

PROGRAM MATERIALS
Program #30123
May 13, 2020

Protection of Innovation in Times of Covid-19 and Other World Disasters

Copyright ©2020 by David Postolski, Esq.- Gearhart Law. All Rights Reserved. Licensed to Celesq®, Inc.

Celesq® AttorneysEd Center www.celesq.com

5301 North Federal Highway, Suite 180, Boca Raton, FL 33487 Phone 561-241-1919 Fax 561-241-1969



Protection of Innovation in times of Covid-19 and other world disasters

CELESQ
David Postolski
May 2020



- American Revolution
- 1787- Constitutional Convention
- 1789 George Wahsington becomes President



WHAT IS INTELLECTUAL PROPERTY? U.S. Constitution- IP

"Congress has the power to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries"

Art. 1, Sec. 8, Cl. 8

The Constitution of the United States of America

Article 1, Section 8, Clause 8



The Congress shall have the power...

to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.



Indeed, on January 8, 1790, President Washington delivered his <u>first State of the Union speech</u> to Congress. In this first ever State of the Union, only months after the ratification of the Constitution and assuming Office, President Washington asked Congress to exercise its powers granted in the Constitution to enact a patent statute.

Washington's State of the Union was a mere 1,096 words, yet he devoted this passage to patents:

The advancement of agriculture, commerce, and manufactures by all proper means will not, I trust, need recommendation; but I can not forbear intimating to you the expediency of giving effectual encouragement as well to the introduction of new and useful inventions from abroad as to the exertions of skill and genius in producing them at home, and of facilitating the intercourse between the distant parts of our country by a due attention to the post-office and post-roads.



The United States Patent Office was created with the Patent Act of 1790.

James Madison — the fourth President of the United States and the father of the U.S. Constitution — wrote the usefulness of the power granted to Congress in Art. I, Sec. 8, Clause 8 to award both patents and copyrights *will scarcely be questioned*.

Thomas Jefferson, commenting on his softening opposition to patents at the time, stated: "The patent act has given a spring to invention beyond my comprehension."

The 1790 law gave the Patent Board members the power to grant a patent. Their authority was absolute and could not be appealed. The first board members included Thomas Jefferson, Secretary of State, who was considered the first administrator of the American patent system and the first patent examiner; Henry Knox, Secretary of War; and Edmund Randolph, Attorney General. The Department of State had the responsibility for administering the patent laws, and fees for a patent were between \$4 and \$5, with the board deciding on the duration of each patent, not to exceed 14 years.

On April 10, 1790, President George Washington signed the bill that laid the foundation of the modern American patent system. This date marks the first time in American history that the law gave inventors rights to their creations.

Intellectual property rights are fundamental rights. In other words, the only "rights" mentioned in the Constitution are patents and copyrights.





"Cotton Seed Planter" "Earth Scraper "Fence Machine" (barbed wire) "Wrestling Toy"

On July 31, 1790, the first U.S. patent was issued to Samuel Hopkins for an improvement "in the making of Pot ash and Pearl ash by a new Apparatus and Process." This patent was signed by then-President George Washington.



 Congress, to the contrary, designed the Patent Act to promote such investment and innovation, including with respect to its provisions on eligibility and invalidity, see, e.g., 35 U.S.C. §§ 101 & 103. Indeed, Congress later created the Federal Circuit for essentially this same reason, consistent with the Framers' purpose of authorizing patent laws that "liberally encourage[]" innovation.



