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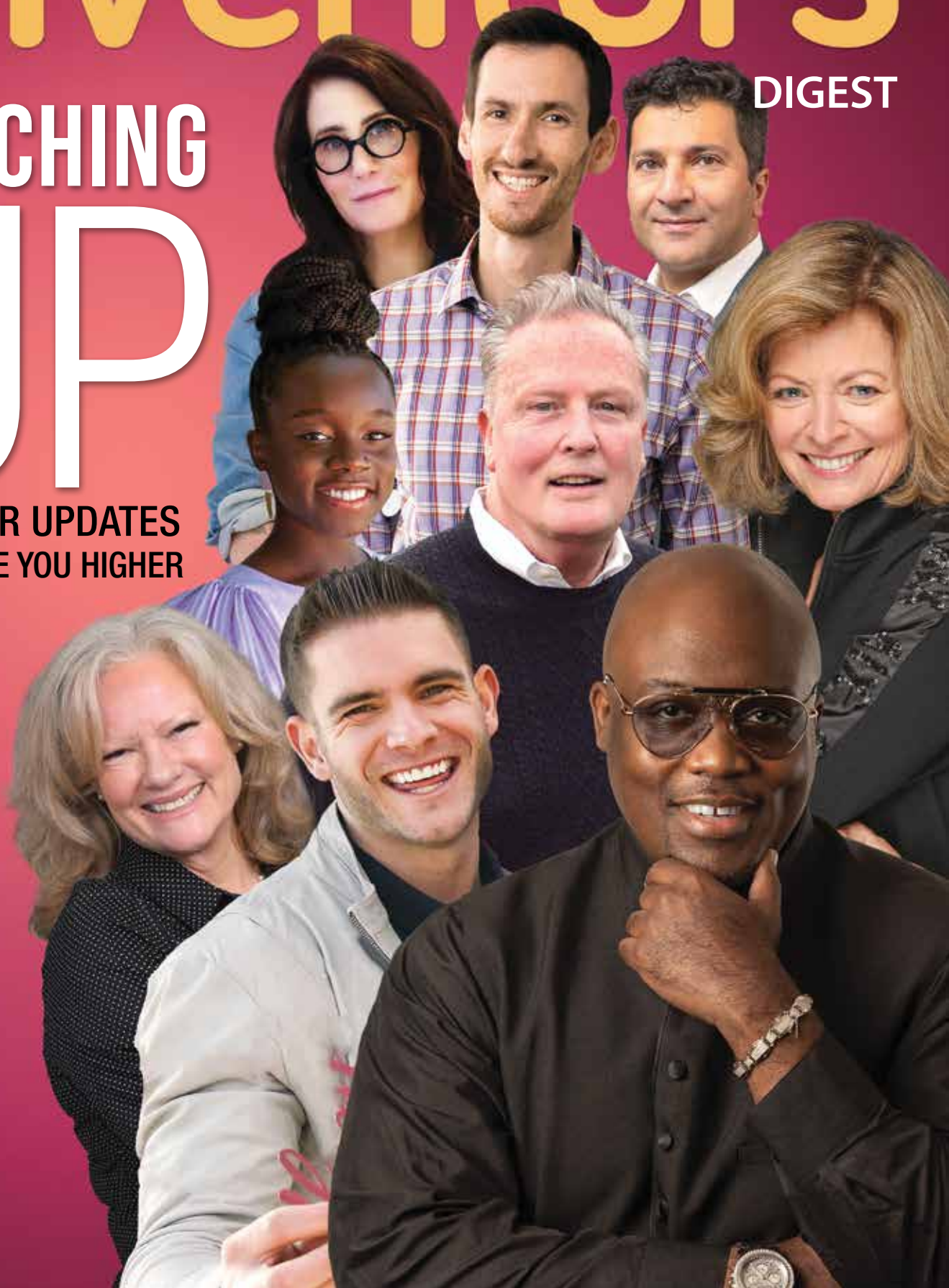
DECEMBER 2022 Volume 38 Issue 12

Inventors

CATCHING UP

DIGEST

INVENTOR UPDATES
TO INSPIRE YOU HIGHER



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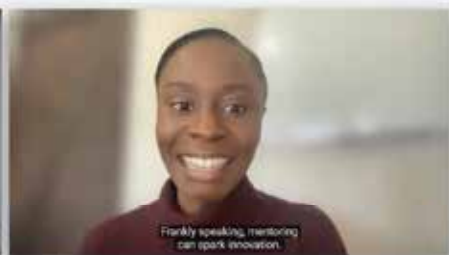
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TOGETHER *in* INNOVATION

"Together in Innovation" shows how unique individuals in diverse teams of innovators combine their talents to create advances and enterprises they may never have considered on their own. As an attendee, you'll have the opportunity to:

- Discover how different perspectives lead to unexpected insights.
- Learn from accomplished innovators, inventors, entrepreneurs, and business owners about best practices.
- Find out about helpful resources available to innovators.
- Get practical tips on obtaining and protecting your IP.



**Register for upcoming events or view
previous series installments at www.uspto.gov/InnovateTogether.**



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Give no quarter to Patent Pirates.

Or they'll take every
last penny.

Our ideas and innovations are precious. Yet Big Tech and other large corporations keep infringing on our patents, acting as Patent Pirates. As inventors, we need to protect each other. It's why we support the STRONGER Patents Act. Tell Congress and lawmakers to protect American inventors.



SaveTheInventor.com

More Youth Getting 'Real'

USPTO partnership "Go For Real" helps young consumers avoid dangerous fakes **BY KATHI VIDAL**



USPTO Director Kathi Vidal meets McGruff the Crime Dog at USPTO headquarters in Alexandria, Virginia, earlier this year as part of the Go For Real campaign.

AS AMERICA'S Innovation Agency, the USPTO is working to protect brands: those owned by individuals and startups, as well as ones known around the world. The USPTO is working to change the narrative around purchasing counterfeit products and informing consumers about the dangers and consequences of purchasing counterfeit goods.

Counterfeit products, such as faulty electronics and fake medicines, cause serious injuries and death. Fake electronics and consumer items can cause fires or include dangerous chemicals that can seep into skin.

Education on the dangers of counterfeit goods must start early. That's why, since 2019, the USPTO has partnered with the National Crime Prevention Council and McGruff the Crime Dog on the Go For Real campaign. This innovative, multi-format public awareness initiative informs tweens, teens, and their caregivers and educators on how to spot counterfeit products and avoid the risk of harm they pose.

On August 11, "Go For Real" debuted its latest public service announcement (PSA), "The Real McGruff," featuring a 3-D animated McGruff the Crime Dog and his nephew, Scruff. This PSA will be seen by millions in English and Spanish on television, social media, and other distribution channels. In its debut week alone, the PSA aired approximately 300 times, including on major networks and on Spanish-language

channels in Los Angeles, Phoenix, Denver, Boston, and more.

Campaigns have been launched in Mexico and Thailand. The latest iteration is in Mexico, where the Mexican Institute of Industrial Property has developed the "Elige el Original" ("choose the original") campaign. It features a new mascot: an Axolotl, or a Mexican salamander. There are plans to expand into other global markets.

Buying fake products funnels money from U.S. jobs and companies into the hands of criminal enterprises, supporting human trafficking, the gun and drug trades, and other crimes. We estimate that the global sale of counterfeit goods hovers around \$2 trillion per year. In 2021, the U.S. Customs and Border Protection and U.S. Immigration and Customs Enforcement–Homeland Security investigation seized over 27,000 shipments containing counterfeit goods, with a total value (had they been genuine) of more than \$3.3 billion.

At the USPTO, we are working across government and with legitimate businesses that invest significantly in their products and brands. We are joined in this important work by the U.S. Food and Drug Administration, U.S. Customs and Border Protection, the International Trade Administration, the U.S. Copyright Office, and private sector leaders such as the International Trademark Association, the National Inventors Hall of Fame, innovation film organization Cinequest, and others.

Kathi Vidal is under secretary of commerce for intellectual property and director of the USPTO.

LINK AND LEARN

- **"The Real McGruff" video:** youtube.com/watch?v=cra3Xvo4U7E
- **Award-winning "You're Smart, Buy Smart" PSA:** youtube.com/watch?v=j7ZEsvwTGQ0&t=2s
- **Dupe Detector Kit:** ncpc.org/goforrealtoolkit/dupe-detector-kit
- **#GoForRealChallenge:** ncpc.org/goforrealchallenge

TRADING CARD

NO. 2 Thomas Edison

PERHAPS THE best-known inventor of all time, Thomas Edison was also charismatic and fun. He might even joke, 175 years after his birth, that he was a news butcher long before the mainstream media came along.

That was Edison's first job—selling newspapers, candy, vegetables, and cigars on trains to passengers en route from Port Huron, Michigan, to Detroit.

He was 12 and, by many accounts, nearly deaf. His school education had lasted but a few months; his mother taught him reading, writing, and arithmetic. His hunger for knowledge had resulted in his setting up a laboratory in his parents' basement at age 10.

That humble first job foreshadowed the greatness that beckoned, and set the tone for his life.

Edison was making a \$50-a-week net profit by age 13—significant money at the time—and used it to buy equipment for his electrical and chemical experiments. He was still working for the railroad when he changed the outcome of his life and another's: He saved a 3-year-old boy from being hit by a train.

Jimmie MacKenzie's father, a station agent, was so grateful that he trained Edison to be a telegraph operator. This real-life education and young Edison's entrepreneurial acumen eventually resulted in his setting in type, printing, and selling the two-page *Grand Trunk Herald* with some assistants.

Edison had more in common with today's inventing influencers than one might think (including being the subject of several Instagram accounts). Contrary to stories and pictures that leave the impression of a solitary genius, he was a savvy CEO type who surrounded himself with talented people.

The *Herald* success led to his forming at least a dozen companies, including the Edison General Electric Co. in 1890. It merged into the iconic General Electric Co. in 1896.

Edison's famous invention of the first practical incandescent light bulb—again, with the aid of

assistants—was patented in 1879. Other inventions prominent among his 1,093 U.S. patents include the phonograph (his lifelong favorite), movie camera and alkaline storage battery.

He also made significant improvements to the telegraph and telephone, underscoring his historic contributions as not just an inventor but as an innovator. In fact, author Patrick J. Kiger recently wrote: "Edison's genius was improving on others' technologies and making them more practical for the general public."

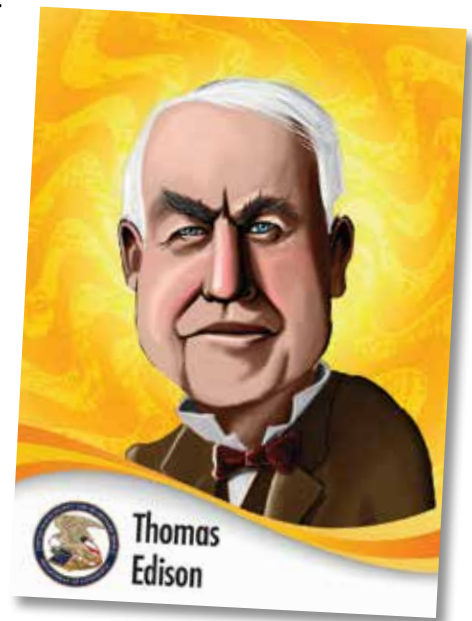
This is summed up in one of Edison's most succinct quotes: "There is a better way to do it. Find it."

He was obsessed with promoting knowledge in all forms and numbers. Edison created the world's first industrial research laboratory, which became the model for other corporate research labs—including T.J. Watson, Xerox Parc, and Bell Telephone Labs.

His relentless work ethic precluded dwelling on his early obstacles; in fact, he said his hearing problems helped him concentrate better, adding to his legendary perseverance.

Edison's death in 1931 at age 84 was mourned worldwide. In fact, according to the Henry Ford Museum in Dearborn, Michigan, Edison's good friend Henry Ford asked Edison's son, Charles, to capture his father's last breath in one of eight test tubes very near Thomas Edison's bed. He complied and sent one to the automaker.

