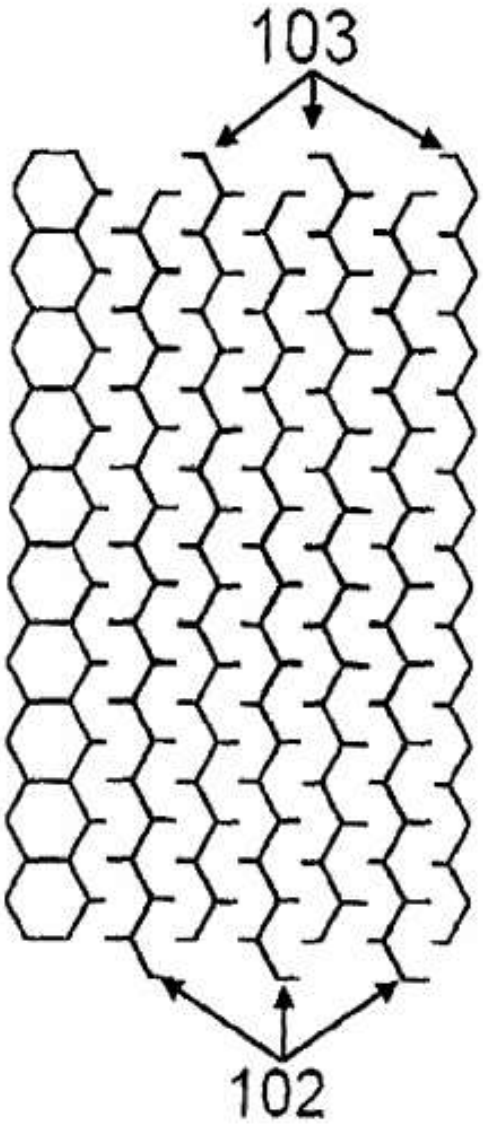
(52) **U.S. Cl.**

CPC ***A01K 47/04*** (2020.01); ***A01K 59/00*** (2020.01); ***A01K 47/02*** (2020.01)

USPC **449/5**

(57) **ABSTRACT**

An artificial honeycomb for use in a beehive and which enables honey to be removed from the honeycomb without removing the honeycomb from the hive, the honeycomb comprising cells and being formed of at least two parts which are moveable relative to each other between a cell formed position where the cells comprise side walls and an end wall to enable bees to fill the cell with honey, and a cell open position where at least some of the said walls have moved apart, whereby honey in the cells can be removed from the honeycomb by movement of the at least two parts to the cell open position.



US2014037081

The "fence" is defined by a claim

- The claim can be written in the following way:
- Find a closest prior art
- Define the essential features in common with the invention and the closest prior art
- Find the main differential feature between your invention and the closest prior art
- Write a claim with a preamble, in which you put the essential features in common with the invention and the closest prior art
- An then add a characterising portion in which you put the main differential feature between your invention and the closest prior art
- Eliminate from the claims any unnecessary limitations
- Add dependent claims to define singularly all possible limitations of the main claim, as fall back positions

Once defined the claims, build the Specification

the following order can be used

- **A) TITLE**
  - **(normally one to ten words, without anticipating the new features)**
- **B) FIELD OF THE INVENTION**
  - **The present invention relates to……. (Indicate the field of application without anticipating the new technical features or the problem to be solved)**
- **C) BACKGROUND OF THE INVENTION**
  - **Indicate the general technical problem to be solved**
  - **Indicate the closest prior art (e.g. Citing a patent number or bibliographic references**
  - **Indicate how the closest prior art cannot solve, or can solve unsatisfactorily or partially the problem, without anticipating any hints to the invention**

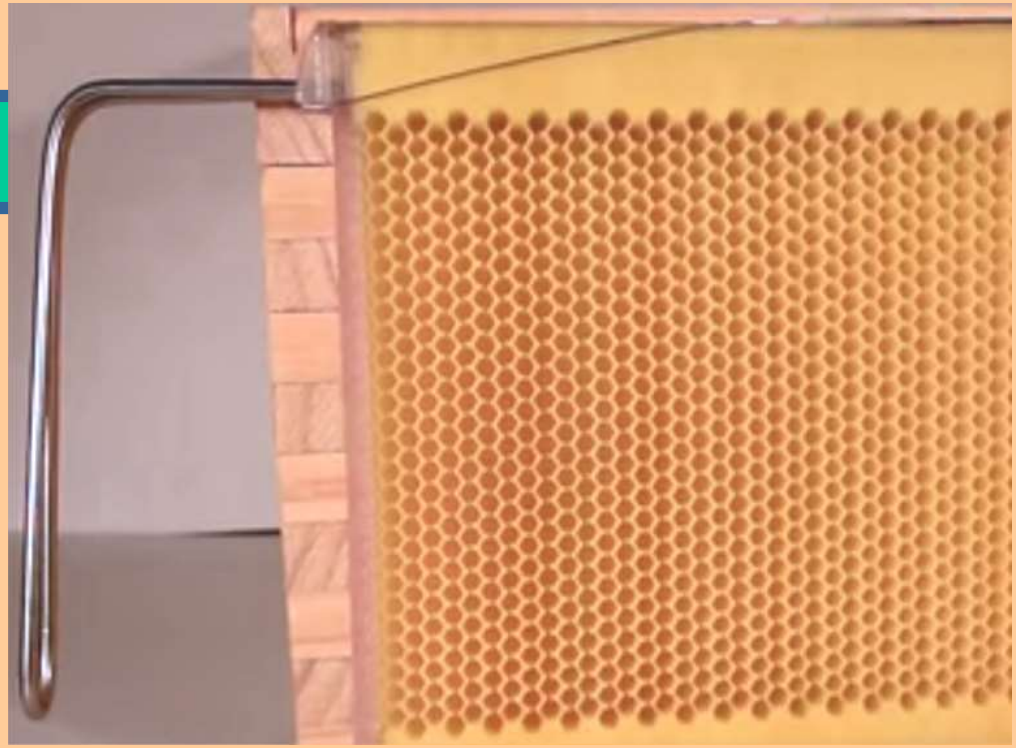
- **D) OBJECT(S) OF THE INVENTION**
  - **It is an object of the present invention ….. Indicate separately the aims of the new technical solution**
- **E) SUMMARY OF THE INVENTION**
  - **Describe the essential feature of the new solution in broad terms, harmonized with respect to the claims**
  - **Describe the technical effects achieved**
  - **Describe separately each further auxiliary/secondary/ optional feature, indicating that it can be added to the essential feature to obtain a particular technical effect.**
- **F) DRAWINGS**
  - **Prepare the drawings that you attach at the end of the description (as Fig. 1, Fig. 2, etc…)**
  - **Indicate the list of drawings For example: figure 1 shows diagrammatically a partially cross sectioned side view of ……; figure 2 shows diagrammatically a perspective view of …; figure 3 is a block diagram of …**

- **G) DESCRIPTION OF EXAMPLES**
  - Detailed description of the new technical matter, with reference to the drawings (As shown in figure 1……).
  - Describe at least an example for each embodiment of the invention.
  - All features present in the claims should be depicted.
  - put arabic numerals on the drawings and quote them in the description or at the end of the description attaching a part list
- **H) CLAIMS**
  - Add the claims as preliminarily defined
- **I) ABSTRACT**
  - Maximum 150 words describing the most representative figure. The abstract gives no protection and is required only for search purposes

TIPS AND OBSERVATIONS

- The claims should be written in a language that is clear, but is also broad.
- For the preamble a term like “Apparatus” or “Device”, “Method” or Process”, “Composition” are the first words of most of patents.
- All the words used for defining a feature are chosen as the broadest terms that are available for defining that feature (e.g. axis, base, shaft, frame, pin, hole, shoulder, arm, lever, piston, cylinder, ring, disc), and more specific technical words are normally avoided.
- All words or expressions that create an ambiguity are normally avoided.
- Negative terms are normally avoided.

Now we try to write a claim for the beehive



Attempt of writing a claim

- A beehive comprising at least one honeycomb made of a plurality of cells,
- each cell defined by walls
- each cell made of at least two parts which can move relatively to each other from a first position, in which said walls define a room in which bees can deposit honey, and a second position in which said said walls are shifted apart in such a way to leave the honey to percolate and be collected

Claim written in the patent application

1. An artificial honeycomb for use in a beehive and which enables honey to be removed from the honeycomb without removing the honeycomb from the hive, the honeycomb comprising cells being formed of at least two parts which are moveable relative to each other between a cell formed position where the cells comprise side walls and an end wall to enable bees to fill the cell with honey, and a cell open position where at least some of the said walls have moved apart, whereby honey in the cells can be removed from the honeycomb by movement of the at least two parts to the cell open position.

Dependent claims

- The dependent claims define preferred embodiments that fall within the definition of the main claim and relate to specific embodiments or specific features that can be used as **fall back position**, during the examination or in case of invalidity issues.
- In other words, if the examiner or third parties challenge successfully the validity of the main claim, such **claim can be limited** with one or more dependent claims.

Dependent claims

- The dependent claims define preferred embodiments that fall within the definition of the main claim and relate to specific embodiments or specific features that can be used as **fall back position**, during the examination or in case of invalidity issues.
- In other words, if the examiner or third parties challenge successfully the validity of the main claim, such **claim can be limited** with one or more dependent claims.

Dependent claims

They define alternative embodiments or specific details

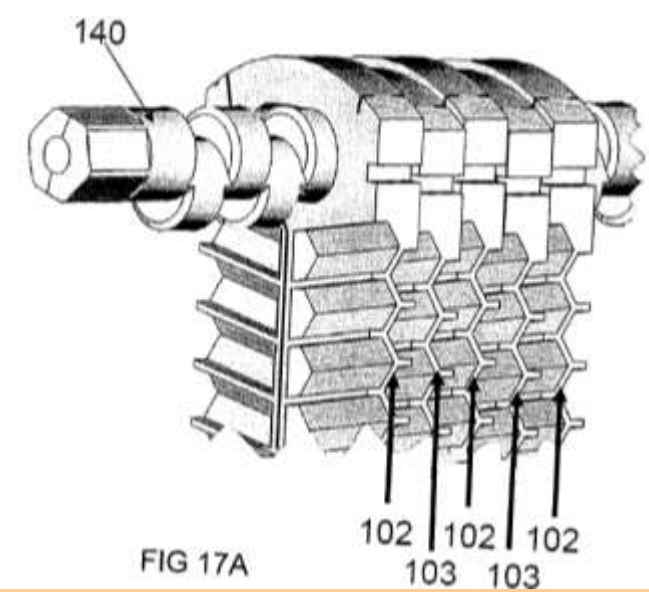


FIG 17A

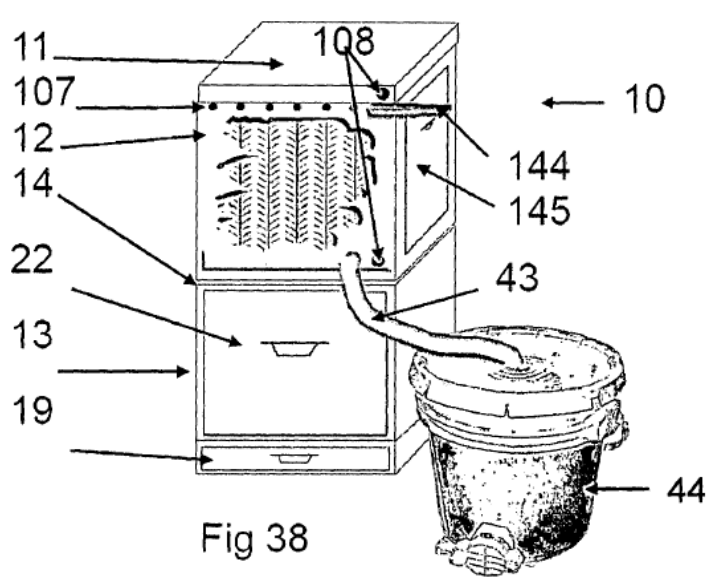


Fig 38

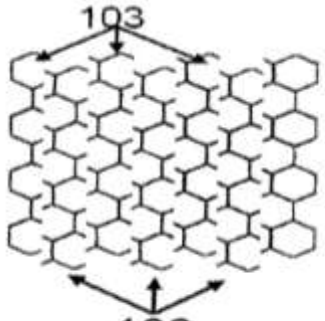


FIG 8

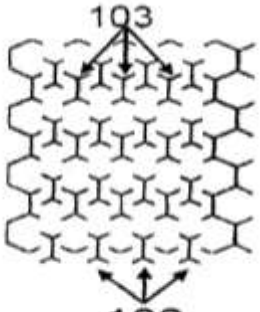


FIG 9

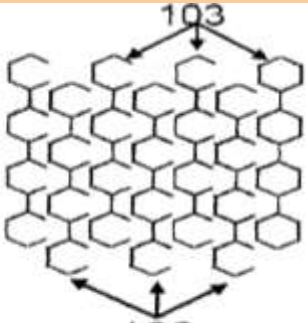


FIG 10

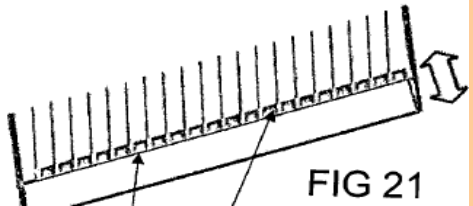


FIG 21

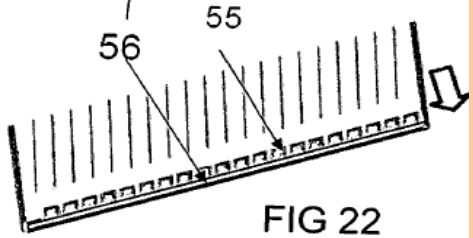


FIG 22

Dependent claims

2. The honeycomb of claim 1, comprising a first part defining a portion of a side wall of a cell and at least one further part defining another portion of the side wall of the cell, the first part and at least one further part being moveable between a cell forming position, where a cell side wall is formed and a cell breaking position where the cell side wall is broken.

3. The honeycomb of claim 1, comprising a plurality of cells which comprise a front section, a main body section and a rear wall, the main body section adapted to be filled with honey by bees, the front section adapted to be capped by bees, the front section and the main body section being moveably relative to each other between a connected position where the front section and the main body section form part of a cell, and a disconnected position where the front section and the main body section are separated relative to each other, the rear wall comprising part of a piston member, the main body section and the rear wall being movable relative to each other between a retracted position where honey can be placed in the main body section and an extended position where honey expelled from the cell by the piston member.

4. The honeycomb of claim 1 comprising cells having an open front and a rear end containing a plug which can be removed to allow honey to flow through the rear end of the cell.

Dependent claims

5. The honeycomb of claim 1 comprising cells where a rear part of the cells are closed by a backing member, the backing member being operable between a closed position closing the rear part of the cells, and a breakaway position where the backing member is spaced away from the rear part of the cells to enable honey to flow out of the rear part of the cells.

6. The honeycomb of claim 1, comprising a first part defining a portion of a side wall of a cell and at least one further part defining another portion of the side wall of the cell, the first part and at least one further part being slideable between a cell forming position, where a cell side wall is formed and a cell breaking position where the cell side wall is broken.

7. A hive comprising at least one honeycomb as claimed in any one of the preceding claims.

FILING THE APPLICATION

a) a form must be filled in indicating

- name and address of the applicant/s
- name and address of the inventor/s
- title of the invention
- number of pages o description/drawings
- signature of a manager of the applicant/s

b) The description, drawings and abstract must be attached in the national language (italian, or french, or german, or spanish, etc. depending on the nation in which it is filed)

c) submitting the form+attachments, paying a fee

!!! A FILING DATE is obtained!!!

The patent office gives a filing receipt back

- According to the Paris Convention, 12 months priority are given to the applicant to file foreign applications
- Now, what described and the concepts that are from it derivable, in the limits they are new, are protected
- Any publication of what described does not destroy patentability
- In any case, the application is published by the Patent Office concerned after 18 months, and becomes a publication, contributing to dissemination

(Cedar and Stuart Anderson's beekeeping idea has gotten lots of buzz. Photo: Flow)

For Australian father and son team Stuart and Cedar Anderson, founders of Flow, a simple idea has changed their lives forever: Twelve days into their Indiegogo fundraising campaign, they raised more than $4.8 million and counting for Flow™, a frame system for a beehive that enables honey to be extracted just by turning on a tap.

Today, San Francisco-based crowdfunding platform Indiegogo announced that the Flow Hive beekeeper honey tap is now the most funded project in the site's history, raising $5.3 million.

MARCH 09, 2015

Cedar Anderson
co-inventor
VERIFIED

Campaign Team


Harvesting honey is easier on the beekeeper and so much easier on the bees.

"Flow™ is the most significant innovation in beekeeping since 1852."

Flow is a revolutionary beehive invention, allowing you to harvest honey without opening the hive and with minimal disturbance to the bees. Of course, there is much more to beekeeping than harvesting honey, read on....

$6,348,202 USD
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This campaign started on Feb 22 and will close on April 05, 2015 (11:59pm PT).

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$600 USD **Featured**

Complete Full Flow Hive

This option contains the complete Flow Hive ready to go (except for the bees!) Includes: Base, brood box with frames, Flow super, 6 Flow frames, roof, tool and tubes. You will receive a flat-pack with everything to assemble easily. Then just paint the boxes...

Estimated delivery: **December 2015**

Video più breve

Patent application for Whatsapp

(19) **United States**

(12) **Patent Application Publication**

Koum et al.

(10) **Pub. No.: US 2012/0294352 A1**

(43) **Pub. Date: Nov. 22, 2012**

(54) **MULTIMEDIA TRANSCODING METHOD AND SYSTEM FOR MOBILE DEVICES**

(76) Inventors: **Jan Koum**, Santa Clara, CA (US); **Brian Acton**, Santa Clara, CA (US)

(21) Appl. No.: **13/559,558**

(22) Filed: **Jul. 26, 2012**

Related U.S. Application Data

(63) Continuation-in-part of application No. 12/732,182, filed on Mar. 25, 2010.

Publication Classification

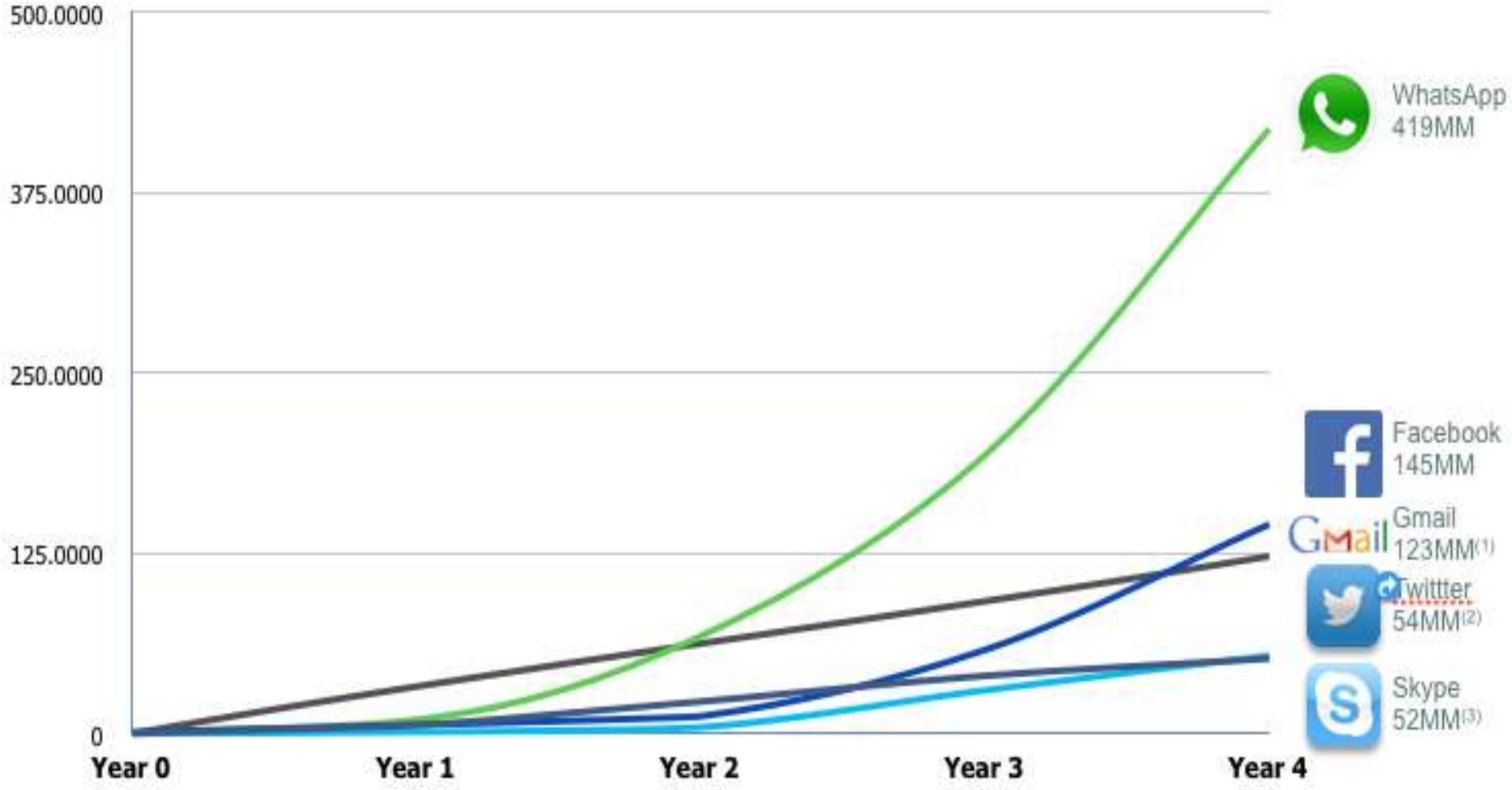
(51) **Int. Cl.**
H04N 7/26 (2006.01)

(52) **U.S. Cl.** **375/240.01**; 375/E07.198

(57) **ABSTRACT**

Aspects of the present invention include method and systems or processing multimedia data exchanged between mobile devices. Initially, a transmitting mobile device attempts to send multimedia data formatted in a primary format even though a receiving mobile device cannot process the data. The multimedia data in the primary format is then uploaded to a multimedia communication server where the multimedia data can be transcoded on demand into a secondary format that the receiving mobile device can indeed process. To track the multimedia data, the transmitting mobile device receives a multimedia identifier associated with the multimedia data uploaded to the multimedia communication server. Instead of sending the multimedia data, the transmitting mobile device forwards the multimedia identifier to the receiving mobile device allowing the receiving mobile device to demand transcoding the multimedia data into a secondary format on the server that the receiving mobile device is capable of receiving and processing.

Number of dowloads in first four years is why its value was paid 19 Billion USD



Overview

In general, it is worth protecting IP

The most well known forms of **Intellectual Property protection** are:

- **Patents and Utility models**
- **Industrial design**
- New Varieties of Plants
- Topographies of Semiconductors
- Trademarks and trade signs
- Industrial Secrets
- Copyright

Industrial property

Brief examples

- Patents – new products and methods
- Utility models – useful shapes of objects, for example a keyboard
- Industrial design – for example a design of a mobile phone
- Topographies of Semiconductors – for hardware printed boards
- Trademarks and trade signs – brand names of products and services
- Trade Secrets – ex.: source codes of software
- Copyrights – creative works - software as such

Patents?