Definition:

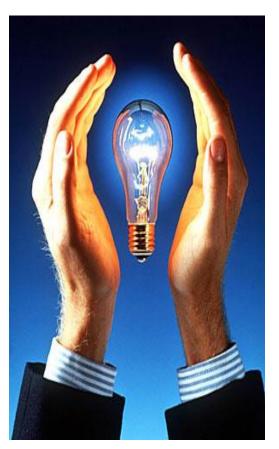
- Intellectual property (IP) is any work or invention that is the result of creativity and can be protected by statute or legislation, the physical embodiment of intellectual efforts
- Includes inventions, discoveries, know-how, show-how, processes, unique materials, original data, and other creative or artistic works.
- Property = The Right to Exclude

Purpose:

- encourage innovation that benefits the public
- allow the public to use the information
- protect the rights of authors, inventors and businesses

Foundation:

- Owners are granted certain exclusive rights to a variety of intangible assets
- Promote Creative Solutions





What is and is not patentable is not about morality; how and when rights are enforced and under what circumstances is when morality comes into play. Patenting it—the first step—is outside the realm of morality and very much in the public interest. Across the board. Always has been.

One, it creates an incentive for those who would otherwise keep to themselves, i.e., the "wheel", for only their exclusive use/profit, to share with the public. Two, by virtue of that disclosure, we benefit by not having to re-create the "wheel" and can instead improve the "wheel" and/or put it to good use (i.e., build a pyramid) going forward. In step two, we pay as necessary and as warranted for the use of the "wheel". I use "wheel" as a reference to any solved unknown. Both the inventor and society benefit. This was and remains the reasonable conclusion of the fundamental discussion between Jefferson and Madison as to whether a patent system should exist in these United States. Jefferson being persuaded that useful ideas would not just spontaneously appear in the public realm without an incentive; and Madison, relying on the ambition of those with the ideas, then located primarily outside the United States, to bring them to the United States, where they could be protected and commercially exploited. Everyone, including the country at-large, becomes a winner; at no cost!



Ideas are not protectable



- IDEA is the first critical step, but without some identifiable embodiment of the idea there can be no intellectual property protection obtained.
- Patent- a set of exclusive rights granted by a sovereign state to an inventor or their assignee for a limited period of time (monopoly) in exchange for the public disclosure of the invention.
- Trademark- exclusive rights in a distinctive sign or symbols used in commerce to identify product or service source. Protection of your brand.
- Copyright- bundle of exclusive rights to copy, distribute, adapt, perform, display expressive work for a limited time





Intellectual property protections encourage innovators to embark on the difficult path to innovation by supplying tangible support along the way. When the hours get long and the costs get high, intellectual property rights offer an unyielding confidence that innovators' investments are indeed valuable.

The patent system added the fuel of interest to the fire of genius. *Abraham Lincoln*

Our founding fathers wrote the IP clause in the Constitution to send a clear message: innovation is welcome here. In fact, it's encouraged. They understood that in order to achieve unparalleled innovation, our country would have to instill unparalleled intellectual property rights.



The patent laws offer this exclusive right for a limited time as an incentive to inventors, entrepreneurs and corporations to engage in research and development, to spend the time, energy and capital resources necessary to create useful inventions; which will hopefully have a positive effect on society through the introduction of new products and processes of manufacture into the economy, including life saving treatments and cures. See <u>Kewanee Oil Co. v. Bicron Corp.</u>, 416 U.S. 470, 480 (1974)(patents provide "an incentive to inventors to risk the often enormous costs... [benefiting] "society through the introduction of new products and processes of manufacture into the economy, and the emanations by way of increased employment and better lives for our citizens."); see also <u>Universal Oil Products Co. v. Global Oil Refining Co.</u>, 322 U.S. 471, 484 (1944)("As a reward for inventions and to encourage their disclosure, the United States offers a seventeen-year monopoly to an inventor who refrains from keeping his invention a trade secret.")



