



Patently Useful: Insider Knowledge Gleaned from Patent Attorneys

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Evelyn Yang Garland
Chinese<->English

- Translator and interpreter for leading law firms
- ATA certified translator (Chinese<->English)
- Court certified interpreter
- BS: biological science (Fudan)
- MHS: health science (Johns Hopkins)
- MPS: conference interpreting (UMD)
- Certificate: IP Law (WIPO)

Types of patents

- Design
- Plant
- **Utility**
 - **Physics (“ICT”)**
 - Biology/chemistry (“BCP”)

I will not discuss basic concepts, such as

- What is a patent
- What is a claim
- ...

“One Word in One Claim Worth \$891 Million”

Broadcom Corp. v. Qualcomm, Inc.

Source: Larry M. Goldstein, *True Patent Value*

U.S. Patent No. 6,714,983

MODULAR, PORTABLE DATA PROCESSING TERMINAL FOR USE IN A COMMUNICATION NETWORK

1. One or more circuits adapted for use in a mobile computing device comprising:

a terminal adapted to receive battery power for at least one of the circuits;

communication circuitry comprising a reduced power mode and being adapted to use a first wireless communication and a second wireless communication different from the first wireless communication to transmit data to access points, the communication circuitry reducing power by controlling the frequency of scanning for the access points; and

processing circuitry arranged to process data received from the communication circuitry.

What is a good patent?

- “There are, in fact, no ‘bad’ patents: just valid and invalid ones – or those that have been issued but do not withstand scrutiny.”
- “90 percent or more of many significant high-tech portfolios are comprised of dubious patents which are used for leverage.”

Bruce Berman, *The Puzzle That Is Patent Quality*,
https://www.wipo.int/wipo_magazine/en/2015/04/article_0004.html

What is good patent translation?

What is good patent translation?

- Defensible



10 Most Common Mistakes in Patents

1. Unclear key claim terms
2. Roads not taken
3. Defective parallelism
4. Unnecessary limitation in the written description
5. Improper use of claim differentiation
6. Lack of claim mix
7. Improper mix of elements within a claim
8. Improper use of non-standard terminology
9. Incorrect reliance on the preamble
10. External events that destroy patent value

Source: Larry M. Goldstein, *Litigation-Proof Patents*

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10 Most Common Mistakes in Patents

1. Unclear key claim terms
 - 1) No explanation
 - 2) Conflicting explanations
 - 3) Non-standard explanation
 - 4) Explaining a key claim term with a single example

10 Most Common Mistakes in Patents

3. Defective parallelism

E.g.

Independent Method Claim: A method of speech signal compression, ...

Independent Apparatus Claim: An apparatus for compressing an acoustical signal...

U.S. 5,414,796

10 Most Common Mistakes in Patents

4. Unnecessary limitation in the written description

E.g. road vehicles vs. cars

10 Most Common Mistakes in Patents

8. Improper use of non-standard terminology

Standard: comprising, consisting of, consisting essentially of

Use with caution: having, characterized by/in that...

Additional translation challenges

- Accuracy
- Ambiguity (intentional or unintentional) in source text
- Errors

Additional translation challenges

- **Accuracy**
 - Boat vs. ocean-going vessel

(12) **United States Patent**
Caro et al.

(10) **Patent No.:** **US 8,327,631 B2**
(45) **Date of Patent:** **Dec. 11, 2012**

(54) **AIR POLLUTION CONTROL SYSTEM FOR**
OCEAN-GOING VESSELS

(76) Inventors: **Sal Caro**, Camarillo, CA (US); **Henning**
Ottsen, Ventura, CA (US); **John Powell**,
Santa Clarita, CA (US)

6,463,958	B1	10/2002	Schwing	137/615
6,647,711	B1	11/2003	Spiegel et al.	60/288
6,660,239	B2	12/2003	Nagji	423/245.3
6,667,011	B1	12/2003	Munje et al.	422/173
6,863,874	B1 *	3/2005	Twigg	423/210
6,941,746	B2 *	9/2005	Tarabulski et al.	60/286
7,117,669	B2 *	10/2006	Kaboord et al.	60/288