Focussing on three words

Invention

- Exclusive right
- Disclosure

Protection is granted provided a full disclosure of the invention is given by the inventor

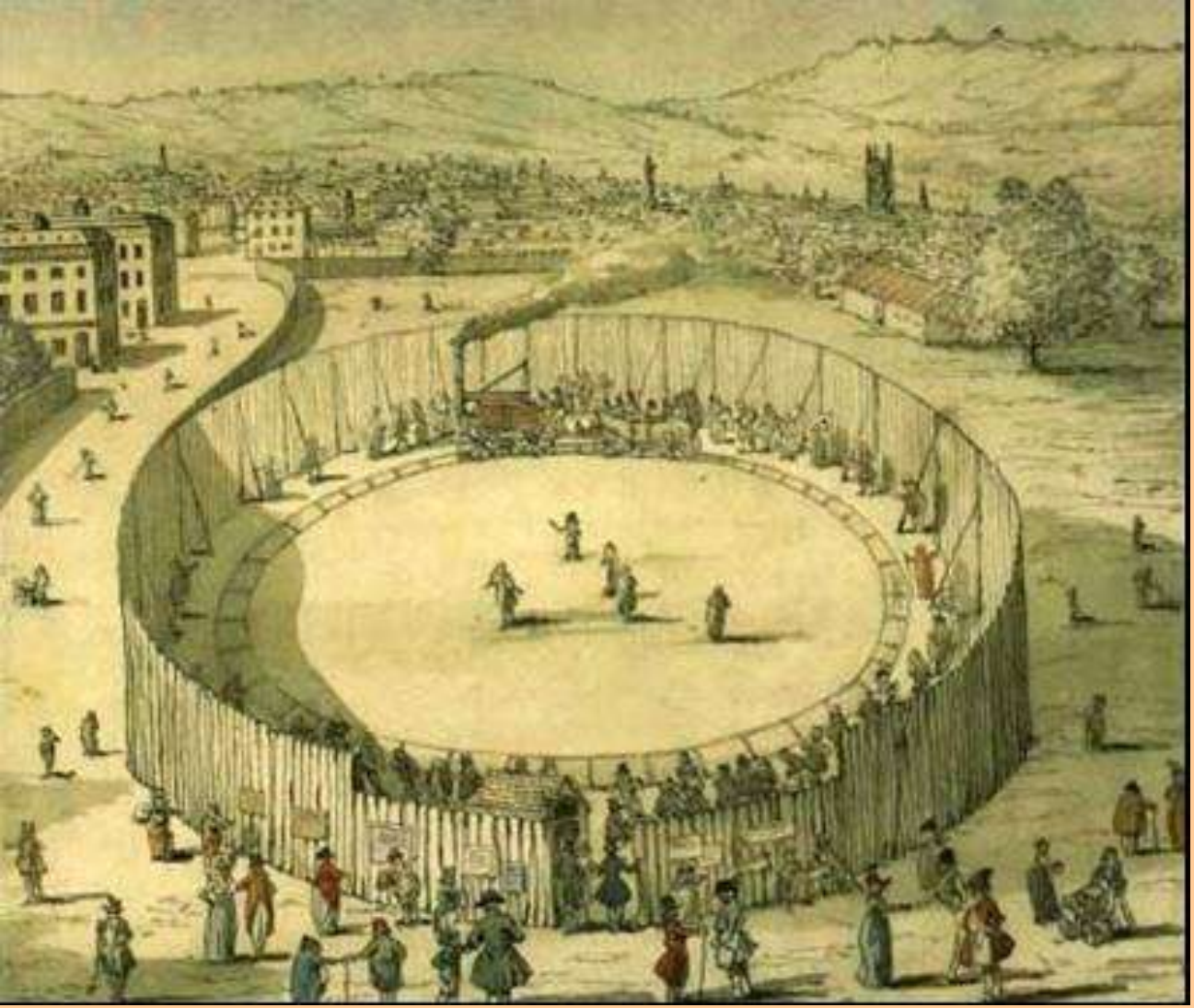
Antonio Stradivari never disclosed his secret method for making perfect violins

So, a **patent** is useful both

for the **inventor** : it grants exclusive right

and

for the **public**: it discloses the invented technical developments and avoids secrecy



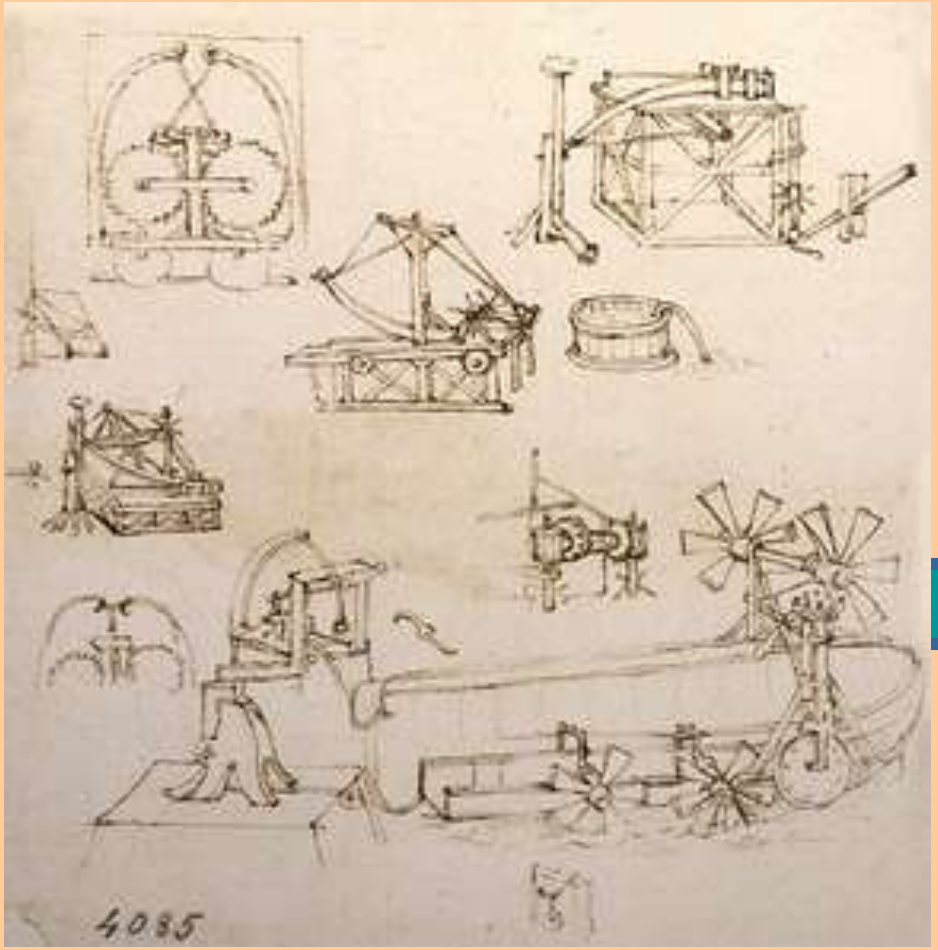
Patent Protection = Exclusive area of the owner

a Patent is a property (on the invention) defined by a border (the claims): **clarity** is needed to define the border

Filippo Brunelleschi

In 1421 a sort of patent was granted to Filippo Brunelleschi by the Republic of Florence to protect an amphibious vehicle, called Badalone (=the Monster), capable to go up in the River Arno.

The protection was granted in the form of destruction of similar vehicles made by competitors/infringers



Brunelleschi's "patent "

Considering that the admirable Filippo Brunelleschi, a man of the most perspicacious intellect, industry, and invention, citizen of Florence, has invented some machine or kind of ship, by means of which he thinks he can easily, at any time, bring in any merchandise and load on the river Arno and on any other river or water, for less money than usual, and with several other benefits to merchants and others, and that he refuses to make such machine available to the public, in order that the fruit of his genius and skill may not be reaped by another without his will and consent;

and that, if he enjoyed some prerogative concerning this, he would open up what he is hiding and would disclose it to all;

And desiring that this matter, so withheld and hidden without fruit, shall be brought to light to be of profit to both said Filippo and our whole country and others, and that some privilege be created for said Filippo as hereinafter described, so that he may be animated more fervently to even higher pursuits and stimulated to more subtle investigations, they deliberated on 19 June 1421:

Brunelleschi's "patent "

That no person alive, wherever born and of whatever status, dignity, quality, and grade, shall dare or presume, within three years next following from the day when the present provision has been approved in the Council of Florence, to commit any of the following acts on the river Arno, any other river, stagnant water, swamp, or water running or existing in the territory of Florence: to have, hold, or use in any manner, be it newly invented or made new in form, a machine or ship or other instrument designed to import or ship or transport on water any merchandise or any things or goods, except such ship or machine or instrument as they may have used until now for similar operations, or to ship or transport, or to have shipped or transported, any merchandise or goods on ships, machines, or instruments for water transport other than such as were familiar and usual until now, and further that any such new or newly shaped machine, etc. shall be burned;

Provided however that the foregoing shall not be held to cover, and shall not apply to, any newly invented of newly shaped machine, etc. designed to ship, transport or travel on water, which may be made by Filippo Brunelleschi or with his will and consent; also, than any merchandise, things, or goods which may be shipped with such newly invented ships, within three years next following, shall be free from imposition, requirement, or levy of any new tax not previously imposed.

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First Patent Publication in the USA

Patent No. 1.

UNITED STATES PATENT OFFICE.

JOHN RUGGLES, OF THOMASTON, MAINE.

LOCOMOTIVE STEAM-ENGINE FOR RAIL AND OTHER ROADS.

Specification of Letters Patent No. 1, dated July 13, 1836.

To all whom it may concern:

Be it known that I, JOHN RUGGLES, of Thomaston, in the State of Maine, have invented a new and useful improvement or improvements on locomotive-engines used on railroads and common roads by which inclined planes and hills may be ascended and heavy loads drawn up the same with more facility and economy than heretofore, and by which the evil effects of frost. ice, snows, and mud on the rail causing the wheels to slide are obviated.

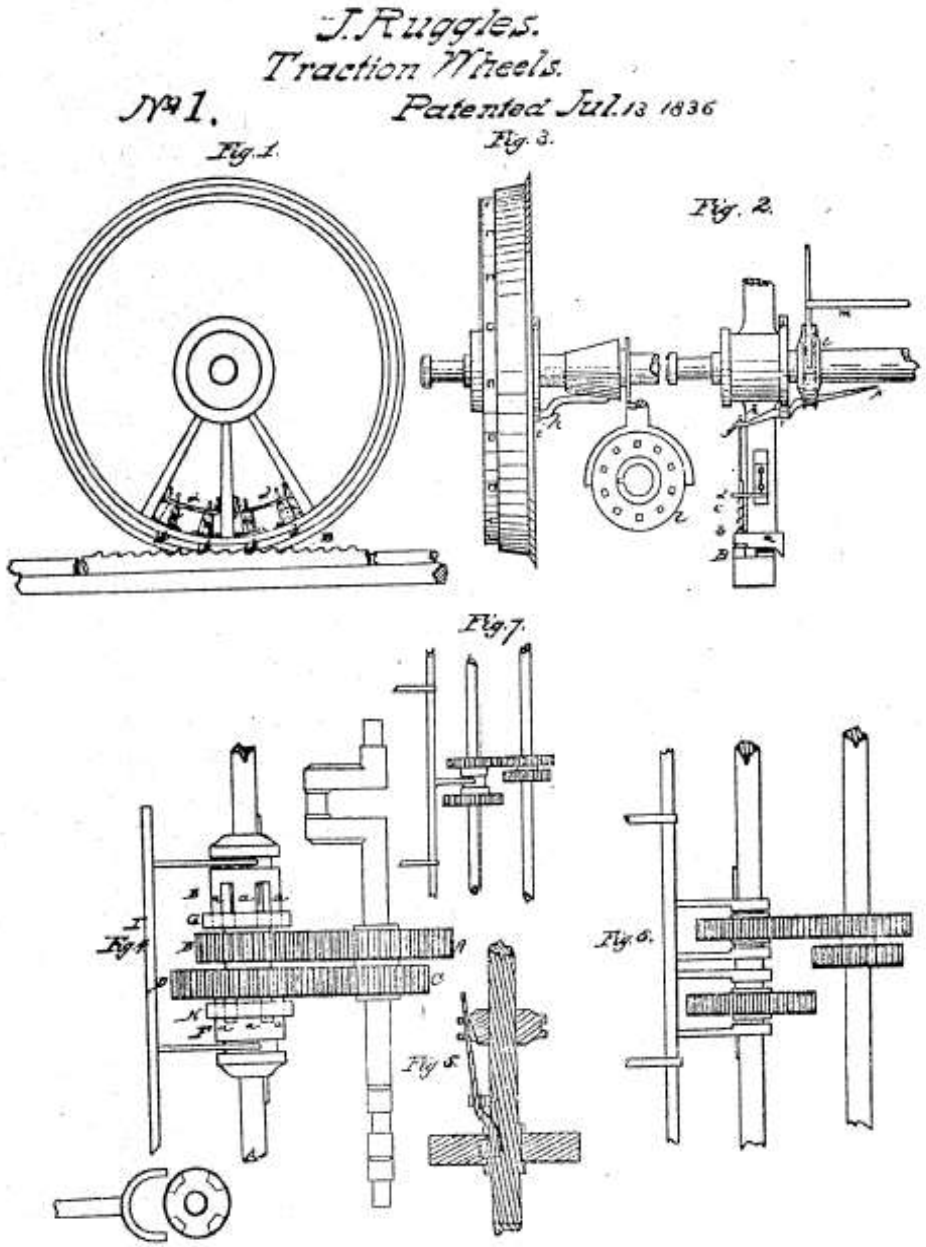
The obstacles met with in ascending inclined planes with locomotives drawing heavy loads after them, are the want of power in the engine, and the deficiency of adhesion to the rails, my improvements are designed to give a multiplied tractive power to the locomotive and to prevent the evil of the sliding of the wheels, and for these improvements I have made application for a patent to be issued according to the provisions of law. The following is a full and exact description of said improvements.

To prevent the wheels from sliding on the rails I make use of a check rail, and retreating cogs, the cogs are applied in the following manner, the wheels are made in the common form except that the rim is somewhat wider from the flange to the outside of the tread it should be no wider than to pass the rail sufficiently, and its width must be further extended 1¼ inches. This extended part of the rim at the periphery thereof is 1¼ inches less in diameter than the bearing periphery.

The accompanying drawings are made a part of and are referred to in this description for the better understanding thereof.

A transverse section of the rim is seen at *a*, in Figure 2, and it is more fully shown in Fig. 3. This extended rim is pierced with 24 holes, or square sockets, where the wheel has 12 spokes, for the reception of the retreating cogs, they are 1¼ inches square at equal distances apart, and ¼ inch from the bearing part of the rim, the cogs move freely in these sockets in the direction of the radii they are shown at *b*, *b*, *b*, *b*, in Fig. 1. they have shoulders on their inner ends to stop their outward motion and they project through the rim ⅜ of an inch, leaving their outward ends, chamfered, and curved as shown in the drawings. the cogs are kept in their places by spiral springs pressing upon their heads with sufficient force to project them outward easily when pressed up into their sockets, the springs react against the top of a cap, or case made to inclose, and protect them from mud or other impediments to their easy action, the case is in form of the section of a cone, and may be seen at W, W, Fig. 1, it is fitted, and screwed firmly to the rim, the upper end being supported by braces *d*, *d*, which are fastened to the spokes, attached to the cogs is a rod about half an inch diameter passing up through the spiral spring and freely through the top of the case, and brace projecting half an inch above. This rod guides the motion of the cogs the case may be about 2 inches high, and 2 inches broad at its base.

The check rail B, is placed on the outside of the bearing rails so far distance that the bearing part of the rim of the wheel cannot reach it when running close to its flange, the teeth are ⅜ of an inch in depth, and such distances apart that the cogs will take against every 3d, 4th, or 5th tooth according as there may be a greater or less distance between the cogs. The check rail is fastened by nails, or otherwise to the sills at such elevation that the bottom of the teeth shall be level with the top of the bearing rail, the back part of the teeth are sloped, and curved, and their front, or flange is made to slope back about ⅛ of an inch. the rail may be 1½ inches square measuring from top of the teeth. The periphery of the extended rim should run close to the teeth of the rail, but not so near as to touch them. On the locomotives arriving at the foot of an inclined plane where the check rail is laid if the cogs do not happen to come in gear with the teeth of the rail, but touch upon them they readily retreat out of the way as the wheel rolls along offering no material resistance to its motion, while the wheels adhere to the bearing rails the aid of the cogs is not wanted, as soon as the increase of traction occasions them to slide the cogs instantly slip into gear, and hold the wheel in check, and whenever the wheels get out of gear their own action instantly restores them, the points of the cogs being even with the tread of the wheel descend upon the check rails in a cycloidal arc, and leave it again in the same manner relieved from their pressure against the flank of the teeth as they raise behind the wheel. Their action is attended with very little friction, act-



Main Laws

- Italian Industrial property code (Law 30 - 10/2/05)

(Any state has its national patent law – harmonisation among patent laws)

- European Patent Convention (Munich)
- Patent Cooperation Treaty (Washington)
- Communitarian Law on Trademarks and Designs
- National and Universal treaties on Copyright
- International Union for Plant Varieties
- Paris convention (priority rights)
- Unitary Patent (EU 2012, will start in 2016)

Offices

- European Patent Office (EPO) Munich **www.epo.org**
- Office for the Harmonisation of the Internal market (OAMI) Alicante **www.europa.oami.eu**
- World Intellectual Property Organisation (WIPO) Geneva **www.wipo.int**
- Italian Patent and Trademark Office (UIBM) in Rome **www.uibm.gov.it**

for any other national offices see:

www.epo.org/topics/ip-webguide.html

Patent?

- **It is not automatic**
- In the IP fields there are automatic rights like:
  - **Inventorship:** right to be designated as inventor (without property on the idea)
  - **Authorship:** copyright (not on the ideas, but on the copies of the work of the author)
  - **Industrial secret:** it is valid automatically, but it has to be kept secret
- But the only way to get a property on technical features is to file a **patent application**

It is not EASY, there are many “traps”:

- Whichever kind of prior public disclosure **(exhibition publication, sale, paper, conference, internet)** destroys the possibility of having valid patents
- Drafting a patent is on the responsibility of the applicant: errors may cause loss of rights
- Certain procedures, timing and costs have to be followed to avoid loss of rights

Patents

- What happens if we do not protect a new idea that could have been protected
  - **No rights are established**
  - **No licences can be given**
  - **No financial compensation (royalties)**
  - **Industries may patent developments of the idea having a monopoly on it**
  - **The property of any developments deriving from the idea is lost**
  - **You loose an opportunity of publication of your work**
  - **Technology transfer seriously endangered**

Patents

- **Logical obstacles to start protection vs. reasons to protect are:**
  - **Ethical (aim of research)**
    - **However, drawbacks deriving from losing property can be high (no property, no control)**
    - **Moreover, protection can be mandatory under exploitation contracts**
  - **Costs (of law consultants and fees)**
    - **Costs to start protection may be low, even if costs for obtaining protection worldwide are high**
  - **Unawareness on patenting procedures and difficult decision on what to protect**

Three synergistic aspects on Patents

- *ECONOMIC: stakeholders, potential partners.*
- *LEGAL: Courts, potential Infringers*
- *TECHNICAL: Clients, Market*

All the three aspects are necessary for a success of the patent

PATENT FAILURE

- ***ECONOMIC**: lack of technology transfer, lack of commercial exploitment.*
- ***LEGAL**: lack of enforcement,, insufficient coverage of countries.*
- ***TECHNICAL**: lack of utility, lack of enforceability for technical reasons (insufficiency of knowledge, insufficiency of disclosure)*

Patents

for which inventions, concerning their technical and functional features a patent can be requested?

- **processes for production of technical effects**
- **devices for production of technical effects**
- **materials for production of technical effects**
- **In certain cases: a technical effect as such**

Maximum duration of the patent 20 years (for drugs an extension possible up to 5 years)

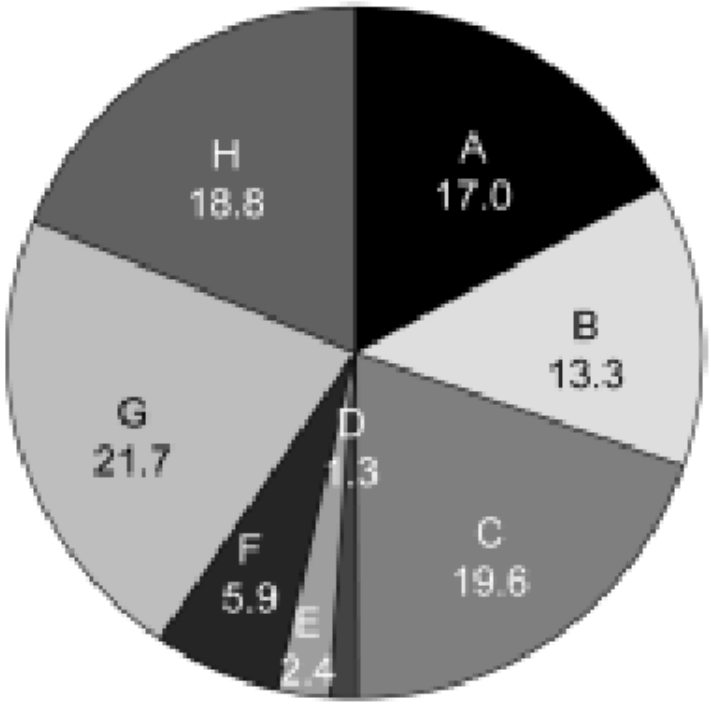
Patenting Fields

- **A patent can be requested for inventions in all fields of technology**
- Only a few exceptions, like Software and Computer Implemented/Business Related Inventions which are not always patentable subject matter (only if technical solutions)
- Non-technological matter cannot be patented (e.g. methods for doing business, game rules, presentation of information, discoveries as such) as well as surgical, medical and diagnostic methods can't.