COVID-19

Unfortunately, we are seeing those consequences play out with U.S. patent law in real time. For nearly 15 years, the Supreme Court's IP opinions that have had the effect of de-valuing U.S. patent rights, making it increasingly difficult (for example) for U.S. intellectual-property owners to obtain injunctive relief against those who infringe, trespass on, or otherwise steal their patented ideas and property rights. See, e.g., eBay Inc. v. MercExchange, LLC, 547 U.S. 388, 391 (2006). (By contrast, the patent laws of China have made such injunctive relief available as a matter of course, with some reporting that prevailing patentees there obtain injunctions for nearly 90% of all requests.) And through the years, whether by Supreme Court precedent or other law-making, it has become increasingly easy to invalidate U.S. patents, see, e.g., KSR Int'l Co. v. Teleflex, Inc., 550 US 398, 415 (2007), and to render the subject matter of a patent ineligible for protection under §101. (We do not tackle here the separate pitfalls created by the 2011 America Invents Act.) This includes ineligibility not just for diagnostic testing, but for software, business methods, and quite possibly anything else in a patent claim that can be subjectively deemed "directed to" an "abstract idea, law of nature, or natural phenomena"; and doesn't reflect an "inventive concept," per the Supreme Court's Mayo-Alice "framework" for Section101.



The larger point here is that, given the expanding uncertainty with the case law on U.S. patents—and whether, for example, they'll protect the subject matter of a million- (or even billion-) dollar investment—U.S. investment in R&D has dropped. And perhaps most notably, it has dropped among innovative bio-pharmaceutical companies. See, e.g., Unpredictability in Patent Law and Its Effect on Pharmaceutical Innovation, by Christopher M. Holman, 76 Mo. L. Rev. 645, 663-64 (summer 2015) ("In recent years, major innovative pharmaceutical companies have experienced two pronounced and significant trends: a decreasing output of innovative new drugs and cutbacks in research and development (R&D) investment"). And innovation—the lifeblood of the American economy—has dropped with it. See, e.g., id. (explaining that the "high level of unpredictability in today's patent law is a significant impediment to the development of new medicines" and cause of the "R&D crisis"); Bloomberg Innovation Index (2018); The U.S. Drops out of the Top 10 in Innovation Ranking, Bloomberg News (Jan. 22, 2018), by Michelle Jamrisko & Wei Lu, available at (visited March 28, 2020).



The Patent Act of 1793, authored by Thomas Jefferson, defined statutory subject matter as "any new and useful art, machine, manufacture, or composition of matter, or any new or useful improvement [thereof]." Act of Feb. 21, 1793, 1, 1 Stat. 319. The Act embodied Jefferson's philosophy that "ingenuity should receive a liberal encouragement." 5 Writings of Thomas Jefferson 75-76 (Washington ed. 1871). See Graham v. John Deere Co., 383 U.S. 1, 7-10 (1966). Subsequent patent statutes in 1836, 1870 and 1874 employed this same broad language. In 1952, when the patent laws were recodified, Congress replaced the word "art" with "process," but otherwise left Jefferson's language intact. The Committee Reports accompanying the 1952 Act inform us that Congress intended statutory subject matter to "include anything under the sun that is made by man." S. Rep. No. 1979, 82d Cong., 2d Sess., 5 (1952); H. R. Rep. No. 1923, 82d Cong., 2d Sess., 6 (1952).



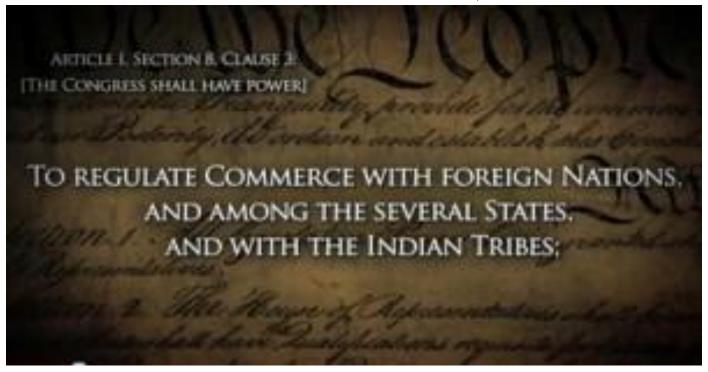
As to invalidity, Congress adopted the Act's provision on non-obviousness, 35 U.S.C. §103, to ensure that courts did **not** require a "flash of genius" moment in order to qualify as inventive or patentable. Rather, the provision made plain that a slow-and-steady analysis leading to the inventive solution could just as well merit patent protection. See 35 U.S.C. § 103, 66 Stat. 798 (July 19, 1952) (mandating that "[p]atentability shall not be negated by the manner in which the invention was made"). Even more, Congress created the Federal Circuit, precisely because it wanted a single court to "bring consistency to the patent field" and to "reinvigorate the patent and introduce predictability to the field." *E.g., Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (*en banc*) (Mayer, J., dissenting); H.R. Rep. No. 312, 97th Cong., 1st Sess. 20-23 (1981).