This year marks the 10th anniversary of the USPTO trading cards. Requests for the cards can be sent to education@uspto.gov. You can also visit them at uspto.gov/kids.



What Prior Art is, and Why it Matters

Patent applicants must disclose known instances to the patent examiner



DURING THE patent examination process, patent applicants have a duty to disclose known prior art to the examiner. Therefore, it is important that the applicant be aware of the following categories of prior art and understand the considerations that go into determining whether a certain disclosure qualifies as prior art.

Generally, the term “prior art” refers to something that existed earlier than an invention that is described in a claim of a patent or a patent application.

Patent law identifies five different types of prior art: (1) patents, (2) printed publications, (3) public use of the invention, (4) the invention being on sale, and (5) the invention is “otherwise available to the public.”

During the patent examination process, examiners use prior art to determine whether a patent applicant has come up with something that is new and worthy of patent protection.

Anticipation and obviousness are two of several possible reasons a patent applicant may not secure a patent.

If an invention is not new, the examiner may reject it as anticipated by the prior art. Or, if an invention would have been obvious in view of the prior art, the examiner may reject it for obviousness.

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NEWS FLASH

YOUR FEEDBACK SOUGHT

The USPTO requests public input on two new Federal Register Notices aimed at expanding opportunities to practice before the agency.

Expanding opportunities to appear before the Patent Trial and Appeal Board (PTAB): Under current USPTO rules, only members of the USPTO patent bar are eligible to appear as lead counsel in America Invents Act proceedings involving third-party challenges to issued patents. Other attorneys may only appear if granted permission in a specific proceeding, and are limited to acting as backup counsel.

To ensure quality representation in PTAB proceedings without creating undue restrictions or barriers to entry

for practitioners wishing to appear before the PTAB, we are seeking public input on whether the PTAB’s rules and procedures should be modified to increase opportunities for practitioners.

Expanding admission criteria for registration to practice in patent cases before the USPTO: To ensure high-quality, inclusive representation for all U.S. innovators, we plan to expand the admission criteria of our patent bar to encourage broader participation and to keep up with the ever-evolving technology and related teachings that qualify someone to practice before the USPTO.

In addition, in recognition of the growing importance of design protection amid new and emerging technologies, we are considering whether a separate design patent practitioner bar would benefit the

public and the USPTO. We are looking to identify possible areas of improved administrative efficiency as well.

We are also requesting feedback about whether the instructions to patent bar applicants who are not U.S. citizens, do not reside in the U.S., and are applying for limited recognition to practice in patent matters should be clarified in the General Requirements Bulletin for Admission to the Examination for Registration to Practice in Patent Cases Before the USPTO.

You can read both full Federal Register Notices at [federalregister.gov](https://www.federalregister.gov). Users can submit comments on both proposals via the Federal eRulemaking Portal until Jan. 17, 2023. Go to [regulations.gov](https://www.regulations.gov).



Examiners may become aware of prior art by searching records available to them. Before the era of digitalization, examiners reviewed patent records on cards housed in cabinets containing many drawers that were known as colloquially as “shoes.” The drawers acquired the name of “shoes” because they were roughly the size of a shoebox. Today, examiners use sophisticated electronic search engines, along with the internet, to locate prior art.

Notably, patent law allows a “grace period” for the applicant’s own disclosure of the invention from becoming prior art. That is, if the applicant (or a person who obtained the information from the applicant) made a public disclosure of the claimed invention within a year before the patent application’s filing date, that public disclosure would not constitute prior art. Such disclosures by third parties, however, would constitute prior art.

Whether a disclosure amounts to prior art is a legal conclusion that is based on factual considerations.

For a printed publication, a key factual consideration is public availability of the publication. For example, graduate school theses and online documents might not ordinarily be considered “publications”; however, these items can be regarded as prior art if they are publicly available and indexed in a way that a person of ordinary skill in the field could have located them through reasonable efforts.

Similarly, conference slides or posters, which might have a fleeting existence, can also be considered “printed publications.”

For more information on prior art, check out the USPTO Manual of Patent Examination Procedure, Chapter 900.

WHAT’S NEXT

PATH TO A PATENT: In Part VIII of this recurring series, USPTO experts teach participants about common mistakes to avoid, and gain a better understanding of post-filing procedures and support. The virtual event is from 2 to 3:30 p.m. ET December 15. Register at uspto.gov/events.

NEWS FLASH

WOMEN MAKE PATENT GAINS

A recent United States Patent and Trademark Office report found female inventors patented in 411 new counties from 1990 through 2019, an increase of 32 percent in the number of counties where women patent.

The report, titled “Where are U.S. women patentees? Assessing three decades of growth,” examined women’s patenting by U.S. counties during that 30-year period. It identified counties with the most women-patentees by technology field and assessed three decades of growth.

Released October 19, the report delves deeper into the characteristics of those county economic environments to identify factors correlated with women’s participation in patenting. It was prepared by the Office of the Chief Economist at the United States Patent and Trademark Office in collaboration with the Office of Policy and International Affairs.

“Our new study shows important trends over the past thirty years in women patenting,” said Kathi Vidal, under secretary of commerce for intellectual property and director of the USPTO. “We plan to use this study and other data as we focus on bringing more women into the innovation and patenting ecosystem.”

“We must increase the number of women inventors on patents from the 12-13 percent it is at today to full representation. This is critical for job growth and economic prosperity.”

Across technology hubs, more women were named on physics patents than in any other field. The technology hub with the largest growth rate in female inventor-patentees was in electricity in Santa Clara County, California, rising over 7,000 percent during the 30 years studied. In 1990, only 46 women inventors were listed on electricity; by 2019, they numbered nearly 3,300.

For the full report visit uspto.gov/sites/default/files/documents/oce-women-patentees-report.pdf



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A Copyright Lapse, An Enduring Holiday Gift



Patents. Copyrights. Trademarks. Intellectual property is often so complicated and nuanced that we at *Inventors Digest* strive to educate inventors and non-inventors in a conversational way about how it works—and why it matters to everyone.

It can even affect how we celebrate the holidays.

Chances are, millions of people would not have seen the classic movie “It’s a Wonderful Life” if its copyright had not lapsed.

After the film’s premiere at New York’s Globe Theater on Dec. 20, 1946, director Frank Capra said the reviews were generally negative. It placed only 26th in box office revenues for 1947.

Republic Pictures held the movie’s copyright. By law at that time, those rights were protected for 28 years. But as the decades passed, the movie certainly had no status as a cinematic classic.

Maybe that’s why Republic did not pay its copyright renewal fee in 1974—an omission that inadvertently awakened millions to a movie that is now iconic.

“It’s a Wonderful Life” had now, wonderfully, lapsed into the public domain. With no licensing or royalty fees to deal with, TV networks seeking to provide inexpensive holiday entertainment with a marquee lead (Jimmy Stewart) began airing the movie repeatedly, sometimes in all-day marathons.

Holiday TV watchers now knew what they were gonna do tomorrow, and the next day, and next year, and the year after that. Then, a 1990 Supreme Court ruling about copyrights for another movie—ironically, also starring Stewart—changed everything all over again.

SCOTUS’ ruling involving 1954’s “Rear Window” ruled against Stewart’s production company and granted rights associated with the original story upon which a movie is based. “It’s a Wonderful Life” was based on the short story “The Greatest Gift” by Philip Van Doren Stern.

The copyright in “The Greatest Gift” had been properly renewed and held by Republic Pictures, which also had bought music rights to the film. Owning rights to both the story and music meant Republic had essentially regained control of the movie.

Buh-bye, “It’s a Wonderful Life” marathons.

In 1994, Republic Pictures signed a long-term deal granting NBC exclusive rights to show the movie—which it does maybe a few times a year now.

But it’s not like the film was never born. There’s always that as we celebrate this season of blessings.

—Reid

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Inventors

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CORRESPONDENCE

Letters and emails in reaction to new and older **Inventors Digest** stories you read in print or online (responses may be edited for clarity and brevity):

"Rocking the Stadium Tour" (November 2022):

We did this in Boston several times in the last few years: at Northeastern and Suffolk law schools, through the Boston Patent Law Association. —JOHN WELCH

John L. Welch has represented clients in many patent, trademark, copyright, unfair competition and domain name lawsuits across the country, and has handled hundreds of opposition and cancellation proceedings before the Trademark Trial and Appeal Board of the United States Patent and Trademark Office. He is responsible

for the international trademark portfolios of many major companies.

These tours, presented by the USPTO, are well received. A summary of a recent USPTO Stadium Tour, in September at the University of Oregon School of Law, appeared on the McCoy Russell International Property Law website: mccrus.com/2022/09/21/uspto-stadium-tour —Editor



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DEPP LAWSUIT IS ONE FOR THE BOOKS



Johnny Depp and Jeff Beck are suing a folklorist for accusing them of stealing lyrics from a poem that none of the three wrote.

Only in Hollywood.

The dispute involves Depp's and Beck's song, "Sad (Expletive) Parade" from an album the two released in July. The song directly lifts lines from a toast poem, "Hobo Ben."

SUNY Buffalo Distinguished Professor Bruce Jackson, who does not claim authorship of the poem,

recorded the toast in an album and a book in the mid-1970s.

The lines in question that appear in the Depp/Beck song: "I'm raggedy, I know, but I have no stink," "God bless the lady that'll buy me a drink," and "What that funky (expletive) really needs, child, is a bath."

Jackson said he learned the poem from Slim Wilson, an inmate at Missouri State Penitentiary, in 1964. Jackson said Wilson said he learned it from his father but that the original author is unknown.

In their lawsuit filed in the U.S. District Court for the Western District of New York, Depp and Beck's lawyers claim Jackson never owned the copyright to "Hobo Ben," as it was "part of an oral tradition passed down for generations and performed by an unidentified individual."

Depp and Beck called the accusation a "cash grab"—even though Jackson has not filed suit. They are suing for "unspecified damages, legal fees, and a declaration that they did not commit copyright infringement."

A statement by Jackson's attorney, Rachel E. Jackson, replied: "They didn't write a word of (their song) and they are suing the person they stole it from and who caught them doing it. From my point of view, this is like a burglar suing a homeowner because he cut his hand on the kitchen window he broke getting in. ...

"By passing off Slim Wilson's words as his own, Johnny Depp publicly inhabits another man's life and artistry, his pain and his poetry, his beauty and his ugliness, and passes it off as his own lived experience."

BRIGHT IDEAS

Prestagon Pets

SNAP-AND-STACK
MAGNETIC PET STEPS

prestagonpets.com

These adjustable, portable, nestable, anti-slip stairs are designed to empower dogs of all sizes and abilities. Dog ramps and stairs can help dogs with mobility issues get into beds, sofas and cars, as well as very small dogs or breeds with short legs and long bodies.

Fully assembled, the steps weigh just 10 lbs. but can support dogs up to 150 lbs. The all-magnetic assembly means no tools are required. The three stackable modules let you choose a height that's right for you and your pet: Maximum dimensions are 18 inches wide, 16 inches high and 18.25 inches deep.

Flip over the modules to convert them into storage bins.

The product, which will retail for \$140, is to ship to crowd-funding backers in March.



LIVALL PikaBoost

E-BIKE CONVERSION KIT

livall.com

With a controller, motorized hub and battery pack (so-called eBike conversion kit) assembled on your bike, PikaBoost lets you turn your old bike into an electric bike for easier handling of rough terrain. It uses Automatic Adaptive Rate (AAR) technology to detect changes in terrain and the bicycle speed in real time, and dynamically adjust the motor power without latency.

Many e-bike conversion kits are hard to install and/or more expensive than the PikaBoost, which will retail for \$599. You can quickly mount it between the seat post and the rear wheel with no tools, making for easy switching to other bikes.