Clean Air Engineering Maritime Inc v. Advanced Cleanup Technologies Inc

Additional translation challenges

- Accuracy (cont'd)

- Boat vs. ocean-going vessel

(12) **United States Patent**
Teboul

(10) **Patent No.:** **US 6,185,934 B1**
(45) **Date of Patent:** **Feb. 13, 2001**

(54) **DEVICE AND METHOD FOR FILTERING
INTERNAL COMBUSTION ENGINE
EXHAUST GASES AND VEHICLE EQUIPPED
WITH SUCH A DEVICE**

5,012,641	5/1991	Travalee .	
5,085,049	* 2/1992	Rim et al.	60/274
5,492,677	* 2/1996	Yoshikawa	422/174
5,540,716	* 7/1996	Yamamoto	96/67
5,698,012	* 12/1997	Yoshikawa	96/47

In particular, thanks to its structure, this device is efficient, at low speeds and at high speeds, from the time of starting to the time of stopping the internal combustion engine of any motor vehicle whatsoever (car, **boat**, . . .), without choking the engine.

Additional translation challenges

- Accuracy (cont'd)
 - Boat vs. ocean-going vessel
- Merriam-Webster: 1a: a small vessel for travel on water; 1b: ship
- Collins (American English): 1. a small, open water vehicle propelled by oars, sails, engine, etc.; 2. a large such vehicle for use in inland waters; an ore boat on the Great Lakes; 3. any large, seagoing water vehicle; ship: a term in popular use, but not by sailors
- ...

Additional translation challenges

- Accuracy (cont'd)

... the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction “in light of the specification **as it would be interpreted by one of ordinary skill in the art.**” (MPEP 2111)

- POSITA/PHOSITA

Additional translation challenges

- Accuracy (cont'd)
 - Boat vs. ocean-going vessel



- A major difference between ship and boat is that of their areas of operation. Ships are vessels that are **operated in oceanic areas and high seas**. They usually include cruise vessels, naval ship, tankers, container ships, RoRo ships, and offshore vessels. They are mainly built for cargo/ passenger transportation **across oceans**.
- Boats in contrast, are operable in **smaller/ restricted water areas** and include ferrying and towing vessels, sail vessels, paddle vessels, kayaks, canoe, patrolling vessels etc. Boats are mainly used for smaller purposes and mainly ply in areas **near to the coast**.

Additional translation challenges

- Ambiguity (intentional or unintentional) in source text

US 5,467,455A

9. A data processor within an integrated circuit package comprising:

an execution unit internal to the data processor;

a plurality of external pins connected to the integrated circuit package, the plurality of external pins used to bidirectionally communicate logic bits to and from the data processor via an external bus;

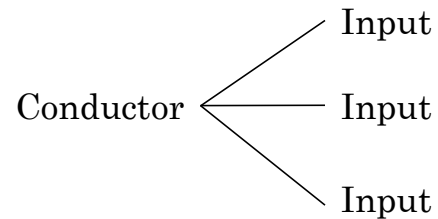
a plurality of bus termination circuits, one bus termination circuit being coupled to one external pin of the plurality of external pins wherein each external pin is coupled to at least one bus termination circuit, the plurality of bus termination circuits providing data to or receiving data from the execution unit, each bus termination circuit in the plurality of bus termination circuits having an input for receiving a control signal; and

a conductor coupled to each input of each of the bus termination circuits in the plurality of bus termination circuits, the conductor providing the control signal wherein the control signal, when asserted, allows each bus termination circuit in the plurality of bus termination circuits to couple at least one circuit component to the bus to reduce signal reflection on the bus, the control signal, when deasserted, allows each bus termination circuit in the plurality of bus termination circuits to decouple at least one circuit component from the bus.