Almost all present medications/medical devices were, at some point, patented creations. And, indeed, some of the most effective medicines in our present circumstance are generic, cheap, and widely available by virtue of now being "off-patent". Where would our present exigent "solutions" be but for the creative forces unleashed by the patent system to beget now generic "off-the-shelf" resources? Well, let's just say that folks are not rushing to places where innovation is dormant seeking solutions to the present crisis.



Commerce Clause- Article I, Section 8





OVERVIEW- TYPES OF IP

- Patents & Trade Secrets: inventions (machines, methods, ornamental designs, plants)
- Trademarks: a recognizable word, sign, design, logo, or other item which identifies the source of products or services and distinguished from others
- Copyrights: expressive works including literary (novels, poems and plays), audiovisual (films, music); visual (drawings, paintings, photographs, sculptures, and architectural designs)





Patents (and Trade Secrets)





TRADE SECRET

- Formula, practice, recipes, process, design, instrument, pattern, or compilation of information which is not generally known or reasonably ascertainable, by which a business can obtain an economic advantage over competitors or customers.
- Secret Sauce; Confidential information, Classified information

<u>Advantages:</u>

- not limited in time- Patent is limited to 20 years
- continues indefinitely as long as the secret is not revealed Must disclose everything in a Patent to the public
- No registration costs
- Immediate effect- no formalities

IT'S YOUR CHOICE!



- IT'S AN ASSET THAT CAN BE SOLD OR ASSIGNED
- IT'S OFTEN THE GREATEST VALUE BEHIND YOUR COMPANY!
- CAN BE USED AS COLLATERAL FOR A LOAN
- MAKES YOU MORE ATTRACTIVE TO VENTURE CAPITALISTS TO RAISE MONEY
- RIGHT TO EXCLUDE SOMEONE ELSE FROM MAKING, SELLING, OFFERING TO SELL, IMPORTING YOUR

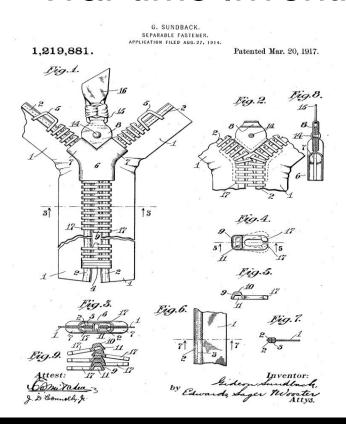
PATENT

- WITHOUT A PATENT ANYONE CAN STEAL AN INVENTION YOU HAVE DISCLOSED AND YOU WILL HAVE NO WAY TO PREVENT THEM FROM MAKING MONEY OFF YOUR INVENTION
- PATENT MAY BE BEQUEATHED BY A WILL- PASSED TO HEIRS





War time Inventions:



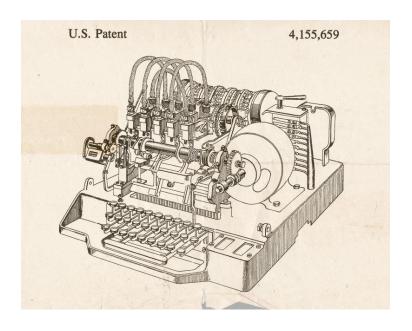
Although not called the zipper until the <u>B.F. Goodrich</u> <u>Company</u> coined the term in 1923, the "hookless fastener" was perfected by Gideon Sundback during World War I. The first major order of zippers came for money belts worn by soldiers and sailors who lacked uniform pockets. While buttons remained the convention on military uniforms during the war, zippers began to be sewn into the flying suits of aviators and took off in popularity in the 1920s



