

# Inventors

## REASON TO SMILE

DIGEST

DENTAL CHEMIST  
WINS EUROPEAN  
INVENTOR AWARD

**Instagram's Shift**  
PIVOT TO VIDEO CAN AID  
IN INVENTOR MARKETING

**Pizza Protection**  
THAT ROUND, PLASTIC  
THINGIE IN THE BOX

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Mitra

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**Learn more and register early at:**  
**[USPTO.gov/InventionCon](https://www.uspto.gov/InventionCon)**

Note this year's special student programming: The August 18 agenda will feature Gitanjali Rao, inventor and TIME magazine's 2020 Kid of the Year, and other young innovators who will share their experiences and insights.

Hear from business and government experts about turning ideas into innovations, protecting your work, and accessing valuable, helpful resources. Keynote speakers Serene Almomen, CEO of Senseware, and recording artist Ansel Brown will share their insights on science, technological innovation, music, and business.

Learn about:

- How IP applies in various fields, such as artificial intelligence, robotics, fashion, music, and literature
- Marketing, manufacturing, and building a competitive advantage
- Types of IP protection: patents, trademarks, and copyrights
- Free educational resources for kids and teens
- Innovation and the fight against COVID-19

Invention-Con 2021 will also include a wide range of virtual resource booths from the USPTO and other federal agencies. For more information, contact [InventionCon@uspto.gov](mailto:InventionCon@uspto.gov).



UNITED STATES  
PATENT AND TRADEMARK OFFICE



# Inventors

DIGEST

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## Guess Who Was a Door to Stronger Copyrights?

Shortly before the July 2021 *Inventors Digest* was in your hands, worldwide media observed the 50th anniversary of rock legend Jim Morrison's death at 27 on July 3, 1971. Shortly after that, I stumbled upon a 2018 story about his Doors co-founder that was as much of a surprise as Morrison being (officially) found dead in a Paris bathtub.

While lead singer and writer Morrison was the hunksome, mysterious, prodigiously self-medicated, erratic, dark but genteel poet and face of the group, Ray Manzarek was its unfailingly erudite presence. The keyboard player with the quintessentially deep, LA radio-guy voice—who went on to become a noted rock producer and film director—was the unofficial spokesman on all things Doors and Morrison until his death from bile duct cancer in 2013.

Neil Turkewitz could tell you about Manzarek's speaking prowess. It's paramount in the 2018 blog post he wrote for [copyrightalliance.org](http://copyrightalliance.org) with this headline: "Riders on the Storm: How Ray Manzarek & the Doors Helped Change the Course of Copyright History."

*What?*

Turkewitz is a 30-year veteran of the Recording Industry Association of America. His post centers around Japan allegedly being in violation of an international World Trade Organization agreement called TRIPS (the Agreement on Trade-Related Aspects of Intellectual Property Rights) in 1996. The Office of the United States Trade Representative initiated action against Japan for refusing to expand its intellectual property protection to back catalog materials.

Manzarek accepted Turkewitz's invitation to speak at the press conference announcing the case. Turkewitz wrote that for two days, he and Manzarek carefully rehearsed what to say.

But the rock star was a rock star, after all. At the press conference, Turkewitz initially watched in horror as it became clear Manzarek was going solo.

"He decided to riff rather than go with a script. I get it, and he was brilliant. ... Everything came back to respect—a concept that is extremely important in Japanese culture."

Turkewitz wrote that largely due to Manzarek's words, Japan quickly relented and extended protection to U.S. and other foreign sound recordings released within 50 years. "That day in February of 1996 will always have a special place in my heart—both on a personal level, and for its reaffirmation of the moral basis for copyright."

—Reid  
([reid.creager@inventorsdigest.com](mailto:reid.creager@inventorsdigest.com))



# 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.

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INVENTOR**

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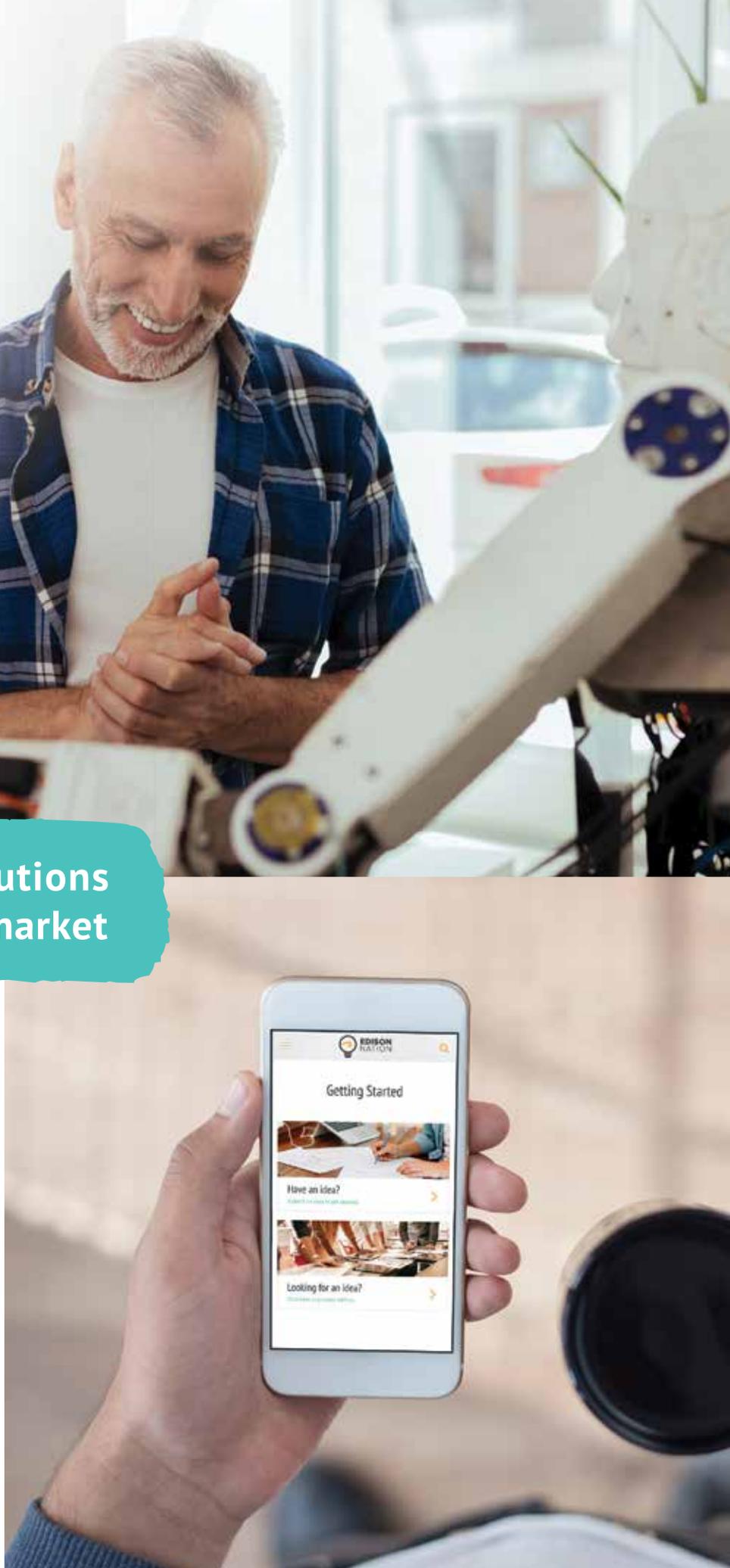
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# Contents

August 2021 Volume 37 Issue 8



24



## Feature

- 30 Worth Smiling About**  
Chemist's Dental Find Earns European Inventor Award

## Inventor Spotlight

- 22 Goal: Perfect Scents**  
Making Custom Fragrances
- 24 Getting Busy**  
Placemat for Little Ones
- 28 A Calm With 'Wow'**  
Living Plant Wall System



22



**ON THE COVER**  
Sumita Mitra, European Inventor Award winner in non-EPO countries category, 2021; photo courtesy of the European Patent Office

## Departments

- 8 Your USPTO**  
News, Upcoming Events
- 13 Everybody's Talking**  
Conversation Pieces
- 14 Bright Ideas**  
Innovation That Shines
- 16 Time Tested**  
That Plastic Pizza Thingie
- 18 Lander Zone**  
2 Inventors, 1 Lesson
- 20 Social Hour**  
Instagram Shifts to Video
- 36 Prototyping**  
Making a Firm Choice
- 38 Launching Pad**  
Be End User Friendly
- 40 IP Market**  
Bad News in 3s
- 43 They Wrote the Book On It**  
'The EXITpreneur's Playbook'
- 44 Eye on Washington**  
How Long to Wait?
- 46 Inventiveness**  
Focus on the Fun and Fascinating



26

28



## NEWS FLASH

# Protecting the U.S. Olympics

*IP violations can jeopardize USOPC's essential sponsorships and licensing relationships*



**WHEN THE TRADITIONAL** “Parade of Flags” marks the end of the Summer Olympics in Tokyo on August 8, millions of people will be thrilled they witnessed one of the world’s most enduring international spectacles. David Gooder, USPTO commissioner for trademarks, hosted Dana Jozefczyk, associate general counsel for intellectual property with the United States Olympic & Paralympic Committee (USOPC), on June 11 for an online chat about protecting the unique identity of the Olympic Games so the United States can continue to send its strongest teams to this iconic event.

Intellectual property (IP) is essential in protecting that identity, but there is much the general public does not realize about its

importance. Jozefczyk—who handles the prosecution and management of a broad portfolio of IP rights, including copyrights and trademarks—spoke to Gooder about her role in educating the public about brand enforcement and protection, and why it is so important to U.S. participation in the Games.

“One thing that a lot of folks are not aware of is that the USOPC is a nonprofit organization,” she said. “We do not receive taxpayer funding. We don’t receive government assistance. We are an organization that relies on our sponsors and our fundraising to send Team USA athletes to the Games.”

Because of the way the USOPC is structured, she explained “Congress set us up in a manner

## IP HISTORY

## Giving History a Hand

*USPTO series gives fascinating insight into influential inventors' roles in shaping our world*



Adam Bisno,  
USPTO historian

**THE USPTO'S RECENT WEEKLY** online series “History’s Hand: Inventor’s Mind” demonstrated how inventors can use the lessons of the past to prosper today.

The series, conducted every Wednesday in June by the Eastern Regional Outreach Office of the USPTO and USPTO historian Adam Bisno, examined a

different subject each week. Topics ran the gamut, from invention’s early role in building economies to the ongoing telecommunications revolution.

Each segment was introduced by Elizabeth Dougherty, Eastern Regional outreach director.

Bisno, the USPTO’s first official historian, moderated the program and assembled an impressive roster of speakers:

- **Arthur Daemmrich**, the Jerome and Dorothy Lemelson director of the Lemelson Center for the Study of Invention and Innovation at the Smithsonian Institution. In “Licensing the First U.S. Patent: Samuel Hopkins, Eli Cogswell, and the Inventor-Entrepreneur,” Daemmrich’s themes included the evolution of organized inventing and early changes to the U.S. patent system. He also detailed how Hopkins (awarded the first U.S. patent, in 1790) was a classic inventor/entrepreneur.
- **Paul Israel**, director of the Thomas A. Edison Papers at

whereby we have exclusive rights to certain intellectual property. The statute that set us up in this capacity is the Ted Stevens Act. It recognizes the way that we function as an organization.”