The kit has a self-locking mechanism to avoid loosening due to vibration, and an elastic mechanism for added stability.

VELO Luggage

3-IN-1 EXPANDABLE
HARDSIDE LUGGAGE

veloluggage.com

With the press of a button, just pull up on the handle of VELO to switch sizes: small (16 inches), medium (22) or large (26).

These options are useful if you need extra space in your luggage because of what you accumulate during a trip, and provide a choice between a carry-on or check-in bag. The small option is handy for easier storage.

VELO features a durable, aerospace-grade aluminum frame, customized adjustable dividers, laptop bag and packing cubes. The packing cube set includes a clothes bag, underwear bag, accessory bag and wash bag.

With a suggested retail price of \$399, VELO is set for shipping to crowdfunding backers in January.



"A woman brings so much more to the world than birth, for she can birth discovery, intelligence, invention, art, just as well as any man." — SHANNON CELEBI

SUPERHEXA Vision

DUAL-CAM AR GLASSES

superhexa-vision.com

Billed as the world's first wearable HD dual camera with 15 hybrid zoom, SUPERHEXA features hands-free shooting, real-time translation and live streaming.

These wearables provide unique perspective and an immersive, first-person experience. They reduce the concerns of outdoor glare and getting into position to take a shot: Just take in the view and record the moment simultaneously, zooming in or out with a slide touch along your temple.

With PDAF high-speed phase focus, intelligent face recognition and head-assisted tracking, you don't have to manually focus or check the light.

SUPERHEXA will retail for \$699.



Reading, On Fire

AMAZON'S 1995 KINDLE LAUNCH, PART OF A BROADER TECH MISSION, CHANGED BOOKS FOREVER **BY REID CREAGER**

"FIONA, PLAY 'LIBBY' by Carly Simon."

Actually, that doesn't sound any stranger than asking Amazon's Alexa to play that largely unknown 1976 masterpiece. But the original code name for Amazon's Kindle is part of a rags-to-riches saga so improbable and ironic that it could have been a best-selling fiction novel.

Of course, Amazon began as an online bookseller in 1995. Founder Jeff Bezos operated it from his garage, where the servers sucked up so much power that they sometimes caused outages when his wife tried to use a hairdryer or vacuum.

Bezos originally wanted to call his online service "Cadabra," short for "Abracadabra." But Amazon's first lawyer, Todd Tarbert, cautioned that it sounded too similar to "Cadaver."

With that idea DOA, Bezos flirted with "Relentless" before deciding he liked the idea

of naming the company after the world's largest river.

In those early days, Bezos, his then-wife, MacKenzie, and Shel Kaphan—now famously known as the company's first employee—often held meetings in a local Barnes & Noble. In fact, Bezos met with the owners of Barnes & Noble for dinner in 1996; the executives said they admired Bezos but were going to launch a website soon that would destroy Amazon.

An anecdote reported by Business Insider India provides a window into the company's humble beginnings: "A bell would ring in the office every time someone made a purchase, and everyone would gather around to see if they knew the customer."

It wasn't long before Amazon was having its bell rung more than a lousy prizefighter. In its first month, the company sold books to people in all 50 states and in 45 different countries.

Gregg Zehr, founder of Amazon's Lab126, led the team that developed the first Kindle e-reader. Below is the first Kindle and its first two "re-Kindlings." Top to bottom: Amazon Kindle, Kindle 2 and the Kindle DX.

The original Kindle team wanted to ensure customers could access new books without connecting a cable to a computer for download.



Cadabra! Read: Big success

An e-reader seemed a natural extension of the company's original mission, though Bezos has said his ultimate goal was to create a revolutionary technological platform.

According to Amazon's official account of Kindle's history, its development team wanted to keep it a single-purpose device so there would be no distractions from reading. The team also wanted to ensure customers could access new books without connecting a cable to a computer for download. This led to the technologically cumbersome feat of a built-in cellular data connection and, eventually, the ability to sync books across Kindle's devices and app.

So, Kindle was 3 1/2 years in the making when it debuted on Nov. 19, 2007. Due to ravenous anticipation for the product (with its 6-inch screen and 250 MB of memory) and overwhelming response, it sold out within hours and was out of stock for months.

Kindle sold for \$400 and was made by Amazon's Lab126 tech division. Lab126 has been so instrumental in Amazon's success that its president, Gregg Zehr—who announced his retirement from the company on Oct. 14, 2022—is generally acknowledged as Kindle's inventor, though the device is obviously a collaboration by many people.

To list all the follow-ups and their added features here may warrant as much space as reprinting "War and Peace." Suffice it to say that Kindle's impact is permanent, through all the sequels and Fire tablets and Oases and Kids Editions and Paperwhites:

In 2011, Amazon announced that e-book sales on its site surpassed sales of traditional printed books.

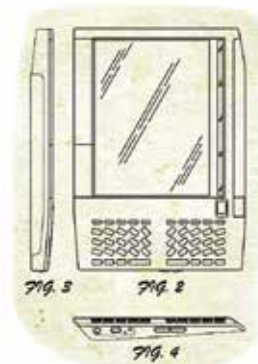
By 2012, Kindle made up about half of all Android-operated tablet sales.

The latest Kindle was to be unveiled Nov. 30, 2022—the Kindle Scribe 1. The first Amazon e-paper device that supports handwriting, the Scribe features a 10.2-inch Paperwhite, glare-free touchscreen display that's enhanced by the front and warm light. The e-reader is offered in three memory variants (16, 32 and 64 GB), and is equipped with a USB-C port.

PATENT PATHWAY



Information Week reported in May 2009 that an Amazon design patent for Kindle—**U.S. Patent No. D591,741**, granted May 5, 2009—was Kindle's first patent of any kind. It shows six images. The application is titled "Electronic media reader."



Sorry, Fiona

Back to Fiona.

Fittingly, Kindle's original code name came from a book Zehr was reading. "The Diamond Age," by Neal Stephenson, is a future-based novel about an engineer who steals an interactive textbook from his daughter, Fiona.

Zehr said he had the book on his desk and mentioned to Jateen Parekh, an early Amazon product engineer, that the company needed a code name for Kindle. Parekh thumbed through the first few chapters and saw the name Fiona, and the two liked it. But Bezos opted for Kindle because he liked the metaphorical notion of starting a fire.

By the way, the Carly Simon reference at the beginning of this story was intentional. She's a daughter of the late Richard L. Simon, who cofounded the now-billion-dollar Simon & Schuster book company in 1924. Rumors in 2020 that Amazon was about to buy Simon & Schuster never materialized.

No word on whether Carly owns a Kindle. 📖

INVENTOR ARCHIVES: DECEMBER

December 12, 1980: The **Computer Software Copyright Act** of 1980 became law. It defined computer programs and clarified the extent of protection afforded to computer software by law. Software was now considered an invention and could be patented.

But in 2014, the Supreme Court's landmark ruling in *Alice Corp. v. CLS Bank International* gave rise to hundreds of patentability challenges per year targeting software patents, many of them successful.



Learning the **Hard Way**

AN INVENTING VETERAN'S EXPERIENCES WITH PERSEVERANCE, PATENT AGENTS, PROTOTYPING—AND DREAMS DASHED

BY JACK LANDER

THE FIRST few patentability opinions I obtained were a mild shock. I figured I was just unlucky.

Seventeen years passed before I received my first patentability opinion that advised I could probably be issued a patent if I filed—which, of course, I did. And my first patent was on a heat-sink thermal/electronic connector.

The device I invented was used on the USS Spruance, the first of a class of Navy destroyers. It enabled rapid repairs by unplugging power modules from the power supplies that controlled listing of the ship, and installing new or reconditioned modules. I was employed as an engineer in the company that won the bid on producing the power supplies.

The lesson I learned in those 17 years is that inventing requires the guts to stick with the process despite many disappointments along the way.

Many inventors have invented the same means of accomplishing something useful, but only one receives the honor of being the “first to file.”

For a popular product, such as a can opener, tens or even hundreds of inventors may have been shown by a patentability opinion that they are clever enough—but not soon enough.

Know your patent agent early

Another disappointment can be dealing with a patent agent or patent attorney. A patent agent has to pass the “patent bar” exam in order to prepare patents. But agents don’t have to pass the regular bar exam.

Theoretically, an agent is fully competent in all aspects of patent protection but can’t write legal contracts or represent you in court for matters such as being sued for breach of contract. Agents generally charge less than full attorneys.

Many agents work in industry before deciding to become agents. They may have hands-on experience with their field, and therefore their work excels. Either agents or attorneys are qualified to prepare patentability opinions, which I prefer to be in writing.

One attorney I approached for a patentability opinion refused to put his opinion in writing. I went on to another attorney.

It follows that agents and attorneys must be of high ethics. A questionable positive patentability opinion is self-serving if you agree to have the opinion writer prepare and file your patent application.

So, another lesson learned the hard way. Get to know your agent or attorney at the search-and-opinion stage. Ask him or her to explain the USPTO’s objections to your application and tell you how he or she is going to circumvent the objections. Read the patents that are referenced in the patent office rejection and ask your agent or attorney to explain them if they aren’t obvious.

From hopeful high to stunning low

Prototyping is another area that should be thoughtfully considered.

Mainly, it’s a matter of budget. If you have plenty of money and you want the satisfaction of being able to show friends your invention, it may be worth spending a couple thousand dollars. A working prototype may clinch the licensing of your patent, too.

But if your budget is lean, it may be wise to avoid the cost of your prototype in order to have money to travel to product shows where you will meet the ideal candidates for licensing your invention.

Some shows will require your membership in the sponsoring organization. I once had to

pay \$200 to join a professional organization in order to enter the show and walk around.

Plane fare from Connecticut to New Orleans, plus a hotel for two nights, plus meals and airport parking, added up to about \$2,000. In this case it was worth it, because I met the right people and almost concluded a deal at the show.

Now, back home, I arranged for a plane to Chicago and a rental car for the trip to a suburb about 30 miles north of Chicago. I met with a marketing delegate and a tool engineer. We discussed my design and how it would be manufactured. No problems of importance were foreseen.

The next step would be for the company to draft a licensing agreement. I would then meet with a lawyer who was familiar with such agreements, get his or her opinion on the fairness of the agreement, and offer amendments if needed.

I waited two weeks, then called the marketing fellow. He reassured me that the company's legal staff was working on it and would email me the draft soon.

Again I waited, not wanting to imagine something was wrong. I phoned and was informed that my contact was not available. I asked that he call me when he was available. No call.

Further attempts were met with stock excuses. They wouldn't put me through to the legal department or the director of marketing I had met at the show in New Orleans. I was stonewalled and had no answer for why.

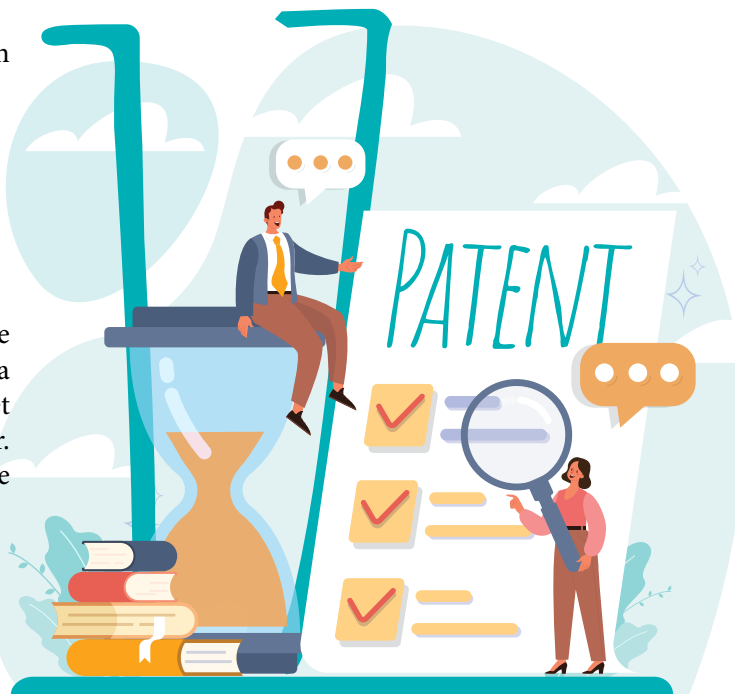
That was the disappointing end of what had begun as every inventor's dream.