Patent Classification CPC

Patents are classified in all technical fields with which you can make searches on http://worldwide.espacenet.com

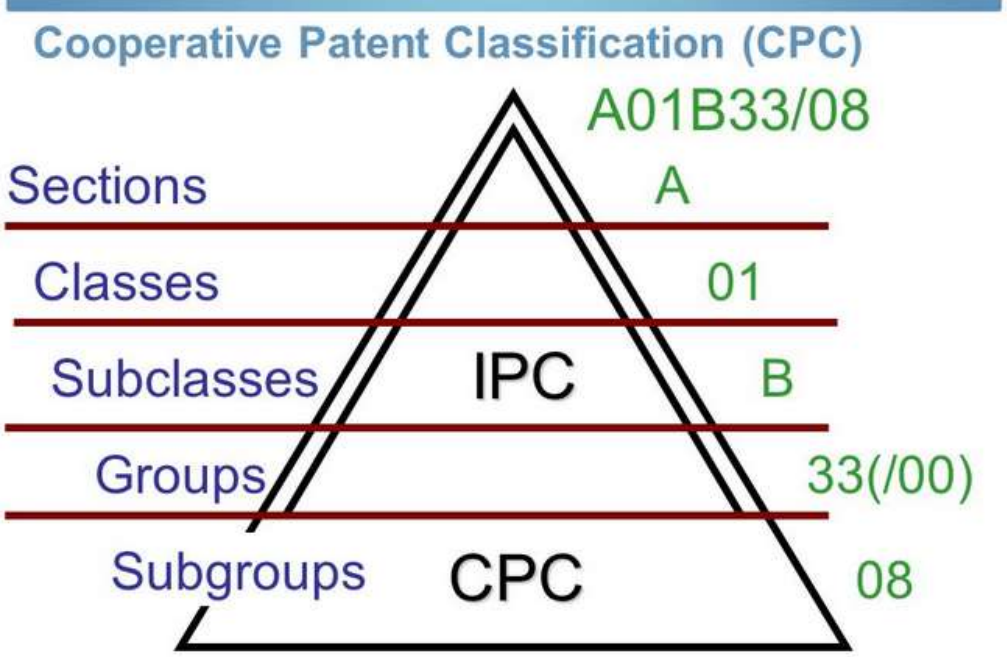
technical fields under the IPC



Technical fields under the IPC:

A	Human necessities
B	Performing operations; transporting
C	Chemistry; metallurgy
D	Textiles; paper
E	Fixed constructions
F	Mechanical engineering; lighting, heating, weapons, blasting
G	Physics
H	Electricity

PHYSICS	G
MEASURING (counting G06M); TESTING	G01
OPTICS (making optical elements or apparatus B24B, B29D11/00, C03, or other appropriate subclasses or classes; materials per se, see the relevant places, e.g. C03B, C03C)	G02
PHOTOGRAPHY; CINEMATOGRAPHY; ELECTROGRAPHY; HOLOGRAPHY (reproduction of pictures or patterns by scanning and converting into electrical signals H04N)	G03
HOROLOGY	G04
CONTROLLING; REGULATING (specially adapted to a particular field of use, see the relevant place for that field, e.g. A62C37/00, B03B13/00, B23Q)	G05
COMPUTING; CALCULATING; COUNTING (score computers for games A63; combinations of writing applicances with computing devices B43K29/08)	G06
CHECKING-DEVICES	G07
SIGNALLING (indicating or display devices per se G09F; transmission of pictures H04N) [C9504]	G08
EDUCATION; CRYPTOGRAPHY; DISPLAY; ADVERTISING; SEALS	G09
MUSICAL INSTRUMENTS; ACOUSTICS	G10
INFORMATION STORAGE	G11
INSTRUMENT DETAILS	G12
NUCLEAR PHYSICS; NUCLEAR ENGINEERING	G21
ELECTRICITY	H
BASIC ELECTRIC ELEMENTS	H01
GENERATION; CONVERSION OR DISTRIBUTION OF ELECTRIC POWER	H02
BASIC ELECTRONIC CIRCUITRY	H03
ELECTRIC COMMUNICATION TECHNIQUE	H04
ELECTRIC TECHNIQUES NOT OTHERWISE PROVIDED FOR	H05



Agriculture

☐	A01	**AGRICULTURE; FORESTRY; ANIMAL HUSBANDRY; HUNTING; TRAPPING; FISHING**
☐	A01B	**SOIL WORKING IN AGRICULTURE OR FORESTRY; PARTS, DETAILS, OR ACCESSORIES OF AGRICULTURAL MACHINES OR IMPLEMENTS, IN GENERAL** (making or covering furrows or holes for sowing, planting, or manuring A01C 5/00 ; soil working for engineering purposes E01 , E02 , E21 ; { measuring areas for agricultural purposes G01B })

Other machines for working soil

▲ ☐	A01B 33/00	**Tilling implements with rotary driven tools,** {e.g. in combination with fertiliser distributors or seeders, with grubbing chains, with sloping axles, with driven discs}
☐	A01B 33/08	• Tools; Details, e.g. adaptations of transmissions or gearings
☐	A01B 33/082	• • {Transmissions; Gearings; Power distribution}
☐	A01B 33/085	• • • {specially adapted for tools on a vertical shaft}

Excluded matter

Art. 52-54-56 EPC

(1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step.

(2) **Unpatentable** as such: (a) discoveries, scientific theories and mathematical methods; (b) aesthetic creations; (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers; (d) presentations of information.

(3) Methods for the treatment of the human or animal body by surgery or therapy; diagnostic methods for the human or animal body.

Who has responsibility to write a patent application?

Responsibility on the content of the application and to respect time limits is on the applicant

Attention to avoid loss of rights !

Patent can be also like a tollgate

Strong position

hard to design around

Weak position

easy to design around

- *BREVETTO (IT)*
- *PATENT (UK, DE)*
- *BREVET (FR)*
- *PATENTE (ES)*
- *UTILITY PATENT (USA)*

This is the final goal, but how to get it, and how to get a robust and effective protection?

Inventor

The invention:
Sometimes it is sought for years …
Sometimes it comes unexpected

The Inventor (or the team of researchers) has often doubts on what to do, how to protect the idea, sometimes with anxiety, fearing to lose the protection

In order to be ready

1. **Understand the initial steps of the patenting procedure**
2. **In particular understanding what can be protected and how to do it**
3. **Moreover, understanding how to improve the protection after filing the application**

Counterparts

Examiner

Patent Office

Partner

Court

Competitors

Examiner

Has to find a balance between

- **The rights of third parties, who would be penalized by a too broad patent**
- **The rights of the inventor, who deserves a fair protection on the invention, for which protection is sought**

Patent Office

- Collects the fees, i.e. filing fees, examination fees, fees for grant, renewal fees , ecc.
- Requires that certain timing and procedures are followed by the applicant, like payments, time limits for filing application, documents, translations,, replies to communications

WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

MINISTERO SVILUPPO ECONOMICO
UFFICIO ITALIANO
BREVETTI E MARCHI

Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

USA

Japan

China

Korea
KIPO
KOREAN INTELLECTUAL PROPERTY OFFICE

Partners

- Can purchase shares on the patent, execute agreements, invest on the patent, industrially or commercially
- Carry out a deep analysis on the patent (so called *due diligence*), on validity, enforceability, commercial value, freedom to operate

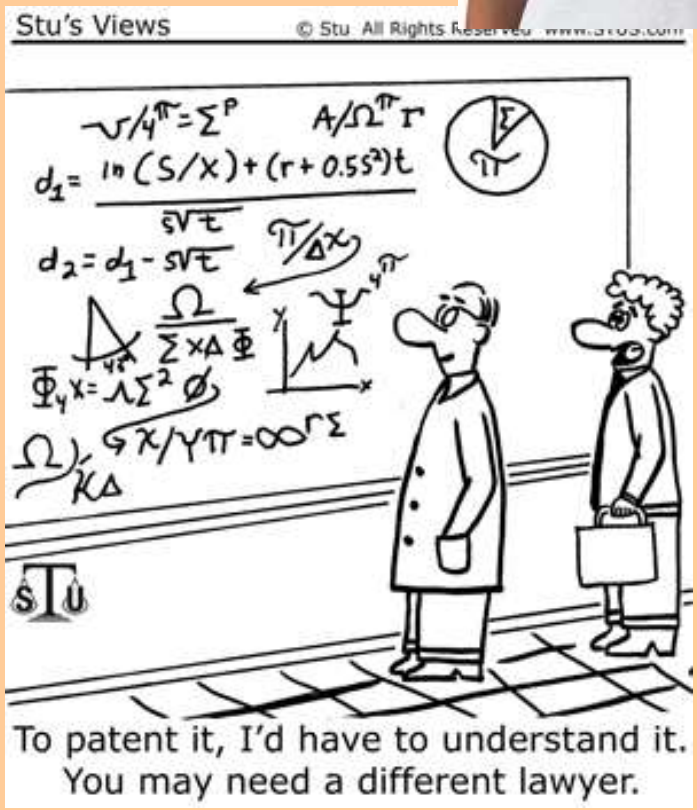
Competitors

- They are ready to copy the invention, as a commercial demand starts
- They watch the examination procedure of the patent to see what is actually patented and what is free (design around)
- They are ready to file an opposition or request invalidity to get a revocation of the patent

Courts

- In infringement proceedings they determine the extent of protection of the patent (claims construction) and determine if the defendant/ competitor has violated the claims (infringement)
- In the validity cases they determine if the patent fulfils the patentability requirements or they declare its invalidity, partial or total

Patent Counsel or "patent attorney"



The skill of patent attorneys is important for achieving the strongest protection

Patent Attorney

in the interest of the inventor of a Patent

- Checks the prior art versus the invention
- Determines the differences from prior art
- Formulates novel and inventive claims to protect the invention from "design around"
- Drafts the full specification and drawings
- Files the Patent application
- Follows the examination up to grant
- Assists the patent in infringement suits
- Protects the Patent against opposition and invalidity law suits

Patent Attorney

in the interest of competitors against a patent

- Checks the prior art before the filing date
- Finds "design around" solutions
- Tracks the patents of the competitors
- Files oppositions and invalidity lawsuits against patents
- Assists clients if accused of infringement
- Makes "freedom to operate" searches

We have seen that

- **A patent is a claim on an invention on which a government grants exclusive rights**

But also

- **Such claim has a specification written by the applicant (or his patent attorney) defining the inventive concept and its embodiments**
- **A claim has to be novel**
- **A claim has also to be inventive**

Novelty and inventive step

- **A claim is novel if it is not disclosed in the prior art**
- **A claim is inventive if it is not obvious over the prior art, taking into account the technical problem that the invention solves**
- **Therefore, it is fundamental to know the background art**

Patentability

Proper definition of an invention:

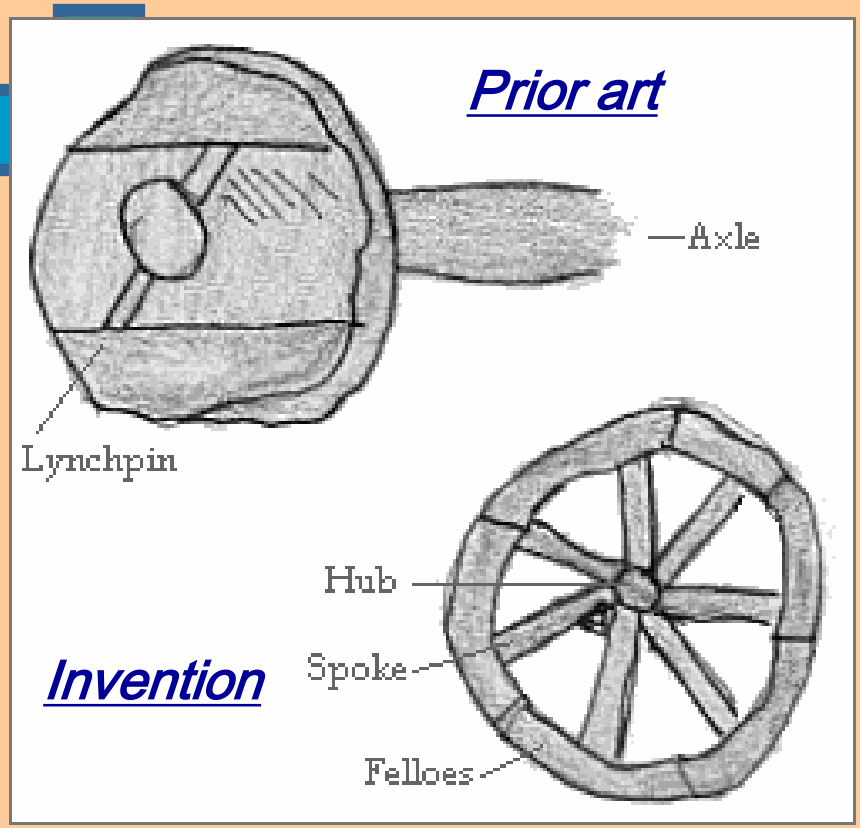
It is a solution of a technical problem

We have seen the main prerequisites for an invention:

- Novelty (does not exist) and "inventive step" (it is not obvious)

Novelty and inventive step are not destroyed by similar objects having different functions

most inventions are small improvements starting from the closest prior art, each solving a different problem



example of
CLAIM

Wheel comprising a hub and a border which can roll on the ground

characterised in that

the hub is connected to the border by spaced spokes

Claim

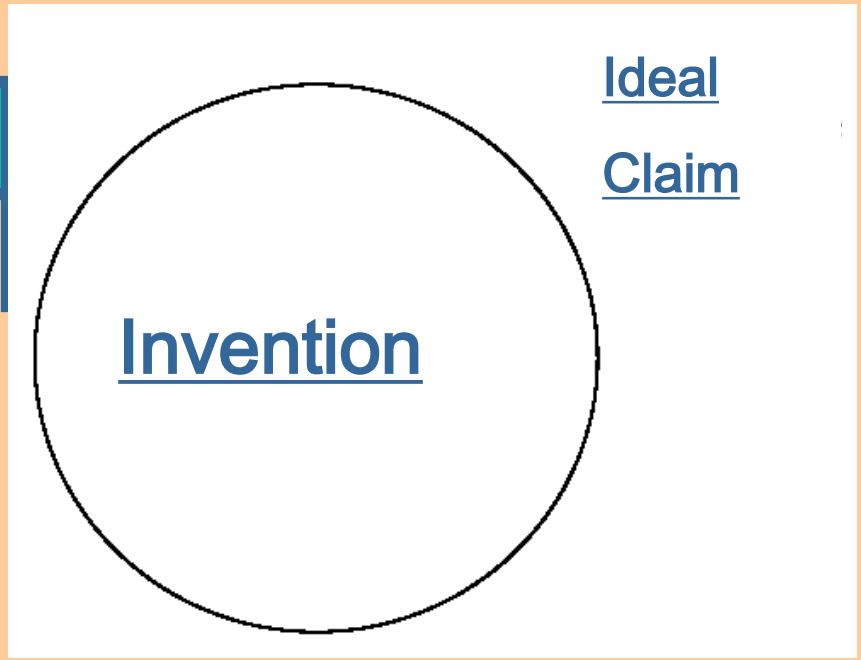
Pre-chacterising part= closest prior art

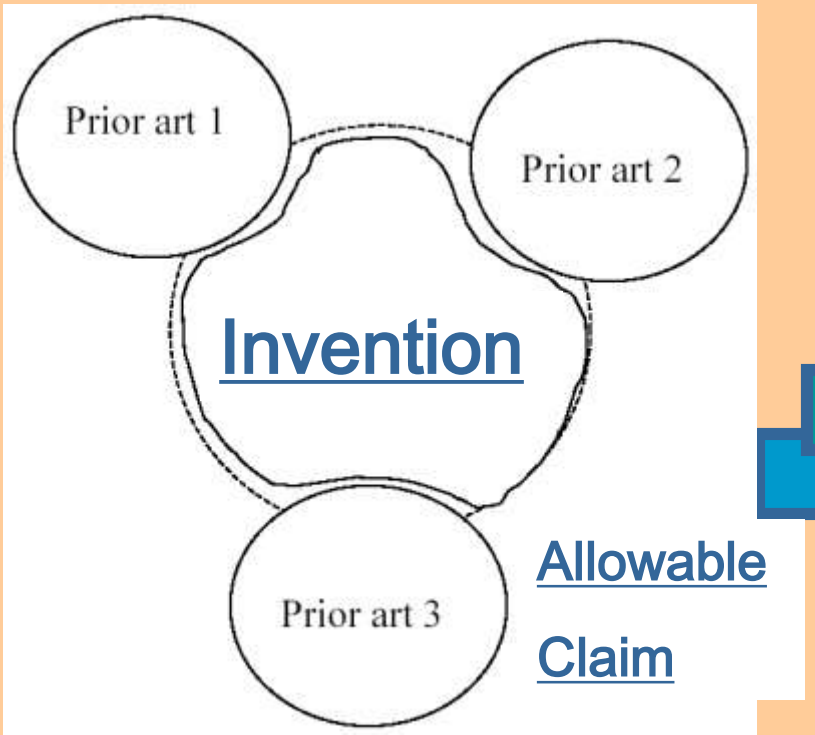
Characterising part=
Differences from the closest prior art → Inventive step?

"inventive step"

- Minimum height for the inventive step?
- Starting from the "closest prior art", the differences and the capability of solving the technical problem provide the inventive step
- The inventive step is not measurable but is a "yes" or "no" parameter: either it is inventive (technical problem solved) or not inventive

Limitation of claims





A claim that is initially not allowable can be limited so that it can be considered allowable

Follow this example

Join lamp: http://www.youtube.com/watch?v=y-3sxfFyguQ

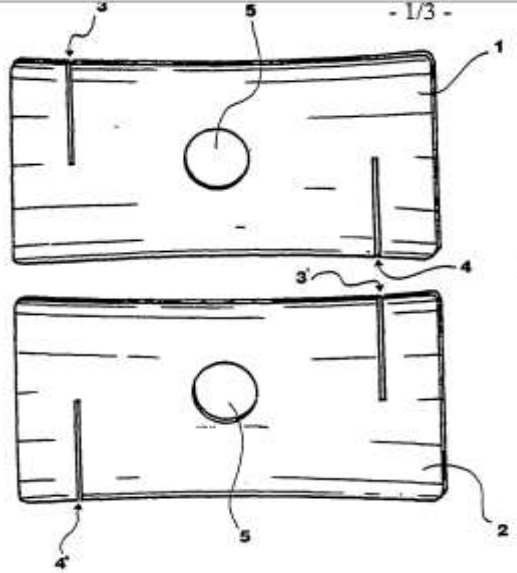


fig.1a

fig.1b

Patent application on the Join Lamp

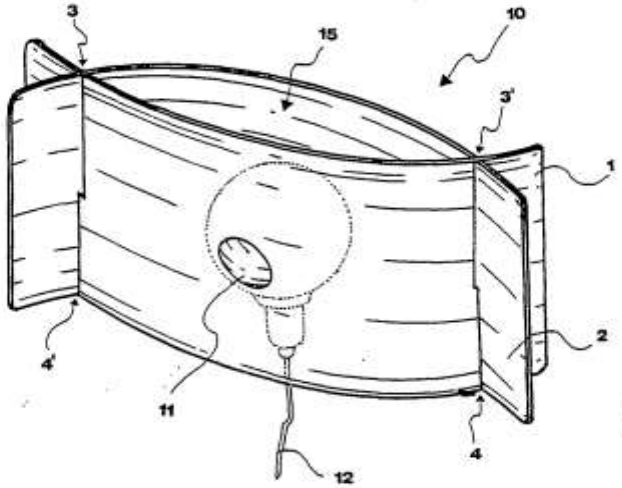


fig 2

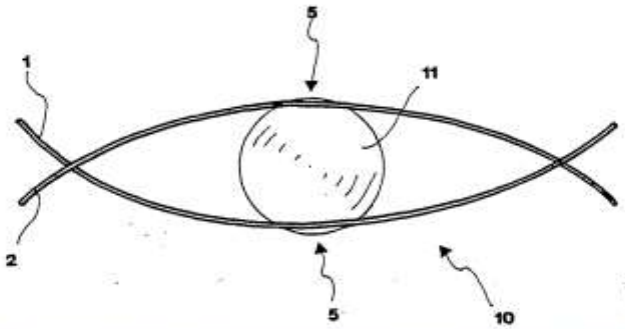


fig.3

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
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PCT

(10) International Publication Number
WO 02/088596 A1

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(26) Publication Language: English

(30) Priority Data:
RM01U000070 3 April 2001 (03.04.2001) IT

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(74) Agents: LEONE, Mario et al.; Società Italiana Brevetti S.p.A., Piazza di Pietra, 39, I-00186 Roma (IT).

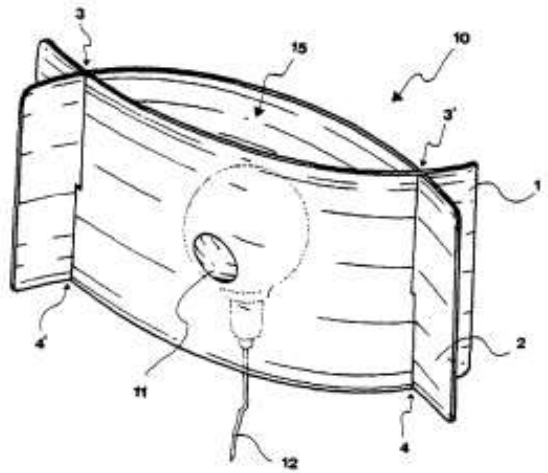
(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LAMP DIFFUSER



(57) Abstract: System of assembling for the manufacturing of lamp diffusers (10, 20), providing the jointing of substantially plate-shaped components (1, 2, 21, 22, 23), comprising two slots (3, 4, 3', 4') for the mutual clamping and one region (5) apt to house a ligthing device.

WO 02/088596 A1

Desired claims

CLAIMS

1. A component for the assembling of a lamp diffuser (10; 20), substantially plate-shaped (1; 2; 21; 22; 23), characterized in that it comprises two slots (3, 4; 3', 4') and one seat (5) apt to house a lighting device (11).

2. The component according to claim 1, wherein said seat (5) is substantially circle-shaped and said lighting device is a substantially spherical bulb (11).

3. The component according to claim 1 or 2, wherein said slots (3, 4; 3', 4') are parallel thereamong.

4. The component according to claim 1 or 2, wherein said slots (3, 4; 3', 4') are convergent thereamong.

5. The component according to any one of the preceding claims, wherein said seat (5) is located symmetrically with respect to said slots (3, 4; 3', 4').

6. The component according to any one of the preceding claims, wherein said plate (1; 2; 21; 22; 23) is plane.

7. The component according to any one of the preceding claims, wherein said plate (1; 2; 21; 22; 23) has a bent surface.

8. The component according to any one of the preceding claims, wherein said seat (5) is a bored region.

9. A lamp diffuser (10; 20) comprising two or more components according to any one of the claims 1 to 8, jointed therebetween so as to form a region (15) internal to the diffuser, apt to house a bulb (11), said region (15) being delimited by respective walls of said two or more components, characterized in that said bulb (11) is clamped along said walls.

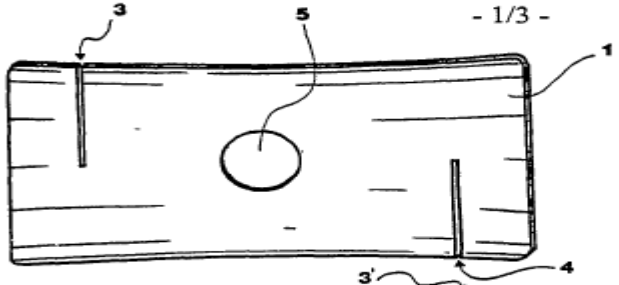


fig.1a

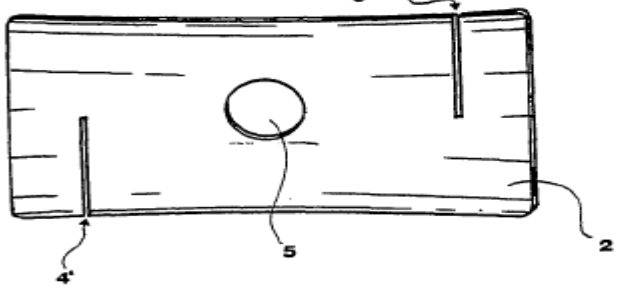


fig.1b

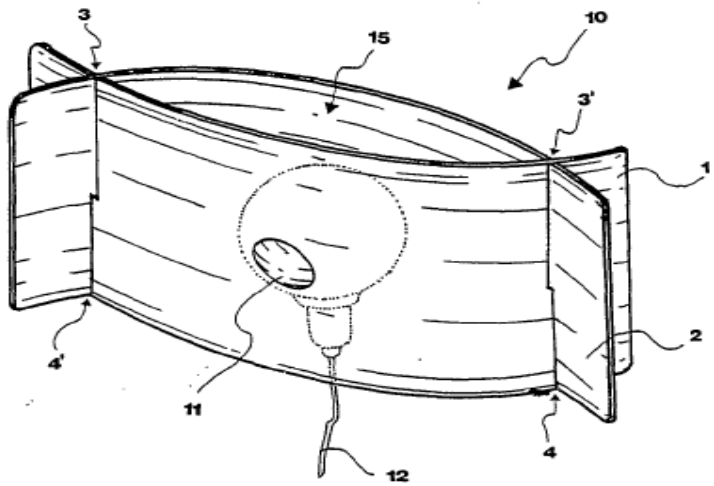


fig 2

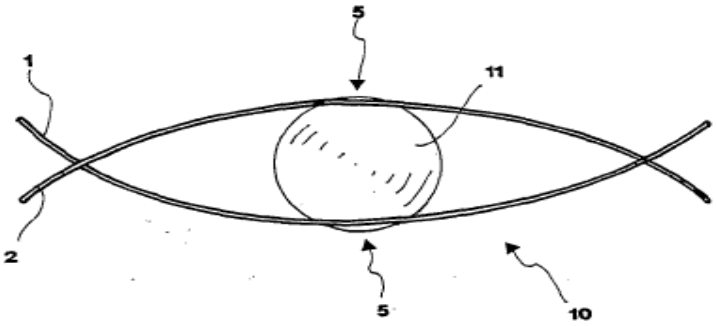


fig.3

Limitation of claims

- **The applicant (or the patent attorney) formulates the patent with the broadest scope possible**
- **Often the claimed protection is considered too broad by the Patent Office – concerning Novelty and Inventive step**
- **The applicant can reduce the scope of protection and eventually agree with the examiner**

Claims

- Normally, after a proper limitation of the claims taking into account the prior art the patent can be granted
- To this end, an independent claim is filed which represents the broadest definition of the invention
- Some dependent claims are also attached, which represent fall back positions in case the independent claim is not granted
- In the description other features can be described that during the examination can be added to the claims to limit their scope

GB1294663

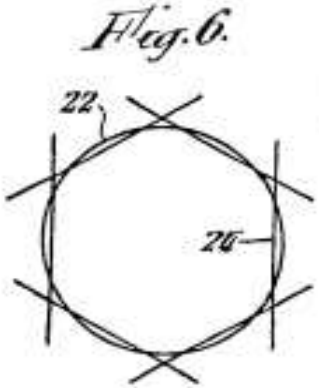


Fig. 6.

