

Lecture on Patent Law



Please note: This presentation, both the written materials and the oral communications delivered on March 24, 2022, are intended to keep readers current on matters affecting Intellectual Property and are not intended to be legal advice.

About me

- Born and raised in Cleveland
- Loved Math and Science in high school – studied Mechanical Engineering in college
- Wanted to protect people – went to law school
- What do I do as a patent attorney – learn about new/complex technology and write about it
- Worked with two large law firms for 8 years here in Pittsburgh
- Launched Powers IP Law one year ago

https://www.youtube.com/watch?app=desktop&v=kue18AxK1tU&list=PLZbXA41yCtqoD1i_FmQTY93HgF-mfBdzh&index=8

1500 total U.S. patents

What is a Patent?

- Government document that gives the owner the monopoly power to prevent others from making, using, selling, or importing into the US technology **COVERED BY THE CLAIMS OF THEIR PATENT**
- For example, if a patent says, “What is claimed is a rubber basketball having an outer coating with an adhesive thereon”, the patent owner cannot stop someone from making tennis rackets, silicon basketballs, soccer balls, or rubber basketballs that have outer coatings devoid of an adhesive”
- Lesson – **EVERY WORD IN THE CLAIMS MATTERS VERY MUCH**
- Needed to stop theft



US009443668B2

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

(10) **Patent No.:** **US 9,443,668 B2**
(45) **Date of Patent:** **Sep. 13, 2016**

(54) **ELECTRICAL SWITCHING APPARATUS,
AND STORED ENERGY ASSEMBLY AND
TORQUE REGULATOR ASSEMBLY
THEREFOR**

2003/3063 (2013.01); H01H 2003/326
(2013.01); H01H 2235/01 (2013.01)

(58) **Field of Classification Search**
CPC H01H 3/40; H01H 5/00; H01H 3/30;
H01H 75/00
USPC 200/400, 401, 424, 244
See application file for complete search history.

(71) Applicant: **EATON CORPORATION**, Cleveland,
OH (US)

(72) Inventors: **Kaizhi Zhang**, Shanghai (CN); **Li Yu**,
Shanghai (CN); **Chao Yang**, Shenzhen
(CN); **Caiying Ding**, Shenzhen (CN)

(73) Assignee: **EATON CORPORATION**, Cleveland,
OH (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 208 days.

(56) **References Cited**
U.S. PATENT DOCUMENTS
5,358,073 A 10/1994 Woethrich
5,938,008 A 8/1999 Wehrli, III et al.
6,486,758 B1 11/2002 Okuzewski et al.
7,598,468 B2 10/2009 Chen et al.
7,696,447 B2 4/2010 Chen et al.
2004/0104106 A1 6/2004 Peter

(21) Appl. No.: **14/302,533**

(22) Filed: **Jun. 12, 2014**

(65) **Prior Publication Data**
US 2015/0364269 A1 Dec. 17, 2015

OTHER PUBLICATIONS
European Patent Office, International Search Report and Written
Opinion for PCT/US2015/025294, Jul. 20, 2015, 9 pp.

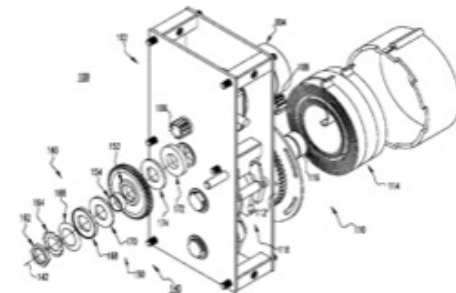
Primary Examiner — Edwin A. Leon
Assistant Examiner — Iman Malakooti
(74) *Attorney, Agent, or Firm* — Eckert Seamans Cherin &
Mellott, LLC; John P. Powers; Grant E. Colfield