Getting hip to an idea

I'm semi-retired now but still get an occasional "great idea." You'll recall that at the end of my column in the last issue I said that I would be getting my left hip joint replaced, and the experience might inspire an invention.

And it did.

I will be walking with a cane for a few more weeks, and it is surprising how many ways an upside-down cane can be useful in putting on underwear and pants. But what is needed is a cane



Seventeen years passed before I received my first patentability opinion that advised I could probably be issued a patent if I filed.

that can grab small articles such as eyeglasses, TV remote controls and pieces of mail.

I came up with three pieces of spring wire that spread open when pushed out of the top end of the cane and closes around the dropped object when retracted back into the cane. The tip of each wire is a short 90-degree inward bend, like a tiny finger, to hold the grasped item while swinging it around to grab or place it on a table.

I'm not sufficiently ambitious to have a search made at this time. So, you're on your honor not to steal it. (Remember it is first to file, not first to invent, who is deemed to be the official inventor.)

Jack Lander, a near legend in the inventing community, has been writing for *Inventors Digest* for nearly a quarter-century. His latest book is "Hire Yourself: The Startup Alternative." You can reach him at jack@inventor-mentor.com.



Creating a Great Video Strategy

DRAMATIC INCREASE IN MEDIUM'S IMPACT ADDS TO ITS IMPORTANCE FOR INVENTORS **BY ELIZABETH BREEDLOVE**

ANYONE WHO'S spent more than a year or so managing social media marketing has noticed the dramatic shift in the importance of using video as part of your social media strategy. It doesn't matter what platform you're on; video is crucial if you want success on social media.

Short-form video content is trendy now. If you want your videos to make a mark, this is where you should focus your energy.

But if you're new to using video, or even new to short-form video, it can be hard to know exactly where to begin. You need a solid strategy to ensure you're creating valuable content that leaves an impact, rather than wasting time making videos your audience doesn't engage with or care about.

With this in mind, some tips for building a great short-form video strategy from the ground up:

Know your audience

You likely already have a decent idea of who your invention is for, and which people will be interested in purchasing it. This is a great place to start as you define your audience, but remember that your social media followers may be a slightly different group of people.

There will certainly be many demographic similarities between your customers and your audience on social media, but don't expect them to be exactly the same. Your social media audience may skew younger, or may have slightly different interests.

Knowing this, you can begin to build an audience persona. Who is the average person you're trying to reach on social media? What is the age or gender? What social networks does he or she use? What does this person do for work? Hobbies? Wants and needs?

Once you have a defined audience, you'll find it easier to create content that resonates with them, specifically.

Know your goal

Define a goal for your video content. What do you want your audience to do?

It's not always as simple as wanting them to purchase your product. Do you want them to follow your account or subscribe to your channel? Do you want them to support you on social media and perhaps become mini brand ambassadors? Do you want them to test your products or participate in market research? Are you seeking partnerships with investors? Do you want to monetize your social platforms outside of product sales, such as through subscriptions?

Or, perhaps, your goal is just to sell your product.

Whatever you hope to achieve with your social media presence, keep your goals in mind to ensure your content is crafted to reach the ends you have in mind.

Start planning content

Now you can begin to think about what type of content you'd like to produce.

Generally speaking, video content on social media that gets the most views, likes, shares and follows is authentic, honest and casual. Most video content is consumed on a mobile device, so short-form content shot vertically is almost always the route you should take—especially for content shared on social networks other than YouTube.

Aim to create informal content that shows a human side of your brand rather than more polished, long-form, corporate-style videos that would've performed better a few years ago. Don't focus on creating polished videos so much that you begin to lose your humanity.

In terms of having this human component to your videos, think carefully about the approach you'll take. You need a unified look, feel, style—and frankly, face—across all your videos. Having one or two people present all your content allows people to connect more with the person behind the brand. It also provides consistency as your brand grows by creating a steady and dependable aspect that viewers will recognize as they consume more of your content.

So, think carefully about who the face of your video content will be. This person should help communicate real stories and real emotions on behalf of your brand or invention, to facilitate a human connection.

Once you have the general tone of your video content decided, you can begin planning actual video topics.

Start by thinking about and researching what types of things people are searching related to your product or industry, and the need or problem your invention solves. Consider what recommended videos you see on YouTube, Instagram or elsewhere as you watch videos in the same niche as the ones you'll be creating; this will give insight into how these platforms' algorithms work to show people the content they most want to see.

Also consider which pages your website viewers are visiting most often on your site. Make a list of topics you find people wanting to know.

Then, research trending video styles or viral videos, and start a list of ones you see often that could be interesting or noticeable to your target audience.

Once you have a sizable list of video styles and types, you can begin to compare your two lists: How can you cover topics that provide value to your audience in a style or format that would be interesting or noticeable to them?

Look for places where you can apply a trending style or viral video format to content and topics in which your audience has the most interest.

Final tips

When you're ready to begin creating videos, have a plan before you start filming. You don't need a script, but you should have the overall video



Aim to create informal content that shows a human side of your brand rather than more polished, long-form, corporate-style videos.

outlined. If you won't be able to shoot the video in one take, create a shot list before you begin.

Remember while you're filming to relax and act natural. Don't feel the need to sound overly formal or scripted. You're creating an opportunity to connect with your followers, not acting in the next Oscar-winning film.

If creating and editing videos isn't your forte, don't be afraid to outsource it! Record the parts that need your face and voice, then pass along the clips to someone else to edit into a final video, write the caption or description and title, and design a thumbnail.

Finally, if long-form video makes sense for your audience and you opt to create some longer content, look for ways to reformat it into short-form videos, too. Chop the video into shorter clips that you can post on TikTok, Instagram Reels or Facebook. This is a great way to get more content out of your time spent filming! 📺

Elizabeth Breedlove is a freelance marketing consultant and copywriter. She has helped start-ups and small businesses launch new products and inventions via social media, blogging, email marketing and more.



Different **Drum**

WOODWORKING FORMER MUSICIAN USES KERFS
FOR A UNIQUELY MANUFACTURED PRODUCT **BY JEREMY LOSAW**

ANDREW WELD'S father was stunned. "I came home from work one day in 2009 to find my garage transformed into a woodshop," Jeffrey Weld said. "Andrew, who had never taken a shop class, had pulled down Grandpa's dusty power tools and set up a drum manufacturing floor."

Andrew's music career was fading away while his passion for woodworking was developing. He went to college to train in fine woodworking. After graduating, he moved to Minnesota to work for a woodworking company and eventually formed his own company called Rovam Handcrafted Furniture.

Then a client made a request that changed his career again.

The client wanted a set of stairs that bent around a wall. Weld used a unique cut pattern to get it to look right—then realized this technique could also be used for drums.

"I had used a kerfing technique in a crude way to remove material and bend the piece of wood accordingly," recalled the former drummer for his high school band, who was also a touring drummer and composer. "The idea suddenly overwhelmed me: I was able to envision a solid wood drum shell made using kerfs."

This eventually led to—drum roll, please—Kerf Drums.

The machining difference

Modern wooden drums have been around for hundreds of years. They feature a stretchable membrane strike pad made from advanced polymers. Manufacturing them can be tricky.

Kerf Drums are standard, wood-framed drums created via a unique machining process that does not require steam bending, gluing or clamping that standard drums require. Weld's manufacturing technique is easier to manufacture and acoustically superior.

As the name implies, grooves or kerfs are cut into flat pieces of wood with a specific and precise geometry to allow the wood chamber of the drum to be easily rolled into shape. The resulting drum frame has no residual stress, with enhanced acoustic characteristics.

When Weld hit on the idea of using kerfing for drums, he assumed he would find someone using this technique already. He scoured the web looking for it and found that although it was used for other types of products, no one had used it for drums.

He went to work experimenting with different kinds of wood and ways to cut the kerfs. He said it took hundreds of iterations to get a design that allowed for the drum to be bent in a way that allowed for a smooth outer surface.

The issue arose that the cuts had to be very thin to get the drum to curve correctly. Weld was constantly snapping router bits. He tried laser cutting, but that just burned the wood in an unsightly way.



"The kerf shell appeared to have a wider tuning range and therefore was more versatile, especially in the lower frequencies." —ANDREW WELD



It wasn't until he found a company making special high-strength, thin saw blades for use in NASA applications that he was able to cut the wood in the way he needed. He added a tongue-and-groove joint to adjoin the ends of the wood and finish the shape. Now he is manufacturing 14-inch drums in various heights.

Patented and performing

Getting a utility patent on the technology was an important step.

Weld felt the product would never have a shot in the marketplace unless it was protected. He feared other drum companies would find a way to copy his technique unless he had a patent. After all, the kerf technique is not new, but marrying it to a drum is.

Now his website proudly shows the result of his effort and ingenuity, in large type: U.S. Patent 10,621,961.

Creating a new way to build a drum was one thing, but it would not mean anything unless it performed well acoustically. So once he had some great working units, Weld took them to a lab to see how they performed.

When the report came back a couple weeks later, he was excited by the results.

The Kerf Drum outperformed standard drums in smoothness and had fewer acoustical

detractions. His drums also exhibited better multi-directional loudness across a larger frequency range.

"I knew the kerf drums sounded good to the human ear, but I needed some scientific proof that they were different," he said.

"The conclusion was that the kerf shell appeared to have a wider tuning range and therefore was more versatile, especially in the lower frequencies. Ultimately, this was another motivator that we were onto something with the kerf shell."

To market, and on its way

After years of R&D and testing, the Kerf Drum hit the market in 2022. Weld set up a website and has been slowly pushing it into the marketplace.

He still has connections in the music industry and has been getting some feedback from professional drummers. They include Aaron Sterling, who has played with John Mayer and Taylor Swift. He was impressed with the way it performed.

Weld is excited to get the product into trade shows and the hands of musicians so they can play and hear it firsthand. He is also exploring avenues to license the technology to other drum manufacturers. 📧

Details: kerfdrumco.com

Jeremy Losaw is the engineering director at Enventys Partners, leading product development programs from napkin sketch to production. He also runs innovation training sessions all over the world: wearewily.com/international



Kerf Drums are standard, wood-framed drums created via a unique machining process that does not require steam bending, gluing or clamping. Grooves or kerfs are cut into flat pieces of wood with a specific and precise geometry to allow the wood chamber of the drum to be easily rolled into shape. They are easier to manufacture and acoustically superior.

Productive Nightmare

SOLUTION FOR DRINK SPIKING WAS LITERALLY THE PRODUCT OF A FLORIDA GIRL'S DREAMS **BY EDITH G. TOLCHIN**

ONE DAY IN 2019, a 16-year-old girl had a nightmare.

The dream was not unfounded; it came after she heard her college friends were victims of drink spiking. That was enough to scare the daylights out of Shirah Benarde of West Palm Beach, Florida, who is well aware of this trend.

A recent study by the American Addiction Centers involving 969 participants showed 56 percent of female respondents said they unknowingly consumed spiked food and drinks.

Shirah had a brainstorm after her nightmare. Here's the story of the NightCap.

Edith G. Tolchin (EGT): How did the NightCap come about?

Shirah Benarde (SB): I wanted to come up with a solution to drink spiking to protect my friends and me when we went off to college.

A few weeks later, I went to sleep and thought of NightCap in a dream. I say that I "slept on it!" The product and its functionality simply formed in my dream, and I took a mental note to circle back in the morning.

When I woke up, I told my dad. I tried explaining the product and drawing it, but I knew I had to just show him. That's when I created the first prototype out of my mom's pantyhose and a scrunchie from my room.