Jozefczyk said the USOPC has “the exclusive rights to use certain terms commercially in the United States,” including “Olympic,” “Paralympic,” “Paralympiad,” “Olympiad,” “Citius Altius Fortius” (faster, higher, stronger), and more. These trademarks include iconic symbols such as the five Olympic rings. For a more complete list of Olympic trademarks, as well as brand usage guidelines, go to [teamusa.org/brand-usage-guidelines](http://teamusa.org/brand-usage-guidelines).

“Congress enabled us to have a strong sponsorship and licensing whereby we can ensure to our sponsors and our licensees that they have the right to use certain marks in certain categories, and that we as the USOPC will be able to enforce if third parties use those same marks in an unauthorized manner,” Jozefczyk said.

“To me, the way that you enforce a brand is, really you’re protecting the goodwill associated with the mark. ... From the one perspective, you don’t want a third party to affiliate itself with your brand in a way that you don’t authorize in a way that could cause your company harm. On the other hand, you also don’t want third parties to commercialize your brand. And the fact that we have sponsor considerations sort of fits nicely into that niche.

“At the USOPC, we’re able to enforce our brand for our benefit, and also to enable these relationships to continue so that we can continue to send Team USA athletes to the Games, train them, feed them—all of that stuff that enables us to have a very strong team.”

Jozefczyk said Olympics IP infringers run the gamut in terms of their intentions.

The vast majority commit violations “out of excitement and fan engagement.” In fact, she said her office receives a lot of proactive requests from people who want to ensure they are doing the right thing.

“We receive emails from people saying, ‘Hey, I would like to throw an event in my town. I’d like to sell Olympic T-shirts. Is this OK?’

“And it gives me an opportunity to not only explain why we ask that they don’t do that, but it also kind of addresses the problem before it happens, which is nice. It’s always more frustrating to have to deal with these things when they’re in the middle of being launched.”

## IP infringements usually happen “out of excitement and fan engagement.”

— DANA JOZEFczyk



PHOTOS BY CHRIS COLEMAN AND LAZYLLAMA/SHUTTERSTOCK

Rutgers University. In “Innovate Like Edison,” Israel discussed the collaborative nature of Thomas Edison’s laboratory as the engine of his success, as well as other principles and practices that guided his thinking and strategies.

- **Adam Mossoff**, professor of law at the Antonin Scalia Law School, George Mason University. “Lessons From the Birth of the Telecommunications Revolution: Samuel Morse’s Electro-Magnetic Telegraph” covered the revolutionary single-wire process that laid the foundation for today’s instant communication innovation.
- **Zorina Khan**, professor of

economics at Bowdoin College in Maine. “Five Myths About Patents and American Economic Progress” was a real eye-opener in terms of debunking popular notions that may surprise would-be and current inventors.

- **W. Bernard Carlson**, Joseph L. Vaughan professor of humanities, chair of the Engineering and Society Department, professor of history, and director of the Engineering Business Programs at the University of Virginia. “Invention as a Team Effort: Nikola Tesla, His Backer, His Lawyer, and His Boyfriend” was a fascinating behind-the-scenes look at Tesla’s

life and the collaborative process that made him successful.

Did you know that Thomas Edison was not just a storied inventor but also an expert at studying market conditions to gauge the public’s need for a product or service?

Did you know that Tesla and Edison’s relationship was not as adversarial as is often reported? “The whole public popular story of Edison and Tesla is complete mythology,” Rutgers’ Israel said. “They actually had a much better relationship than that.”

Recordings for this compelling series will be available at [uspto.gov/about-us/events/historys-hand-inventors-mind](http://uspto.gov/about-us/events/historys-hand-inventors-mind) at a later date.

## TRADING CARD

## NO. 19

## Dr. Helen Free

**W**ORLD WAR II created an opportunity for Dr. Helen Free that changed diabetes testing forever.

Shortly after the war began, the former Helen Murray was studying at the College of Wooster (Ohio), with plans to be an English and Latin teacher. Millions of men—many of them prospective scientists and doctors—went to fight in the war; others, as Dr. Free said, left universities to try to avoid the draft.

“The housemother at dinner one time said, ‘You know, we girls have got to step up and do science,’” Dr. Free recalled decades later in a video interview.

“And she said, ‘You’re taking chemistry, aren’t you, Helen?’

“I said, ‘Yeah.’

“‘Get good grades?’ I got all A’s.

“And she said, ‘Why don’t you switch [your major]?’

“I said, ‘OK.’ Just ... boing ... like that!”

The ebullient Dr. Free, who died May 1 at age 98, ultimately co-developed the revolutionary at-home dip-and-read glucose test to diagnose diabetes and monitor blood sugar that has been used by millions of people worldwide. She and her husband, Dr. Alfred Free, invented this and other crucial urinalysis testing methods during their 53 years as research partners at Miles Laboratories.



Before the dip-and-read, diabetes testing and analysis was done in a doctor’s office by mixing urine with chemicals such as copper sulphate, heating it over a Bunsen burner, and looking for a red-orange precipitate indicating sugar. It was time-consuming and inconclusive because it did not differentiate between glucose (indicating diabetes) and other sugars.

As with so many inventions, the pair’s groundbreaking product was a refinement. One of their early efforts, called Acetest, involved tablets impregnated with the chemical nitroprusside. These turned blue in response to ketones in urine.

## RESOURCE SPOTLIGHT

## Help for Patent Applicants

The program also renders assistance on the merits where there is an issue with case prosecution concerns. It is not intended to circumvent normal communication between applicants or their representatives and examiners, or supervisory patent examiners. For more information, go to [uspto.gov/Ombudsman](https://www.uspto.gov/Ombudsman).

The [Pro Se Assistance Program](https://www.uspto.gov/ProSeAssistance) offers similar support, specifically for those filing patents without the help of a registered patent attorney

or agent. For more information, go to [uspto.gov/ProSePatents](https://www.uspto.gov/ProSePatents).

Also, the staff in the [Application Assistance Unit](https://www.uspto.gov/ApplicationAssistanceUnit) is trained to assist with a broad range of questions and issues pertaining to pre-examination processing of patent applications by the Office of Patent Application Processing, and the post-examination processing of patent applications by the Office of Data Management. Call toll-free at 888-786-0101 or go to [HelpAAU@uspto.gov](mailto:HelpAAU@uspto.gov) for details.



The USPTO’s Office of Patent Stakeholder Experience offers ongoing services for patent applicants.

Its [Patents Ombudsman Program](https://www.uspto.gov/PatentsOmbudsmanProgram) provides assistance to applicants and attorneys throughout the application process, including during initial filing, patent examination, and post-examination. Applicants receive help when the normal processing has stalled.

But there were drawbacks. Putting the tablets in a test tube and adding drops of urine required waiting for them to fizz and yield results. Dr. Free said her husband suggested paper strips impregnated with chemicals that could be dipped into urine, which also eliminated the need for test tubes and droppers.

They dipped strips of filter paper into glucose oxidase and peroxidase, and dried them in an oven. The result, introduced as Clinistix in 1956, was an immediate success.

“Oh, man, it was used all over the world,” she told the American Chemical Society in 2011, “because it was so simple and easy to use, and you had no external needs at all. It was just a simple test to dip it into the urine specimen and watch for the color to develop.”

This led to similar health tests for pregnancy, kidney and liver disease, and more. In 1957, the Frees produced Uristix, which could test for both protein and glucose. In 1981, they developed Multistix, which could test for 10 elements in urine and help detect various health issues.

Dr. Free was granted seven patents, and in 1993 served as president of the American Chemical Society. She wrote several textbooks and helped establish the Kids & Chemistry project.

She was inducted into the National Inventors Hall of Fame with her husband in 2000, the year he died, and the National Women’s Hall of Fame in 2011. In 2009, she was awarded the National Medal of Technology and Innovation by President Barack Obama.

The couple’s work in developing diagnostic test strips was designated a National Historic Chemical Landmark by the American Chemical Society on May 1, 2010, at the ETHOS Science Center in Elkhart, Indiana.

Requests for the trading cards can be sent to [education@uspto.gov](mailto:education@uspto.gov). You can also view them at [uspto.gov/kids](http://uspto.gov/kids).

## WHAT’S NEXT

**MEET THE PATENT EXPERTS:** This five-class curriculum by patent experts at the USPTO’s Texas Regional Office cover the basics of IP for inventors and entrepreneurs. (The first class was held on May 19.)

- **August 18, Class Two:** Key aspects of provisional applications.
- **September 15, Class Three:** Key aspects of nonprovisional applications.
- **October 20, Class Four:** Components of nonprovisional applications; includes a discussion on claim interpretation and common pitfalls.
- **November 17, Class Five:** The basics of patent searching; includes an introduction to searching strategies.

**TO REGISTER:** [uspto.gov/events](http://uspto.gov/events)

**TRADEMARK BASICS BOOT CAMP:** This new eight-part virtual series, held each Tuesday, begins August 3. Users can attend any or all specific modules that meet their needs. The boot camp provides a comprehensive overview of the process for federal trademark registration and maintaining a federal trademark.

- **August 3, Module 1:** Definitions and types of trademarks, benefits of federal registration, selecting a trademark, filing and registration, and how to find help.
- **August 10, Module 2:** A registration process overview from filing to registration.
- **August 17, Module 3:** Trademark searching and the effective use of the USPTO’s Trademark Electronic Search System (TESS).
- **August 24, Module 4:** Application requirements.
- **August 31, Module 5:** Application filing walk-through with live demonstration of a trademark filing.

**TO REGISTER:** [uspto.gov/about-us/events/trademark-basics-boot-camp](http://uspto.gov/about-us/events/trademark-basics-boot-camp)

**INNOVATORS AND ENTREPRENEURS:** The first Thursday of each month, learn about IP basics, helpful resources, and ways to protect your innovation as you transition from idea to product.

The USPTO’s Midwest Regional Office offers this session for aspiring entrepreneurs, innovators, and students.

**TO REGISTER:** [uspto.gov/about-us/events/innovators-and-entrepreneurs-learn-about-ip-basics-and-helpful-resources-6](http://uspto.gov/about-us/events/innovators-and-entrepreneurs-learn-about-ip-basics-and-helpful-resources-6)

Visit [uspto.gov/events](http://uspto.gov/events) for many other opportunities to attend free virtual events and/or training.

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## Recently successful brands



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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):

“His Turn as Mentor” (profile of Dr. Jorge L. Valdes, education program advisor and STEM educator at the USPTO, March 2021):  
Woo! Dr. V, you're an inspiration!

—JHOPPER@UH.EDU

“Raising Eyebrows” (June 2021):

I am a big fan of the magazine. I read your article about eyebrow innovation, and I wanted to add something.