Additional translation challenges

- Ambiguity (intentional or unintentional) in source text

a conductor coupled to each input of each of the bus termination circuits



Conductor — Input

Conductor — Input

Conductor — Input

Additional translation challenges

- Errors
 - Errors are common

Defensible Patent Translation

- Know...
 - the field (POSITA)
 - some patent rules and practices
- Be...
 - a language geek
 - diligent in research
 - consistent!!!

Staying cool

- Keep up with the trend
 - America's first patent, 1790



The United States

To all to whom these Presents shall come, Greeting.

Whereas Samuel Hopkins of the City of Philadelphia and State of Pennsylvania hath discovered an Improvement, not known or used before, such Discovery, in the making of Pot ash and Pearl ash, by a new Apparatus and Process, that is to say, in the making of Pearl ash 1st by burning the raw Ashes in a Furnace, 2^d by dissolving and boiling them when so burnt in Water, 3^d by drawing off and settling the Lye, and 4th by boiling the Lye into Salts which then are the true Pearl ash; and also in the making of Pot ash by placing the Pearl ash so made as aforesaid, which Operation of burning the raw Ashes in a Furnace preparatory to their Dissolution and boiling in Water, is new, leaves little Residuum; and produces a much greater Quantity of Salt: These are therefore in pursuance of the Act, entitled "An Act to promote the Progress of useful Arts", to grant to the said Samuel Hopkins, his Heirs, Administrators and Assigns, for the Term of fourteen Years, the sole and exclusive Right and Liberty of using, and vending to others the said Discovery, of burning the raw Ashes previous to their being dissolved and boiled in Water, according to the true Intent and meaning of the Act aforesaid. In Testimony whereof I have caused these Letters to be made patent, and the Seal of the United States to be hereunto affixed Given under my Hand at the City of New York this thirty first Day of July in the Year of our Lord one thousand seven hundred & Ninety.

X000001
July 31, 1790

G. Washington

City of New York July 31st 1790.

I do hereby certify that the foregoing Letters patent were delivered to me in pursuance of the Act, entitled "An Act to promote the Progress of useful Arts", that I have examined the same, and find them conformable to the said Act.

Edm: Randolph Attorney General for the United States.

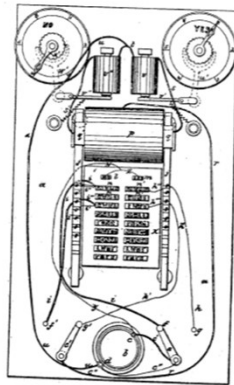
Staying cool

- Keep up with the trend (cont'd)

Thomas Edison's first patent in 1869, No. 90,646

UNITED STATES PATENT OFFICE.

T. A. EDISON.
Electric Vote-Recorder.
No. 90,646. Patented June 1, 1869.



Witnesses.
Carroll Wright
Mitt Roberts
Inventor
Thomas A. Edison

THOMAS A. EDISON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND DEWITT C. ROBERTS, OF SAME PLACE.

IMPROVEMENT IN ELECTROGRAPHIC VOTE-RECORDER.

Specification forming part of Letters Patent No. 90,646, dated June 1, 1869.

To all whom it may concern:
Be it known that I, THOMAS A. EDISON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful apparatus named "Electrographic Vote Recorder and Register," of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which represents a plan view of the apparatus, and to the letters of reference thereon.
The object of my invention is to produce an apparatus which records and registers in an instant, and with great accuracy, the votes of legislative bodies, thus avoiding loss of valuable time consumed in counting and registering the votes and names, as done in the usual manner; and my invention consists in applying an electrographic apparatus in such a manner that each member, by moving a switch to either of two points, representing an affirmative and opposing vote, has his name imprinted, by means of electricity, under the desired head, on a previously prepared paper, and at the same time the number of votes is indicated on a dial-plate by the operation.
Referring to the drawings, in the central portion of the plate *a* is secured a block, *b*, upon which are set, in metallic types, two columns of names, *s* *s'*, the one being headed by the word "no," the other by "yes," each column containing the name of every voter, and the like names standing opposite each other, as Mann under head "no" opposite to Mann under head "yes," &c. The types are separated by intervening spaces.
Along two sides of the block *b*, and parallel with the two columns *s* *s'*, are two rails, *j* *j'*, composed of any good insulating material, as hard rubber.
Opposite the intervening spaces between two names the upper faces of the rails *j* *j'* are intersected by metallic strips *o* *o'* *o''*.
On the rails *j* *j'* are mounted two rollers, *g* *g'*, insulated from one another, and insulated from and surrounded by the cylinder *p*, in such a manner that the rollers *g* *g'* project beyond said cylinder *p* and rest immediately upon the rails. These rollers are metallic, and the larger one, *p*, is of such a size as to come in contact with a chemically-prepared paper placed