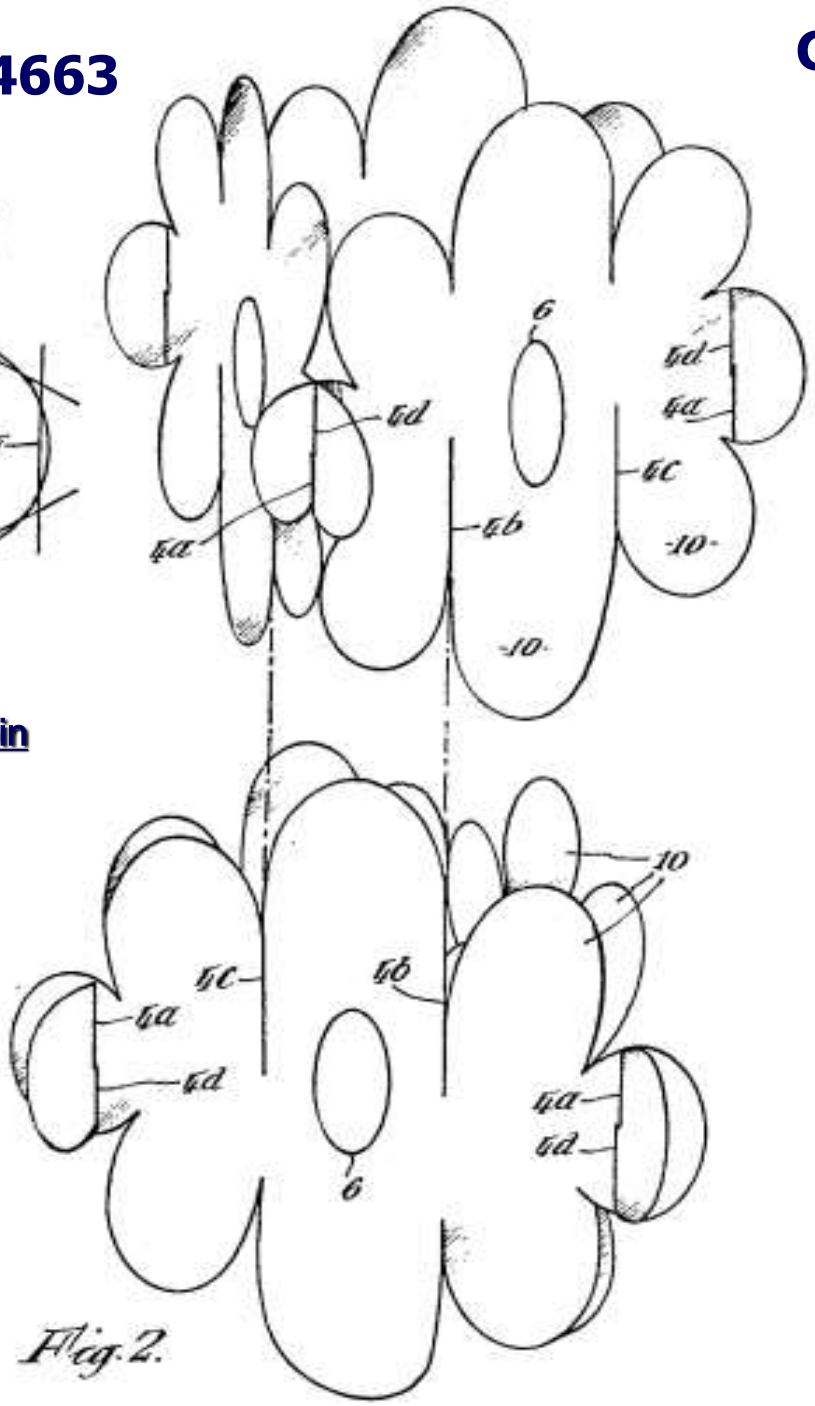


Fig. 2.

Prior art cited against the Join Lamp

GB1325062

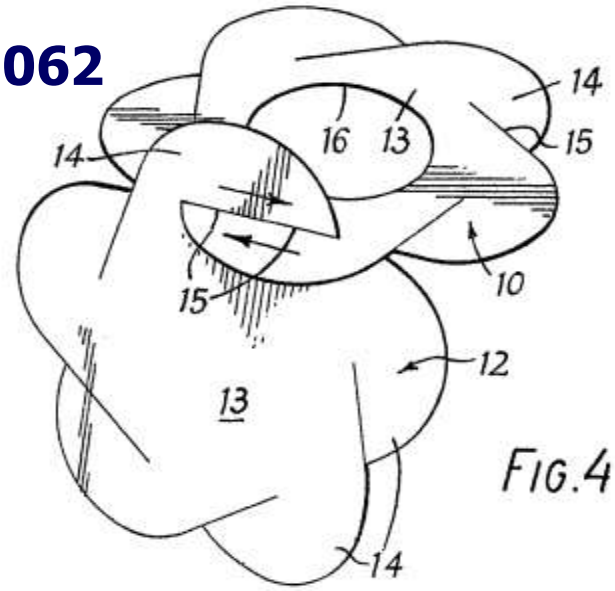


FIG. 4

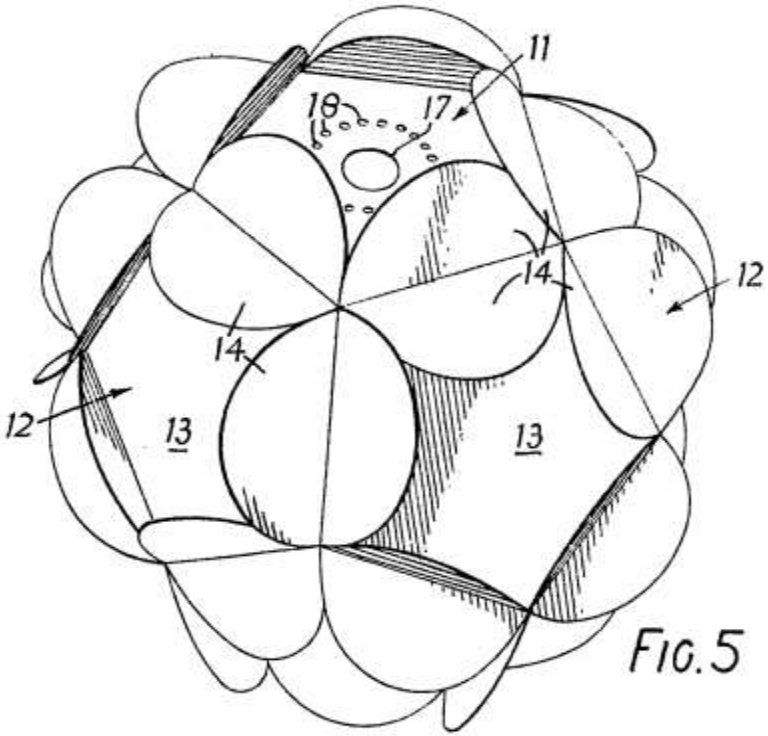


FIG. 5

Claims

1. A lamp diffuser (10; 20) comprising two or more plate-shaped components (1; 2; 21; 22; 23), each of said components having two slots (3, 4; 3', 4') and one seat (5) defined by a closed line, apt to house a lighting device (11), said two or more components being jointed therebetween so as to form a region (15) internal to the diffuser, said region (15) being delimited by respective walls of said two or more components, **characterized in that** said seat (5) is a bored region so that said lighting device (11) is clamped along said walls.

Easy?

- Not always
- There are infinite different cases
- For all inventions (which are by definition different from one another) the inventive concept has to be found and protected on a "case by case basis"
- The claims have to be tuned close to the border of the prior art, but not overlapping it

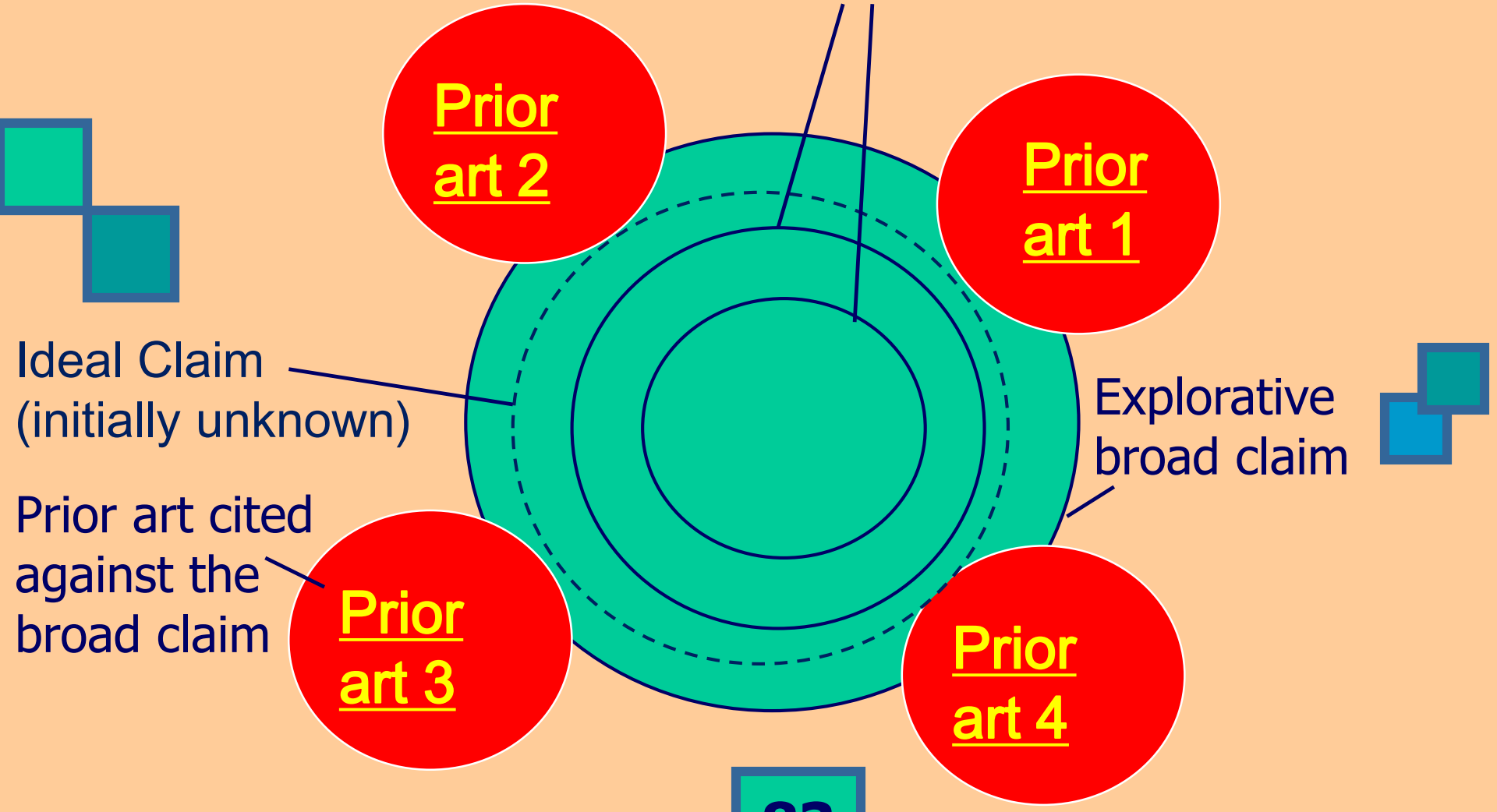
Difficult cases

- Inventions which seem "Non inventions" = very close to the state of the art, seemingly obvious, and very important for a company
- Inventions with disclaimer = existing objects that are simplified

Es. A+B+C+D exists, whereas A+B+C does not exist and is better

- Software inventions, which can be patented as "method for" carrying out operative steps

Finding the ideal claim



(19) **United States**
(12) **Patent Application Publication**
Koum et al.
(10) **Pub. No.: US 2012/0294352 A1**
(43) **Pub. Date: Nov. 22, 2012**

(54) **MULTIMEDIA TRANSCODING METHOD AND SYSTEM FOR MOBILE DEVICES**

(76) Inventors: **Jan Koum**, Santa Clara, CA (US); **Brian Acton**, Santa Clara, CA (US)

(21) Appl. No.: **13/559,558**

(22) Filed: **Jul. 26, 2012**

Related U.S. Application Data

(63) Continuation-in-part of application No. 12/732,182, filed on Mar. 25, 2010.

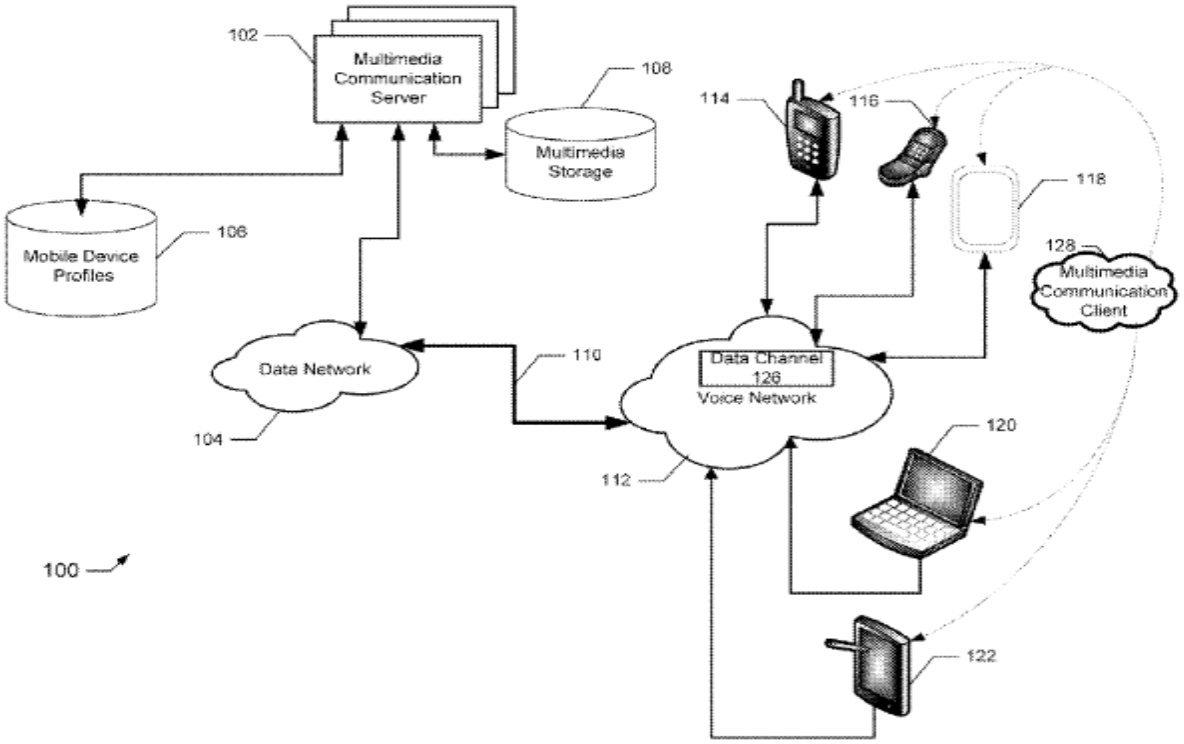
Publication Classification

(51) **Int. Cl.**
H04N 7/26 (2006.01)

(52) **U.S. Cl.** **375/240.01**; 375/E07.198

(57) **ABSTRACT**

Aspects of the present invention include method and systems or processing multimedia data exchanged between mobile devices. Initially, a transmitting mobile device attempts to send multimedia data formatted in a primary format even though a receiving mobile device cannot process the data. The multimedia data in the primary format is then uploaded to a multimedia communication server where the multimedia data can be transcoded on demand into a secondary format that the receiving mobile device can indeed process. To track the multimedia data, the transmitting mobile device receives a multimedia identifier associated with the multimedia data uploaded to the multimedia communication server. Instead of sending the multimedia data, the transmitting mobile device forwards the multimedia identifier to the receiving mobile device allowing the receiving mobile device to demand transcoding the multimedia data into a secondary format on the server that the receiving mobile device is capable of receiving and processing.



Torniamo alla domanda di brevetto su Whatsapp:

Non è stata ancora concessa

US 12/732,182 filed 25/03/2010

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A processor implemented method of registering a phone device on a synthetic communication network, comprising:

receiving from the phone device a request for a synthetic communication server to connect the phone device to a synthetic communication network that transmits messages over a data network using one or more phone numbers from a voice network, wherein the synthetic communication network utilizes the one or more phone numbers yet receives the request over the data network rather than the voice network;

obtaining a phone number and a corresponding country code presumed associated with the phone device to be used for communications over the synthetic communication network;

normalizing the phone number to a standard format that distinguishes the resulting normalized phone number from other normalized phone numbers using the synthetic communication network; and

verifying an association between the normalized phone number and the phone device by sending a verification message addressed to the phone device that loops back and returns to the phone device, wherein messages transmitted subsequent to the verification message are carried

Rivendicazioni emendate in fase di esame per il brevetto su Whatsapp

Si vede come siano state aggiunte limitazioni e precisazioni per soddisfare le obiezioni dell'esaminatore

What is claimed is:

US 12/732,182

1. A processor implemented method of transmitting multimedia data from a transmitting mobile device:

identifying multimedia data formatted in accordance with a primary format to be sent to a receiving mobile device that cannot process the multimedia data formatted in the primary format;

uploading the multimedia data formatted in accordance with the primary format to a multimedia communication server;

receiving a multimedia identifier associated with the multimedia data uploaded to the multimedia communication server; and

forwarding the multimedia identifier associated with the multimedia data stored in the primary format to the receiving mobile device, the multimedia identifier to be used by the receiving mobile device to request transcoding the multimedia data into a secondary format on the multimedia communication server that the receiving mobile device is capable of processing.

(12) UK Patent Application (19) GB (11) 2 083 322 A

(21) Application No 8121289
(22) Date of filing
10 Jul 1981
(30) Priority data
(31) 8004028
(32) 14 Jul 1980
(33) Netherlands (NL)
(43) Application published
17 Mar 1982
(51) INT CL³ H03K 13/24
(52) Domestic classification
H4P DD
(56) Documents cited
GB 1569076
GB 1440280
GB 1407163
"Information and Control" Vol 17 No 5 Dec 1970 pp 436–461
(58) Field of search
H4P
(71) Applicant
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Pieter Zeemanstraat 6
NL–5621 CT
Eindhoven
The Netherlands
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Hiroshi Ogawa
Jacob Gerrit Nijboer
Kentaro Odaka
(74) Agents
R J Boxall
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Torrington Place
London WC1E 7HD

(54) Method of coding a sequence of blocks of binary data bits into a sequence of blocks of binary channel bits and arrangement for decoding the data bits coded in accordance with the method

(57) In a run length limited block coding method in which blocks of *m* data bits are converted to blocks of n_1 information and n_2 separation bits ($n = n_1 + n_2 > m$). The blocks of bits satisfying the requirement of being (d, k) run length limited, the blocks of separation bits BSi between each of the blocks of *n*–information bits Bli are chosen, in those cases where the format is not prescribed by the (d, k)-constraint, such that the low-frequency spectrum and particularly the direct current unbalance is as low as possible. The direct current unbalance may be minimized within each block independently or cumulatively over a series of blocks.

A demodulator for decoding data encoded as above is described.

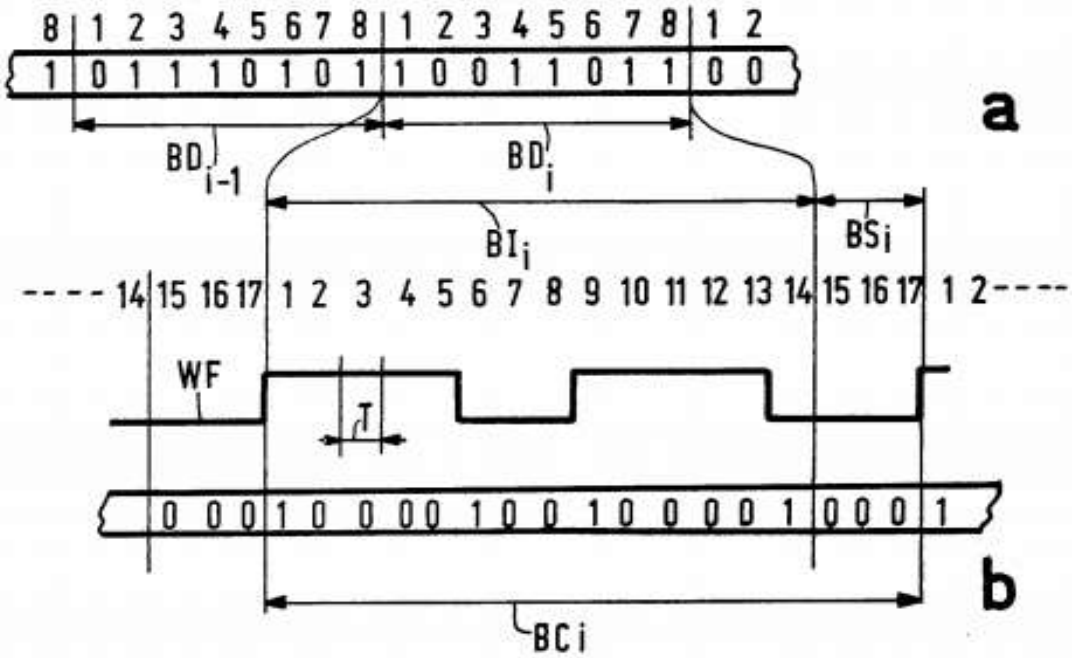


FIG.1

very complex patents

Philips Patent on CDROM GB2083322B

CLAIMS:

1. A method of coding a sequence of binary data bits into a sequence of binary channel bits, wherein consecutive and sequential blocks of m data bits are coded into sequential blocks of $(n_1 + n_2)$ channel bits, each block of channel bits comprising a block of n_1 information bits and a block of n_2 separation bits such that sequential blocks of information bits are separated by each time one block of one or more separation bits and wherein $(n_1 + n_2) \geq m$, the method comprising the following steps:

-1- dividing the sequence of data bits into consecutive and sequential blocks containing m bits of data bits and converting said blocks of data bits into blocks containing n_1 bits of information bits, where $n_1 \geq m$, and wherein two sequential channel bits of a first type are separated by at least d sequential and consecutive bits of a second type and the number of sequential and consecutive channel bits of the second type being not more than k;

-2- generating a set of possible sequences of channel bits, each sequence comprising at least one block of information bits and at least one block of one or more separation bits and these possible sequences each comprising the block of information bits supplemented by one of the possible bit combinations of the blocks of one or more separation bits;

-3- determining the direct current unbalance of each of the possible sequences of channel bits determined in the preceding step;

-4- determining the number of consecutive and sequential information bits of the second type which immediately precede a separation block and determining the sum of the number of bits of the second type in the sequential and consecutive information bits immediately following the separation block and the number of said second type of bits in the separation block and if the number exceeds k, replacing a bit of the second type in the separation block by a bit of the first type to split the sequences of bits of the second type into sequences not more than k bits long;

-5- generating a first indication signal for those channel bits sequences which do not conflict with the d- constraint and the k-constraint requirements;

-6- selecting from the sequences of channel bits which resulted in the first indication signal that sequence of channel bits which minimizes the direct current unbalance.