I am a beauty specialist. I know all the tricks about beauty and makeup. Henna is very popular

in Europe. It has helped thousands of women recapture their confidence with full eyebrows, which is a sign of youth and shown in a photo of me here.

I hope this procedure helps women who lost their eyebrows. Keep going, guys! Always a pleasure to read you. —MARINA LUCIA, BUCHAREST, ROMANIA



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## WHO'S READY FOR FLYING CARS?

Just as the 1985 movie “Back to the Future” forecasted, the flying car is here. The question is whether the public will want it.

A prototype flying car completed a flight between airports in Slovakia on June 28, taking off and landing in 35 minutes in its first inter-city flight. AirCar traveled from the international airport in Nitra to the airport in Bratislava.

Professor Stefan Klein says his invention can fly 600 miles at an altitude of 8,200 feet and travel up to 115 mph. It runs on regular petrol fuel and can stay up in the air for 40 hours. The wings can be unfolded from the sides with a click of a button, ready for flight in just over 2 minutes.

Eventys Partners Engineering Director Jeremy Losaw said the flight “is a massive engineering achievement and something that brings a popular science fiction theme into sharp focus. As electric cars take over the roadways, this is another way that boundaries in transportation innovation are being moved in a big way in the first quarter of the century.”

Dr. Branko Sarh, a Boeing company senior technical fellow, said in a statement: “The automated transition from road vehicle into an air vehicle and vice versa, deploying/retracting wings and tail is not only the result of pioneering enthusiasm, innovative spirit and courage; it is an outcome of excellent engineering and professional knowledge.”

Michael Cole, Hyundai’s chief executive of European operations, predicts flying cars will be a reality throughout the world before the end of the decade. The South Korean car manufacturer and

General Motors continue development with the concept.

There will be some turbulence.

First, the hybrid needs a runway for takeoff and landing—an extreme luxury for some people who may not even have a driveway. So far, it can only support two people who weigh a combined 441 lbs., not counting the weight of bags or equipment. And then there’s that little price tag issue: Currently, the total cost of producing it comes to a little over \$2 million.

According to the company that created it, Klein Vision, the flying car completed its 142nd successful landing. Klein, who piloted the car, said it was surprisingly user friendly.

But until now, air transportation has been the domain of experienced pilots with hundreds of hours of training. The thought of considerably less trained, makeshift pilots in the sky may prompt others to remain happily grounded.

—Reid Creager

# BRIGHT IDEAS

## Edifier NeoBuds Pro

HIGH-RESOLUTION, ACTIVE NOISE CONTROL EARBUDS

[edifier.com](http://edifier.com)

These wireless earbuds offer active noise cancellation (ANC) as well as hi-res audio. Edifier says the buds are the first true wireless stereo earbuds to achieve hi-res audio certification.

Other features include ANC, transparency mode, a smartphone app for EQ and control customization, and five hours of battery life when ANC is turned on (six hours when it's off).

Although the product is capable of wireless high-res, it will require a LHDC-compatible phone (Low Latency High-Definition Audio Codec technology).

Edifier NeoBuds Pro will have a retail price of \$99; shipping for crowdfunding Rewards backers is set for August.



## Ghost Pacer

HOLOGRAPHIC WORKOUT PARTNER

[ghostpacer.com](http://ghostpacer.com)

Ghost Pacer solves the problem of finding a running partner who can challenge you and commit to your training regimen. It is activated via a set of mixed-reality glasses that projects a hologram you can race against outdoors in real-time.

The device provides an HD display of your time, speed and distance. With a pinpoint GPS, an accelerometer and compatibility with smartwatches, all your data can be consolidated and easily accessible with the Ghost Pacer App.

The product's makers say it is the only mixed-reality headset in the world that is light enough to wear while running.

A Ghost Pacer set will retail for \$349, with shipping to crowdfunding Rewards backers scheduled for October.

## POSSIBLE DELAYS

Coronavirus-related factors may result in changing timetables and later shipping dates than companies originally provided.

### Tetra Puzzle

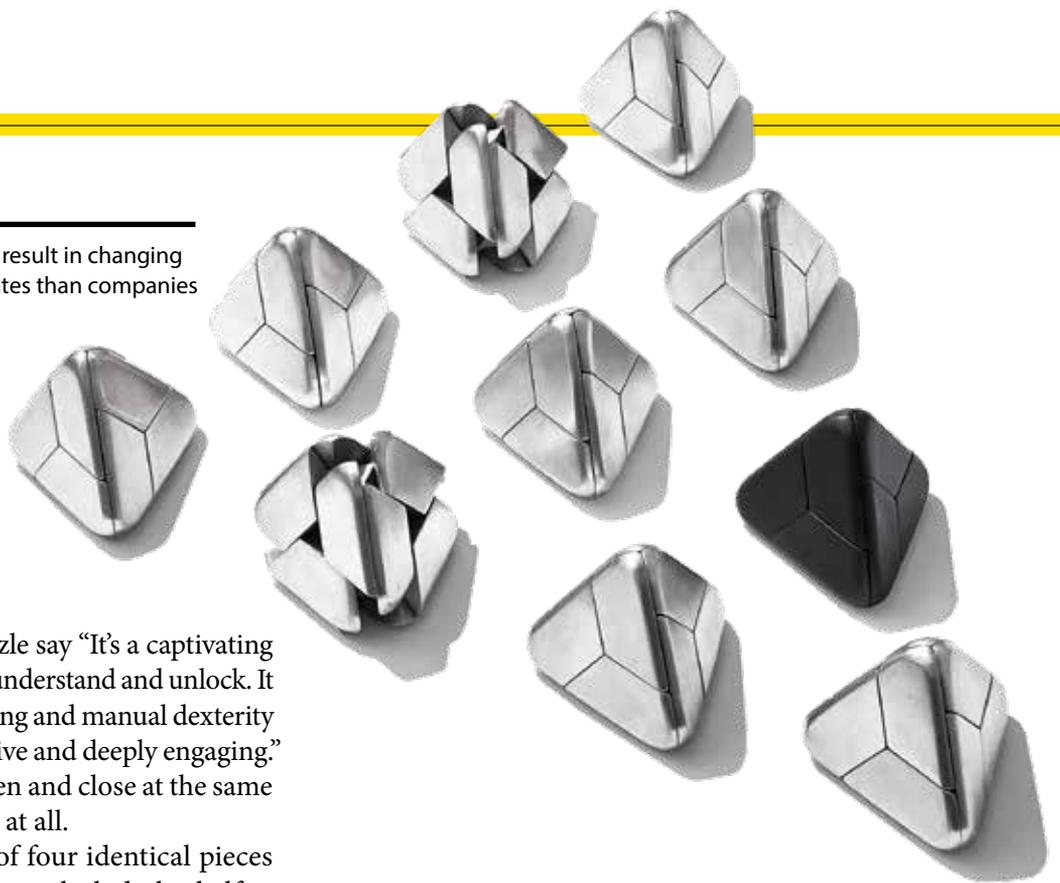
STAINLESS STEEL  
MECHANICAL PUZZLE  
[craighill.co](http://craighill.co)

The makers of the Tetra Puzzle say “It’s a captivating and mysterious challenge to understand and unlock. It activates your spatial reasoning and manual dexterity skills in a way that’s immersive and deeply engaging.”

All four pieces have to open and close at the same time for the puzzle to move at all.

The puzzle—comprised of four identical pieces of stainless steel—doubles as a sleek desk, shelf or table decoration. It is 2.5 inches tall, 2.9 inches wide and weighs 1.5 lbs., available in silver or matte black.

The Tetra Puzzle has a \$98 retail price. Shipping for crowdfunding Rewards backers is planned for November.



**“An invention has to make sense  
in the world it finishes in,  
not in the world it started (in).”**

—TIM O’REILLY



### GoSun Chillest

SOLAR CHILLER THAT NEEDS NO ICE  
[gosun.co](http://gosun.co)

GoSun Chillest is a 45-liter cooler with two refrigeration zones that keeps food cold for 10-plus hours, with no ice needed.

Powered by the sun, the cooler has a built-in battery and all-terrain wheels, plus extras including inside lighting, tie-down straps and organization baskets. It also has a built-in compressor that lets you set the temperature where you want it, ranging from -4°F to 68°F (-20°C to 20°C).

Because ice does not take up any space in the cooler, its makers say it has nearly double the room for food and drinks contrasted with coolers of equal dimensions.

GoSun Chillest retails for \$899, with shipping to crowdfunding Rewards backers scheduled for October.



## Still On Guard

UBIQUITOUS PIZZA TABLE HAS TWO LAPSED PATENTS AND AN OFT-MISREPORTED HISTORY **BY REID CREAGER**

**P**IZZA TABLE. Pizza saver. Pizza stool. Pizza guard. Little white circular plastic thing with three or four legs.

The Royal Spanish Academy reportedly once conducted a world survey to decide the name of that thing after its original inventor, Claudio Daniel Troglia of Buenos Aires, received a patent for his invention: “Pizza Separator” alias “SEPI” on Feb. 28, 1974.

After all, a good pizza is supposed to stick to the roof of your mouth, not the inside top of a corrugated cardboard box.

Troglia’s simple concept was easily copied during those less-litigious days. Because few respected his copyright, he did not renew the patent. He left a lot of money on that pizza table.

Less than a year ago, Troglia was interviewed on Canal de la Ciudad, the public channel of the City of Buenos Aires. He didn’t seem angry about his lost opportunity. But it would be as

sweet as a cheese-and-pineapple double crust if he got the rightful credit for his invention.

### A mother’s fame

Go to your favorite search engine and type “Who invented the pizza saver?”

The response will invariably be Carmela Vitale of Dix Hills, New York (on Long Island). The then-“package saver” was patented on Feb. 12, 1985, by this mother, wife and city councilwoman.

Eater.com refers to her “original idea” and the woman who saved pizza. A song was written that bears her name, even though not much is publicly known about her.

But let’s not penalize her for not being the first. It is not known whether she was aware of Troglia’s invention. Her patent application could have been the result of that frustrating lid-sticking mess when she ordered pizzas for her husband and two daughters.

## INVENTOR ARCHIVES: AUGUST

**August 1, 1900:** The book *“The Wonderful Wizard of Oz”* by L. Frank Baum was copyright registered—because, because, because, because, because.

Baum also had careers as a newspaper writer/editor/publisher, playwright and theater producer. He wrote 14 novels in the “Oz” series, plus more than 40 other novels.

After his many attempts to adapt his works to the stage and screen, “The Wizard of Oz” made the big screen in 1939—20 years after his death. Baum may or may not have approved; the movie was substantially different from his original book in several ways.

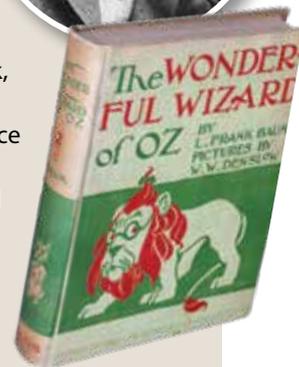
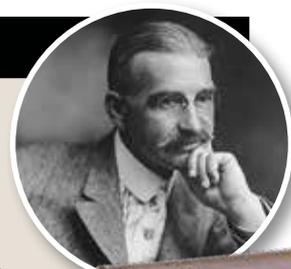
- The movie version makes a theatrical spectacle of the Wizard as a giant, menacing head lurking above pillars of flame (before he

is revealed as a man operating a machine behind a curtain). But in the book, the Wizard meets each of the four main characters separately to create a feeling of power in their minds.