upon the types, and is, furthermore, in communication with battery *h* by means of conducting-wire *rr*, or in any other suitable manner.
The rollers *g* *g'* communicate with the two magnets *v* *v'* by the wires *s* *s'*, and through them operate the armatures *u* *u'*, the escapements *w* *w'* and the pointers *z* *z'*, which latter show the numbers of votes on the dial-plates marked with as many figures as there are voters.
The battery *h*, with the two poles *c* and *d*, is connected with and operates the apparatus in the following manner: The pole *c* is in constant communication with the metallic types *s*, representing, respectively, "no" and "yes," by means of the conducting-wires *g* *g'*; but the pole *c* is connected by the wires *e* *e'* *e''*, with as many switches *e* *e'* as there are voters.
From the points *f* *f'* *g* *g'* the conducting-wires *i* *i'* *k* *k'* pass to the metallic strips *o* *o'* *o''*, and from thence to the nearest metallic type, or they may pass first to the types and then branch back to the respective strips, as seen in the column to the left.
From the pole *d* of battery *h* communication is established with the cylinder *p* by the wire *rr*, and from the same pole by the wire *s* *s'* to the two magnets, where the aforesaid conducting-wires *s* *s'* lead to the two insulated rollers *g* *g'*.
The apparatus is placed before the recording clerk's desk, and a paper, which is previously chemically prepared for printing by electricity by saturating it in any known solution for that purpose, is placed upon the types, and covering the two columns and their heading.
Every voter is also provided with a switch, *e*, and moves the same *ad libitum*, as the occasion may require, on the point *f* or *g*. Thus an electric current is established between the pole *c* of the battery, the switch *e*, and the types *s*, and the clerk then rolls the rollers *g* *g'* with cylinder *p* on the paper upon the types. As soon as the cylinder *p* comes on the type of the headings the circuit becomes completed through the paper, (as the wires *g* connect the pole *c* with the types, and the wire *r* the pole *d* with the cylinder *p*), and de-