EGT: Exactly how does it work? Is it one size fits all (drinking glasses)?

SB: The NightCap is a scrunchie that can be worn on your wrist or in your hair. When feeling uncomfortable at the bar, club, or a party, pull the cover out from the scrunchie pocket

and use it to cover your drink. Place your straw in the straw hole to drink with peace of mind.

When you're done using it, you can tuck the cover back into the pocket of the scrunchie. NightCap fits best over Solo cups or similar-size/shaped cups.

EGT: How did you create the prototypes after the first one?

SB: To make the next four prototypes, my dad and I found a local seamstress. She made all the prototypes out of old gymnastics leotards, socks, and pantyhose type of material. She would come to the house and show my dad, my brother and me.

After making it to the final prototype, my brother started working with a manufacturer to get the first round produced in Dallas, Texas. The product is currently made from nylon and spandex.

EGT: Have you invented anything before?

SB: I have never invented anything before, but I always had an entrepreneurial spirit. Before NightCap, I would create and sell shirts and sweatpants to my friends who were going to college.

I called it "Quarantees," since it was during quarantine, and I was selling T-shirts. I would tie-dye the shirts and create custom logos for the university they were attending to print onto the clothing.

EGT: Where are you manufacturing? Have there been any supply or logistics issues due to the pandemic?

SB: We manufacture our product overseas. Since the NightCaps are so light, we can airship our products to our warehouse, leading to a smoother logistical process.



The NightCap is a scrunchie that can be worn on your wrist or in your hair. When feeling uncomfortable at the bar, club, or a party, pull the cover out from the scrunchie pocket to cover your drink, and place the straw in the straw hole.

EGT: Where are you selling now?

SB: All NightCap products are available at Nightcapit.com and Amazon Prime. Additionally, we've expanded on the Amazon platform to Canada, the United Kingdom, and the rest of Europe.

A significant amount of our business is doing discounted bulk orders with organizations. We've worked with over 75 universities in the U.S., Europe and Canada to provide NightCaps so they can be handed out to students at no cost. Our products are sold in 40 different countries.

EGT: How many different types are you selling?

SB: Our flagship product, the NightCap scrunchie, is available in four colors. Additionally, we launched the NightCap keychain last December, which is a unisex version of the product. And even more recently we became the exclusive U.S. distributor of StopTopps, which is a disposable version invented in the U.K. that we are selling to bars, clubs and venues.

EGT: I saw on your website that you received a patent. How long did that take, and was it difficult?

SB: Filing for a patent was one of the first things I did after coming up with the idea. The original provisional patent application was filed in February 2019, and the official patent was granted in December 2021. It wasn't too difficult; it was just a long process that takes a lot of patience.

"Today, you can turn every hobby and passion into a business. With a great story and product, anything is possible." —SHIRAH BENARDE

EGT: Have you had any difficulties with product development?

SB: In the beginning, figuring out the original design was a lengthy process that took a lot of trial and error. Initially, we thought the drink cover should go inside of the scrunchie and have a zipper or Velcro opening. However, through the design process, we determined it should be on a pocket on the outside.

EGT: I heard you were on "Shark Tank." How did it go?

SB: We got a \$60,000 deal for a 25-percent stake in the company with Lori Greiner. The experience was surreal and at the same time one of the scariest things I've ever done.



After going into the “Tank,” I feel like I can take on any task given to me.

I used to watch “Shark Tank” as a kid with my brother. If you told me someday we would pitch to the Sharks together and get a deal, I wouldn’t have believed you.

EGT: Has your age been a benefit or a deterrent in managing a business?

SB: My age played a huge role in the beginning of NightCap. I wasn’t as confident at 16 due to my lack of education with business. I had no idea what I was doing, I didn’t know where to begin.

However, growing up and going through the motions of running a company taught me so much. I learn the most from my business partners, who I surround myself with, by and trial and error. I am learning more every day and after running my business for almost four years, my confidence has grown tremendously—which has a large impact in decision making when running a company.

If you’re a young entrepreneur, go for what you’re passionate about. You want to spend your days doing what you love. Today, you can turn every hobby and passion into a business. With a great story and product, anything is possible.

I never imagined I could be where I am today at 19. Stay dedicated and never give up. The best part about being an entrepreneur is the journey to your destination.


EGT: Do you have new products forthcoming?

SB: We have a few products in development that we can’t announce just yet. Follow us on our Instagram @nightcapit and subscribe to our email list for updates. 📧

Details: Shirah@nightcapit.com

Edith G Tolchin has written for *Inventors Digest* since 2000. She is an editor (opinionatededitor.com/testimonials), writer (edietolchin.com), and has specialized in China manufacturing since 1990 (egtglobaltrading.com).





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Beware Your ‘Baby Love’

HONEST ASSESSMENT, RESEARCH AND PLANNING CAN BE LIFE-SAVERS FOR STAR-STRUCK INVENTORS **BY LARRY UDELL**

“HOW UGLY IS YOUR BABY?”

No one ever asks a new parent this question—just as no one ever asks an inventor this about his or her new “baby.” Better judgment usually allows us to pre-examine our thoughts before saying what we really think.

However, over many decades I have asked literally hundreds of inventors: “Why do you think your idea is so great, what purpose does it serve, and who would buy it?”

These honest and legitimate questions address the reality that the road from product to market is not easy. This path is lined with numerous obstacles and disappointments that are never realized in the creation process.

Let’s briefly explore the roadblocks to success, starting with the idea/invention.

How good is it, really?

Look around you throughout your day. Take an extra minute to think about the product you are using or the switch you just turned on, or even the simple phone call from a cell or wherever you are.

Each is the result of someone’s ingenuity and follow-through—from this person’s creative moment to when he or she explored the market, competition, and the reality of: How good is the idea?

All too often, an inventor’s unfortunate assessment is, “I cannot find it in the store or on Amazon, so I have a winner and will be rich.”

Inventors often continue to fool themselves by becoming possessive of their idea and not stopping to ask themselves many important questions:

- Who will buy it, and how much will they pay?
- Why will they buy it?
- If it’s such a great new idea, why am I the first one to think of it? Maybe I should search the

USPTO and see if anything like it has ever been patented.

- Can I do it on my own, or enlist the help of a relative or friend?
- How much funding am I going to need to design and build a prototype—and who will invest it?

(Do not accept funds from relatives or close friends unless they can afford to lose it and know that right up front. I have personally been a witness to families suffering the consequences of grandma investing and losing her savings.)

A great many inventors I have been a mentor to have learned the hard way the critical importance of doing their homework. In decades past, when we did not have the internet, it was a laborious project consisting of hours at the library learning the answers to questions that were not easily known.

Today, we have at our fingertips the ability to find answers to just about any question, including who is in the market and what are similar products to our idea. I have always recommended that the place to start is uspto.gov to determine whether any patent has been issued or pending that may be similar or identical to your idea/product.

This requires an extensive time commitment; you must be accurate with your search results. The last thing you want is to invest time and money in attempting to bring your idea/product to market and find out you are infringing on an existing patent, or the fact that it was issued 50 years ago and you will not be able to patent it again.

Most important, I cannot emphasize enough that your commitment to research will pay off by not getting targeted for litigation—especially if the similar product is being produced and marketed by a large corporation.

However, if your research shows a similar product but yours has beneficial features not



Visualization is the ability to project your mind to the day after tomorrow. Do you have a routine you follow, or is each day an exploration of the future?

included in the existing product, you may have the opportunity to license your improvements to the company and be compensated. This still requires that you have some protection, so in that case you can file a provisional patent application inexpensively. Follow the instructions on the USPTO website.

A visualization/honesty test

Many years ago, I was involved in a consulting project for Ken Olsen, founder/CEO of Digital Equipment Corp. In 1973, he made the statement, “Who would want a computer in their home?”

Even this brilliantly creative and successful business icon did not visualize the birth of an industry. There are many examples in my life and yours where you could not foresee the future that was obvious to those like Steve Jobs and Steve Wozniak, for example.

Visualization is the ability to project your mind to the day after tomorrow. Do you have a routine you follow, or is each day an exploration of the future?

We often lose sight of the gift we have been given to not only explore our creativity but act upon it. How we use this gift depends on our perception of life, our innate abilities that we hopefully recognize, and the world around us that provides unlimited opportunity to live the dream.

Living in America provides you with resources you have not begun to explore, and the limitless information that can provide you with the answers to questions you have not yet been able to ask.

Here is a way to help the visualization process while providing honest answers to yourself about your idea/product.

On a sheet of paper, draw two lines from top to bottom, evenly separated into three columns. On the heading of the first one, write in “strengths”; on the second, “weaknesses”; and leave the third title blank. Tape this page to your bathroom mirror, so it is obvious in the morning and evening.

Start to fill in the first two columns. Be very realistic about weaknesses: Is it knowledge on how to design or build a prototype? Being able to create a funding document or business plan? Financials?

In the third column, write the names of people you know who have the knowledge or experience strengths that can balance your weaknesses. Within a short time, you will have created a team to help bring your idea into the new product stage.

Make relationships clear

Be sure that when you talk to these potential mentors, depending on your relationship, you ask them to sign a simple NDA (nondisclosure

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agreement). You can pull one of these from the internet.

The other critical point is how you compensate these team members. This is usually by providing them with a small percentage of your planned company. Because you do not yet have a corporation, you can provide a note designating that if and when you create the corporation, the percentage agreed upon will be allocated to these team members.

It is important for you to be aware of how much knowledge they provide that changes your invention and results in a better product. You may even have to add a name or names to your patent filing as a co-inventor. Be sure that when you meet with your patent attorney or agent, he or she is fully aware of the contributions by any of your team members that have added a perceived value to your invention.

From my decades of experience, the only time inventors get in real trouble is when greed rears its ugly head—or when you and a member of your team do not have a clear understanding in advance of their relationship with you and your invention. Consider the personal effects your invention may have on your family and your life. This is especially true when you must hand your patent attorney a check.

Remember: Your family, spouse and children should have a voice in your decisions. Imagine when you might have to tell your son or daughter you cannot buy him or her a bicycle because your money is being invested in your invention. Have a very clear picture about how your decisions will affect your future and theirs.

On a positive note, the potential for new products and services is endless. There are obvious opportunities all around—even though less than 5 percent of all patents issued produce enough income to cover the cost of all the legal requirements.

So, eliminate as many roadblocks as you can by being prepared. And go do it! 🚀

Larry Udell is executive director of the California Invention Center and founder of the Licensing Executive Society, Silicon Valley Chapter. He is a teacher, lecturer and consultant who has created more than 35 corporations. He consults to Fortune 500 firms and smaller businesses.



THE LIGHTER SIDE OF CLEAN

DYSON V12 DETECT SLIM INNOVATION HITS HEAVY ON ALLERGENS, POLLEN AND HAIR

DYSON'S LATEST venture into the lighter side shows how serious it is about vacuum performance and innovation.

The V12™ Detect Slim is a lighter, more compact vacuum that combines key features from the full range of Dyson cord-free vacuums to find the sweet spot between power and size, including Dyson laser illumination.

The Detect Slim comes with single-button power control instead of the trigger featured on most Dyson vacuums. This allows owners to swap hands while navigating obstacles.

Engineered to detect hidden allergens and pollen as small as 10 microns and equipped with an acoustic piezo sensor to enable scientific proof of what has been sucked up, the vacuum facilitates deep cleaning in smaller and city homes.

The Dyson V12 Detect Slim joins Dyson V15™ and the new Dyson Outsize+™ as part of a laser range:

three vacuums at varying prices and sizes to suit a wider variety of home cleaning needs, all engineered to reveal hidden dust and pet dander with laser illumination.

Dyson's latest brush bar technology is designed to swallow all hair. The company's engineers and microbiologists studied the size, texture and structure of hair across animal species and breeds, as well as the invisible allergens and bacteria they can introduce into the home.