Echo Ranging System (FM Sonar) – U.S. Patent 2,724,817



Improved Hydrophone Casing – U.S. Patent 2,641,751



Printing and coding machine – U.S. Patent 4,155,659



AIDS and SARS

<u>Primers and probes for detection and discrimination of types and subtypes of influenza viruses</u>

Patent number: 10036076

Abstract: Methods of detecting influenza, including differentiating between type and subtype are disclosed, for example to detect, type, and/or subtype an influenza infection. A sample suspected of containing a nucleic acid of an influenza virus, is screened for the presence or absence of that nucleic acid. The presence of the influenza virus nucleic acid indicates the presence of influenza virus. Determining whether the influenza virus nucleic acid is present in the sample can be accomplished by detecting hybridization between an influenza specific probe, influenza type specific probe, and/or subtype specific probe and an influenza nucleic acid. Probes and primers for the detection, typing and/or subtyping of influenza virus are also disclosed. Kits and arrays that contain the disclosed probes and/or primers also are disclosed.

Type: Grant

Filed: June 15, 2016

Date of Patent: July 31, 2018

Assignee: The United States of America as represented by the Secretary of the

Department of Health and Human Services, Center for Disease Control and Prevention

Inventors: Stephen Lindstrom, Lamorris Loftin



<u>Anti-HIV vaccine constructed based on amino acid mutations in attenuated</u> live EIAV vaccine

Patent number: 10251948

Abstract: Provided are antigenic polypeptides of HIV envelope glycoproteins which are constructed based on amino acid mutation of attenuated live vaccine of Equine Infectious Anemia Virus, DNA constructions and recombinant virus vectors comprising polynucleotides encoding said polypeptides, antibodies against said polypeptides as well as uses thereof in preventing and treating HIV infection. Said antigenic polypeptides and vaccines can induce high titer neutralization antibodies against HIV in organism.

Type: Grant

Filed: January 21, 2015

Date of Patent: April 9, 2019

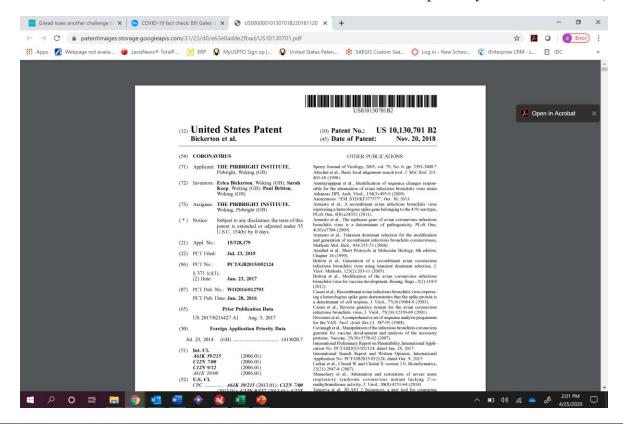
Assignee: National Center for AIDS/STD Control And Prevention, Chinese Center