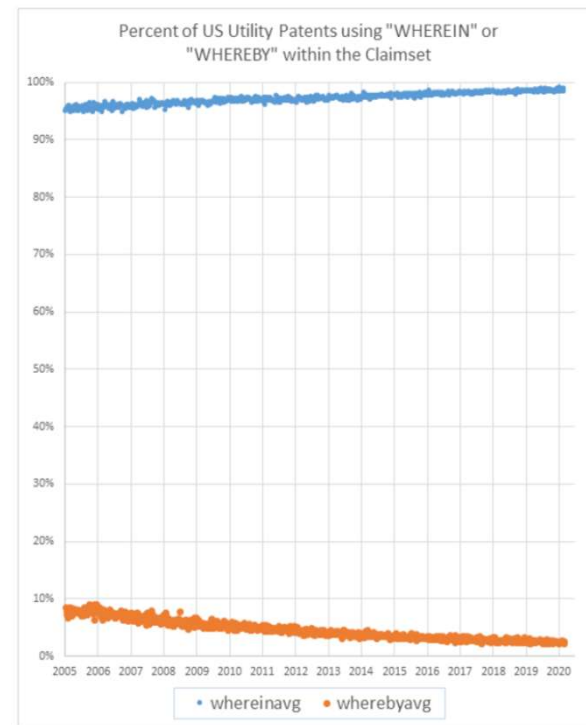
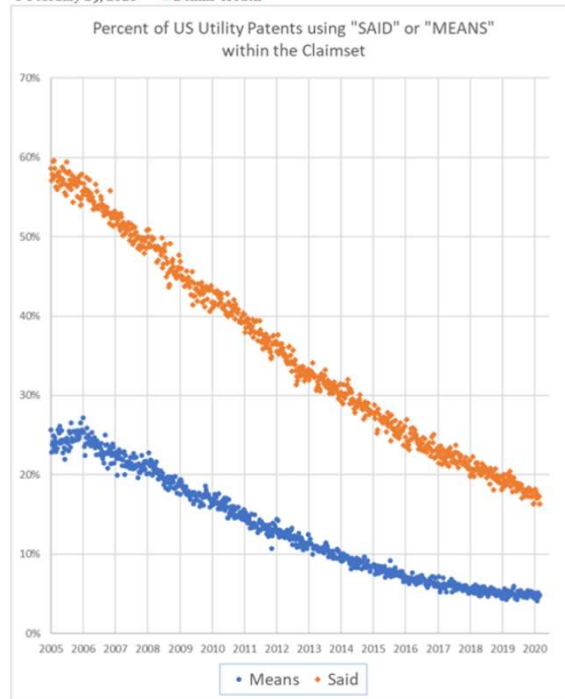
composes the chemicals, thereby discolored the paper in contact with the types, and thus produces the printing.
When the cylinder *p* comes over the two names—Mann, Mann—the current from pole *c* through switch *e* and wire *i* to the types bearing the name on the left becomes completed through the paper, with cylinder *p*, wire *r*, and pole *d*, and, discolored the paper, produces the name Mann on the paper; but there is no connection of the other name Mann to the right with the switch and pole *c*; consequently no decomposition takes place, and no name shows.
The roller *p* passing on and leaving the types the circuit becomes broken; but as soon as the rollers *g* *g'* come in contact with the metallic strips *o* *o'* the circuit from pole *c* through the switch *e*, wire *i* *i'*, strip *o'*, and through roller *g'*, magnet *v'*, wire *s* and *w* to pole *d*, becomes closed, the armature *u'* attracted the escapement *w'*, and with it the pointer *z'* moved forward, and here one negative vote recorded, &c.
Thus, it will be seen, the names of all the voters are printed on their respective heads, and also the whole number of votes counted in an instant, or as long as it will require time to roll the cylinder *p* over the types containing the list of all the names in metallic types, with more dispatch and accuracy than it can possibly be done in any other way.
Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—
1. The combination of a switch or switches *e* *e'*, types and cylinder *p*, with an electric battery, connected and operating substantially as and for the purpose set forth.
2. The combination of switch *e*, strips *o* *o'*, types, and the separated and insulated rollers *g* *g'*, magnets *v* *v'*, armature, escapement, pointer, and dial-plate, with the battery *h*, connected and operated substantially as and for the purpose above described.
3. The combination of switch, types, cylinder *p*, rollers *g* *g'*, strips *o* *o'*, and insulators *j* *j'*, magnets *v* *v'*, armature, &c., constructed in the manner and for the purpose above specified.
In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.
THOMAS A. EDISON.
Witnesses:
CARROLL D. WRIGHT,
M. R. G. WILSON.

Staying cool

- Keep up with the trend (cont'd)

Patent Terms – Means, Said, Whereby, Wherein

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Staying cool

- Know what's important

E.g. device vs. apparatus

Staying cool

- Laugh about it

My English teachers would hate to see the claims I'm reviewing. Claims are the longest run-on sentences you'll ever write in your life. They break almost every grammatical rule there is in English. The only things grammatical about claims are that you start with a capital letter and end with a period.

— “Confession” of a patent examiner

Final Takeaway

- You are in a high-risk business
- Your clients worry about validity
- Do your clients a favor by delivering defensible translation
- Do yourself a favor by staying cool