Details: [dyson.com](https://www.dyson.com)

PHOTO BY JUSTIN KELSEY



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CATCHING UP

INVENTOR UPDATES ARE
STORIES OF INSPIRATION,
CELEBRATION—AND
SOMETIMES CONSTERNATION

IT'S HARD TO BELIEVE that five years have whizzed by since we got readers caught up on previously featured interview subjects, in the December 2017 *Inventors Digest*. Our latest updates on these pages are a reminder of the rewards of persistence; the gift and thirst for innovation that often begets new products and opportunities; and the setbacks that test us as inventors and people. —Reid Creager

Liz Crouch

INVENTOR, THE CUPCAKE RACK

March 2019

Liz Crouch's inventing story has been a roller coaster ride without a seatbelt. Her strong faith keeps her safe and in place.

"Since the last article about The Cupcake Rack, we were on the Emmy award-winning TV series, 'Everyday Edisons.' My role on the show was one of five mentors for a group of 24 Inventors. ... one of the best weeks of my life!"

She describes The Cupcake Rack journey: "We were awarded a patent, exhibited in front of Congress on Capitol Hill, were on 'The Steve Harvey Show,' MSNBC's 'Your Business with JJ Ramberg,' 'Entrepreneur Elevator Pitch' and HSN, as well as being on several podcasts and featured in books."

Unfortunately, her product had a weak patent and was copied by a direct-response TV company. "As of 2020, The Cupcake Rack was put to bed and now it's just a happy memory. Inventions such as mine typically have a shelf life, and ours was a great six years!"

Crouch is now a property appraiser for the Pima County Assessor's Office in Tucson, Arizona. And her grandson, who she reported in 2019 had suffered severe injuries in a home incident as an infant, is now 10 and "doing great—a ray of sunshine and an inspiration to all who meet him."



Kym Gold

FOUNDER/PRESIDENT, STYLE UNION HOME

January 2021

Anyone who started a business in the pandemic year of 2020 might be wishing for 20/20 hindsight today. Not Kym Gold.

The author of "Gold Standard: How to Rock the World and Run an Empire," who has launched five fashion brands—including True Religion Brand Jeans, which sold for \$835 million in 2013—said Style Union Home has grown "tremendously" since we last spoke with her.

The luxury ceramics brand (styleunionhome.com) has opened a showroom and production pottery space in downtown Los Angeles' arts district. The 9,000-square-foot space is home to the brand's design, production and operation team, which has expanded more than 200 percent in the past year with expert artisans from across Los Angeles designing and producing the handcrafted goods.

Style Union Home's sales accounts have expanded into 150-plus retailers nationwide—including Nordstrom, Parachute Home, and Lulu and Georgia. Exclusive collaborations with Wyld Blue and Ann Sandra have brought great investment to the brand.



Amanda Andereck

FOUNDER/PRESIDENT, SASSYBAX

June 2020

Perhaps no *Inventors Digest* subject has had a more movie-worthy life than Amanda Andereck: one of Calvin Klein's first models at 16 and a Miss Texas USA; TV actress who appeared on "B.J. and the Bear" and "The Tonight Show Starring Johnny Carson"; earned a psychology degree and built a practice in Los Angeles; survived two brain surgeries to repair cerebral aneurysms.

Our 2020 story focused on her invention of a seamless bra that eliminates back bulges and her career as founder of Sassybax. The latest news, she says, is that the company (sassybax.com) will launch its first molded cup bra in early 2023.

"The cup will be removable for washing and is made in Europe from the premier manufacturer of molded cups for bras," she said. "It features the same Santoni knit technology providing the ultimate in comfort, with four-way stretch and no hardware to pinch, bind or poke. It is the perfect combination of a traditional look with the molded cup and a non-traditional, back-smoothing, step-into bra."



Travis Chappell

FOUNDER, GUESTIO

October 2021

Talk about lucrative! Among those featured in a cover story on podcasts involved with inventors and entrepreneurs, Travis Chappell said his new trademarked software (guestio.com)—which connects high-level guests with high-level content creators—is on track for a \$1.5 million run rate this year.

"We just released a feature called 'miniviews,' which allows creators to build pre-recorded mini-interviews. They record questions in their backend, the software generates a link, and they can send that link to guests to answer questions so they can collect responses and create content from them."





Kelley Higney

CEO, BUG BITE THING

January 2019

Higney's update about her product—advertised as a chemical-free solution that instantly alleviates stinging, itching and swelling caused by insect bites and stings—is the kind that can make inventors drool like a Neapolitan Mastiff.

“Back in early 2019, Bug Bite Thing (bugbitething.com) was available in South Korea and we had one major retail partner, CVS Pharmacy. Then, a ‘Shark Tank’ producer saw one of Bug Bite Thing’s social media posts and encouraged me to audition for the show.

“My mother, Ellen McAlister, and I pitched. Lori Greiner’s ‘Golden Ticket’ offer secured our partnership.

“After our episode aired in October 2019, we experienced overnight growth! Our success led to our second appearance in a ‘Shark Tank’ update episode in April 2021. We went from running the business out of my garage to opening our first office with a 10,000-square-foot warehouse space in our community of Port St. Lucie, Florida. We also went from two to over 30 employees.

“We’ve broadened both our international and retail presence: Bug Bite Thing is now available in 34 countries and available in 30,000 retail locations in the United States, as we’ve established new retail partnerships with Rite Aid, Home Depot, Walmart and many more.

“Bug Bite Thing is Amazon’s top-selling product for insect bite relief, with over 75,000 reviews. Becoming a bestseller on Amazon also led to the product going viral on TikTok, with over 200 million views.”

Lisa Lane

PRESIDENT, LANE INNOVATIONS

April 2022

That familiar face you keep seeing on QVC—three times and counting—is Lisa Lane, inventor of the Rinseroo shower attachment (rinseroo.com).

She said the company recently launched a new tub version of the Rinseroo with a spray head. “Within one week it hit ‘Number 1 new release’ status on Amazon. We’re also hoping to get into Lowe’s 1,700 retail stores.”

The company is currently launching an outdoor version of the Rinseroo that will fit onto stripped hose bibs—“great for RVers, or just for general outdoor use.”



Gianni Lotfi and Adam Pivko

COFOUNDERS, AUTUMN DNA

March 2022

Partners in a company that features a supplement program based on DNA characteristics (tryautumn.com), Pivko and Lotfi are effusive about its progress.

"It's been an absolute thrill ride this year!," Pivko said. "We've seen our startup business help so many people, earn incredible reviews, and successfully close a round of funding to expand our efforts. We're excited about how many more people we can help get the correct vitamins and supplements they actually need, on the first try."

Pivko said Autumn DNA "has a new corporate health and wellness program that is starting to pick up steam. We are thrilled with the reported improvements to employee retention, recruitment, productivity and reductions to absenteeism from the companies on this service."



Matt Maier

FOUNDER, DESIGN A STONE

July 2022

When it comes to Matt Maier's stone designing business (designastone.com), solid growth rocks.

"Product and service have remained at a perfect growth rate," he said. "We have been able to up production throughout the year and add new employees."

"We are hoping that all continues to flow smoothly throughout the fourth quarter. We have been continuing to add to our Memorial Stone collection."





Mikaila Ulmer

FOUNDER/CEO, ME & THE BEES

May 2022

A teenager's nationally sold lemonade that you can now drink at 10,000 feet! What a country.

Mikaila Ulmer's Me & the Bees (meandthebees.com), sold in more than 1,500 U.S. stores, was recently made available at restaurants and retail shops in the concourse at the Austin (Texas) Bergstrom International Airport eateries and shops—Mikaila's "home" airport.

The 18-year-old, whose product is in conjunction with a foundation to help stem the declining bee population, is studying computer science and international business at Emory University in Atlanta (where she is a Woodruff Scholar).

"I've even been able to apply my Me & the Bees experience at college, especially working on team projects and volunteer initiatives" with the bright young people at Emory. "It reminds me of some advice I got once: 'We're all smart. Distinguish yourself by being kind.'"



Colin Wayne

FOUNDER/CEO, REDLINE STEEL

February 2021

Colin Wayne knows that to survive in business, you can't be as rigid as, well, steel.

"I could spend all day telling you about the various struggles we've encountered this past year as it relates to acquiring and retaining organic traffic on redlinesteel.com. However, despite these challenges, we shifted focus and began prioritizing other platforms, outlets and online sales channels—from Amazon, Home Depot, Walmart and Groupon, to building a sustainable wholesale channel, to even developing a mobile app for Redline Steel that can be used on both Android and Apple devices."

During this time of year, the company that makes steel home décor items focuses on "limited-edition items, personalized gifts and seasonal decor that is themed around the holiday

season. Historically, our business has always thrived during the winter, and with more and more individuals shopping online, we hope to continue that trend this year."



Fardad Zabetian

COFOUNDER/CEO, KUDO

April 2021

Zabetian's multilingual-enabling videoconferencing platform (kudoway.com) was a timely story during the depth of the COVID pandemic. He takes pride in how "we found our stride by helping businesses and organizations hold interpreter-supported meetings and events virtually, keeping the wheels in motion for global entities all from the comfort and safety of the home office."

He said the gradual easing of in-person restrictions did not affect the need for his service: "More and more businesses were tuning into the value of global communication, increasing the demand for a multilingual solution that ensures everyone has access to these conversations. KUDO was there to answer the call."

He said "2022 has been a year of tremendous growth for KUDO. We've made finding, booking and paying for interpreters easier than ever for everyone for virtual, hybrid and in-person meetings and events with the platform-agnostic KUDO Interpreter Marketplace, weblink capabilities, and our integrations into major platforms like MS Teams, Zoom, Webex and Hopin."

Daniel Zakowski and Mark Cuban

COFOUNDERS, READY, SET, FOOD!

November 2020

Billionaire Dallas Mavericks owner and "Shark Tank" mainstay Mark Cuban always goes big, and his company that fights food allergens in kids is no exception.

Its products are now available at mega retailers Target, Walmart and Meijer. Since we last spoke with the team (ready-setfood.com), it has launched an organic baby oatmeal with nine top allergens premixed inside.

Zakowski told *Inventors Digest* that in March 2022, "We expanded our business with our first foray into what we call Baby Food with Purpose: lines of organic baby food products that have the most common food allergens pre-mixed into the baby foods, so early allergen introduction can be made even easier and more convenient for families."

Next year, he said, "families can expect more oatmeal flavors to ensure that we meet the ever-changing tastes of our baby customers. We will also have a few new additional organic baby food products, but these will have to remain top secret until the new year."





Terry Thoren

CEO, WONDER MEDIA EDUCATION

December 2019

Thoren continues his mission to use animated stories to prevent and navigate childhood and teen trauma.

Since appearing in *Inventors Digest*, he executive-produced and managed the marketing campaign for “My Life Is Worth Living”—an animated series to promote teen mental health and prevent suicide. Produced for the Cook Center for Human Connection, the series models behavior for struggling teens and the adults who support them. It tells the stories of teenage characters who face issues including trauma, depression, fear of social rejection, sexual abuse, cyber-bullying and substance abuse.

He also executive-produced the short, award-winning film “Are You Okay?,” an animated short to prevent bullying. It was directed by Ryan Cannon, Thoren’s former partner at Wonder Media. (Cannon is now creative director of Manga Productions, a producer and distributor of animation features and video games.)

“Is Anybody Out There?” is Wonder Media’s new animated short that explores the importance of a trusted adult and the courage it takes for a teenager to tell his or her story of abuse. Thoren is also creating a series of public service announcements for the Child Rescue Service in Ukraine to inform parents in and outside of Ukraine that trauma therapy is available for children who have been raped by Russians.

Shawn Moye

PRESIDENT, MOYE GROUP

July 2022

The creator of the E-Sports Trainer muscle memory device, Moye has been on the fast track since first appearing in *Inventors Digest*. Last December he was featured on “America’s Big Deal” on the USA network, a show created and produced by one of America’s most celebrated entrepreneurs, Joy Mangano.