Improvement inventions

From a basic invention many inventions on "details" can derive

Example of the "airbag invention", it was originally conceived but never produced for years.

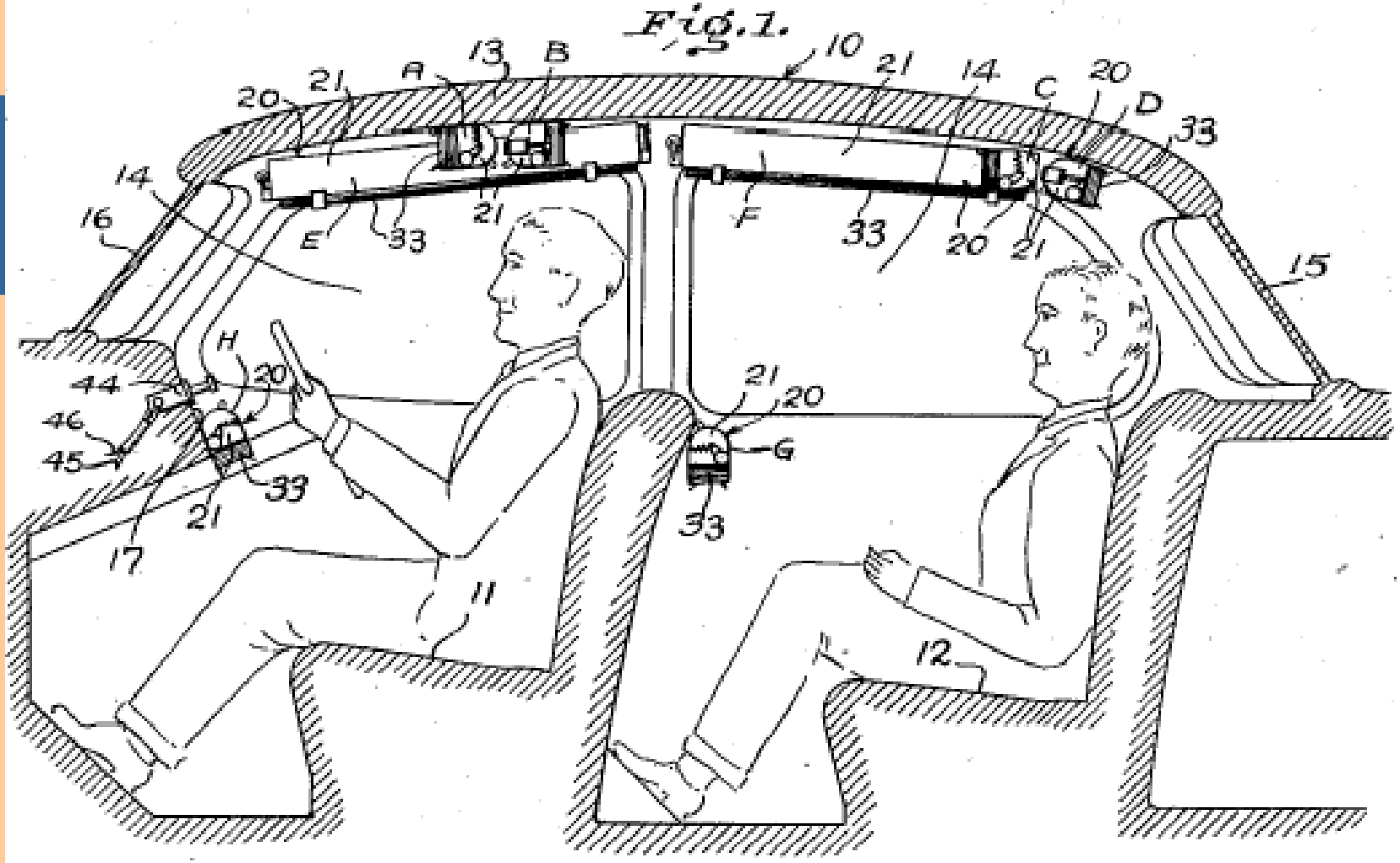
Now there are many patents on airbag parts

May 13, 1958 H. A. BERTRAND 2,834,606

SAFETY DEVICE FOR PASSENGERS

Filed Oct. 5, 1955 2 Sheets-Sheet 1

Fig. 1.



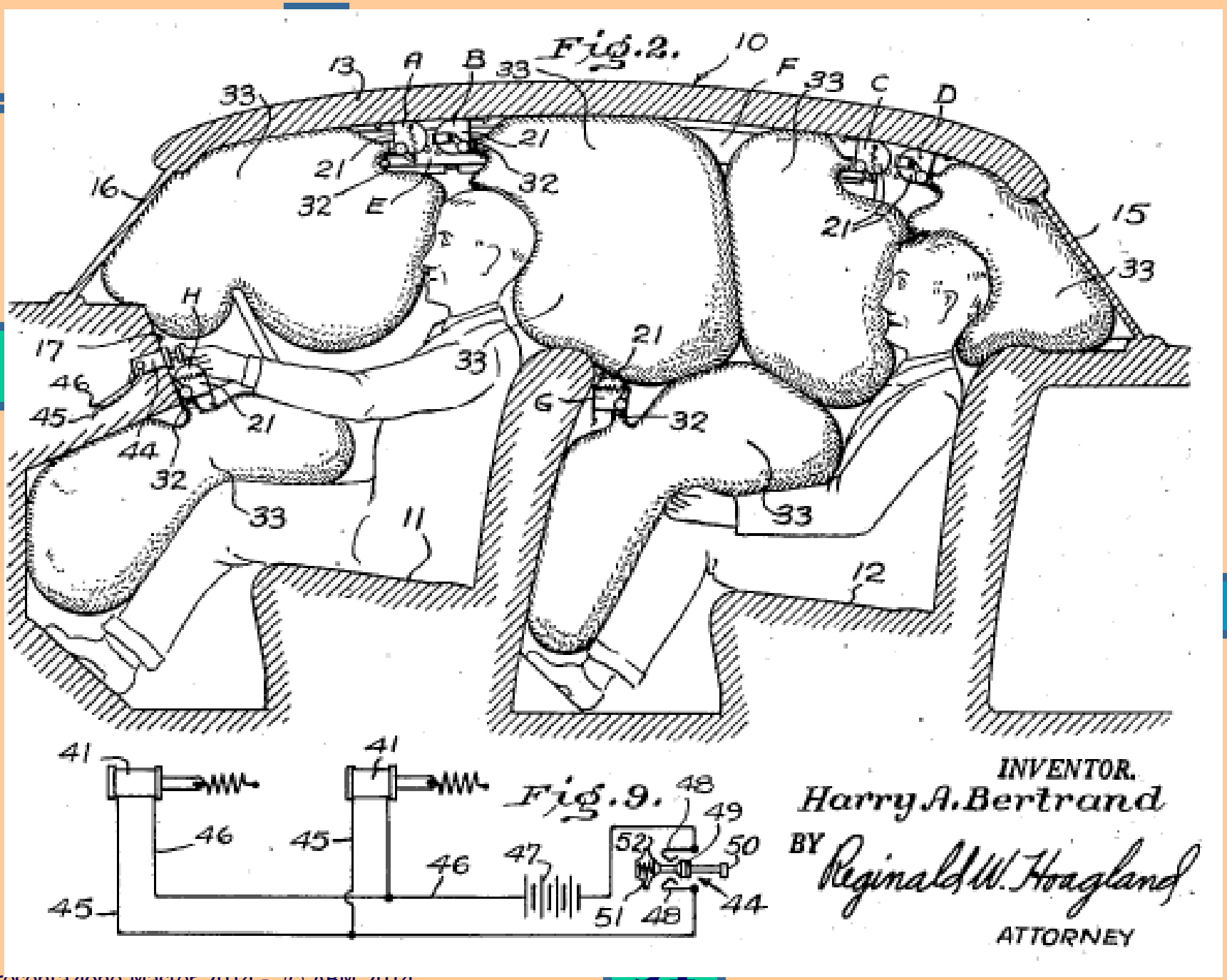


Fig.2.
13
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Fig.9.
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INVENTOR.
Harry A. Bertrand
BY Reginald W. Hoagland
ATTORNEY

PCT application

AIRBAG FOLDING METHOD

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6: B60R 21/16 — A1

(11) International Publication Number: WO 98/04442

(43) International Publication Date: 5 February 1998 (05.02.98)

(21) International Application Number: PCT/IB97/00912

(22) International Filing Date: 21 July 1997 (21.07.97)

(30) Priority Data: 08/688,631 29 July 1996 (29.07.96) US

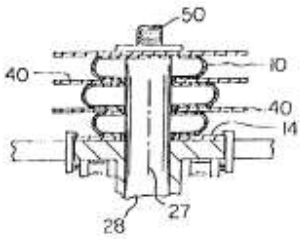
(71) Applicant: FORD GLOBAL TECHNOLOGIES, INC. [US/US]; Suite 911, Parklane Towers East, One Parklane Boulevard, Dearborn, MI 48126 (US).

(72) Inventor: WARNER, Larry, R.; 38571 Parkdale, Livonia, MI 48150 (US).

(81) Designated States: JP, KR, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
With international search report.

(54) Title: A METHOD OF FOLDING A VEHICLE SAFETY AIRBAG



(57) Abstract

A vehicle safety airbag (10) is folded to an annular compact accordion-like figuration for placement around a conventional bag inflator. The bag folding operation involves axially stretching the bag, restraining localised areas of the stretched bag against radial expansion, and axially compressing the bag while moving the restraining devices together, such that annular accordion-like folds are formed in the bag.

US 20140117649A1

(19) **United States**

(12) **Patent Application Publication**

Hoeing et al.

(10) **Pub. No.: US 2014/0117649 A1**

(43) **Pub. Date: May 1, 2014**

(54) **AIRBAG COVER WITH AT LEAST ONE FLAP**

(71) Applicants: **Maik Hoeing**, Gescher (DE); **Albert Roring**, Gronau-Epe (DE); **Rembert Schulze Wehninck**, Muenchen (DE)

(72) Inventors: **Maik Hoeing**, Gescher (DE); **Albert Roring**, Gronau-Epe (DE); **Rembert Schulze Wehninck**, Muenchen (DE)

(21) Appl. No.: **14/063,437**

(22) Filed: **Oct. 25, 2013**

(30) **Foreign Application Priority Data**

Oct. 31, 2012 (DE) 102012021315.8

Publication Classification

(51) **Int. Cl.**

B60R 21/215 (2006.01)

B29C 51/20 (2006.01)

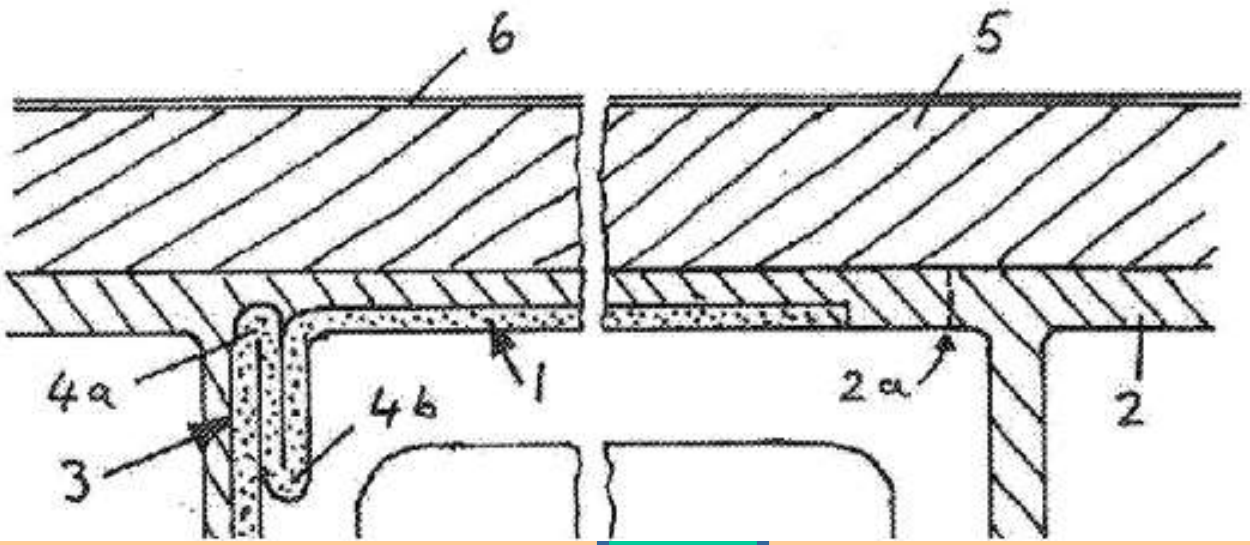
(52) **U.S. Cl.**

CPC ***B60R 21/215*** (2013.01); ***B29C 51/20*** (2013.01)

USPC **280/728.3**; 156/443

(57) **ABSTRACT**

A cover for an airbag comprises a rigid panel having a portion forming a flap defined by a plurality of sides all formed as breakaway lines and one of which also forms a hinge. The cover is made of a thermoplastic laminate that is formed along the hinge with a fold.



Number and date

(11) International Publication Number: **WO 98/04442**

(43) International Publication Date: 5 February 1998 (05.02.98)

12 (81) Designated States: JP, KR, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

7)

Designated states

(21) International Application Number: PCT/IB97/00912

(22) International Filing Date: 21 July 1997 (21.07.97)

(30) Priority Data:

08/688,631 29 July 1996 (29.07.96) US

Priority

(71) Applicant: FORD GLOBAL TECHNOLOGIES, INC. [US/US]; Suite 911, Parklane Towers East, One Parklane Boulevard, Dearborn, MI 48126 (US).

(72) Inventor: WARNER, Larry, R.; 38571 Parkdale, Livonia, MI 48150 (US).

Applicant

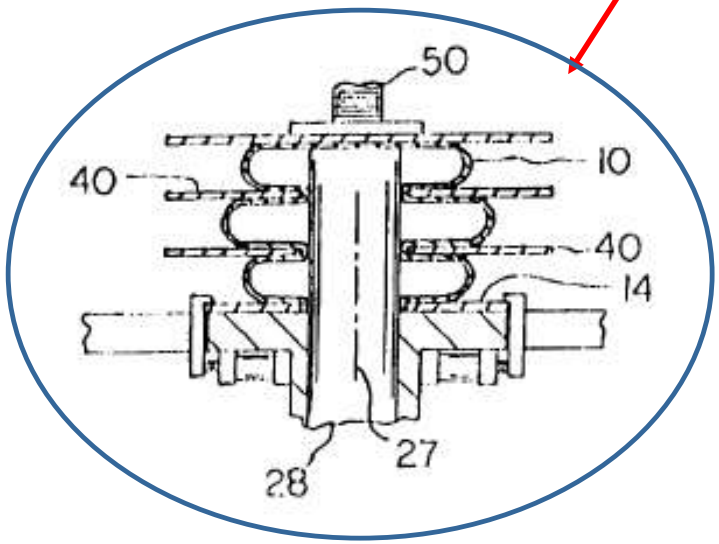
Inventor

Abstract

A: Title

I: Figure of the abstract

(54) Title: A METHOD OF FOLDING A VEHICLE SAFETY AIRBAG



(57) Abstract

A vehicle safety airbag (10) is folded to an annular compact accordion-like figuration for placement around a conventional bag inflator. The bag folding operation involves axially stretching the bag, restraining localised areas of the stretched bag against radial expansion, and axially compressing the bag while moving the restraining devises together, such that annular accordion-like folds are formed in the bag.

I: Abstract

B: Field of the invention

This invention relates to vehicle safety airbags, and particularly to a method of folding an airbag into a compact annular configuration sized to surround an airbag inflator.

Inflatable airbags are sometimes deployed in vehicles, especially automobiles and trucks, to protect the driver and front passenger in the event of a front collision that would tend to throw the vehicle occupant toward the dashboard and windshield. Typically, the driver side airbag is deployed in the steering wheel in a folded state proximate to an air inflator buried within the steering wheel or steering column. The passenger side airbag is located within a housing in the dashboard.

The present invention is concerned particularly with the deployment of the driver side airbag. More particularly, the invention relates to a method of folding a driver side airbag so that the bag is formed into plural annular folds adapted to surround the associated airbag inflator.

C: Background of the invention

One conventional airbag inflator comprises a cylindrical housing having a flat end wall and a ring of gas escape ports in the cylindrical side wall; typically the cylindrical side wall has a diameter of about three or four inches. Conventional driver side airbags are folded in zigzag fashion to form multiple folds positionable against the end wall of the inflator housing.

With such an orientation of the folded airbag, the bag inflation process tends to produce a mushroom configuration in the transitory partial inflation stage. The air pressure force travels through the partially opened folds of the bag in an irregular manner to produce a relatively narrow stem and a bulbous leading end; the unfolding process is somewhat unpredictable.

Another disadvantage of the conventional method of airbag folding is that the multiple folds add to the axial dimension of the airbag inflator so that it becomes difficult to recess the centre area of the steering wheel

drawbacks

E: Summary of the invention

The present invention relates to a method of folding a vehicle safety airbag so that the bag has plural annular folds adapted to encircle the associated airbag inflator. The folded bag has a single fold connector wall spanning the end surface of the inflator. The folded walls of the bag surround the inflator without increasing the axial thickness dimension of the inflator. Therefore the bag-inflator assembly has a pancake configuration that enables the assembly to fit within a recessed central area of a steering wheel so as to achieve a dished steering wheel exterior surface.

D: advantages

A principal advantage to the invention is that during the bag inflation process the gas pressure is initially applied directly to the connector wall that spans the end surface of the inflator. The connector wall (spanning the

F: Brief description of the drawings

The invention will now be described, by way of example, with reference to the accompanying drawings, in which:

Fig. 1 is a semi-schematic elevational view of an apparatus that can 5 be used to practice the method of the present invention;

Fig. 2 is a fragmentary transverse sectional view taken through the Figure 1 apparatus;

Fig. 3 is a fragmentary sectional view taken on line 3-3 in Figure 2;

G: Preferred embodiment

Figure 5 shows an airbag 10 in a folded condition within a bag housing 12 that comprises a circular mounting disc 14 for anchoring the mouth of the bag in a stationary position. Annular mouth edge 16 of the airbag is secured to the inner annular edge of disc 14 to closely fit around the cylindrical side surface of a conventional airbag inflator 18.

The inflator housing has a ring of gas escape ports 20 in its side surface, whereby pressurised gas flows from the inflator radially outwardly in essentially all directions into the bag interior space. The bag is thereby inflated from the folded deflated condition shown in full lines to the inflated condition shown in dashed lines 22. Typically, the inflation process is accomplished in a time swan of about thirty five milliseconds. During the inflation process the bag expands out of bag housing 12 in all directions, measured around the axis of inflator 18, so that the bag has a curvilinear three dimensioned configuration of progressively increasing size during the process.

H: Independent claim

Succession of steps

CLAIMS

1. A method of folding a vehicle safety airbag comprising:

stretching the bag along a central axis;

restraining the bag against radial expansion at a plurality of radial planes spaced along said central axis;

ballooning the bag outwardly while collapsing the bag in the axial direction, and moving the restraining planes toward one another; and

withdrawing the restraining forces when the ballooned walls of the bag occupy essentially paralleled planes normal to the bag central axis.

Step 1

Step 2

Step 3

Step 4

dependent claims

2. A method as claimed in claim 1, wherein said bag stretching step is performed by moving an elongated mandrel into the bag so that the mandrel establishes the bag stretching axis.

3. A method as claimed in claim 2, wherein said bag ballooning steps is achieved partly blowing air outwardly from the mandrel into the bag.

4. A method as claimed in claim 2, wherein the step of axially compressing the bag involves simultaneously withdrawing the mandrel from the bag, and applying an axial pushing force to an external surface of the bag.

5. A method as claimed in claim 1, wherein the bag restraining step involves moving plural sets of clamping plates toward the bag central axis to establish the aforementioned restraining planes.

F: figures

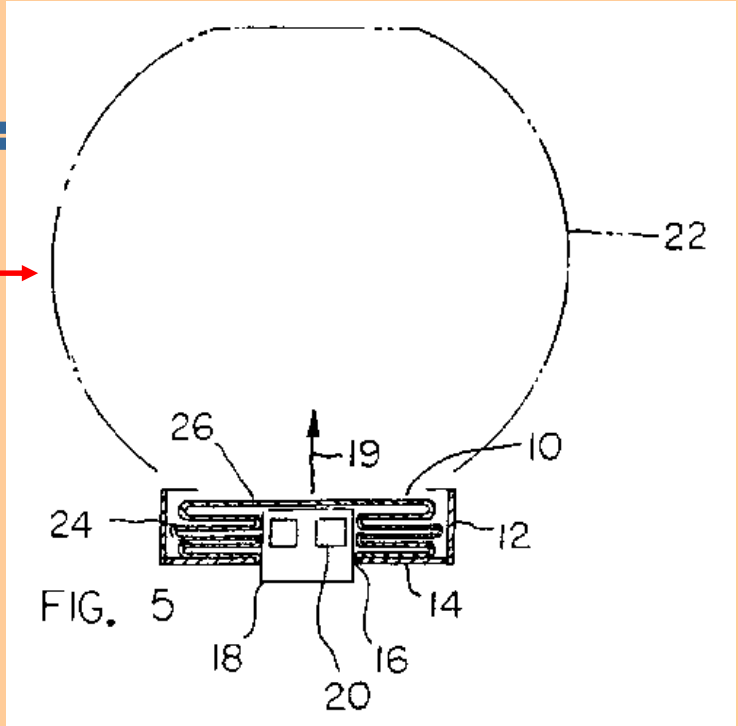


FIG. 5

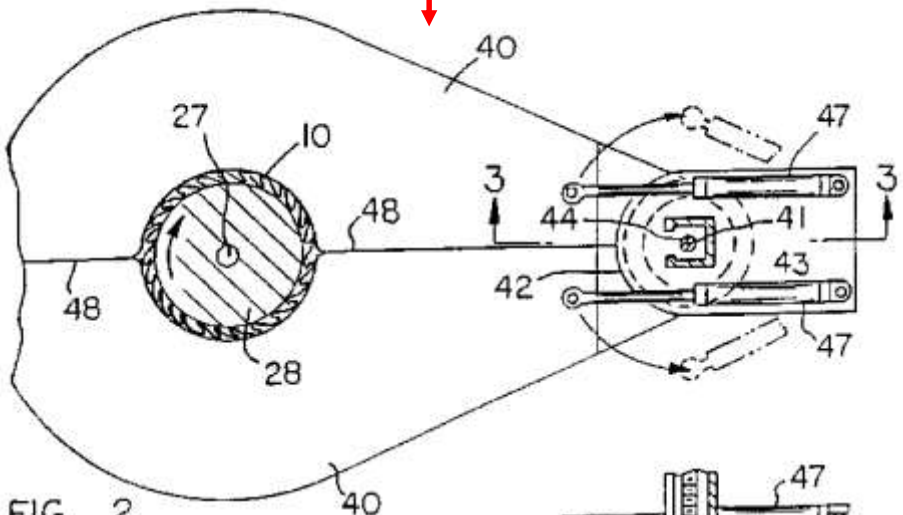


FIG. 2

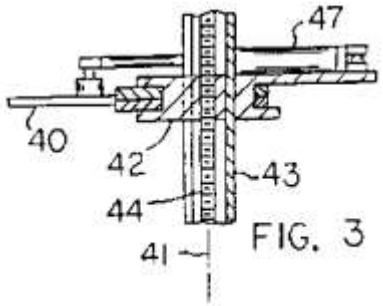


FIG. 3

Obsolescence of the claims

Maximum attention should be given to technological improvements that may occur in the 20 year validity of the patent.