for Disease Control and Prevention

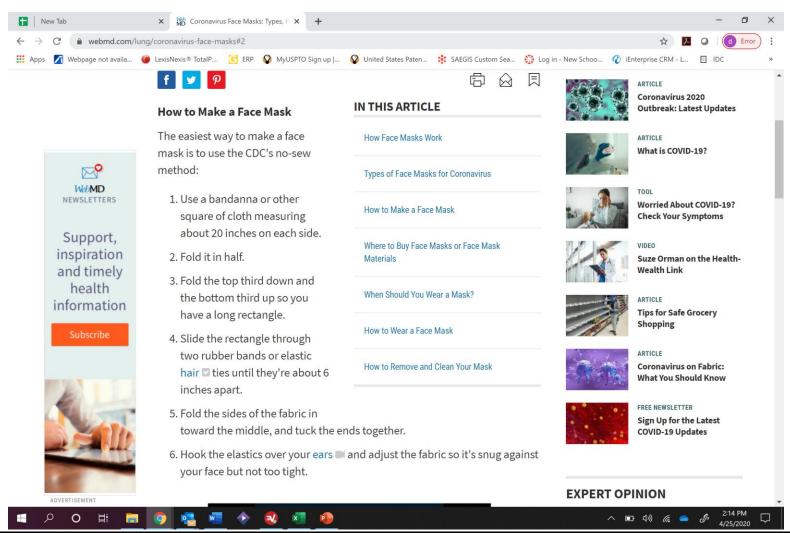
Inventors: Yiming Shao, Lianxing Liu, Rongxian Shen



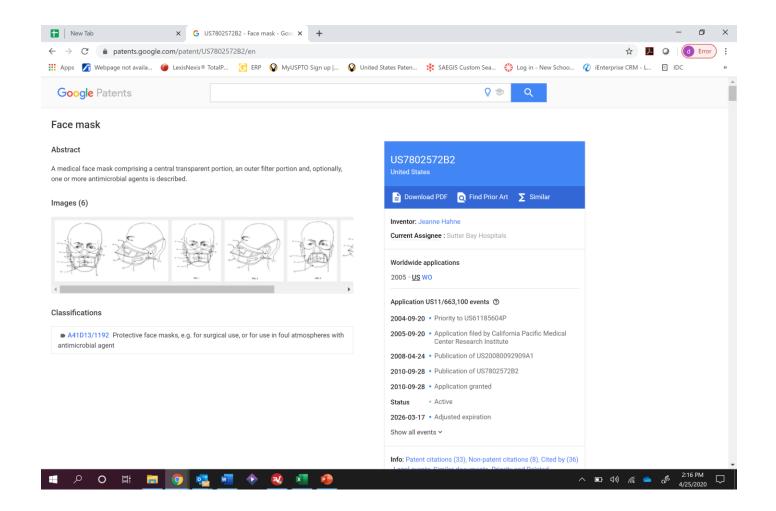
The Institute was granted a <u>patent</u> in 2018 which covers the development of an attenuated (weakened) form of the coronavirus that could potentially be used as a vaccine to prevent respiratory diseases in birds, including IBV, and other animals













IDEA VS. INVENTION United States— Previously: FIRST TO INVENT COUNTRY (since 1790)

America Invents Act- September 16, 2011

 AS OF MARCH 16, 2013, FIRST INVENTOR TO FILEthe patent will go to whoever filed the application (or published) first.

DO YOU THINK THIS IS FAIR?

- NO MORE INTERFERENCE PROCEEDINGS
- BUT SMALL INVENTORS HAVE A ONE YEAR GRACE PERIOD AFTER A PUBLIC DISCLOSURE



PTO PROCESS

PATENTABILITY REQUIREMENTS:

- Novelty
- Obviousness
- Written Description Requirement
- Enablement Requirement
- Best Mode Requirement





Trademarks are:

- Anything that a company or person uses to identify its products or services.
- Purpose: Consumer
 Protection, Brand Reputation
- Foundation: U.S. Commerce Clause
- Types of trademarks:
 Word, phrase, symbol, design/shape, sound, color, smell, etc.
- Rights arise and persist as long as the mark is used.