In addition to being featured in various publications and on entrepreneur podcasts and radio programs, Moye was an insightful and eloquent panelist at the USPTO’s Invention-Con 2022. He also spoke to the Institute of Inventors & Innovators.

The ink is barely dry on this update since he filmed for Season 8 of TV’s “Entrepreneur Elevator Pitch.” “I was able to secure an advisor, ex-NFL player Brandon Marshall, and was honored to be presented with an award from Amazon to help grow my business.

“I am so humbled by what my product has accomplished thus far, but I’m more excited to see the greatness that awaits.”



2 Show Types, 1 Goal

WHETHER YOU ATTEND A TRADE SHOW OR INDUSTRY PITCH EVENT, THE TOP PRIORITY IS THE SAME: RELATIONSHIPS

BY APRIL MITCHELL

INDUSTRY SHOWS are all alike, correct? Wrong!

Industry pitch events are often referred to as trade shows, but there can be a big difference between the two. It is important for inventors to know these differences to better understand the priorities of manufacturers—which can help you form strategies for the show.

In most industry trade shows, inventors and manufacturers set up booths, showcasing their existing and newest products about to be released or just released. Manufacturers' primary reason or goal for these shows is to meet with buyers and show them their new product(s) in hopes of getting orders/sales.

Industry pitch events are set up for inventors/designers to meet with manufacturers and pitch their concepts.

Trade shows such as Toy Fair Dallas 2022 provide me the opportunity to build relationships, conduct research, gain insight, and present new concepts to manufacturers.



Trade shows: Why go?

Attending trade shows such as the most recent one I attended—Toy Fair Dallas 2022—is important to me for several reasons. They provide me the opportunity to build relationships, conduct research, gain insight, and present new concepts to manufacturers.

One similarity between trade shows and industry pitch events is the paramount importance of building relationships.

That is my No. 1 goal for attending these shows. Whether meeting someone for the first time, meeting someone in person I have emailed and had Zoom calls with, or catching up with industry members I have known for several years, it is good to foster these relationships.

There are always more people and companies to meet. You never know what could come from the start of a relationship: a mentorship, a friendship, a future partnership. Every show, I come away with one or two of these in each category.

Similarly, manufacturers know their buyers and count on seeing them, as well as hoping to meet buyers from retailers.

It is also important for me to know what is going on in the industry for which I am inventing. As an active inventor, I want and need to know new trends, as well as which new products are coming out. This is my research aspect.

Inventors can learn a lot by simply walking the trade show floor and viewing different booths. Don't be afraid to talk to people in a booth if they are not busy with a buyer. One can learn a lot from a sales team.

Being at a show also provides the opportunity for you to present new concepts.

I try to schedule meetings ahead of time whenever possible. If the opportunity arises, I will present my concepts right on the spot if the manufacturer has time to sit down with me.

When I do not have an appointment but would like to speak to someone at the company, I go by when the representative is not meeting with buyers. Sometimes there is not time for a meeting, but the company is often happy to exchange business cards and set up a meeting in the weeks after the show.

I did this after the Dallas show. I may have never met these companies if I did not attend!

Industry pitch events: Why go?

Pitching in front of companies is also great for relationship building but with a more specific purpose. There can be great education for newer inventors, which helps further the industry.

Events such as Mojo Pitch, organized by Mojo Nation, and the People of Play Innovation Summit, put on by People of Play, are designed to get new and professional inventors in front of companies and pitching their concepts.

At these events, inventors meet with numerous game and toy companies. Companies seek new concepts to license and get into the retail space, and these pitch events help with that goal.

There are also social events within the event, which allows everyone in the industry—from inventor to president of inventor relations—to share a meal or mingle over drinks.

When you are a new inventor, this is a superb way to get to know people in the industry. Attending these events helped me build relationships in the toy and game industry.

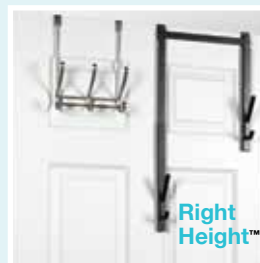
I believe that attending these events can put a new inventor on a fast track in the industry, because you can get in front of dozens of manufacturers in such a short time.

It can take weeks, months, even years to find the right person in a company, or to have the opportunity to present to that person. Meeting in person takes you to a new level. Personally, I think the handshake, smile and a can-do attitude can go a long way. 🙌

April Mitchell of 4A's Creations, LLC is an inventor in the toys, games, party and housewares industries. She is a two-time patented inventor, product licensing expert and coach, and has been featured in several books and publications such as *Forbes* and *Entrepreneur*.



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AI That's A-1

MACHINE LEARNING IS COMPLEX, EFFICIENT—
AND FUN FOR INVENTORS TO EXPLORE **BY JEREMY LOSAW**

SINCE ITS TV premiere in 1989, the cartoon series “The Simpsons” has accidentally predicted real-world events that included the election of Donald Trump as president (“Bart to the Future,” 2000) and the advent of the smartphone (“Lisa’s Wedding,” 1995).

I will not go so far as to say the series also predicted machine learning, but it does highlight the need for it in an episode.

In Season 4’s “Duffless” (1993), a worker named Phil on the Duff Beer bottling line is inspecting bottles of beer for anomalies. As the bottles whiz past him, the worker calls out “Fine” for good bottles or “Mouse, rat, syringe” for bottles that have something they shouldn’t have in them.

As town drunk Barney praises the worker for doing a good job, bottles with dentures and even Hitler’s severed head unknowingly pass by on the line.

Machine learning’s capabilities in these types of repetitive tasks of pattern recognition helps make processes smarter and more efficient. Let’s examine what machine learning is and how it works, and some fast ways for inventors to experiment with it.

Uses in your phone, industry

Machine learning is a form of artificial intelligence in which a computer is trained to recognize patterns. The computer is fed sample data to train it to recognize some desired traits or outcomes. This training results in an algorithm that can be used to assess identity, or to recognize outliers or commonality in data outside of the training data.

In a way, it is similar to training drug-sniffing canines: You let them sniff samples of drugs and learn what it is. Then they can go into the airport or venue outside the training ground and identify substances in the field.

It may sound as though machine learning is another name for coding or programming, but it is slightly different. Coding forcibly develops the program that generates an output from an input. Machine learning takes the input and the output and organically finds the patterns between them to generate the program from the data.

Examples of machine learning are in nearly everyone’s pocket.

A common use is smartphone apps to automatically recognize and identify plants or living things. A program has been developed to train an algorithm with thousands of species; when the app takes a picture of a plant or animal in nature, the algorithm returns the species. Machine learning is also used for facial recognition as a security feature to unlock phones.

Machine learning is used extensively in industry. As per the example from “The Simpsons,” vision systems on assembly lines can be used to recognize defective products.

It is also common to use vibration and other performance data to feed into a machine-learning algorithm to perform predictive maintenance for equipment. Any consistently generated data hold the potential to build a useful algorithm.

Machine-learning algorithms start by generating data for a problem that needs to be solved. For the drug-sniffing dog, the objective is to catch perpetrators carrying drugs like marijuana. So, the dog is given many examples of the scents for the substances it will be looking for, as opposed to spurious substances like food or smelly socks.

Machine learning works the same way. If you want to recognize numbers and letters from handwriting, you feed a big sample of

Arduino’s Tiny ML kit is for exploring machine learning.





Machine learning is a form of artificial intelligence in which a computer is trained to recognize patterns.

handwritten samples with known symbols into a machine-learning service.

Most big data companies like Amazon, Google and Microsoft Azure have modules to train and develop algorithms. Once the math model is created to your liking, it can be tested and deployed on new untrained samples to perform the task of recognizing handwritten letters.

Of course, the accuracy of the model is never perfect. The dog may miss a stash of cocaine hidden in a car, and a letter-recognition algorithm may mistake an uppercase I for a lowercase l or a 1. The key is to provide a quality and representative training set that will result in a robust and useful algorithm to complete the desired task.

Cereal thrillers

Machine learning seems intimidating, but there are some easy ways to explore and play with it.

My favorite is the Google Tiny Sorter project that uses a webcam on a laptop to sort lucky charms into piles of delightful marshmallows and the dreaded cereal chunks. The online tutorial guides you through the build of a simple Arduino-driven servo that takes the result of the model you train with the cereal and pushes the cereal contents into the correct bowl.

The project, built on Google's TensorFlow machine-learning tool, is easy to use and adapt to other projects. Those with more experience with coding and electronics will be more intrigued by more powerful hardware.

The Raspberry Pi has machine-learning kits. The Google Coral system of hardware allows more flexibility with projects, ranging from image and pose recognition to voice. There are plenty of examples of projects on the web for either platform to experiment with and modify to adapt to a specific application.

As technology advances, there will be more applications and products that are suitable for machine learning and AI.

Machine learning requires a lot of computing power and is often bolstered with the help of a graphics processor to help run the calculations. This means the circuitry can be bulky. However, there is an emerging concept of TinyML (tiny machine learning), the operation of simple-machine learning algorithms on small hardware devices such as Arduino Nanos.

This type of research and development should open opportunities for other applications—and perhaps even one day will help keep the rats and mice out of my Duff beer. ☺

Above left: The Google Tiny Sorter project is a good way to experiment with machine learning without a heavy investment in hardware.

Above right: Losaw's daughter, Ivy, dances while testing a pose recognition application.



Licensing Kings Humbled

RECENT SLUMPS AT NOKIA, ERICSSON MAY SIGNAL A NEW GAME OF LEVERAGE BY LICENSEES **BY LOUIS CARBONNEAU**

IN MOST ARENAS, all players are rarely created equal. For instance, an environment that stifles the little guy might favor behemoths who can throw unlimited resources at a problem and have the capability to play the long game. Life is rarely fair, as we all know!

Patent licensing has historically followed that rule.

While small inventors and patent owners have royally struggled to enforce their rights in the past decade, Fortune 500 companies who sit on massive patent war chests have had no problem getting deals done. These deals include global cross-patent licensing agreements with other large patent holders, and more traditionally monetizing their patent assets through a mix of licensing and, when necessary (which is often), assertion.

Two companies that have perfected this art are undoubtedly Nokia and Ericsson—both



of which have been extremely successful year after year returning massive patent licensing profits to their organizations. It doesn't hurt that they each own tens of thousands of patents, including thousands of standard essential patents (SEPs).

(Editor's note: SEPs are deemed essential by their owners because the invention covers a technology needed to implement a technological standard that will be used by the general public.)



Striking parallels

However, there may be some red flags that bode for rougher seas ahead: Both European companies recently reported declining revenues, resulting primarily from licensees to their

TAKE THAT, INFRINGERS



Despite all the setbacks that patentees have endured recently trying to enforce their rights, some are still managing to win their battles and cash in on their innovations. (But at what price, especially when compared to the results? That's another story.)

Nonetheless, here are some noteworthy patent case damages awarded in U.S. district courts in the third quarter of 2022 (winners in bold). One must also bear in mind that even for the few larger awards listed, many will likely be overturned or substantially reduced through the

appeal process. Also remember that for each award here, there are dozens of cases that were lost at some stage of a litigation—very often without the patentee even having its day in court.

- July 19: **Seagen Inc.** v. Daiichi Sankyo Co., \$41.8 million
- August 26: **KPN (Netherlands)** v. Ericsson (Sweden), \$31.5 million
- November 16: **VideoShare** v. Google, \$25.9 million
- June 10: **Panasonic Holdings Corp.** v. Getac Technology Corp., \$17.5 million

SEP patents dragging their feet to renew existing agreements.

In Nokia's case, under the new leadership of Alvin Patel—and despite more diversification on its patent licensing activities outside of the traditional telecom area—the company still announced that its IP licensing revenues had fallen by almost 20 percent year over year; net profits were also significantly lower; and operating margins had declined from 78 percent to 68 percent.