- In the movie version, Dorothy’s iconic slippers are ruby red in order to maximize the then-wonder of Technicolor. In the book, her slippers are silver and said to shine brighter than the moon.
- The book version describes an actual place called Oz, not an imaginary world in a dream. Dorothy stays there for months at a time in the book version.
- In the movie, Dorothy’s farm life is not always pleasant. Her dog, Toto, bites a neighbor, Miss Gulch (who in Dorothy’s dream is the Wicked Witch). The neighbor threatens

to have the dog destroyed, and Dorothy eventually runs away with Toto. In the book, Dorothy has a peaceful existence living with her Uncle Henry and Aunt Em before the tornado takes her away.

After the 1937 Walt Disney movie “Snow White and the Seven Dwarfs”—the first full-length animated feature—was a major hit with kids, MGM wanted “Oz” in movie theaters as quickly as possible.



Vitale did not aggressively pursue manufacturing the pizza savers, even though the cost of the FDA-grade materials is reportedly only about a penny apiece. However, the indigestion starts when one considers expenses such as manufacturing facilities, a molding machine, conveyors, forklifts, storage, even robots.

She let the patent lapse in 1993 and died on Sept. 2, 2005.

### Box support spin-offs

Vitale still rightfully has a place in invention history for getting the first U.S. patent on the pizza saver. And naturally, variations have followed.

Eater.com correctly reports that Dopaco Inc. was granted a patent for an “internal support for cartons” in November 1994 (U.S. Patent No. 5,366,144A). Jonathan Maultasch got one for a combined lid support and cutter in January 1996 (5,480,031A). Irene Marotta created a pizza saver that also functioned as a serving spatula in February 1997 (5,600,889A).

Interestingly, all have expired. But as we know, plastic almost never expires—so these

little things can also serve as tiny tables for dolls and dollhouses, or even egg holders when turned upside down.

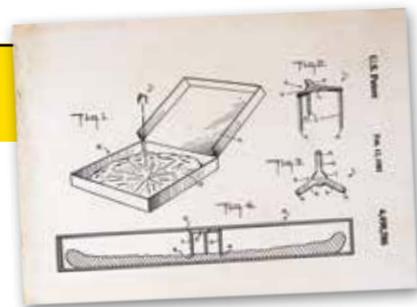
And whatever happened to the process of baking a bread ball into the center of the pizza? The likely answer: Dropping a pizza saver into the center of the box costs less dough. ☺

## PATENT PATHWAY



For U.S. Patent No. 4,498,586, Carmela Vitale wrote in the abstract for the filing:

“[Delivery products] require a relatively inexpensive and disposable box or carton. Cartons of this type, and particularly those used to deliver pizza pies or large cakes or pies, comprise boxes with relatively large covers formed of inexpensive board material. Due to the quality of the board and their large size, there is a tendency of the covers to sag or to be easily depressed at their center portions so that they may damage or mark the pies or cakes during storage or delivery.”



## 2 Inventors, 1 Lesson

TRYING TO CREATE A MARKET FOR YOUR INVENTION  
RISES TO ANOTHER LEVEL OF DIFFICULTY **BY JACK LANDER**

**WORKING AS** a patent attorney's assistant in the early 1930s, Chester Carlson was frustrated by the slow and awkward process for copying and mailing patent copies from the then-United States Patent Office.

The only means for making document copies of reasonable quality was the Photostat process, which created a black copy with white print using photography and its chemical development. It was obvious to Carlson that someone had to invent a much simpler and less expensive process, if for no other reason than to enable the patent office to rapidly copy the tens of thousands of patents that patent attorneys and inventors wished to have.

Carlson began work on a dry copying process in 1934 and was able to demonstrate his photoelectric/electrostatic process in 1938. Originally called electrophotography, it is now called xerography.

He contacted 20 companies that should have been interested in his process. Presumably, he demonstrated it to some of them but received what he later called "an enthusiastic lack of interest."

Most likely, the complicated eight-step process turned off prospective licensees. Not only was the number of essential steps raising eyebrows, but the application of a high-voltage, electrostatic charge in two of them raised safety concerns.

Finally, in 1944 the inventor, physicist and patent attorney convinced the Battelle Memorial Institute of Columbus, Ohio, that his process could be reined in, automated, and housed in a cabinet that would not reveal a mechanical monstrosity. The first Xerox® machine was produced in 1958.

What can we learn from Carlson's venture? Some possibilities:

- Avoid complex technologies unless you have a sponsor with deep pockets, and

you are patient and willing to wait out the discouragements.

- If you go ahead with a complex technology, don't reveal it in detail until you have at least a nondisclosure agreement. If you show it too soon, your prospect's engineers will get involved in evaluating it. The NIH factor (not invented here) could kill the deal.
- Don't invent a product for which there isn't yet market demand. Offices in 1938 were getting by with carbon paper and the printing press. They had no hint that a paperwork revolution was a few years ahead.
- Don't invent a product for which you will have to create the market. Once the product is on the market and its value is understood, it may create its own market. It may even change the nature of the work and become a practical necessity, as the cellphone did. But launching such a product is risky and expensive.

In the previous issue of *Inventors Digest*, I wrote about Robert Kearns, the inventor of the intermittent windshield wiper. Kearns' invention was up against Ford's attempt to develop a time delay for the vacuum-operated wiper. (Wipers were powered by the vacuum from the vehicle's intake manifold at that time.) So, the need for his invention was already understood.

But in Carlson's case there was no practical office copier, so he had to convince prospective licensees that a substantial market was waiting for fulfillment. It might seem obvious that managers of our large corporations would immediately grasp the opportunities presented by invention, but don't depend on it.

The difference between Carlson's and Kearns' situation may seem slight, but these details often make the difference between success and failure.



## Licensing principles

Is it possible to state principles that offer general guidance for the licensing of inventions? Sure. But such principles are not absolute. Exceptions exist.

So, here goes:

- Invent for an established market. Competitors are not always your enemy. If your invention offers one or more benefits that your competition does not, you should be able to command a share of the market.
- If you must invent for a market that does not yet exist, attempt sales before you attempt to license. Catalogs and shop-from-home vendors, such as QVC and HSN, are market channels that introduce novel products. You will probably need a financial partner. Production of a sufficient quantity for market testing is expensive.
- Before you invest in a patent and a prototype, assess the market for its position on its life cycle. You are looking for the “sweet spot,” the position on the upslope of the life-cycle curve where you find one or a few competitors but not so many that your product will be overwhelmed.
- Become informed about patents. They aren’t foolproof. They are easier than ever to challenge and break. Sometimes success is better achieved by getting into the market without a patent, and getting out when the profit dries up. Hire a patent attorney you sense you can trust to give you objective advice on the overall theory and practice of patent protection.
- In the end, both Carlson and Kearns succeeded, even though each was on the verge of failure one or more times in his long venture. Be aware that the cases of failure

## Invent for an established market. Competitors are not always your enemy.

often go unnoticed, and there probably are far more of them than those that succeed.

- Avoid the “inventor’s dream” of inventing something that *everyone* needs or wants. Stick with inventions having a limited market that you can license to small- to medium-size companies. If you were successful in inventing something everyone would buy, you would probably face immediate, large-scale competition that would bury you. Also, as in the case of Robert Kearns, inventions that have highly lucrative markets may find opposition from self-righteous industries or companies that claim inventions in their field are theirs by right of “manifest destiny.” And, of course, you’ll face a legal staff that won’t accept a verdict of “guilty as charged.”

At minimum, the above principles should be used as a checklist before you begin spending a significant amount of money on your latest great idea. Infatuation can get you in trouble.

That’s all for now. Gotta run. I’m expecting a phone call from a General Motors vice president. ☎

**Jack Lander**, a near legend in the inventing community, has been writing for *Inventors Digest* for 25 years. His latest book is *Marketing Your Invention—A Complete Guide to Licensing, Producing and Selling Your Invention*. You can reach him at [jack@inventor-mentor.com](mailto:jack@inventor-mentor.com).



# Instagram is Now a Video App

GRADUAL SHIFT BY SOCIAL MEDIA GIANT ADDS TO IMPORTANCE OF VIDEO IN MARKETING YOUR INVENTION **BY ELIZABETH BREEDLOVE**

**A**T THE END of June, Instagram CEO Adam Mosseri posted a 2 ½-minute video to his Instagram and Twitter accounts that offered a glimpse of what is to come for Instagram in the next several months.

Most interestingly, Mosseri says Instagram is “no longer just a square photo sharing app,” that it is shifting its focus to video, to compete more directly with TikTok and YouTube. On a wider scale, Mosseri told users to look for changes to roll out relating to creators, videos, shopping and messaging.

Although Mosseri kept his message vague overall, here a few specific changes to look for:

- Users will likely begin to see less photos in their feed, and more videos.
- Some features will be designed for better storytelling and entertainment.

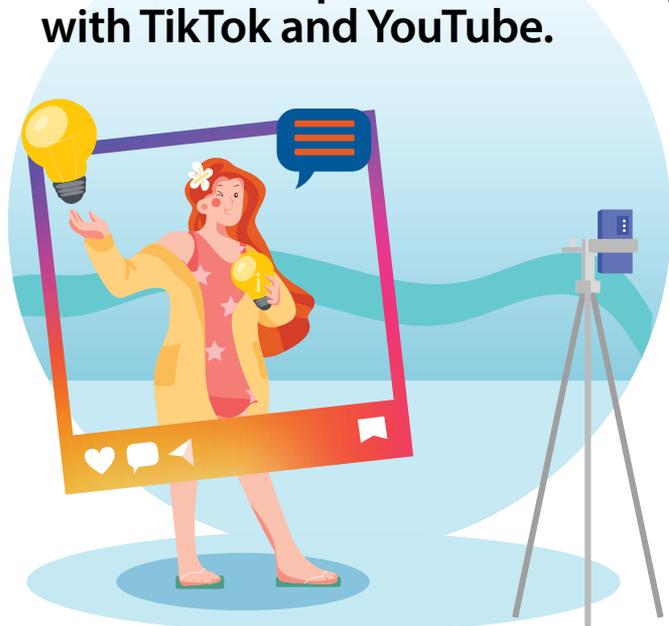
- Instagram will start showing recommended videos, meaning users will see videos from accounts they don't follow.
- Instagram will make video more immersive by offering a full-screen experience.

This is a significant change when you consider where Instagram began, as an image-sharing platform for users to edit and post square images. It also represents a broader evolution for social media.

What was once a way for people to connect with friends online has become a platform for businesses and content creators to push out high-quality content that supports their business goals. From influencers partnering with brands to brands launching products through Instagram, social media has evolved into a new form of mass communication for businesses. This change in focus for Instagram is a logical next step.