Idea (Intent) vs. Use

- 15 U.S.C. (The Lanham Act)
- Use in Commerce
 - Transportation/Sale across state or federal borders
 - Product tags, labels, packaging, point-of-sale displays (including ecommerce sites)
 - Service advertising or marketing or shown in the course of providing the services
- Common law (unregistered) trademarks
- State trademark registrations
- Federal trademark registrations







A MARK SHOULD NOT CONFLICT WITH OTHER MARKS



41 RIVER ROAD, SUMMIT, NJ 07901 WWW.GEARHARTLAW.COM (908) 273 0700



A mark should be DISTINCTIVE

Less Distinctive

More Distinctive



Merely Descriptive **Suggestive / Arbitrary / Fanciful**

<u>Registrable</u>



COMMONLY USED TERM FOR THE CLASS OF GOODS/SERVICES IN CONNECTION WITH WHICH IT IS USED











DESCRIPTIVE

A MARK DESCRIBES A CHARACTERISTIC OF THE GOODS/SERVICES

AQUA:





LEAK:





SUGGESTIVE

INDICATES THE NATURE OR QUALITY OF THE GOODS/SERVICES BUT DOES NOT DESCRIBE THE CHARACTERISTICS WITHOUT FURTHER THOUGHT

...ls a bus an airplane?

No, but...

AIR:



BUS:







ARBITRARY

MEANING OF THE WORD HAS NO CONNECTION WITH THE RELATED GOODS/SERVICES





FANCIFUL

INVENTED OR "FANCIFUL" SIGN

The term KODAK had no meaning before it was adopted and used in relation to the goods/services

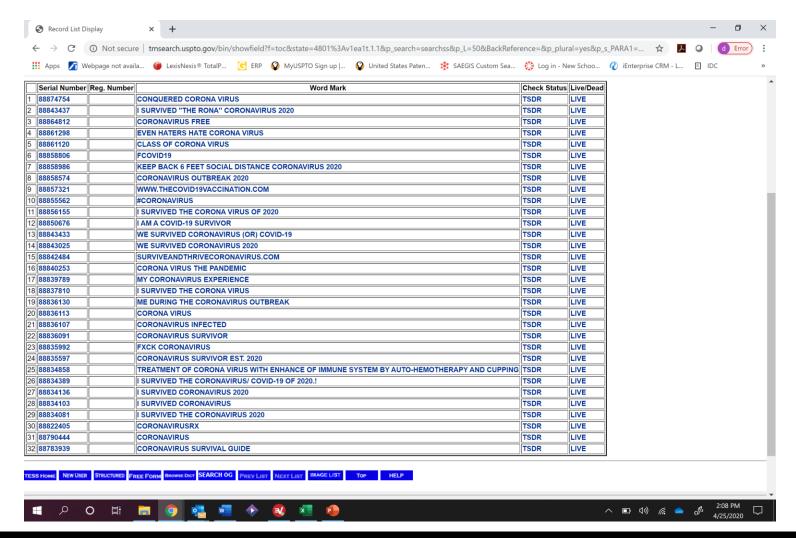




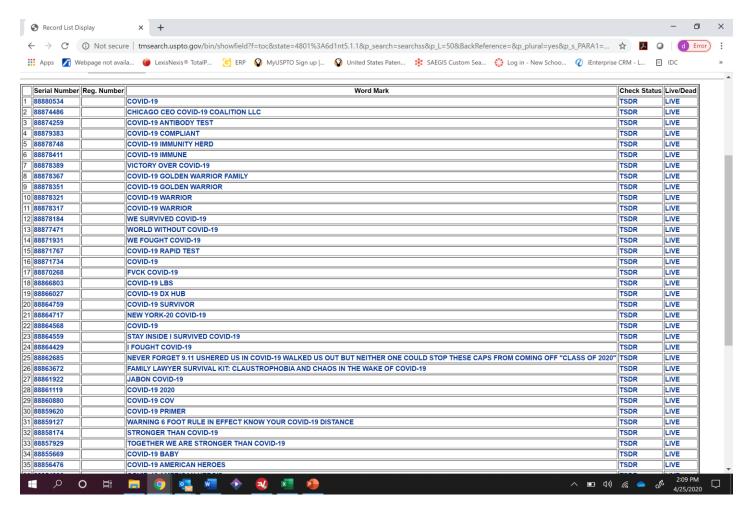
Spectrum of Distinctiveness

Fi Fanciful/Coined	ve categories Development Costs \$\$\$\$	Protection/ Enforcement Costs \$
Arbitrary	\$\$\$	\$\$
Suggestive	\$\$	\$\$\$
Descriptive	\$	\$\$\$\$
Generic	\$	\$\$\$\$\$