(51) **Int. Cl.**
H01H 3/40 (2006.01)
H01H 3/30 (2006.01)
H01H 3/58 (2006.01)
F16D 7/02 (2006.01)
F16H 35/10 (2006.01)
H01H 5/06 (2006.01)
F16D 13/04 (2006.01)
F16D 43/20 (2006.01)
H01H 3/32 (2006.01)

(57) **ABSTRACT**
A torque regulator assembly is for a stored energy assembly
of an electrical switching apparatus. The torque regulator
assembly includes: a drive assembly including a gear and a
transfer assembly disposed on the gear, the gear being
structured to be cooperable with at least one charging
mechanism of the stored energy assembly; and a shaft
extending through the gear. The drive assembly is structured
to move between a driving position and a non-driving
position. In the driving position, the gear is cooperable with
the transfer assembly to drive the shaft. In the non-driving
position, the gear rotates independently with respect to the
transfer assembly.

(52) **U.S. Cl.**
CPC **H01H 3/40** (2013.01); **F16D 7/024**
(2013.01); **F16H 35/10** (2013.01); **H01H**
3/3005 (2013.01); **H01H 3/3031** (2013.01);
H01H 3/3042 (2013.01); **H01H 3/58**
(2013.01); **H01H 5/06** (2013.01); **F16D 13/04**
(2013.01); **F16D 43/20** (2013.01); **H01H**

19 Claims, 7 Drawing Sheets



What does a patent look like?

What should you have in mind when applying for a patent?

- Personal and Real Property has backing of court (e.g., judges, prosecutors and cops will help you secure it) – not IP – for the most part you're on your own
- Should not be used for low value inventions (Why spend 25k to procure a utility patent for a 50k invention?) - must make cost benefit analysis
- However, for high value inventions (e.g., >~200k), procuring and enforcing patents is a very sensible way to guard market share that you as the inventor created – Do you spend money on a security system for your home?

How do I get a patent? – Answer: Prepare/file a patent application, and satisfy statutes:

- 35 USC 101 – subject matter of patent must be one of CAMP – Composition, Article of Manufacture, Machine, or Process...**CANNOT** be a mathematical formula, law of nature, algorithm, or abstract idea (this last one is problematic for many software innovations – simple data manipulation can be difficult to patent if a computer/machine is not somehow improved)
- 35 USC 102 – your invention has to be **NEW** – cannot already be out there
- 35 USC 103 – in addition to being new in general, your invention has to also be a certain amount new – it cannot just be new. This is called obviousness. Your invention cannot be obvious – this is difficult to assess.
- 35 USC 112 – your patent application has to be in a very particular format. “the” vs. “a”

Is getting an Examiner to grant you a patent in the first response a good thing?

- IT'S HIGHLY CONCERNING
- If this happens, which, I never hope it never does with my clients, there will always be the following question associated with that patent – Did we get enough protection?
- Procuring a patent on even a mildly innovative piece of technology is not an extremely difficult task – e.g., claims could be written very narrowly so that 102/103 are satisfied without question
- A good patent attorney will flirt and even consider crossing that line between patentable and not patentable – if a patent examiner shows decent prior art to an inventor, the inventor will know with much greater certainty where the line of patentability is. If a first action allowance is issued, the inventor will not know that line and potentially will have left protectable subject matter on the table.

Once you get a patent, what should you keep in mind?

- Need to make sure your **COVERAGE** is optimal – e.g., if the language protecting your technology in your allowed patent is very narrow, this particular patent may not be enough to properly protect you
- Divisional / Continuation / CIP Patent Application – if allowed coverage is not optimal, one of these three types of patent applications can then be filed, be linked to the one you just got allowed, and give you an opportunity to procure a 2nd, 3rd, 4th, etc., patent on your technology – **MULTIPLE PATENTS = HARDER / MORE COSTLY TO DEFEND AGAINST !!!!**
- One invention per patent – if you invented an iPhone with a power button and a volume adjustment button, an examiner may not allow you to patent both features in one single patent

Why is it not advisable to go pro se (without an attorney) when attempting to procure a patent?