The claim language should avoid limitations as far as possible

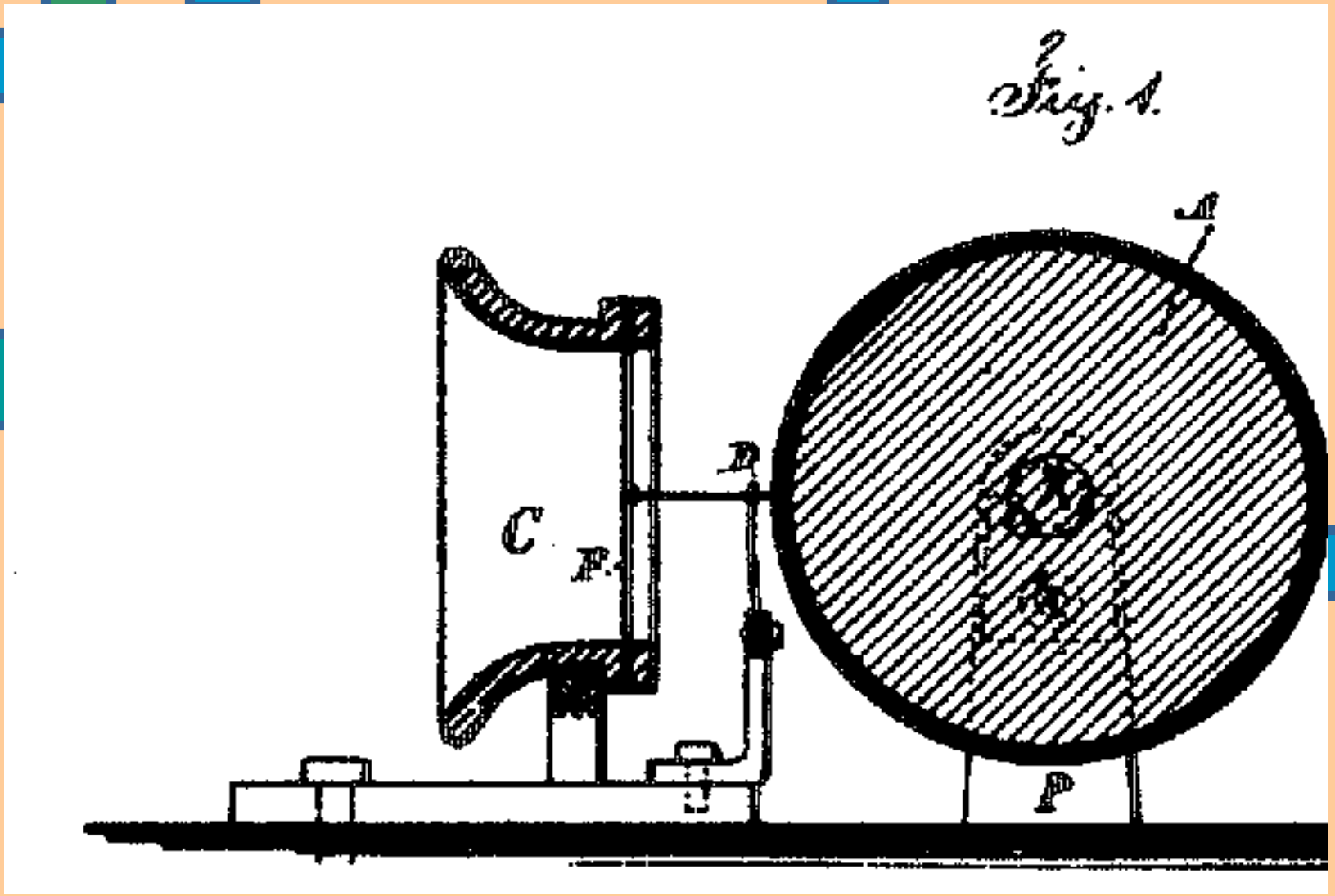


Fig. 1.
A
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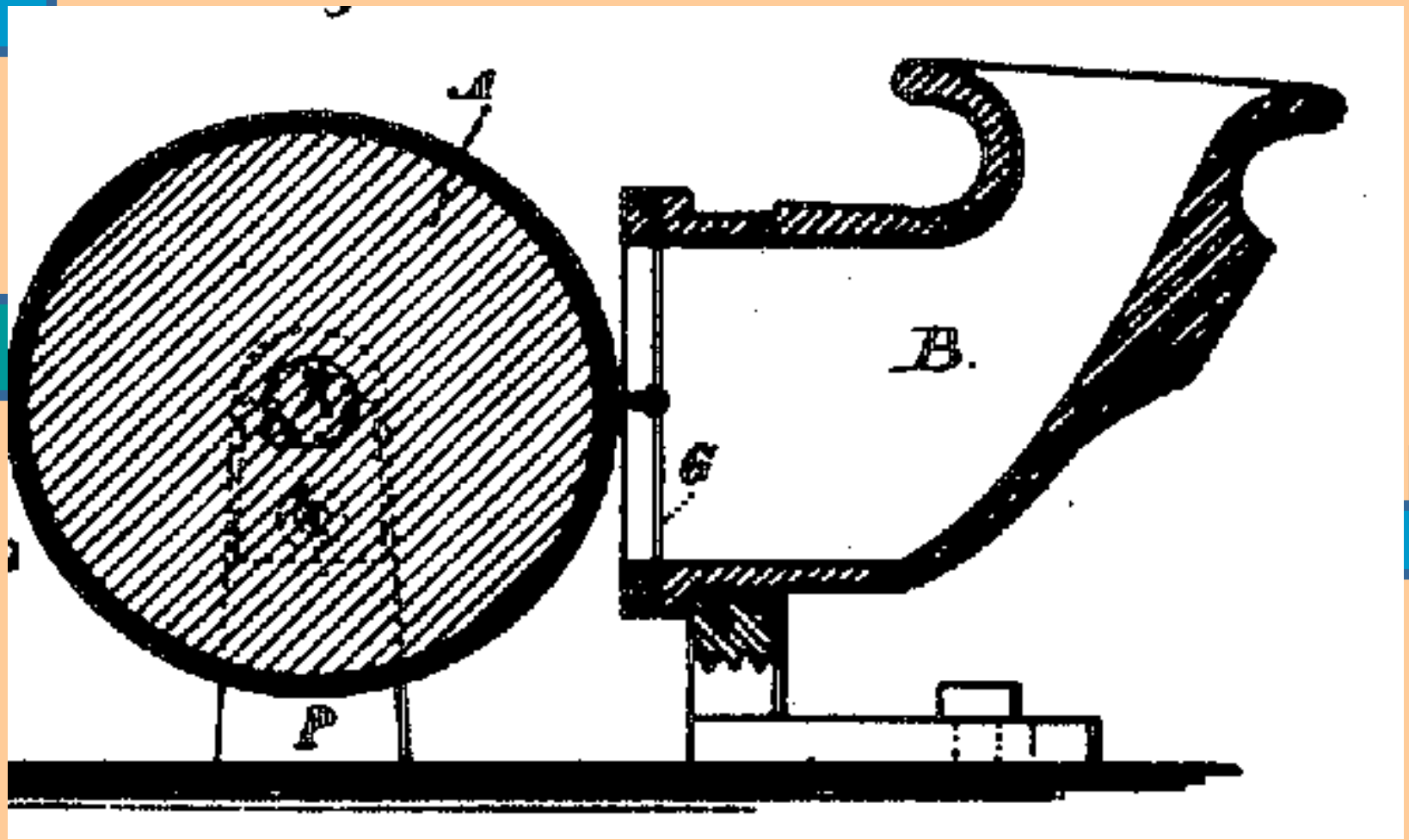
C
F
P


A
B.
G
P

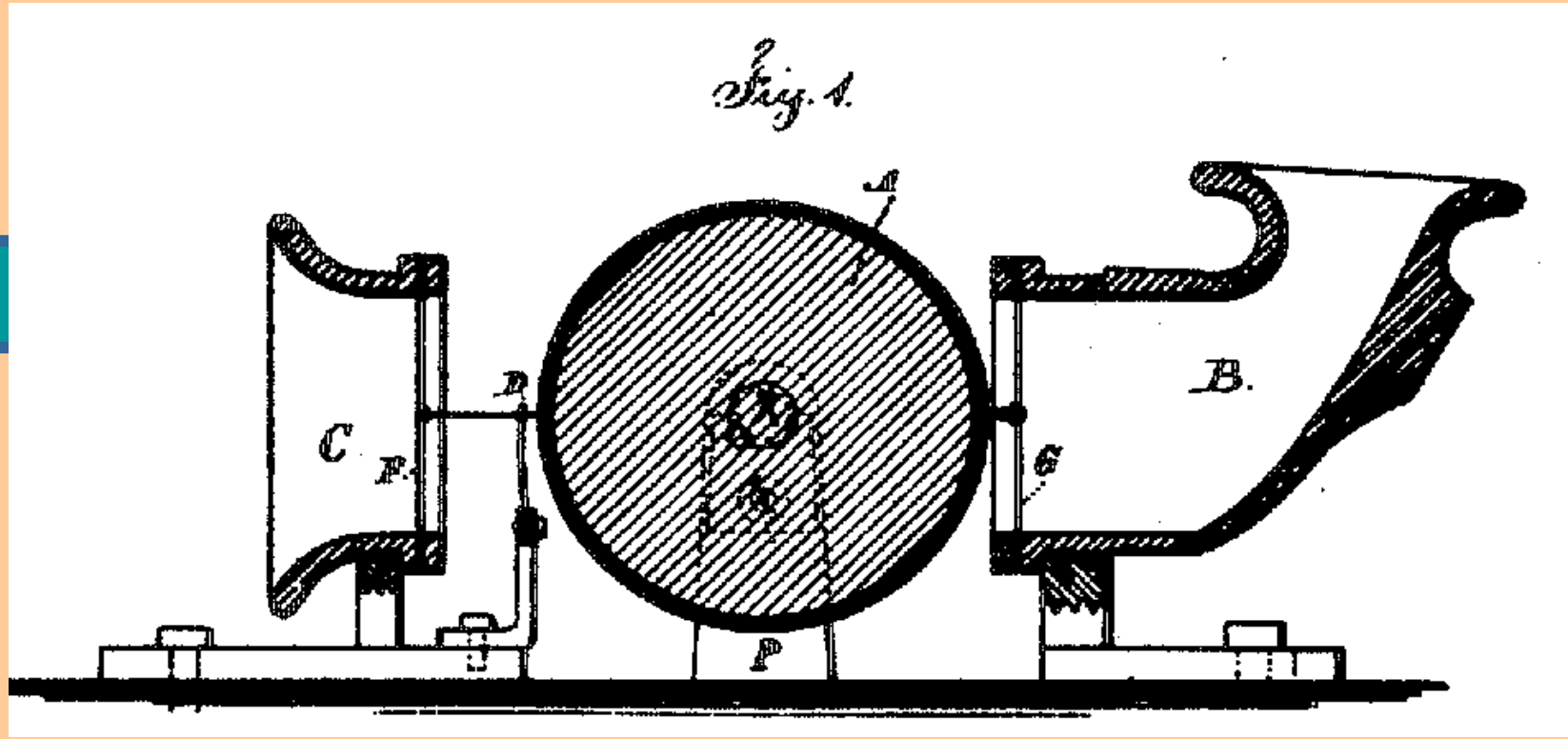


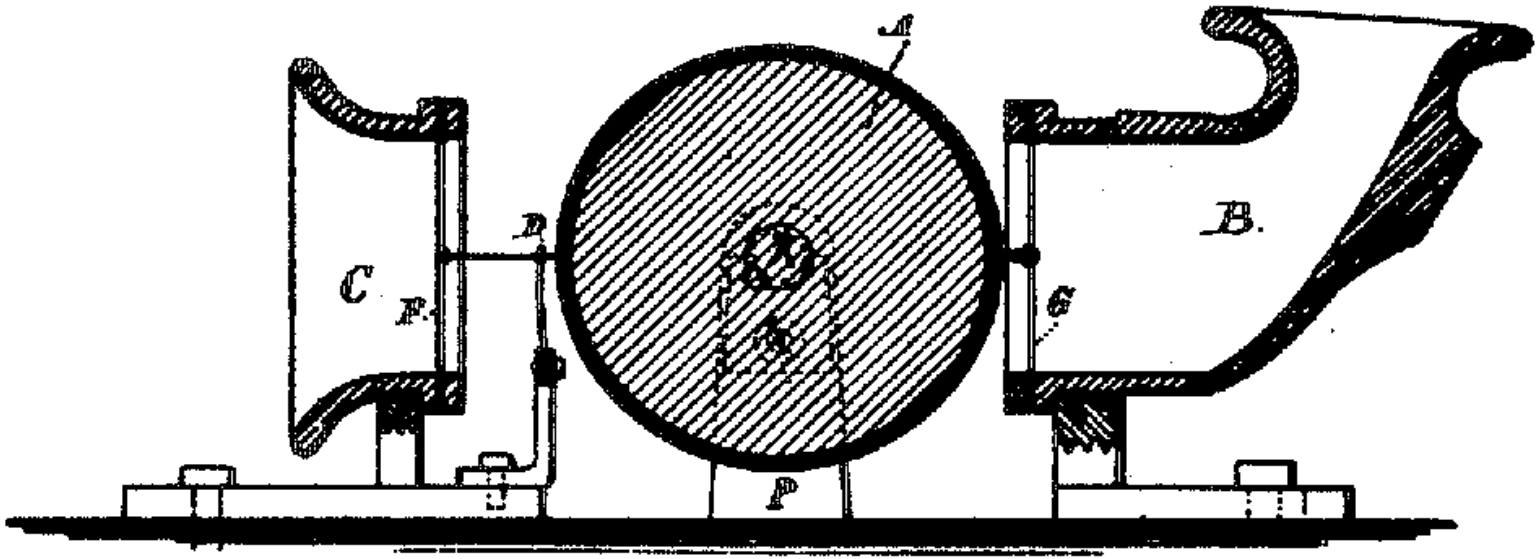
Fig. 1.
A
B.
C
D
E
F
G
P

T. A. EDISON.

Phonograph or Speaking Machine.

No. 200,521. Patented Feb. 19, 1878.

Fig. 1.



EDISON

- Microphone (1877)
- Phonograph(1878)
- Light bulb (1879)
- Kinetoscope, (1891) ancestor of the motion picture device of Lumiere brothers

- Edison had 1300 patents
- The object of his life was to get profit from his inventions to launch other inventions

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY.

IMPROVEMENT IN PHONOGRAPH OR SPEAKING MACHINES.

Specification forming part of Letters Patent No. **200,521**, dated February 19, 1878; application filed December 24, 1877.

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Menlo Park, in the county of Middlesex and State of New Jersey, have invented an Improvement in Phonograph or Speaking Machines, of which the following is a specification:

The object of this invention is to record in permanent characters the human voice and other sounds, from which characters such sounds may be reproduced and rendered audible again at a future time.

The invention consists in arranging a plate, diaphragm, or other flexible body capable of being vibrated by the human voice or other sounds, in conjunction with a material capable of registering the movements of such vibrating body by embossing or indenting or altering such material, in such a manner that such register-marks will be sufficient to cause a second vibrating plate or body to be set in motion by them, and thus reproduce the motions of the first vibrating body.

The invention further consists in the various combinations of mechanism to carry out my invention.

I have discovered, after a long series of experiments, that a diaphragm or other body capable of being set in motion by the human voice does not give, except in rare instances, superimposed vibrations, as has heretofore been supposed, but that each vibration is separate and distinct, and therefore it becomes possible to record and reproduce the sounds of the human voice.

In the drawings, Figure 1 is a vertical section, illustrating my invention, and Fig. 2 is a plan of the same.

A is a cylinder having a helical indenting-groove cut from end to end—say, ten grooves to the inch. Upon this is placed the material to be indented, preferably metallic foil. This drum or cylinder is secured to a shaft, X, having at one end a thread cut with ten threads to the inch, the bearing P also having a thread cut in it.

L is a tube, provided with a longitudinal slot, and it is rotated by the clock-work at M, or other source of power.

The shaft X passes into the tube L, and it is rotated by a pin, 2, secured to the shaft,

I claim as my invention—

1. The method herein specified of reproducing the human voice or other sounds by causing the sound-vibrations to be recorded, substantially as specified, and obtaining motion from that record, substantially as set forth, for the reproduction of the sound-vibrations.

2. The combination, with a diaphragm exposed to sound-vibrations, of a moving surface of yielding material—such as metallic foil—upon which marks are made corresponding to the sound-vibrations, and of a character adapted to use in the reproduction of the sound, substantially as set forth.

3. The combination, with a surface having marks thereon corresponding to sound-vibrations, of a point receiving motion from such marks, and a diaphragm connected to said point, and responding to the motion of the point, substantially as set forth.

4. In an instrument for making a record of sound-vibrations, the combination, with the diaphragm and point, of a cylinder having a helical groove and means for revolving the cylinder and communicating an end movement corresponding to the inclination of the helical groove, substantially as set forth.

Signed by me this 15th day of December, A. D. 1877.

THOS. A. EDISON.

The invention consists in arranging a plate, diaphragm, or other flexible body capable of being vibrated by the human voice or other sounds, in conjunction with a material capable of registering the movements of such vibrating body by embossing or indenting or altering such material, in such a manner that such register-marks will be sufficient to cause a second vibrating plate or body to be set in motion by them, and thus reproduce the motions of the first vibrating body.

Filing Strategy

- A patent gives only national protection. However, an applicant is not obliged to file patent applications worldwide contemporaneously.
- The PARIS CONVENTION grants one year time to an inventor that has filed an application in a State to file other applications in other states claiming the priority, within one year from the filing date of the first application (priority date)

Filing strategy

- Common, but not unique, filing strategy is to file a priority application, in the state of origin of the invention,
- then a PCT application (almost worldwide coverage),
- The PCT offers an extension to this concept up to 30 or 31 months from the priority date for a number of states (148 PCT states), giving also other services, such as 1 priority document, international search and patentability opinions. www.wipo.int
- and then national phases of the international PCT applications, that follow national patenting

PCT Contracting States and Two-letter Codes (148 on 1 February 2015)

AE United Arab Emirates
AG Antigua and Barbuda
AL Albania (EP)
AM Armenia (EA)
AO Angola
AT Austria (EP)
AU Australia
AZ Azerbaijan (EA)
BA Bosnia and Herzegovina[1]
BB Barbados
BE Belgium (EP)[2]
BF Burkina Faso (OA)[2]
BG Bulgaria (EP)
BH Bahrain
BJ Benin (OA)[2]
BN Brunei Darussalam
BR Brazil
BW Botswana (AP)
BY Belarus (EA)
BZ Belize
CA Canada
CF Central African Republic (OA)[2]
CG Congo (OA)[2]
CH Switzerland (EP)
CI Côte d'Ivoire (OA)[2]
CL Chile
CM Cameroon (OA)[2]
CN China
CO Colombia
CR Costa Rica
CU Cuba
CY Cyprus (EP)[2]
CZ Czech Republic (EP)
DE Germany (EP)
DK Denmark (EP)
DM Dominica
DO Dominican Republic
DZ Algeria
EC Ecuador
EE Estonia (EP)
EG Egypt
ES Spain (EP)
FI Finland (EP)
FR France (EP)[2]
GA Gabon (OA)[2]
GB United Kingdom (EP)
GD Grenada
GE Georgia
GH Ghana (AP)
GM Gambia (AP)
GN Guinea (OA)[2]
GQ Equatorial Guinea (OA)[2]
GR Greece (EP)[2]
GT Guatemala
GW Guinea-Bissau (OA)[2]
HN Honduras
HR Croatia (EP)
HU Hungary (EP)
ID Indonesia
IE Ireland (EP)[2]
IL Israel
IN India
IR Iran (Islamic Republic of)
IS Iceland (EP)
IT Italy (EP)[2]
JP Japan
KE Kenya (AP)
KG Kyrgyzstan (EA)
KM Comoros (OA)[2]
KN Saint Kitts and Nevis
KP Democratic People's Republic of Korea
KR Republic of Korea
KZ Kazakhstan (EA)
LA Lao People's Democratic Republic
LC Saint Lucia
LI Liechtenstein (EP)
LK Sri Lanka
LR Liberia (AP)
LS Lesotho (AP)
LT Lithuania (EP)[2]
LU Luxembourg (EP)
LV Latvia (EP)[2]
LY Libya
MA Morocco[3]
MC Monaco (EP)[2]
MD Republic of Moldova
ME Montenegro[1]
MG Madagascar
MK The former Yugoslav Republic of Macedonia (EP)
ML Mali (OA)[2]
MN Mongolia
MR Mauritania (OA)[2]
MT Malta (EP)[2]
MW Malawi (AP)
MX Mexico
MY Malaysia
MZ Mozambique (AP)
NA Namibia (AP)
NE Niger (OA)[2]
NG Nigeria
NI Nicaragua
NL Netherlands (EP)[2]
NO Norway (EP)
NZ New Zealand
OM Oman
PA Panama
PE Peru
PG Papua New Guinea
PH Philippines
PL Poland (EP)
PT Portugal (EP)
QA Qatar
RO Romania (EP)
RS Serbia (EP)
RU Russian Federation (EA)
RW Rwanda (AP)
SA Saudi Arabia
SC Seychelles
SD Sudan (AP)
SE Sweden (EP)
SG Singapore
SI Slovenia (EP)[2]
SK Slovakia (EP)
SL Sierra Leone (AP)
SM San Marino (EP)
SN Senegal (OA)[2]
ST Sao Tome and Principe (AP[4])
SV El Salvador
SY Syrian Arab Republic
SZ Swaziland (AP)[2]
TD Chad (OA)[2]
TG Togo (OA)[2]
TH Thailand
TJ Tajikistan (EA)
TM Turkmenistan (EA)
TN Tunisia
TR Turkey (EP)
TT Trinidad and Tobago
TZ United Republic of Tanzania (AP)
UA Ukraine
UG Uganda (AP)
US United States of America
UZ Uzbekistan
VC Saint Vincent and the Grenadines
VN Viet Nam
ZA South Africa
ZM Zambia (AP)
ZW Zimbabwe (AP)

Patents

- **How to get a Patent in Italy* - Three routes**
- **1- Filing an application in Italy**
  - Italian Patent and Trademark Office (UIBM) in Rome
  - examination on formalities and absolute grounds
  - no search report
  - no substantive examination
  - no publication – only availability to the public
  - availability on paper of specification - about 2 weeks
  - no availability online of abstracts and specification
  - about three years between application and grant
  - official fees: 300-600€ (up to 50 sheets);
  - attorney fees: preparation 2000-5000 €; filing 500 €
  - renewal: yearly after 3 years up to 20 years

(* similar routes any other state of the EC)

Patents

- **How to get a Patent in Italy - Three routes**
- **2- Filing a European Patent Application**
  - European Patent Office in Munich, The Hague, Berlin
  - examination on formalities and absolute grounds
  - Search Report and preliminary examination on merit
  - publication 18 months after priority
  - request of examination 6 months after publication
  - substantive examination
  - official fees : filing 1300 € and up (n. claims), examination 1500 €; designation 600€
  - attorney fees: preparation 4000-7000 €; filing 1000 €; substantive examination phase 2000-3000 € and up

Patents

- **How to get a Patent in Italy - Three routes**
- **3- Filing a Euro-PCT Application**
  - National Industrial property office or EPO or WIPO
  - examination on formalities and absolute grounds
  - Search Report and preliminary examination
  - publication 18 months after priority
  - entering the European route 30 months after priority
  - request of examination
  - substantive examination
  - official fees : filing 2800 € and up (n. pages), European phase 1800 € and up (n. claims), designation 525 €
  - attorney fees: preparation 4000-7000 €; filing 1000 €; substantive examination phase 2000-3000 € and up