The biggest takeaway from Mosseri's announcement is that it's crucial for businesses hoping to find success on Instagram to prioritize video.

**Instagram is shifting its focus to video, to compete more directly with TikTok and YouTube.**



## Several video formats

Instagram offers several different types of video content. Try to share content frequently in each format, because posting across all these formats will help ensure you're consistently trying a variety of things and reaching people through Instagram no matter how they use the network.

Video formats Instagram offers:

- **Feed Posts:** In addition to photos, Instagram allows you to post 3-60 second videos within your feeds. Once you've either recorded a video in Instagram or uploaded one, you can apply a filter, add a caption and add a location tag before posting.
- **Instagram Stories:** Here you can post images, or 15-seconds-or-less video clips.

You can upload pre-recorded video or record within Instagram. Then, Instagram allows you to add text, graphics, music, polls, quizzes, filters and more. Instagram Stories automatically disappear after 24 hours, but if you'd like them to stick around longer, you can make them a Highlight on your profile.

- **Reels:** Reels allow you to shoot and edit short, 30-seconds-or-less videos within Instagram. Once you record a reel, you can make edits such as adding music, changing the speed of your reel, adding a camera effect and more.
- **Live:** Instagram Live allows you to start a live broadcast that others can watch in real-time. They can also leave comments. Once your Live is over, you can save it to IGTV so Instagram users can watch it later, though comments won't be saved.
- **IGTV:** IGTV is similar to YouTube. It provides a place for users to upload longer videos—up to 15 minutes when uploading from a mobile device, and up to 60 minutes when uploading from the web.

As you're creating video content, remember that the Instagram algorithm will favor videos with high entertainment value. To tap into this, focus on creating engaging videos that will entice users to watch through to the end and then share with their own followers or friends.

Highly shareable content that generally performs well includes things such as relatable videos, memes, "TikTok challenges" (these involve recreating a video posted by someone else and encouraging others to do the same), inspirational quotes, interesting images, informational content, and timely content such as content related to a holiday.

If you're stuck on how to move from image-driven content to video content, remember that you can put music to a few images, similar to a slideshow, and post that instead of a still image. Be creative, but don't overthink it!

### Other video strategy

As you work to incorporate more video into your overall Instagram strategy, a few other things to consider.

*Accessibility* is a big part of creating video content that resonates. For example, turning on Instagram's captions feature or adding your own captions is a great way to make your content more accessible for those who are hearing impaired.

Make sure your Instagram stories are *shareable*. Keeping your stories unshareable limits your organic reach; letting them be shared empowers your followers to recommend your business. It also helps new followers or customers find you more easily.

Using *location tags* in feed posts where applicable is an easy way to expand your reach. It helps people find you locally, and it may even help the algorithm understand your content better and show your videos to people nearby.

Encourage other users to *post about or share your videos* by running giveaways whereby users have to tag you in their posts or tag someone else in your post. Or, run a user-generated content campaign to encourage people to post content with your product and then tag you in it.

### Bumps ahead?

These appear to be ongoing changes that Instagram will continue to roll out, rather than a sudden and complete shift. This means that everyone—influencers and brands alike—are figuring this out at the same time.

Your Instagram stats may become bumpy for a bit. But if you continue to focus on a video-first strategy and are committed to frequently examining and reassessing your efforts to determine what's working and what isn't, you should see things begin to recalibrate and ultimately see continued success on Instagram. 📱



**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.



# Goal: Making Perfect Scents

SYSTEM USES APP TO PROVIDE HUNDREDS OF FRAGRANCE OPTIONS FOR DIFFERENT FEELS AND SITUATIONS **BY JEREMY LOSAW**

**I**N OUR WORLD of influencers with their signature looks and styles, where is it written that we can't have a signature scent?

Slovenian inventor Marko Matijevic developed Ninu, a fragrance system that uses artificial intelligence to custom-blend fragrances and give users hundreds of scents to suit their personal taste and situation.

Inside the stylishly designed bottle are three base scents used as building blocks to mix and customize a fragrance for each user. The base fragrances that come in three different families—men, women and unisex—are blended by expert Italian perfumers.

The result is that Ninu can custom-mix more than 100 distinct scents. With the bespoke

app, the device can be run in automatic mode, where it walks you through a series of questions about your mood and where you are going before fusing ingredients with a few taps on your phone to dispense a custom fragrance.

If you are feeling like an alchemist, Ninu can be run in manual mode to allow you to build your own original scents from the base elements. The system also has AI capabilities that help users build their fragrance profile and make the device smarter.

## Elite inspiration

Ninu was inspired by iconic Slovenian inventor Peter Florjančič, who developed the first mechanical perfume atomizer among a plethora of innovations before his death last November at 101.

Matijevic and Ninu cofounder Simon Mohorovič wrote a paper about Florjančič in college and thought to update his innovation by creating a perfume atomizer that could be triggered with an electronic button instead of a mechanical plunger. However, they did not have the resources to do any development work as students and waited until they were further into their careers.

Once they started working on the concept of the electric atomizer, they realized that scent customization is widely sought in the fragrance industry.

“People want to have their own signature scents,” said Matijevic, who bills himself as the inventor of the first smart perfume in the world.

“What some people who are more rich do is, they hire a personal perfumer. They go to Grasse and France and pay tens of thousands of dollars just to get their personal scent.”

The cofounders also found out about a concept called perfume layering, in which less wealthy people create their own scents by

Ninu, which can be run in automatic or manual mode, answers the high demand for scent customization in the fragrance industry.



**(People) “go to Grasse and France and pay tens of thousands of dollars just to get their personal scent.” —MARKO MATIJEVIC**



spraying different perfumes on top of each other or putting different scents on different parts of their body. From these findings, Matijevic and Mohorovič realized they could combine electronic dispensing with fragrance customization and have a much more powerful product.

### Careful development

Ninu has been a development challenge that took about three years. The biggest hurdle was trying to fit the requisite mechanical components and electronics into a form that can fit in the palm of a hand and have the aesthetics of a high-end fragrance bottle.

Working with the perfume blender in Italy, the cofounders created the base scents and fluid handling components for the dispensing and eventually settled on the three base flavors. Matijevic said that number was optimal for several reasons.

“One is because of the size. The other one is the range we can get out of those three. From those three, we can get more than 100 different scents—which for us right now is mind-blowing.” He officially started Ninu Perfume as CEO in March 2020.

The product has many sustainability components. These include natural ink in packaging cartons, a cartridge refill system, and using less packaging to reduce plastic consumption. All perfume bottles are made from recycled glass; all fragrance oils are 100 percent vegan and sustainably sourced from France.

### A virtual lucky break

The technology behind Ninu is patented in Slovenia and pending worldwide. Once the IP is granted in the European Union, Matijevic and Mohorovič will decide which other regions and

countries in which to file. America is definitely on the list.

Because their technology is novel and new, they have not had any issues filing powerful claims to protect the product and have yet to see any copycats.

Ninu was unveiled to the world for the first time at this year’s all-virtual Consumer Electronics Show in January—far less than ideal, given that the product is all about scents.

But there were no travel and booth space costs, and the virtual platform allowed the cofounders to exhibit the product and get valuable exposure and feedback.

Ninu was a hit with virtual show-goers, many showing strong interest as potential customers and distributors.

### Crowdfunding next

Matijevic said the next step is to launch Ninu on Kickstarter and start manufacturing.

The Consumer Electronics Show experience helped land a reputable factory in Asia that can handle high-volume manufacturing, but a factory in Italy may be used for the first production runs if the initial volumes are modest.

With manufacturing development well under way, Matijevic anticipates shipping the first orders this November—in time for the holiday season, when perfume sales typically peak. There are also plans for additional scent packs, and line extensions. 📦

*Details: [ninuperfume.com](http://ninuperfume.com)*

**Jeremy Losaw** is a freelance writer and engineering manager for Enventys. He was the 1994 Searles Middle School Geography Bee Champion. He blogs at [blog.edisonnation.com/category/prototyping/](http://blog.edisonnation.com/category/prototyping/).



# Getting **Busy**

MOTHER'S PLACEMAT KEEPS BABIES HAPPILY OCCUPIED IN THEIR HIGH CHAIRS **BY EDITH G. TOLCHIN**

**S**O MANY new gadgets are available for parents and caregivers, many of which I've covered recently for *Inventors Digest* (Grabease, October 2020; Curious Baby Cards, January 2021; The Crawligator, March 2021; Totes Babies, June 2021).

So, how does one begin to determine what is truly useful? The Busy Baby Mat is.

Ever have your baby or toddler get bored with sitting, eating, or playing in his or her high chair? Invented by Beth Fynbo of Oronoco, Minnesota, the Busy Baby Mat holds utensils and playthings that will not land on the floor or in your lap. And easy-peasy cleanup!

**Edith G. Tolchin (EGT): How did your invention come about?**

**Beth Fynbo (BF):** I came up with the idea for the Busy Baby Mat shortly after my first son was born. I had gone out to lunch with a couple of girlfriends and their little ones, and I watched as the moms struggled to keep things out of their baby's reach and give them something acceptable to play with—only to have those items thrown directly onto the ground.

I immediately went online to try to find something that would keep my son entertained when we went out so he wouldn't be such a distraction. It needed to be something to keep his toys within reach and provide a clean surface for his food. There were plenty of pacifier-type clips and several kinds of

placemats but nothing that did both things I was looking for.

I started by cutting and gluing things together at home to make my own mock-up. I made a second version for a friend who had a baby.

One day she told me that she had forgotten her “mat thing” the night before, and it was a nightmare. She said she didn't realize how useful it was until she didn't have it and told me that I had to “make that thing for real!” Just over 15 months later, my product was in the hands of real customers.

**EGT: What are your various products?**

**BF:** My first product was the Busy Baby Mat, which is a 100 percent food-grade silicone placemat that has four suction cups embedded into the corners on the bottom of the mat. It also has a tether system that allows parents to attach items to the top of the mat for their baby to play with.

This year I released another new product, the Busy Baby Teether and Training Spoon. The Teething Spoon is also 100 percent food-grade silicone and is designed to be used as both a teething toy and a spoon. I designed the training spoon to hook up to the mat's tethers easily so babies can practice self-feeding without constantly dropping the spoon. We're soon launching a smaller version of the mat as well.

**EGT: You were on “Shark Tank.” How was it?**

**BF:** My “Shark Tank” process started early in my entrepreneurial journey. I received an offer from Lori but ended up walking away from it.

**A friend “told me that I had to ‘make that thing for real!’ Just over 15 months later, my product was in the hands of real customers.” —BETH FYNBO**



Her plan was to take 18 percent of my company and license it to Munchkin. Her plan was not in line with the vision I had for my company at all. I want to grow the product line and the business and was hoping to have her help me get into the big retailers. It just wasn't going to be a good fit.

Since I filmed that episode last fall, my brother has joined the business full time, and we are having a blast working together and growing the business ourselves.

**EGT: Have you invented anything before the Busy Baby Mat?**

**BF:** I've been a problem solver my entire life, so I would say I've probably "invented" plenty of solutions. However, this is the first time I've ever taken an idea to market.