These results spooked investors and analysts. Nokia's stock immediately fell by almost 10 percent overnight.

Previous licensees are starting to free-ride in order to increase pressure on these companies and gain leverage for a better deal later.

One could peg this decline as isolated and specific to Nokia's business. However, Ericsson also reported that same day, and its results offer some striking parallels to its Finnish cousin.

The Swedish company reported a year-on-year fall in IP licensing revenues of almost 40 percent (from 2.7 billion SEK to 1.6 billion SEK (roughly \$100 million in U.S. dollars)). These results played a large part in reducing the company's overall gross profit margin from 44 percent in the third quarter of 2021 to 41.4 percent over the past three months. Similarly, the market punished those results immediately; the stock was down over 15 percent overnight.

Coincidence, or not?

Licensing of IP in the global ecosystem only works if players are rational and pay their fair share for using technologies and innovations that do not belong to them. In these two cases, the main culprit is the non-renewal of existing licenses within an appropriate window.

Something has changed. Previous licensees now feel so emboldened by the current legal environment that they are starting to free-ride in order to

IRONIC, DON'T YOU THINK?

Since its historic patent battle against Samsung over the iPhone a few years ago, Apple has rarely filed lawsuits over the infringement of its own patents. Most of the time, it sits on the receiving end of others' complaints.

According to the RPX database, Apple has been sued 765 times historically and was the plaintiff in fewer than 70 cases. At this writing, it has only four patent-related cases open in which it is the plaintiff, and all but one are for patent infringement (the others are all motions for declaratory judgment of non-infringement).

So, to see the Cupertino, California, giant accuse a young startup of infringing its patents is surprising and ironic.

Upon closer scrutiny, though, the case against Masimo Corp. filed in Delaware appears to be direct retaliation against Masimo's own previous filing of a complaint against Apple before the International Trade Commission. Apple claims Masimo used the ITC proceedings to gain access to confidential information about the Apple watch, which it then copied. Masimo also filed its own patent infringement lawsuit against Apple in 2020. All cases are still ongoing.

Now that the tables are turned, it will be interesting to see how Apple fares in a very harsh environment it helped create over the years—replete with *inter partes* reviews, re-exams, requests to change venues, summary motions, appeals, etc. This is the game it has itself perfected to an art.

increase pressure on these publicly traded companies and gain leverage for a better deal later.

This is both unethical and dangerous. We can only imagine what happens when everyone feels everything is theirs for the taking, with no thought to the implications.

This is how innovation ends, as the incentive to do so is eliminated. Let's hope this one will later be filed as a rare case of strange coincidence.

Meanwhile, the question remains: Are Nokia and Ericsson the two new giant canaries in the proverbial coal mine, and their disappointing results a harbinger? 🐦



Louis Carbonneau is the founder and CEO of Tangible IP, a leading patent brokerage and strategic intellectual property firm. He has brokered the sale or license of 4,500-plus patents since 2011. He is also an attorney and adjunct professor who has been voted one of the world's leading IP strategists.





Take it to the **Banc!**

RETIRED FEDERAL CIRCUIT JUDGE SAYS PANEL COULD DO MUCH MORE TO CLARIFY PATENT ELIGIBILITY LAW

BY EILEEN MCDERMOTT

All Eye On Washington stories initially appeared on IPWatchdog.com.

A RETIRED JUDGE for the U.S. Court of Appeals for the Federal Circuit recently criticized that body for not doing enough to clarify patent eligibility law.

Speaking at IP Watchdog's Life Sciences Masters 2022, Paul Michel said a lot could be fixed by the federal circuit if it would go en banc more often. (*Editor's note:* En banc, French for "on the bench," refers to a process in which all judges of a particular court hear a case, rather than a panel of a select few judges.)

"By my recollection, the federal circuit hasn't gone en banc on a major patent case in a decade," Michel said. "And yet, all CAFC judges are on record saying that (U.S. Code Section) 101 law (which determines patent eligibility) is a total mess and needs to be fixed."

'A tremendous failure'

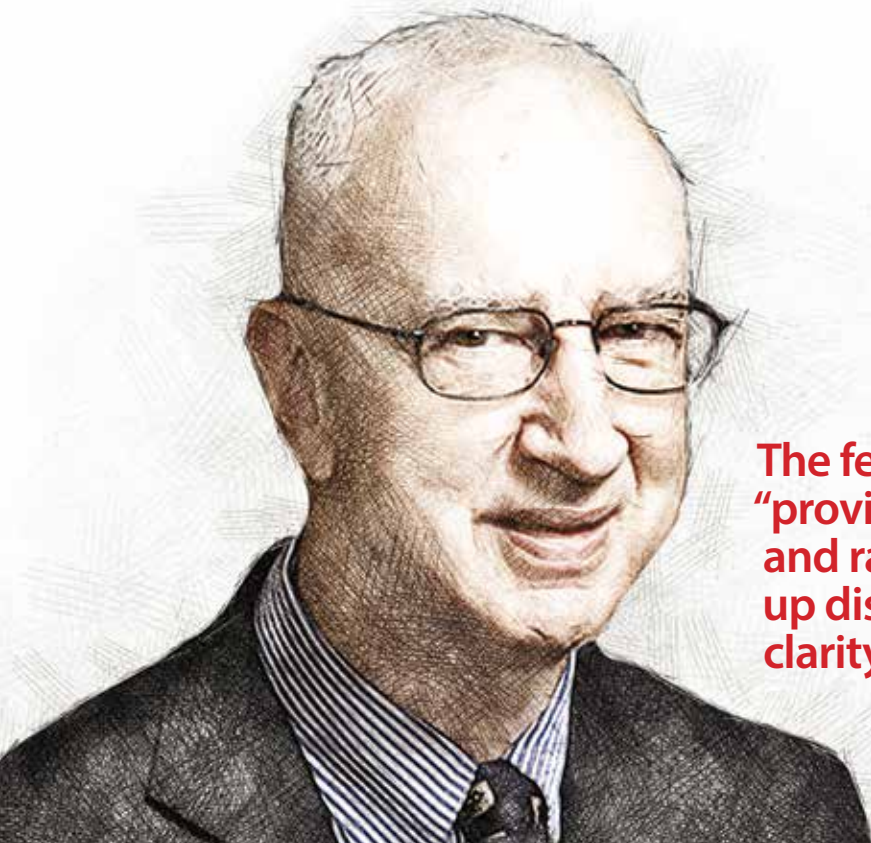
Michel spoke on a panel that included Mike Cottler of biosimilars company Alvotech and Thomas Stoll of Genentech. The panelists discussed the effect of U.S. patent eligibility law on the life sciences industry—including the potential impact of current efforts to reform patent eligibility law, such as the Patent Eligibility restoration Act introduced by Sen. Thom Tillis (R-N.C.).

Michel said he believes it's ultimately Congress' job to make the kind of policy judgments the Supreme Court and federal circuit have been making in this sphere, but there is still a lot more the federal circuit could be doing to help the situation:

"The job of the court is to police the uniformity of its own doctrine and its own case law by going en banc when there are inconsistent or conflicting decisions by individual panels. So, there's been a tremendous failure on the part of the federal circuit, first to provide clarity and rigorous analysis and rationalism, but secondly to clean up disparate decisions and provide clarity by going en banc.

"They have the power to do that; they have the obligation to do that. They used to do that all the time in major cases, and in prior times, the CAFC worked very hard to speak with a clear, consistent, stable, single voice—and now it's every panel for itself.

The federal circuit has failed to "provide clarity and rigorous analysis and rationalism" ... and "to clean up disparate decisions and provide clarity by going en banc." —PAUL MICHEL



"You make the law in your image if you can get one other panel member to join your opinion. That's not law. That's just power plays, and it's really a very unfortunate development.

"We could make a lot of progress, whatever the Supreme Court or the Congress does or doesn't do, if only the federal circuit would go en banc to do its job."

'Contrarian' opinion

As the self-proclaimed "contrarian" on the panel, Cottler said he believes Section 101 law is fair.

"For the most part, pharmaceutical patents have withstood 101 challenges," pointing to *Vanda v. West-Ward* as one example. "Over time, even though there's some uncertainty at first, the law balances out."

He added that "diagnostic patents are still possible in the U.S.—not the broader claims but the narrower claims," and dismissed all the focus on investment moving to China as hyperbole.

"China's used as a bogeyman when we talk about innovation," Cottler said. "There are lots of hurdles to doing business in China. I don't think a company will move its business to China simply because you can get a patent on a broad diagnostic claim there."

Michel countered that assertion, explaining that the Washington cliché goes, "if you want to understand what's really happening, follow the money."

He recited statistics that he said show 88 percent of U.S. venture capital money used to be spent on R&D and commercialization in the United States. "Now it's dropped down to about 50 percent. So, it's migrating overseas like crazy to more friendly countries that are supporting, across the board, new technologies.

"It looks to me like we already see worrisome evidence that the money flows are going out of real technology into entertainment when it stays in the country, and going out of the country to Europe and Asia where incentives are better. The conclusion to draw from that seems to me to be self-evident." 🐕

Eileen McDermott is editor-in-chief at IPWatchdog.com. A veteran IP and legal journalist, Eileen has held editorial and managerial positions at several publications and industry organizations since she entered the field more than a decade ago.



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Best wishes, Jack Lander

IoT Corner

SpaceX announced its global IoT platform to bring low-cost satellite service to the masses.

Swarm uses tiny SpaceBEE satellites (that can fit in the palm of your hand) to provide low-bandwidth, global coverage for IoT devices. The service will cost \$5 per month per device. The \$99 modem modules can be designed into any IoT device looking to add satellite cloud connectivity.

Because the system uses such small satellites that are inexpensive to build and deploy into low Earth orbit, usage fees are much lower than other forms of satellite communication. Swarm hardware is currently available as a module, asset tracker, or development kit. —Jeremy Losaw



What IS that?

It's fun, that's what it is. **Paparazzi sunglasses** are a weird fashion statement, purportedly designed to keep photographers away. In addition to the area for the eyes being wider left to right than conventional sunglasses, the nose bridge is lower to hide more of the face. You may find them either cool or stupid. We vote both.

No. 1

IP Watchdog's ranking among the 100 Best Intellectual Property Blogs and Websites, per feedspot.com. *Inventors Digest* has a long-running association with IP Watchdog, founded by Gene Quinn.



Wunderkinds

Victor Dewulf from Belgium and **Peter Hedley** from the United Kingdom were co-winners of the first Young Inventors Prize, awarded by the European Patent Office. They developed an AI-driven waste recognition and sorting system called Recycleye

that enables more waste to be recycled, also reducing the production and consumption of carbon-intensive materials. Algorithms enable sorting with much higher accuracy than conventional technology and can distinguish between food-grade and non-food-grade plastics.

WHAT DO YOU KNOW?

1 True or false: One U.S. patent describes an "automatic fire extinguishing system for an existing Christmas tree and associated method."

2 When was the character Rudolph the Red-Nosed Reindeer invented?

- A) 1789 B) 1839
C) 1889 D) 1939

3 Which holiday tradition was invented first—wrapping paper, or Christmas lights?



4 When was the Red Ryder BB Gun, a prime element in the movie "A Christmas Story," introduced?

- A) 1915 B) 1925 C) 1935 D) 1940

5 True or false: There is a U.S. patent for a "Santa detector."

ANSWERS: 1. True. Patent No. 7,963,343 involves "an air-pressurized reservoir containing fire-retardant agent and a mechanism for automatically discharging the fire-retardant agent." 2. D. Rudolph was not among Santa's original reindeer. He was invented by Robert May, a Montgomery Ward copywriter, when writing a Christmas story to address bullying. 3. Easy one. Wrapping paper dates to China about 2,000 years ago; electric lights didn't begin until the 1800s. 4. D. 5. True (Patent No. 5,523,741). But really, it's just a stocking that lights up when a cord is pulled.

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