Patents

- **European and Euro-PCT Application (cont.)**
  - end of substantive examination - approval of the text
  - publication of the granted patent
  - 2-5 years between application and grant (acceleration)
  - official fees: renewal fees 380-900 €; fee for grant 750 €

  Validation of the patent in the designated states: the European patent becomes a bundle of national patents
  - translation into the national languages
  - renewal fees at each state after grant (max 20 years)
  - attorney fees 2000-3000 €
  - validation: between 1000 and 3000 € (translation)

36 States: AL, AT , BE , CH , DE , DK , ES , FR , GB , GR , IE , IS, IT , LI , LU , MC , NL, NO, PT , SE , FI , CY , TR , BG , CZ EE , HU , PL , RO , RS, SI, SM , SK + AL, BA, HR, MK, YU

European Patents

- Figures: almost 2.700.000 European applications filed in 30 years of which 1.000.000 in the last 7 years and now 250.000 applications per year;
- Countries: 49% European countries; 22% USA; 20% Japan; 3% Korea; 1% Canada; 1% China; 4% altri
- Patents in Italy: Italian companies follow the Italian route for claiming priority. In certain cases foreign companies file directly in Italy. About 10000 per year

Unitary Patent

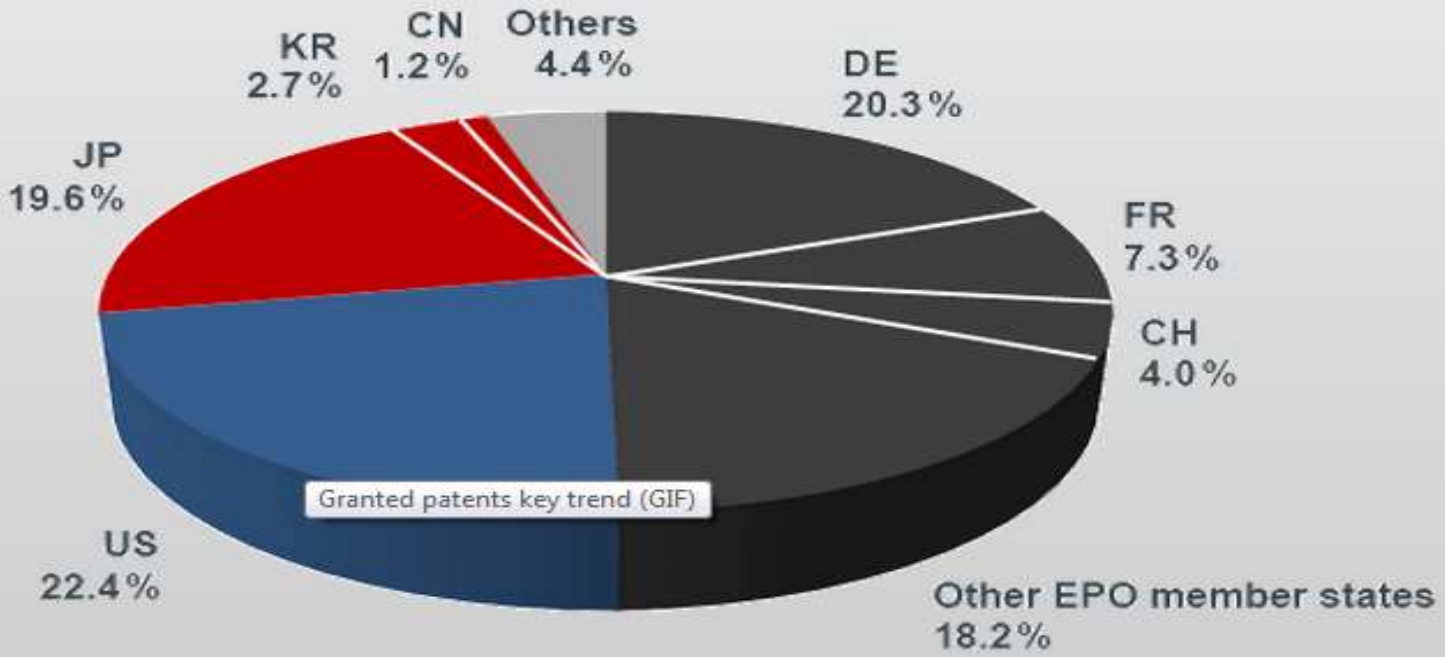
- From the year 2016 a unitary patent will cover almost all EU;
- A unique court (UPC – Unified Patent Court) will decide on invalidity and infringement
- Great advantage for companies which save money in the validation and renewal costs (about 80% less for companies which cover more than 10 European countries)

European Patent

Geographic origin of the granted patents

European companies' share of patents granted by the EPO remains stable at around 50%. Grants to Japanese and US companies went up slightly, while the number of European patents obtained by Korean and Chinese companies is still very low, but growing rapidly.

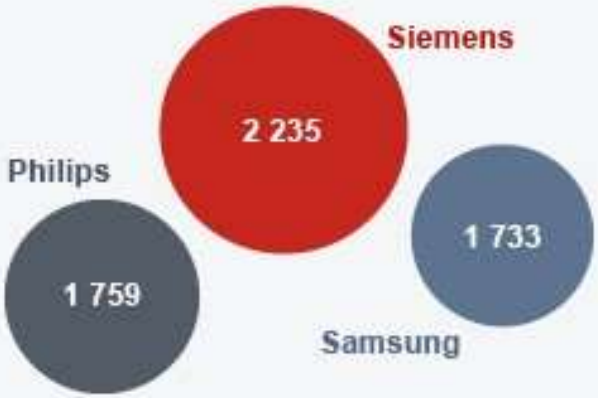
→ View the grants statistics by country of origin.



Analysis based on granted patents published in 2012. Patents have been allocated to the country of residence of the first-named patentee.

European Patent filings

European Applicants 2011 and Technical Field



1	Siemens	2 235
2	Philips	1 759
3	Samsung	1 733
4	BASF	1 638
5	LG Group	1 493
6	Qualcomm	1 482
7	General Electric	1 325
8	Robert Bosch	1 192
9	Ericsson	1 148
10	Mitsubishi	1 082

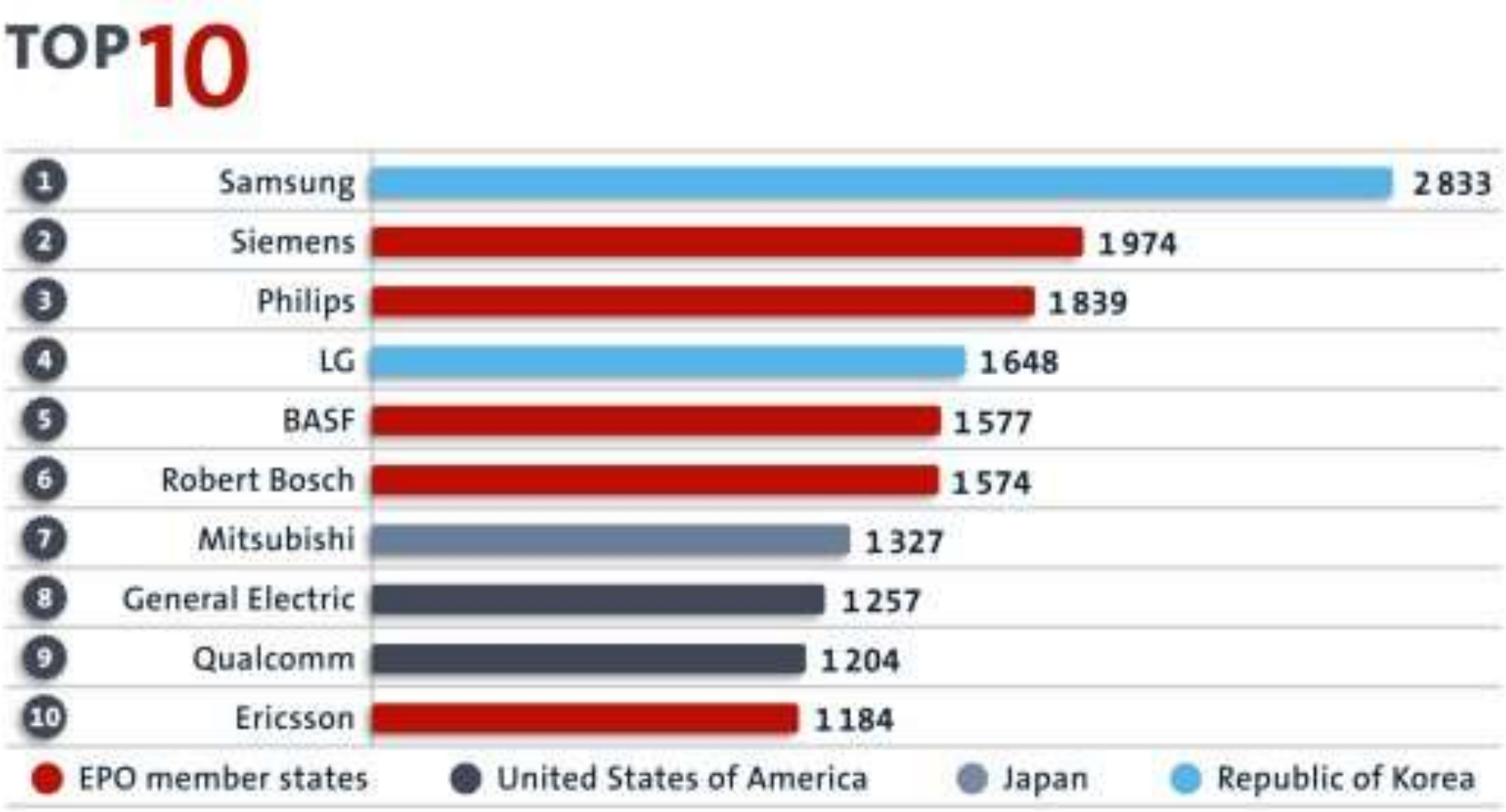
Analysis based on European patent applications filed with the EPO in 2011 (Direct European applications filed in 2011 and international (PCT) applications entering the European phase in 2011).

11	Sony	1 052
12	Panasonic	961
13	Bayer	885
14	Research In Motion	872
15	Hitachi	773
16	Alcatel Lucent	744
17	Huawei	740
18	EADS	718
19	BSH	667
20	Canon	645
21	Sanofi	638
22	Sumitomo	633
23	Hoffmann-La Roche	631

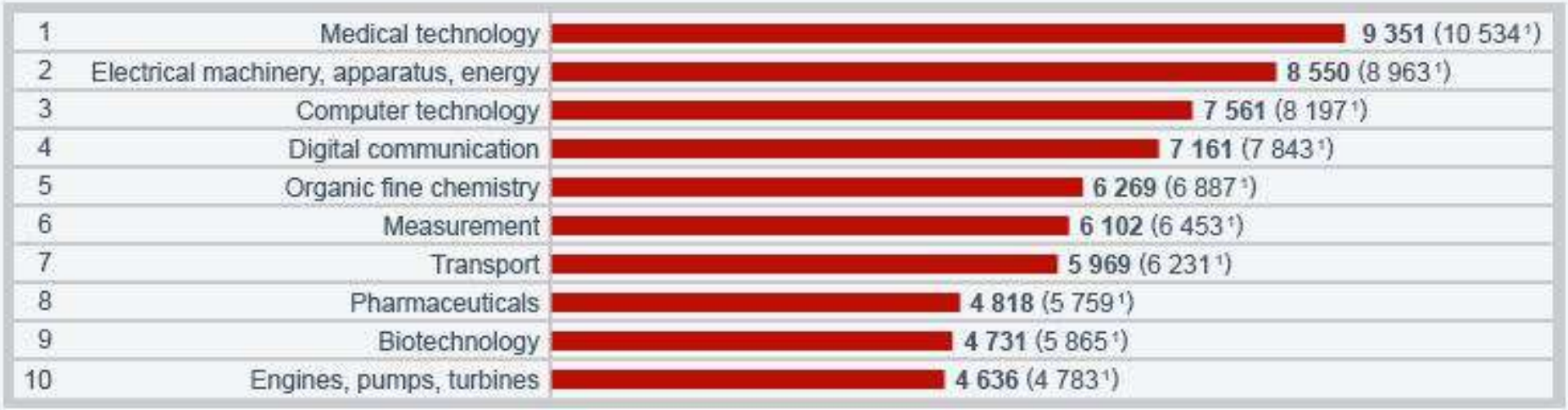
24	Johnson & Johnson	625
25	3M Company	590
26	Toyota	583
27	ABB	560
28	DuPont	550
29	United Technologies	546
30	Fujitsu	540
31	Fujifilm	518
32	Dow Chemical	512
33	Sharp	510
34	NEC	509
35	Microsoft	501
36	DSM	490

37	IBM	478
38	Honeywell	474
39	Nokia	419
40	Thomson	418
41	Commissariat à l'Energie Atomique	403
42	Toshiba	402
43	Honda	400
43	ZTE	400
45	NXP	393
45	Unilever	393
47	NTT	390
48	Covidien	377
49	Novartis	376
50	Nestlé	369

European Applicants 2013



European Application Technical Field

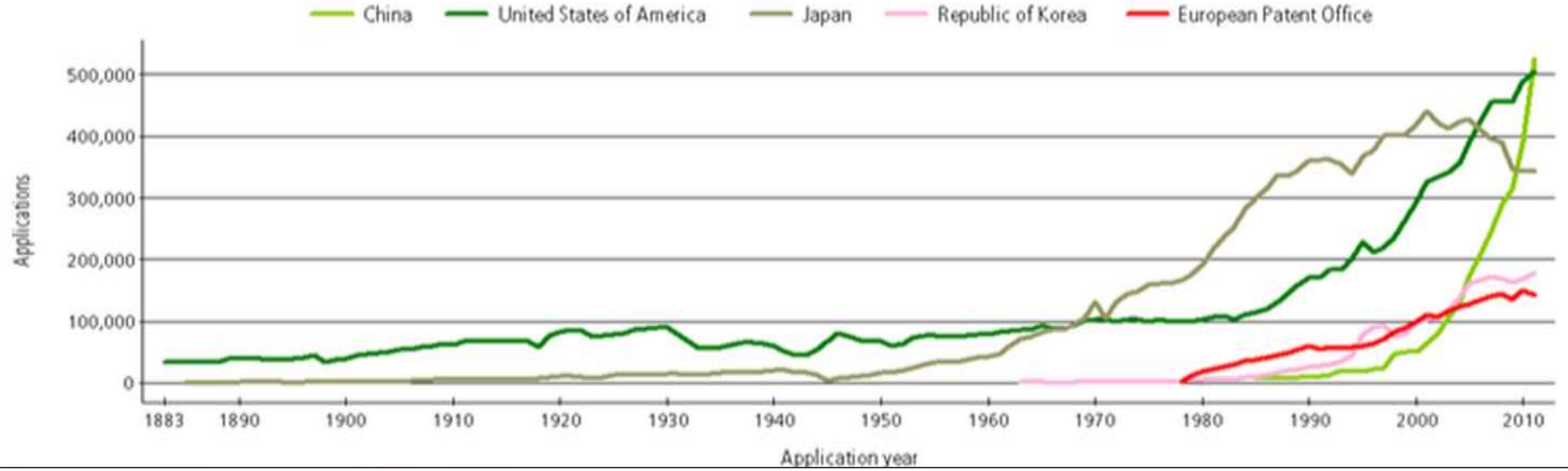


1	Medical technology	**9 351** (10 534[1])
2	Electrical machinery, apparatus, energy	**8 550** (8 963[1])
3	Computer technology	**7 561** (8 197[1])
4	Digital communication	**7 161** (7 843[1])
5	Organic fine chemistry	**6 269** (6 887[1])
6	Measurement	**6 102** (6 453[1])
7	Transport	**5 969** (6 231[1])
8	Pharmaceuticals	**4 818** (5 759[1])
9	Biotechnology	**4 731** (5 865[1])
10	Engines, pumps, turbines	**4 636** (4 783[1])

Analysis based on European patent applications filed with the EPO in 2011 (Direct European applications filed in 2011 and international (PCT) applications entering the European phase in 2011).

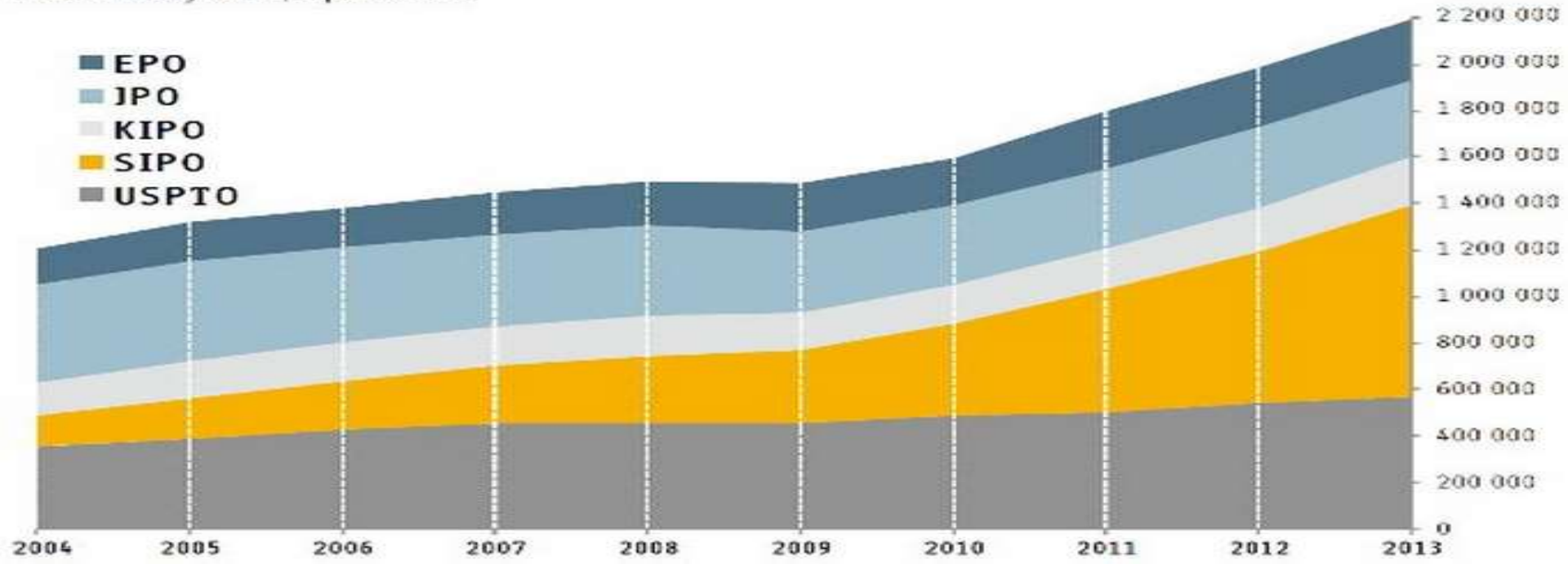
1 Including divisional applications filed during the year

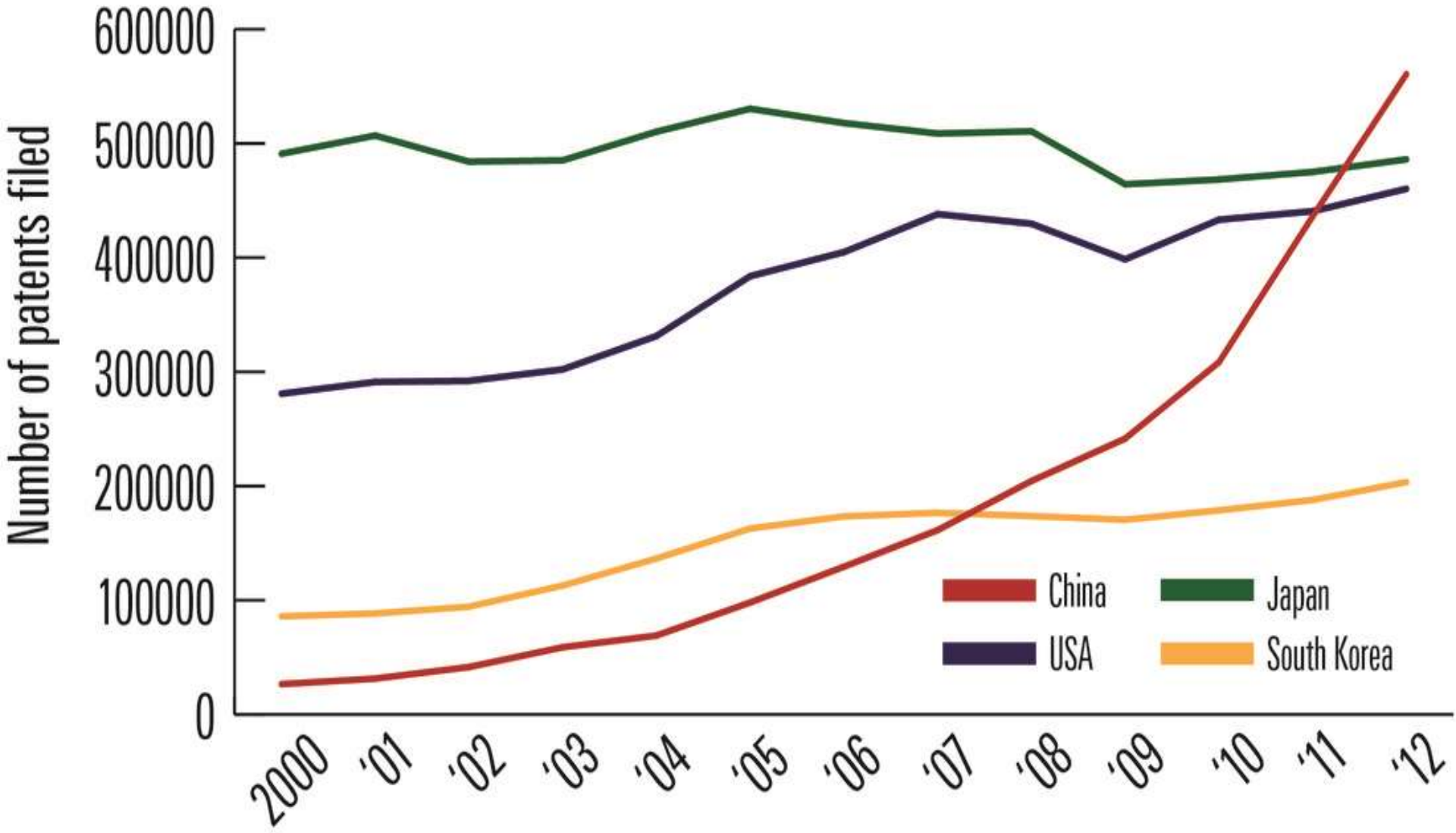
Trend in invention patent application for top five offices