**EGT: Are you manufacturing in the United States or overseas? Have you encountered any production obstacles?**

**BF:** We are currently manufacturing overseas because the cost is significantly higher in the United States. As a 10-year Army veteran, I'd like nothing more than to manufacture here.

**EGT: Please share your experience with third-party lab testing for children's products and requirements for various U.S. government regulations.**

**BF:** I work with an American company in China that helps me with the entire process. They helped me find a reputable third-party testing agency and send samples directly to them for testing with each production run. My factory produces other products for children under 3, so they are really familiar with the safety standards and processes.

**EGT: What about patenting?**

**BF:** The patent process was scary to me in the early days. It's hard to invest the kind of money that it



The Busy Baby Mat is a food-grade silicone placemat with four suction cups embedded into the bottom of the mat. Its tether system allows parents to attach items to the top of the mat for their baby to play with. The Busy Baby Teether and Training Spoon (inset) is also 100 percent food-grade silicone.

costs to have a patent written when you aren't even sure if the product will be a winner and sell. I'm glad I invested the money in a good attorney.

Our first patent was written with nine months of filing. Now I have two written patents in the United States, plus nine more pending, and a utility model written in China. The first knock-offs have already begun to show up on Amazon, and we've been able to have them easily removed because we have our patents.

**EGT: Have you had any glitches during product development?**

**BF:** I think there are always glitches in every process. The glitches help you continue to grow and get better. We haven't had any major setbacks, but I think that is because I work with product developers who also work with my factory, so they have the manufacturing process at top of mind when they develop the products.



Washable markers will fit through the holes in the tether. The mat can serve as a reusable, sketchable surface.

Some developers will simply make whatever your vision is, but if it can't be manufactured efficiently, it's just a cool drawing.

**EGT: Will you add to your product line?**

**BF:** We will be modifying our design to create products for a different market. The concept is great for those with disabilities and for the elderly

in assisted-living facilities. We will make the mat bigger and redesign the tethers for adult use.

**EGT: What guidance do you have for developing inventions?**

**BF:** My first advice to anyone with an idea is to go talk to complete strangers about that idea before spending any money developing it. Identify who your target customer is going to be and find those people, tell them what you're planning to do, and ask them if it is something they would buy.

If they say yes, find out how much they would pay for it. That's going to give you a good idea if that project would be worth spending money on and moving forward with. ☺

Details: [busybabymat.com](http://busybabymat.com)

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



# The Opinionated Editor

## Edith G. Tolchin

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# A Calm With ‘Wow’

LIVING PLANT WALL SYSTEM BEAUTIFIES HOMES AND OFFICES POST-COVID **BY JEREMY LOSAW**

**D**AVID BRENNER can thank his grandparents for ultimately inspiring his “wow moment”—and a calling that brings the peace and joy of nature indoors.

From an early age, Brenner developed a passion for plants and realized how they can nurture the soul. He was tasked with caring for his grandparents’ garden when they went to visit their native Italy.

“I understood the therapeutic effects of plants just watering my grandfather’s cymbidiums,” he says.

Brenner went on to study horticulture at California Polytechnic and spent time at the Royal Botanic Gardens, Kew in London. There, he studied epiphytic plants (those that grow on tree branches), including orchids.

He saw how vertical gardens were incorporated into urban spaces and realized this was his calling.

“I saw these amazing vertical gardens in Europe, and it was like something that was totally new. It was a way to bring greenery into urban areas that I hadn’t seen anywhere in the world. It was that ‘wow’ moment for me.”

## Maxing out a movement

That moment—helped by changes to our lives indoors brought by COVID-19—resulted in Gromeo, a living wall system/vertical gardening planter for home use.

Now more than ever, more people are spending most of their time living indoors and away from the natural world.

Enter a movement called vertical gardening, which brings nature into indoor spaces.

Brenner’s planter leverages the movement in a uniquely innovative way.

Featuring a pleasing hexagonal shape made from wood, Gromeo uses a combination of soil and hydroponic watering

Gromeo uses a combination of soil and hydroponic watering methodology. The plants are placed inside pockets in the wall of the planter in a specially designed material called Growtex—made from recycled water bottles—that wicks water to plants.



**“I saw these amazing vertical gardens in Europe ... a way to bring greenery into urban areas that I hadn’t seen anywhere in the world.”** —DAVID BRENNER



methodology to keep plants growing strong. The plants are placed inside pockets in the wall of the planter in a specially designed material called Growtex—made from recycled water bottles—that wicks water to the plants to keep them watered and healthy.

The device has no plumbing or electronics, so it can be placed anywhere. It comes with a template for easy mounting.

Gromeo systems can be purchased with specially curated plant packages that are chosen specifically for their beauty and tuned to grow in a given user’s light conditions. They come ready to hang. The standard model holds eight plants; the mini holds four.

### **Big-name clients**

After returning to California from Europe, Brenner began creating vertical gardens in the United States. He created a company called Habitat Horticulture in 2009 and developed the vertical garden technology he used to create installations at major firms and public spaces including Facebook, Tesla, design and consulting firm IDEO and the San Francisco Museum of Modern Art.

With 10 years of creating large-scale vertical gardens and the onset of COVID-19, Brenner brought his technology into the home.

He had been toying with prototypes of a miniature plant wall, but it was a back-burner project to his core installations. However, as people retreated from the workplace and public spaces, he started to worry that contracts for these installations would dry up.

He accelerated development. After about three months of focus, he was able to launch the product.

The design philosophy for Gromeo has always been simplicity: “I am kind of sick of being on your phone with apps, and you don’t really need it,” he says.

Brenner decided on the hexagonal shape that evokes nature in the form of a honeycomb, with the intention of creating a living, analog art piece. He used his custom Growtex material to provide the structure and wicking properties he knew plants needed, and created custom plant pallets to help people decorate any space regardless of light levels.

He has focused on getting a beautiful product to market quickly, leveraging his expertise and reputation in installation size vertical gardens to help drive sales.

Gromeo is manufactured at the San Francisco-based Habitat Horticulture facility. Brenner already had a building full of equipment to build the parts and pieces for full-scale vertical gardens, so he designed Gromeo to use the existing equipment.

The plants are all grown in California, too. Brenner works with nurseries to source the plants he needs before bringing mature specimens to his on-site greenhouse to prepare them for shipping with Gromeo devices.

### **Many updates ahead**

Although only in the marketplace since late 2020, Gromeo has been a hit with consumers. Demand for the product and consumer feedback is pushing Brenner to make new variations; he plans to create vertical gardens with different shapes and finishes.

He is also planning to add some digital intelligence to the device by adding a sensor that will create an audible alert when the device needs more water. There is also a custom lighting solution in the works for people who do not have enough light in their growspace for even the lowest-light plant offerings, to expand the reach of Gromeo planters for everyone. 🌱

*Details: [habitathorticulture.com](http://habitathorticulture.com)*



# Worth Smiling About

INDIAN-AMERICAN CHEMIST'S FILLER FIND  
EARNS EUROPEAN INVENTOR AWARD **BY REID CREAGER**

**WHEN IT COMES TO** blending things together, Sumita Mitra stands apart from the rest. The Indian-American chemist and 2018 National Inventors Hall of Fame inductee developed technology that revolutionized the making of dental fillers, a process still used by dentists two decades later. She recently received a 2021 European Inventor Award by the European Patent Office for her application of nanotechnology in dentistry.

Dental products based on her invention have been used in more than 1 billion restorations worldwide.

For centuries, dentists relied on flawed combinations when making dental fillers—either too weak, too unattractive, or both—until Mitra and her team got it just right.

## The nanotech solution

Until the late 1990s, dentists' attempts to perform natural-looking tooth repairs relied on a combination of two separate materials.

Microfills were aesthetically pleasing but too weak to be used for stress-bearing regions of the incisal edges and for filling teeth toward the back of the mouth.

The other type was stronger but less attractive hybrid and microhybrid composites that lose their shine and became rough from brushing and chewing. This was inconvenient and expensive for dentists and their patients.

While working in the Oral Care Division of 3M, "I wanted to create one material that would be strong, durable and also have the long-lasting lustrous beauty of natural teeth," Mitra told *Inventors Digest*. "I realized that the key problem was the limitation of the existing filler technology used to reinforce dental composites."

She took advantage of the fact that nanotechnology was an emerging science around that time, figuring that developing nanoparticle technology for use as dental fillers could resolve most of the problems and provide a universal filling material.

Sumita Mitra's improvement in the making of dental fillings two decades ago is still being used by dentists worldwide. She is a member of the National Inventors Hall of Fame, has received 100 patents, and was an industry innovation leader during her 32-year career at 3M.

But as with many inventing processes, success was not immediate. The plan had holes to fill in.

“Our initial approach was disappointing, since it did not provide all the desirable characteristics we had set as our goal,” Mitra said. “But eventually I came up with the idea of making clusters of loosely bound nanoparticles, which we called nanoclusters, and combined them with individual nanomeric particles to provide a blend that we incorporated into a dental resin to make the dental composite.

“We also had to design the manufacturing technology for scaling up the process of making the nanomers and nanoclusters. The entire process from conception to commercialization of 3M™ Filtek™ Supreme Universal Dental Restorative took us about three years.”

Mitra said her biggest obstacle was getting the handling property of the composite to dentists’ satisfaction: “This is where the invention of the nanoclusters and its combination with nanomers was so vital to solving the problem.”

Her first patent describing the use of nanotechnology in dental composite was issued in 2002.

“It was a very momentous event for me,” she said. “The issuance of the patents validated the novelty and utility of our work and allowed us to go forward with the commercialization process.”

Updated patented versions of Filtek followed in 2005, 2012 and 2019.

“Some of these were in increasing the radiopacity (the state of not being transparent in X rays or radiation); others were in increasing the opalescence (varying colors) of the cured composite. These inventions have enabled us to make a family of nanotechnology products for a wide variety of dental applications.”

Her description of the invention’s ultimate benefit is devoid of scientific processes or terminology: “It restores people’s smiles and improves the quality of their lives.”

### Family inspiration

Mitra’s induction into America’s inventor hall of fame—on the heels of a sterling 32-year career at 3M during which she rose to corporate scientist, the highest technical position at the Saint Paul, Minnesota-based multinational conglomerate—is heady stuff for someone who was immersed in brainy pursuits even as a child a half a world away.

Growing up in Kolkata, India, “I would often visit my father, who was a chemist, and peer over his shoulders while he did his experiments,” she said.

“From a very early age I was fascinated with materials—rather, the difference between various materials. For example, what makes pencil different from paper? Why is our skin different from our hair?

“Soon I learned that it is the chemistry of each material that gives it the distinguishing features. It is all in the molecules. I was determined to study chemistry and make it my career.”

**“It restores people’s smiles and improves the quality of their lives.”** —SUMITA MITRA

The entire process from conception to commercialization of 3M™ Filtek™ Supreme Universal Dental Restorative took about three years.