- Main reason – claim drafting
- Claims must be 1 sentence long, be broad enough to cover design arounds, be narrow enough to not be taught in prior art, and typically ought to be layered through well crafted dependent claims which will protect inventors, in the event that independent claims are struck down
- This is not a skill that people have talent for or do not have talent for. It is one that is learned through experience and, in my opinion, should not be attempted with a valuable technology cavalierly.

What are important considerations to have in mind before a patent is sought?

- Patent Searching – good to have a sense ahead of time how new your invention really is – if you discover it's not new, you'll have saved a lot of time / money
- First-inventor-to-file FILE EARLY
- 35 U.S.C. 102 – Public disclosure, sale, or offer for sale as bar to procuring patent in US after one year from date of disclosure, sale, or offer for sale....in other countries potentially an outright bar with no grace period
- Provisional Patent Application – NOT A PATENT – GIVES YOU NO PROTECTION on your technology.....ONLY gives you a filing date. However, this filing date can be very useful, especially in the event that you may be disclosing, have already disclosed, or are worried about a competitor filing before you....also, provisional must ENABLE (e.g., teach) any claims that ultimately issue – if it doesn't, the provisional likely won't help you

How much does it cost to procure a patent and how long does it typically take?

- Procuring a utility patent can take between 14 months and 5 or more years (unless you want to pay extra for Prioritized Examination), depending on: a) breadth of protection sought; b) patent examiner assigned to case; c) quality of drafting (e.g., sloppy drafting of the application can lengthen the time); d) prior art (e.g., existing technology) out there – if there is strong art, getting the patent will be more difficult; e) RCE / appeals required – e.g., how many times do you continually request the Examiner or Appeal Board's reconsideration
- Examination can be expedited significantly (e.g., called Track I Prioritized Examination) via payment of a fee (\$2k for a small entity) – can be completed in 6 months – 1 year.
- Utility patents generally cost between \$18-30k all in, throughout the 20 year life of a patent (including maintenance fees), regardless of the attorney chosen to represent, although sometimes a higher premium is worth it.

What information would I as a patent specialist need to do patent procurement work for a client?

- What are the client's goals (e.g., test the market before deciding whether to pursue a patent, thoroughly protect a complex piece of technology, protect IP overseas, get a patent as soon as possible, etc.)?
- If a client decides to pursue a patent, **a thorough and complete IDF (Information Disclosure Form), which I would provide** (To do a good job, I need to understand the invention better than the inventors I am protecting. I need to foresee what all of their competitors might do to design around the patent we are working to procure. It is critical that this form be thoroughly filled out by the inventors).
- Patience by the inventors in teaching me what they know – I am only as good as the information they give me

What do I do if I want foreign protection

- US patent can only stop infringement here in the US
- If you intend to sell or want to stop infringement elsewhere, communicate that to me, and I will coordinate with attorneys and agents in any jurisdiction around the world
- There will be charges to enter all of these jurisdictions (e.g., China, Japan, Europe, India, Brazil, etc.), but there are ways to streamline the cost

What can I do to protect myself if a patent is not in the cards?

- If a patent cannot be procured (e.g., Examiner and Appeal Boards won't back down, you publicly disclosed or sold your invention over a year ago, or it's too expensive), trademark registration can offer a less expensive protection. Specifically, though you could not stop someone from making, using, or selling your tech., you could build up good will under your mark with the tech. such that if your competitors tried to capture that market share with a similar mark, you could stop them, even if you did not have a patent.
- If it is a software innovation, consider copyright protection for any code
- Consider trade secret protection (info. must be treated as a valuable secret, and measures must have been put in place to guard it as such. Some steps that can be taken include not distributing code into the open source community, having confidentiality policies that are written and acknowledged, having NDAs, being vocal about confidentiality policies, marking code as confidential, documenting entry and access to the trade secret, and documenting the efforts that went into the code's creation. Doing these steps, and more, will go a long way toward helping a plaintiff succeed on a claim of trade secret misappropriation).

Questions?