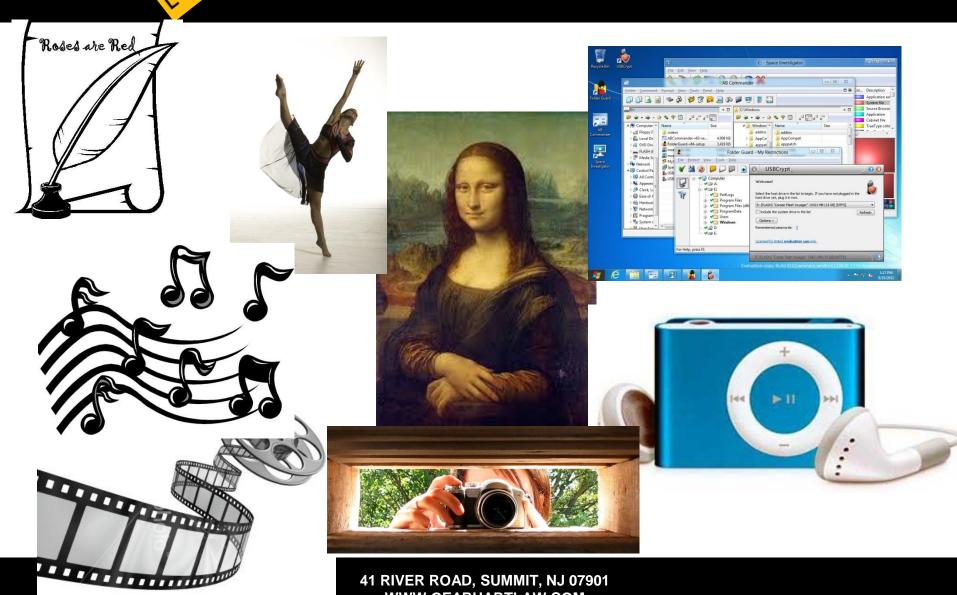












41 RIVER ROAD, SUMMIT, NJ 07901 WWW.GEARHARTLAW.COM (908) 273 0700



Copyrights are:

- Exclusive rights in an expressive work of authorship
 - Copy
 - Distribute
 - Derivative Work / Alteration
 - Display
 - Perform
- Purpose: Encourage expression, cultural development
- AUTOMATIC BUT Registration is optional, but confers benefits
- Copyright arises when "original" work is "fixed in a tangible medium"
- © notice is not required, but may support greater damages
- Term is Author's Life + 70 Years



TYPES OF COPYRIGHTS

- Literary Work- computer code
- Visual Arts
- Performing Arts
- Sound Recordings
- Audio Visual Work- movies

Example: © 2005 John Doe





David Postolski, a partner at Gearhart Law, is a registered patent attorney and Intellectual Property attorney. With over 15 years' experience, David specializes in assisting inventors, creators, artists, start-ups, entrepreneurs, early stage companies and emerging companies with their U.S and International intellectual property strategy, protection, enforcement and monetization. David remains very involved in the creation of New York State's first federally approved patent pro bono program in conjunction with Volunteer Lawyers for the Arts. David is a frequent speaker and author on intellectual property issues surrounding raising capital, business formation, licensing, and reward and equity based crowd funding. David is also a Professor at Parsons School of Design where he teaches master level students about IP, ethics and other regulatory considerations in starting business ventures and products around design. David is the current chair of the Professional Issues Division of the ABA Section of Intellectual Property law as well as a member of the CLE Board, Sponsorship Board, and founder of the International Action Group. david@gearhartlaw.com