She received a Bachelor of Science degree at Presidency College in Kolkata with chemistry honors. After receiving a Master of Science degree in organic chemistry from the University of Kolkata, she came to the United States in 1972 and received a Ph.D. in organic/polymer chemistry from the University of Michigan in 1977.

Following a year of postdoctoral work at Case Western Reserve University, she joined

3M Corporate Research Laboratories in 1978 and began her long and heralded career there. From 1999 to 2010—the latter also the year she retired from 3M—she also was the industrial director of the Minnesota Dental Research Center of Biomaterials and Biomechanics at the School of Dentistry, University of Minnesota.

She is currently a partner at Mitra Chemical Consulting LLC, an independent consulting firm she co-founded.

## A LIFETIME OF ACHIEVEMENT

### Sumita Mitra's awards:

- European Inventor Award in non-EPO countries category, 2021
- Elected to National Academy of Engineering, 2021
- Inducted into the National Inventors Hall of Fame, 2018 for novel work related to the inventions in nanotechnology for use in dental materials
- Hollenback Memorial Prize, Academy of Operative Dentistry, 2020
- Peyton-Skinner Award for Innovation in Dental Materials, International Association of Dental Research, 2012
- Top 25 Women in Dentistry Award 2010
- American Chemical Society (ACS) Heroes of Chemistry Award, 2009
- ACS Regional Industrial Innovation Award, 2004
- Elected to 3M Carlton Society 1998, the highest 3M award given for lifelong contribution to R&D
- Many recognition awards for outstanding lectures at various universities in five continents





**“The best thing we can do for students is to inspire them to explore the world around them.” —SUMITA MITRA**

Mitra has 100 issued U.S. patents. Most are novel chemical compositions for a variety of applications; some are also related to devices for dental, imaging and other applications. Many of the U.S. applications also have

corresponding EPO patents (58 issued), as well as patents in other countries where 3M does business.

### **Always mentoring**

She says the most important benefit of her accomplishments and honors is the ability to help her “be a role model for aspiring scientists to pursue careers in STEM fields. To this end, I work closely with several organizations.

“One of them is the National Inventors Hall of Fame in the U.S. I help to promote and evaluate their Collegiate Inventors Competition. I am also actively involved in their Camp Invention Program, where we work with young children and encourage them to think differently, to explore, and to be creative.”

Her advice for students, especially those pursuing a science career:

“The best thing we can do for students is to inspire them to explore the world around them, to be curious, try out their ideas and not be afraid to think differently. Their first attempts may not work, but that failure should never be a deterrent to try a different pathway.

“We always learn from our failures. There will be roadblocks along the way, but then we just have to take a detour and try out a different pathway to achieve our goals.”



### **NEW PRIZE FOR YOUNG INVENTORS**

The European Patent Office has established the Young Inventors prize. From students to entrepreneurs, the global award is open to various innovators ages 30 and younger, recognizing sustainability-driven initiatives across all technical fields.

Unlike the current categories, a granted European patent is not a pre-requisite and the award is not limited to individuals with EPO Member State nationality. Young innovators around the world can participate.

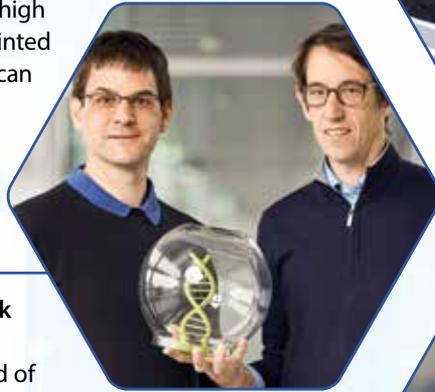
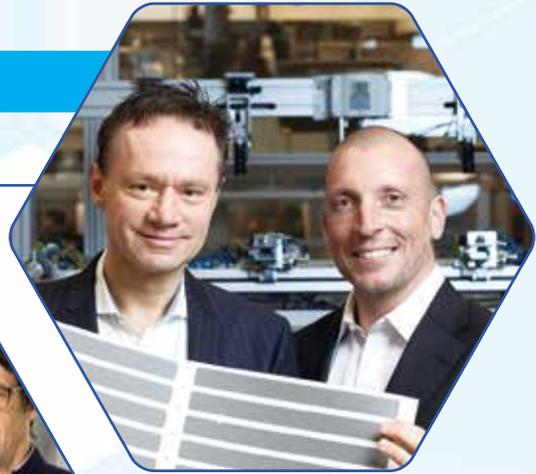
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## OTHER WINNERS

### SMALL AND MEDIUM-SIZED ENTERPRISES:

**Henrik Lindström and Giovanni Fili (Sweden)**

From their plant in Stockholm, the inventors produce a dye-sensitized solar cell using a new electrode material with very high conductivity that can be custom printed in almost any shape or color—and can even generate electricity indoors. The cells are being integrated into various electronics to create self-charging devices.



### RESEARCH:

**Robert N. Grass and Wendelin Stark (Austria/Switzerland)**

The pair developed a novel method of preserving data converted into genetic code using artificial fossilization in tiny glass spheres. They created a storage format with the potential to protect valuable data for millennia, as well as a robust DNA barcode: When their minuscule particles are applied to products, they ensure that specific indicators, such as the origin or working conditions, are traceable throughout the supply chain.



### POPULAR PRIZE:

**Gordana Vunjak-Novakovic (Serbia/USA)**

Her advances in tissue engineering won the prize, awarded to one of 15 finalists through an online public vote. The EPO received about 27,000 votes for 15 finalists.

### LIFETIME ACHIEVEMENT:

**Karl Leo (Germany)**

The physicist advanced organic semiconductors by improving their conductivity through a technique called doping. This ushered in a new generation of highly efficient organic light-emitting diode (OLED) displays.

His OLEDs provide enhanced image brightness, color resolution and power efficiency in electronic devices. Half of the world's smartphones and many types of ultralight organic solar cells incorporate his technology.



### INDUSTRY:

**Per Gisle Djupesland (Norway)**

His medical device uses the nose's natural form and the patient's breath to improve nasal drug delivery and provide relief for various conditions. The invention helped grow a company that is now stock-exchange listed and develops innovative medical solutions.



# Make a Firm Choice

6 CONSIDERATIONS IN CHOOSING A PRODUCT DEVELOPMENT FIRM **BY JEREMY LOSAW**

**P**RODUCT DEVELOPMENT requires many different skills, and no one can master them all. So a good product development firm can help inventors like you bring products to life.

Prototyping, CAD design, molding, 3D printing and electronic engineering are some of the skills in which a competent firm should be fluent. But choosing a firm that's a good fit for your product can be difficult.

Inventors are passionate about their ideas. They need a development firm that can take that passion and maximize its potential. So when choosing a product development firm, carefully consider these factors.



Charlotte-based Eventys Partners has a full suite of equipment to handle any prototyping challenge, including this Stratasys Origin One 3D printer.

**1 Experience** Above all else, choose a firm that has experience bringing products to market in your idea's category. Experience means a firm will understand the past, present and future trends of the market. The company will use its knowledge to provide design guidance that is innovative but within the bounds of what consumers expect.

Good product development firms also have knowledge of the regulatory environment. They are able to design a product that is safe and compliant from the start, which can save thousands of dollars. A firm with broader experience is valuable, too, as some ideas can be modified with input from other industries to create a stronger product.

Where does a firm's experience start and end? Knowing that answer is important.

Is a firm good at early concepting? Is it more comfortable taking a rendering and doing the engineering work? Does it help with manufacturing? An inventor often has some portfolio of work—including sketches, prototypes, samples, or a business plan—so you should know if a product development firm can take those materials and go from there.

**2 Equipment** The right tools are crucial for getting quality prototypes. Whether produced on 3D printers, CNC machines, laser cutters or other prototyping tools, a development firm should have a robust set of equipment and the knowledge to use it well. When evaluating a firm, ask what tools it would use for your projects and samples of its prior work.

Any development firm will likely outsource some parts of a project. No team has every tool available. So when vetting companies, find out what parts of your product they are likely to make with a third party. You should also get a list of who a firm would contract with, where that third party is located, its typical lead times and that it is bound by a nondisclosure agreement.

**3 People** You are going to spend a lot of time with members of your product development team, so you need to know and trust them. Ask your firm if you can talk directly with designers and engineers who will be assigned to your project so you can ask about their experience and interests. You will likely get more inspired work from a development team that has personal interests and experience in your category of work.

A good product development firm employs people with a variety of skilled backgrounds and interests. Ensuring that a firm has the right people to complete all (or most) aspects of your project is essential. For example, Eventys Partners recently designed and prototyped the components for a new head lice treatment device, including 3D-printed parts and the electronics that power the device.

**4 Reviews** References are a great way to hear from past clients what it is like to work with a firm. Most firms have testimonials on their websites, which are a good place to start, but be aware that these are often carefully curated examples.

To get a fuller picture, do a quick Google search of the company and read their Google reviews. Google reviews provide more candid feedback from a variety of customers.

See what people are saying about the company and contact people who had positive and negative experiences with the firm. You can also ask the firm for a list of references. Doing this reveals the product development firm's specific strengths and weaknesses.

## 5 Manufacturing

Because the goal of a development process is to mass manufacture a product and bring it to market, it's vital that you understand how the firm transitions from design to production. If the firm has manufacturing facilities, ask about its locations and capabilities to see if it is a good fit for your product.

If the firm does not have manufacturing available or its capabilities are not the right fit, ask how it transitions to contract manufacturing.

Does it have a sourcing team that can find a right-sized factory? Does it have experience preparing files and prototypes for factory review? Can it provide services to help during the manufacturing, should design changes be required? Be sure the firm

can help with mass production once the product is fully designed.

## 6 Price

It is crucial to understand cost and payment structures so the firm can work efficiently and stay on budget. The two primary models are fixed price and hourly.

Product development is a service with an unknown endpoint, because what you are asking to be built has never been done. So, do not be shocked if a fixed-price bid is higher than an hourly estimate; firms have to account for iteration and potential scope changes.

For hourly billing models, make sure you understand how many hours per week the team will typically provide and make sure the hours are reported to ensure time is being used efficiently.

Knowing upfront how billing is done and what is billed helps avoid confusion and slowdowns later in the project. Ask whether a deposit is required, how often billing is done, payment options and terms, how third-party costs are handled, whether meeting times and calls are billed, and what happens if there are overages and change orders.

You must have clarity on the financial aspects of your collaboration to ensure the firm's services align with the project needs while fitting your business plan and overall budget. 📌

Product development team members with proven experience in building great products, such as Patrick Bailey (left) and TJ Root from Enventys Partners, can help weather any product development challenge.



# Be End User Friendly

SUCCESSFULLY DEVELOPING A PRODUCT  
MEANS KNOWING YOUR CUSTOMER **BY ALYSON DUTCH**

**ONCE KNEW** an entrepreneur who loved basketball. In his professional life, he was a doctor. He put the two together when he developed a shoe designed to prevent ankle sprains.

He had done his homework and found that ankle sprains were the No. 1 basketball injury, and there was a multibillion-dollar market for basketball shoes. But it was not until he had 26,000 pairs sitting in a warehouse—and spent a lot of money on marketing—that he realized this wasn't going to fly.