Patent filings at IP5 Offices

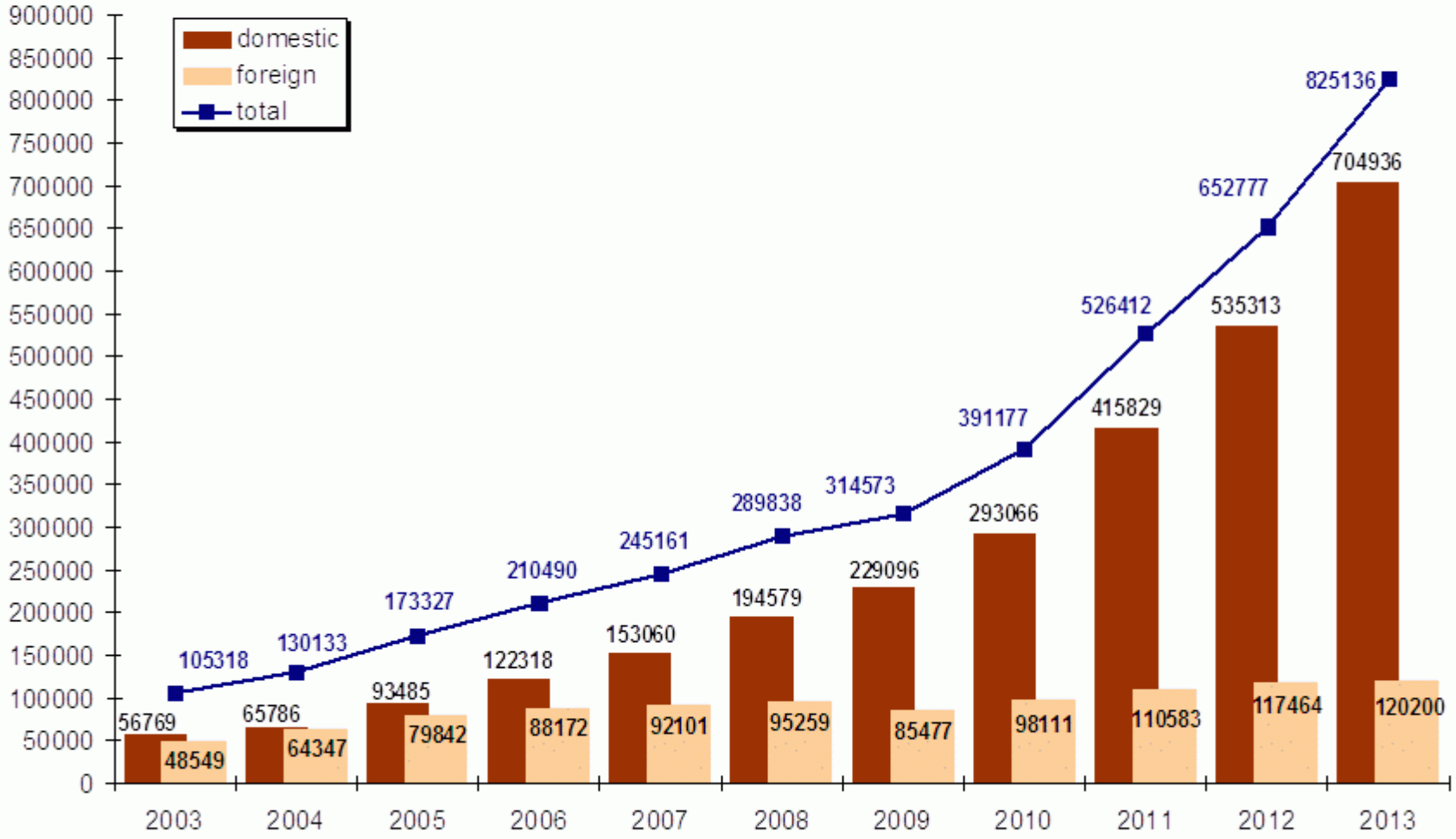
Preliminary data, April 2014




Number of patents filed
600000
500000
400000
300000
200000
100000
0
2000
'01
'02
'03
'04
'05
'06
'07
'08
'09
'10
'11
'12
China
Japan
USA
South Korea

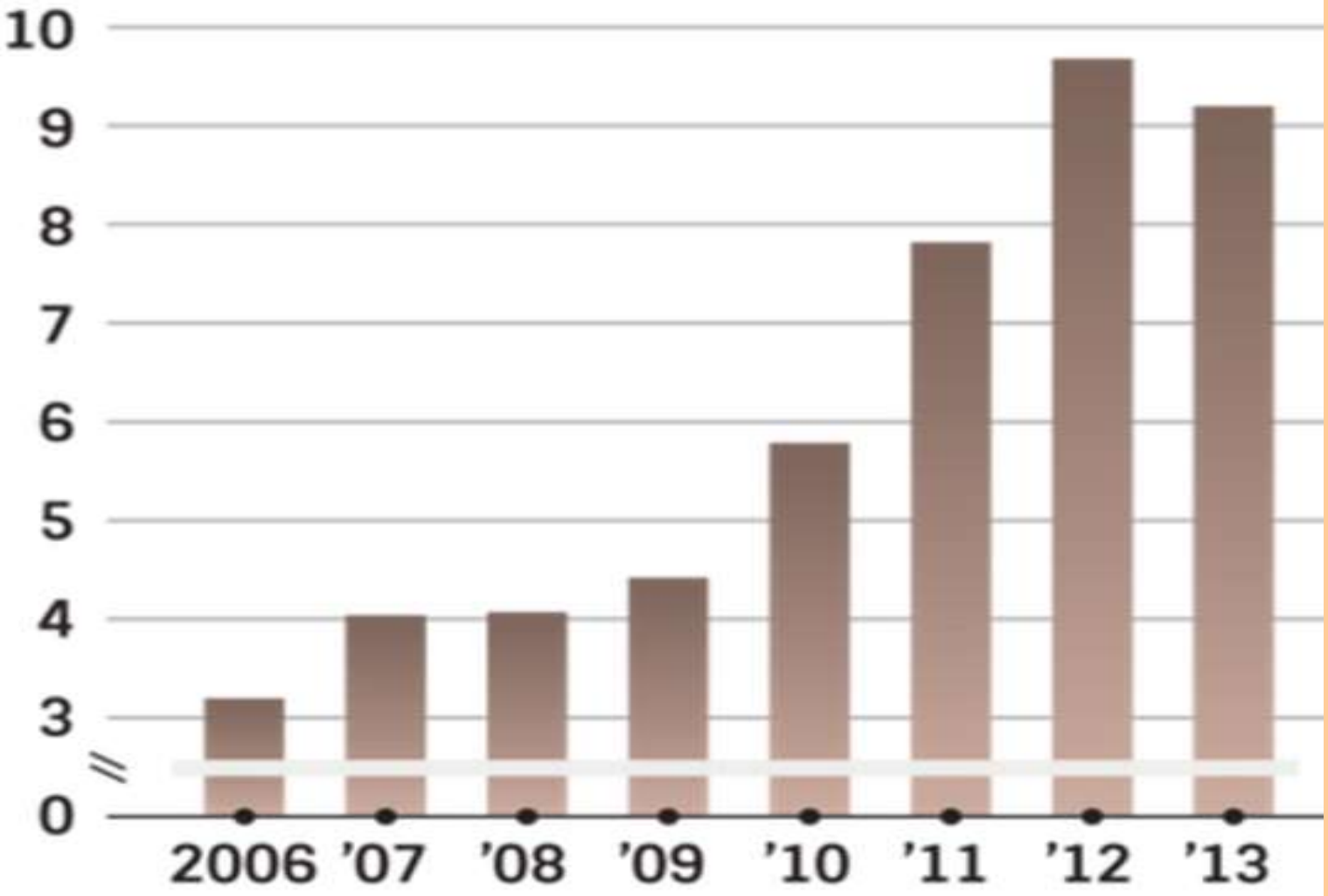
Evolution of patent applications

(domestic vs. foreign)



(source: SIPO annual reports)

Number of patent lawsuits filed in China (in first-instance courts); in thousands



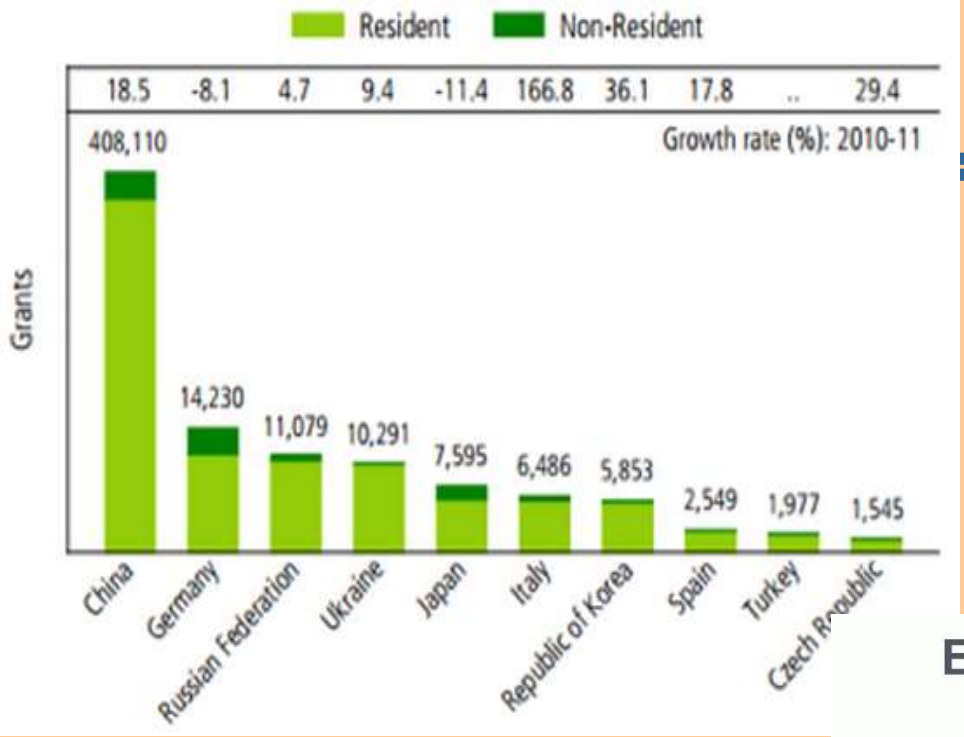
Source: China's State Intellectual Property Office

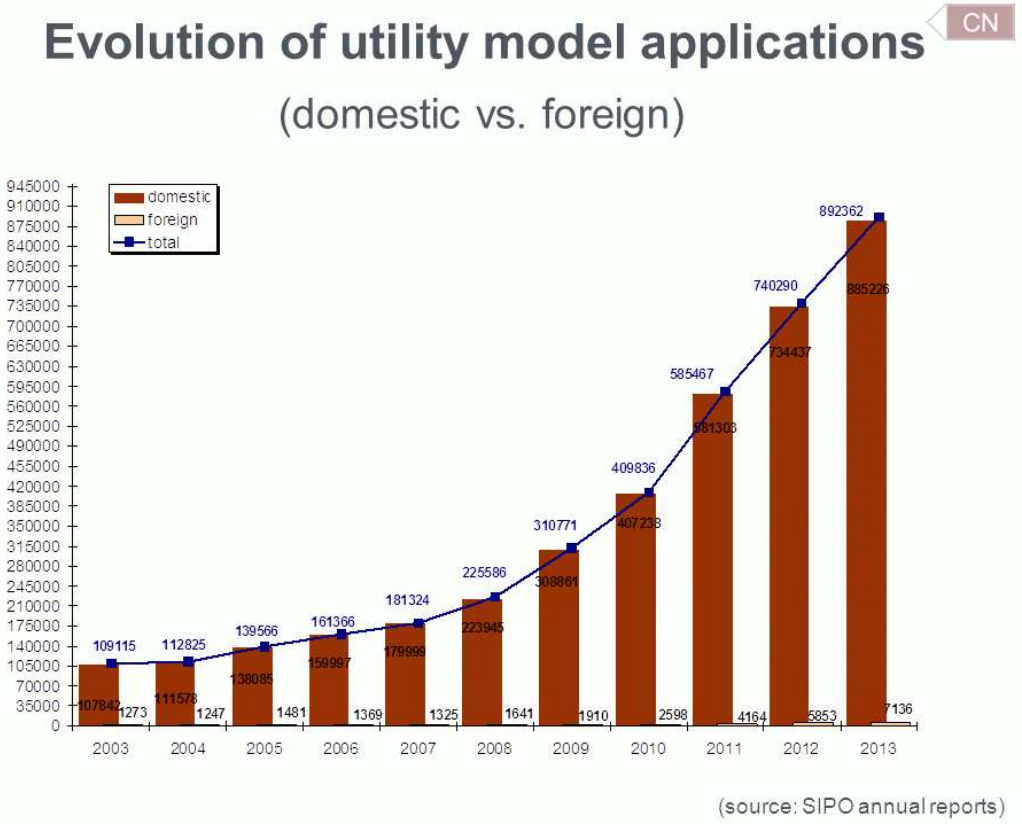
Utility Models

- **Utility Models** : can be obtained with new and useful models having regard to their technical and functional aspect
- The only practical way for establishing protection is to file an **Application for Utility Model**
- Whichever kind of prior public disclosure **(exhibition publication, sale, paper, conference, internet)** destroys the possibility of having valid Utility Models in certain states, whereas in other states 6 months or 1 year grace period are available.
- Maximum duration 10 years
- **Procedure is like Patents** even if without substantive examination

Utility Model example

Utility Model trends





Design

- **Industrial design:** appearance of the whole or a part of a product resulting from lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation
- For establishing rights on a design it is necessary to file a **Application for Design Registration**
- Whichever kind of prior public disclosure **(exhibition publication, sale, paper, conference, internet)** destroys the possibility of having valid registrations. For the author a 1 year grace period is provided.
- Maximum duration of the registration 25 years

Design

- **Design registration in Italy - Three routes**

- **1- Italian registration**

  - Italian Patent and Trademark Office (UIBM) in Rome
  - procedure similar to Italian patents
  - multiple registration available (100 models and more)
  - official fees about 500 € - attorney fees about 1000 €

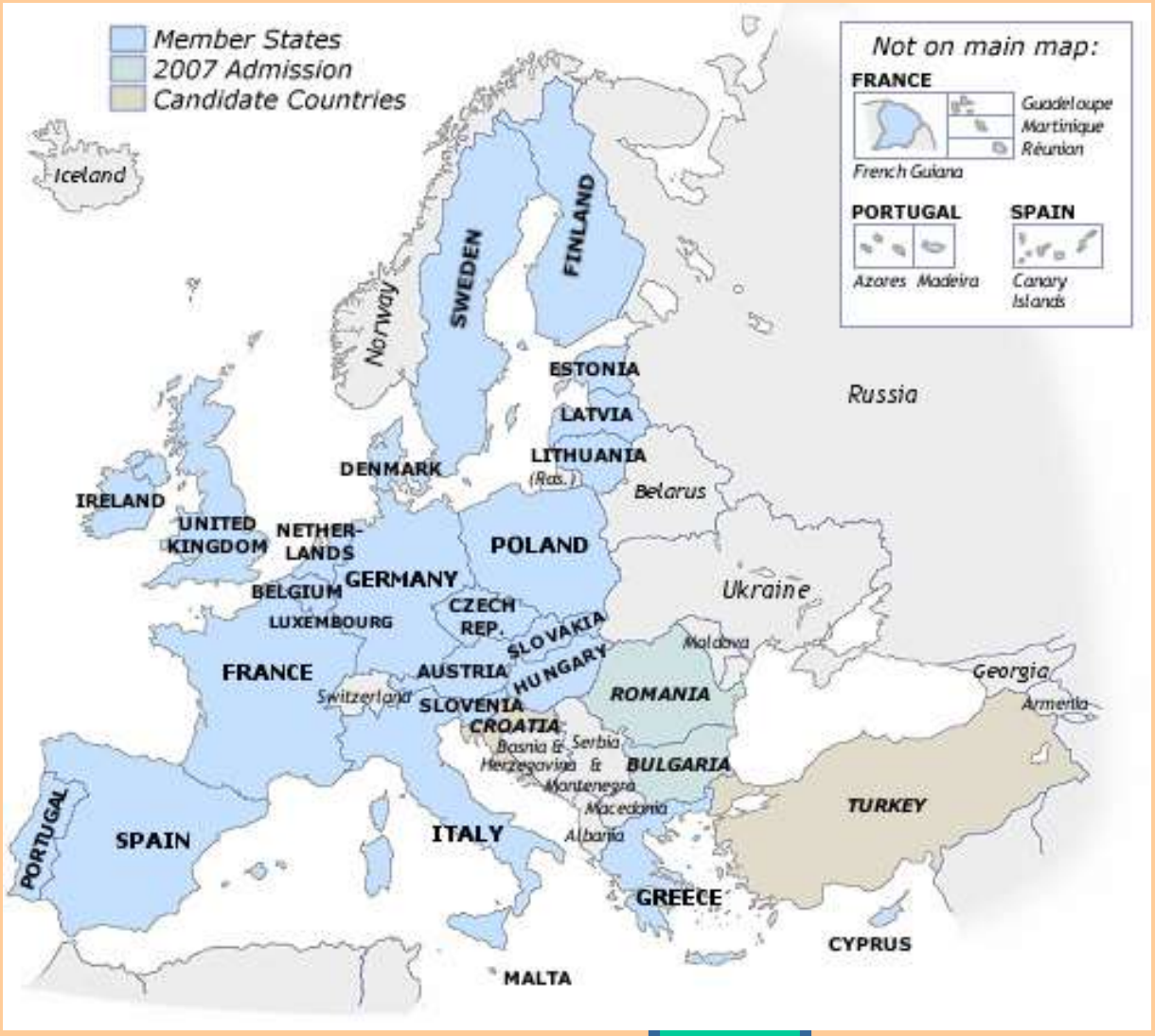
Design

- **2- Communitary registration**
  - very cost effective registration
  - examination on formalities and absolute grounds
  - unitary procedure
  - multiple registration available
  - costs depend on number of designs

valid in all the European Union:

AT BE DE DK ES FR GB GR IE IT LT LU LV MT NL PT SE FI CZ EE HU PL SI SK

Design



Communitary Registration

States

Design

- **3- International registration**
  - cost effective registration, but only for contracting states
  - examination on formalities and absolute grounds
  - centralized procedure – bundle of national registrations
  - multiple registration available
  - costs depend on number of designs

  States: many important States are missing

UE: Benelux (BX); France (FR); Germany (DE); Greece (GR); Italy (IT); Hungary (HU); Liechtenstein (LI); Monaco (MC); Slovenia (SI); Spain (ES)

Other European : Bulgaria (BG); Croatia (HR); Georgia (GE); Macedonia (MK); Vatican (VA); Kirghizistan (KG); Moldavia (MD); Romania (RO); Serbia and Montenegro (YU); Dutch Antilles (AN); Switzerland (CH); Ukraine (UA)

Africa: Benin (BJ); Ivory Coast (CI); Egypt *(EG); Gabon (GA); Tunisia * (TN); Marocco (MA); Niger (NE); Senegal (SN)

Asia: Japan (JP); S. Korea (KR); N. Korea (KP); Indonesia (ID); Mongolia (MN)

America: USA (US); Suriname (SR); Belize (BZ);

Locarno Classification Examples

- Class 1 food

- Class 2 clothing

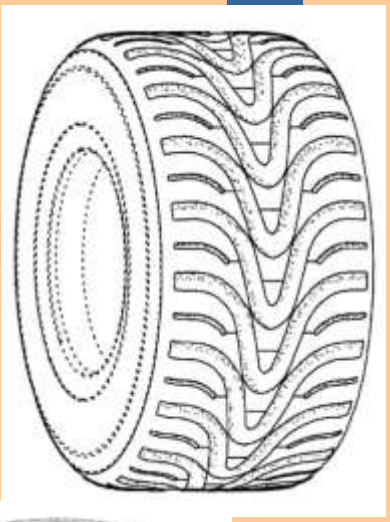
- Class 3 bags, clothing accessories

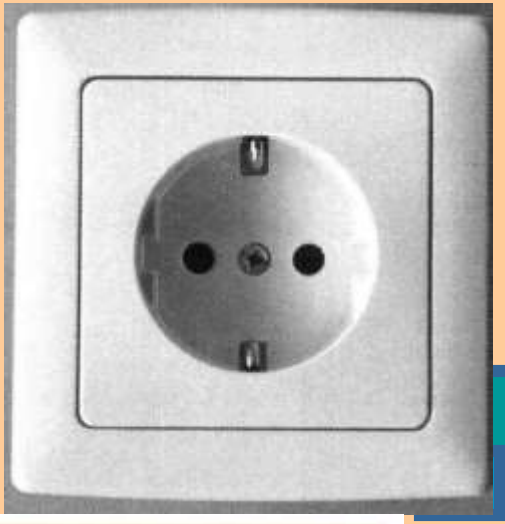
class 4 brushes

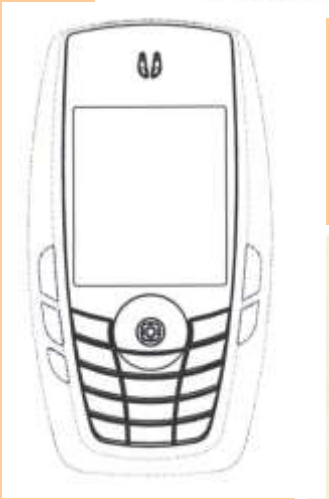
- class 5 fabric
- class 6 furniture
- class 7 household articles

- class 8 tools
- class 9 packaging
- class 10 watches, clocks instruments
- class 11
  gift articles

- class 12 vehicles,
- class 13 electric appliances
- class 14 ICT
- class 15
- engines, machines







- class 16 cameras
- class 17 musical instruments
- class 18 Office machines and devices
- class 19 stationery

- class 20 Exposers
- class 21 Toys
- class 22 Hunting
- class 23 Hydraulic, Heating, Air Conditioning

- class 24 medical devices
- class 25

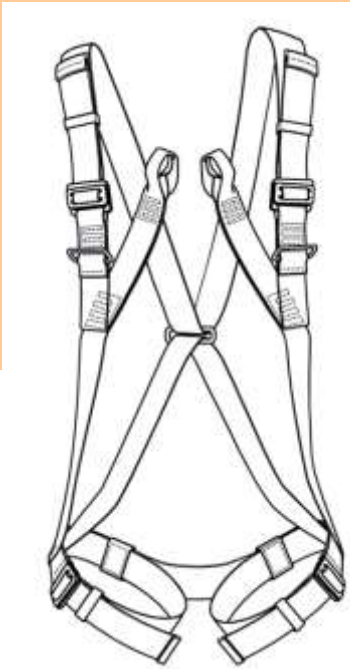
Building

- class 26 Lighting
- class 27

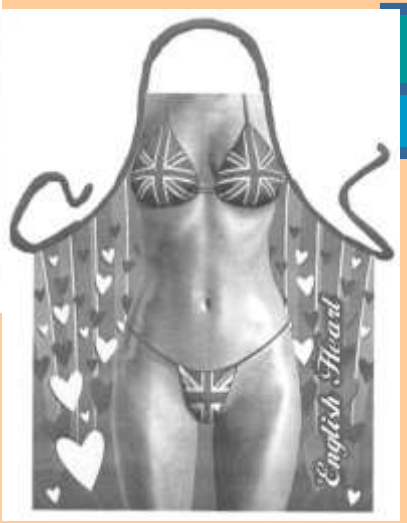
Articles for smokers

- class 28 Cosmetics
- class 29 devices for fire protection and rescue
- class 30 Articles for animals
- class 31 food

making machines



- class 99
  Various



Copyright

- **Copyright** : creative and artistic works (such as books, movies, music, paintings, photographs and software, artistic design) ….
- …. and also SOFTWARE
- No registration is necessary for obtaining protection, however, registration is advisable for unpublished works and for Software
- Software copyright protection very useful against Piracy
- Software copyright protection is not extended to technical concepts (only patent protection on that, if available)
- Universal symbol: © + year + author

Industrial secrets

- **Secret**: is an item of confidential information concerning the commercial practices or proprietary knowledge of a business.
- Secret is fundamental for protecting details of industrial processes
- Secret is very difficult to maintain on products (reverse engineering)
- Protection against unlawful disclosure or transmission of trade secrets.
- Licensing of know how

Enforcement

- Very cost effective enforcement available in Italy
- Preliminary injunctions available (seizure, prohibition)
- Possibility to apply for forced inspection in a factory of a competitor
- Three degrees of judgement available, but with long times up to final judgement (5-10 years)

Thank you

For any questions please contact me at

mcelestino@abmpat.com