Another inventive soul who was in the printing business learned that the nose of dogs was as unique as the fingerprint of a human, so he conceived a dog noseprint product as an identifier for lost pets.

It was a fabulous, noninvasive idea that bypassed injecting a chip into a dog. But what he did not consider was that for his noseprint to be a valuable identifier, he also needed to create a national database as the place to look for a lost dog. He had already gone into production, spent money on packaging and thought he was ready to go.

Both entrepreneurs lost their shirts, so to speak, because they didn't consider the end customer before they spent money and time creating their product.

## A good idea isn't enough

Many products and services are created by someone who is passionate about solving a personal problem. Often, products emerge from those who were doing something else in their careers when an idea popped into their head, and they were courageous enough to do something about it.

However, so many products are created without a thought about the end user.

An idea is only as good as a customer who not only wants it but will pay for it. Otherwise, it will die a sad death, and someone will have exuberantly spent time and money on something that never sees the light of day.

Don't be that person.

Sometimes products have customers who would want them, but they are so expensive to produce that they will never sell. Other times, entrepreneurs create something that appears to have a large market opportunity, but they cannot compete. Or, they miss an important psychographic about their customer.

In the case of the basketball shoe company, there was a huge market for basketball shoes. But those brand-conscious 12-16-year-olds he found in his research who were buying 5-7 pairs of shoes a year were literally killing for *name-brand* sneakers only.

Nike and Adidas had tied up contracts with every level of basketball from the high schooler to the NBA, so would-be ambassadors were contractually not able to put anything on their feet other than Nike and Adidas no matter how many ankle sprains they endured.

## Prioritize packaging

Some entrepreneurs see a market or a trend first and attempt to compete.

I call these copycat products. Sadly, so many spend a lifetime thrashing about in a bloody red ocean (reference to one of my favorite books: "Blue Ocean Strategy" by W. Chan Kim and Renée Mauborgne). Without a truly meaningful differentiation, they get nowhere.

I hate to see so many products like this and entrepreneurs so infatuated with their concept that they are blinded to what should be driving them: the customer.

No product will ever become a success without a customer. No business is a business without a customer, no matter how great the product.

If you are going to attempt to compete in a trending sector, you need to think long and hard about how you will differentiate. Get serious and highly creative about this.

And, news flash: A “new fragrance,” “cheaper,” “faster,” or “great customer service” are not differentiators.

Sometimes that differentiator is simply the packaging. This is typical in the beauty and the tequila business. What’s inside is usually not that different, but what it looks like on the outside is what customers remember.

When you are competing in a highly saturated category like this, incredible packaging is the way to go. And it had better be eye-poppingly cool, gorgeous or interesting.

### Aesthetics success story

An example: The cannabis industry is red hot right now. There are gazillions of products that use these ingredients for skincare, foods, sports and spa applications, and recreational use.

Many entrepreneurs have come to my company’s doorstep showing yet another marijuana leaf-emblazoned, badly executed package. We usually turn them down because we can’t market something like that; we will surely fail.

For a sector like cannabis, there is too much competition out there. Your packaging or marketing has to be dazzling.

Another way to compete, as did a company called Doist, is to create a unique delivery system with incredibly attractive packaging.

Doist created a dose-controlled cannabis therapy line delivered in a proprietary precision delivery system. The tagline is “Targeted Formulas, Precise Dosage.”

Each package is a super clean, white-sleeved box with lots of elegant whitespace simply



**If you are going to attempt to compete in a trending sector, you need to think long and hard about how you will differentiate.**

labeled, “sleep,” “bliss,” “calm,” “arouse.” The box slides open to reveal a solid-colored carrier, each one that differentiates its contents: calming blue for sleep, hot magenta for arouse.

I think the company did an amazing job.

This went a step further by marketing the product to lovers of aesthetics. I saw ads for Doist in *Architectural Digest*, not a place where one might see such a product. But the company knew its customer was someone who appreciated something beautiful.

Do not spend another dime or moment creating a product until you are superlatively clear on who your customer is, why he/she would want to buy and how much the person would pay for it. Only then, move forward with your prototypes, sourcing and finally distribution and marketing.

Ideas are only ideas without this intel. 🧠

**Alyson Dutch** has been a leading consumer packaged goods launch specialist for 30 years. She operates Malibu-based Brown + Dutch Public Relations and Consumer Product Events, and is a widely published author.





# Bad News in 3s

RECENT RULINGS SHOULD LEAVE INVENTORS HOTTER THAN AUGUST **BY LOUIS CARBONNEAU**

**A**S MANY PLACES around the world have been battling a massive heat wave (108 F in Seattle??), a lot happened in the IP marketplace recently that should leave inventors, well ... fuming.

This came from Germany and the United States. It is forcing this notice of caution that it could affect patent valuation in the near and more distant future.

Remember that Tangible IP tracks world IP events, so follow us either on LinkedIn or Twitter—where I post almost daily.

## The good news first

As most of you readers know, I like to revisit the main factors that I believe most directly affect the marketplace and patent valuations whenever I see some newsworthy event that I believe will affect market conditions. That list of factors again:

- Noticeable changes in supply and demand;
- New case law that may have long-lasting impacts;
- Changes in the regulatory environment;
- Recent large damage awards against infringers;
- Broad availability of funding to support assertion activities.

Recently we witnessed three events that should normally affect the patent market in a negative way, at least in the short term, while there was one piece of good news coming from a large licensing deal.

So let's start with the good news: Finnish technology behemoth (and Tangible IP client) Nokia recently announced that it secured a wide patent license with Daimler, ending the ongoing lawsuit between the two.

Nokia is a licensing powerhouse, with close to \$2 billion of annual revenues derived from its patent portfolio. The auto manufacturer agreed to pay Nokia an undisclosed amount, the first time

paying to use Nokia's patents. This deal follows closely two previous announcements of similar licensing deals Nokia made with Lenovo and Samsung, respectively.

This shows that when you have a large portfolio (in the tens of thousands), a deep pocket, a competent licensing team and the brand behind your IP, it is still possible to protect and monetize your innovations. But this is what I call "wholesale" licensing—which does not really translate well in the "retail" version, where small-to medium-size enterprises and inventors have none of those attributes.

Ever since the age of the internet, we have become a generation of free riders. We are avid consumers of data and technology, and we assume that most of what we read (news), watch (YouTube), listen to (music streaming, podcasts, etc.) or use (mobile apps) is going to be free.

(Of course, the real cost is hidden as we give away our privacy to large technology companies and advertisers, but this debate is for another day.)

It should come as no surprise, then, if the mainstream corporate world has similarly come to believe that other people's IP is an extension of the same phenomenon, another incarnation of the "information wants to be free" paradigm. The fact that we have seen a definite deterioration of respect for IP rights around the world in the last two decades is tracking this timeline too well to be merely coincidental, in my opinion.

Yes, most people love new technology, new songs, music, books, etc. The problem is: They don't want to pay for those anymore. This thinking has permeated the entire corporate world and we witness the same disregard for IP rights now, even within companies based in countries that used to have a strong IP culture.

Which brings us to what happened in Germany.

## Goodbye to an oasis?

Germany had been a bright spot in the past decade for those who want to enforce their patents. It maintains a swift, competent and relatively inexpensive court system. Furthermore, its “bifurcated” approach to ruling on infringement *before* validity and its ability to issue injunctive relief provided patent owners with the kind of leverage they have lost in the United States since the infamous eBay decision.

(*Editor’s note:* In 2006, the Supreme Court unanimously ruled in *eBay v. MercExchange* that an injunction should not be automatically issued based on a finding of patent infringement, but also that an injunction should not be denied simply on the basis that the plaintiff does not practice the patented invention.)

This is why many patent buyers tend to put a premium these past years in having some German assets in a portfolio. This allowed them to create real pressure across the pond, should an infringing good be enjoined from hitting the stores in what is the largest economy in Europe.

These days might be gone.

German legislators recently agreed to a change in the law. The new law limits injunctions through a formal proportionality test, whereby a claim for

injunctive relief might be considered disproportionate if it would cause an extreme hardship for the infringer or for third parties.

In explaining the reason for requiring the test, lawmakers gave the example of a complex product where the enforcement of a patent covering only a minor component may keep the entire product off the market, causing extreme hardship.

You see the parallel with eBay? Most inventors know that once you apply that test, they are screwed, as they do not sell a product themselves most of the time.

What jurists call the “balance of inconveniences” will never favor inventors since, in theory at least, they can be compensated financially—even if it takes time. And as we know too well, the money rarely comes because most patent owners do not have the resources to fight a long, protracted battle against large and well-funded companies; and with the leverage of an injunction eliminated, they will have to settle for pennies or continue their crusade until they bleed dry.

This is what happened in the United States since *eBay*. It will happen there as well if German courts are sensitive to the same argument.

Meanwhile, you can bet that the premium placed on German patents is being revisited

**District court judges will have even more license to use the *Alice* doctrine to quickly end new cases, which essentially leaves inventors with no real day in court.**





until we see how this new law is going to be implemented by the courts.

### Alice in blunderland

Closer to home, two important developments took place that should also worry inventors.

The first one is a June 11 decision by the U.S. Court of Appeals for the Federal Circuit, which further extends the reach of the *Alice* doctrine (i.e. abstract ideas are not proper patentable subject matter) to—are you ready?—digital cameras!

The appeals court, which has become the *de facto* supreme court on most patent matters, affirmed a decision from the District Court in the Northern District of California that cited “the abstract idea of taking two pictures and using those pictures to enhance each other in some way”—and were thus patent ineligible.

The federal circuit agreed, although Judge Pauline Newman wrote a strong dissent: “The case before us enlarges this instability in all fields, for the court holds that the question of whether the components of a new device are well-known [sic] and conventional affects (patent) eligibility, without reaching the patentability criteria of novelty and nonobviousness.”

This is the real problem nowadays. Everyone wants to cut corners.

The 2014 Supreme Court *Alice v. CLS Bank* ruling gave judges a great way to clear their docket early and with very little work by skipping the rigorous infringement and validity analysis that a trial on the merits requires. Instead, they rule on a summary motion to dismiss the case on the grounds that whatever the patent at stake pertains to, there has got to be an abstract idea somewhere that makes it invalid.

Check. Next case!

This is especially true in districts that are well known for being less friendly to patent lawsuits because of the large, local presence of tech companies. The Northern District of California (essentially covering Silicon Valley) is well known as the place where patents go to die.

With this latest decision, district court judges will have even more license to use the

*Alice* doctrine to quickly end new cases, which essentially leaves inventors with no real day in court (unless they are fortunate enough to be in Texas) because their patent is likely to be invalidated on a simple motion before they even had the chance to make their case.

### Another easy ‘fix’

Which brings us to the last piece in this trifecta of bad news.

With its June 21 ruling in *Arthrex v. Smith & Nephew*, SCOTUS had a chance to do away with the vilified Patent Trial and Appeal Board, given that the administrative judges are not appointed by the president. This deprives constituents of the right to have their patents reviewed by what we call an “Article 3” (of the Constitution) judge.

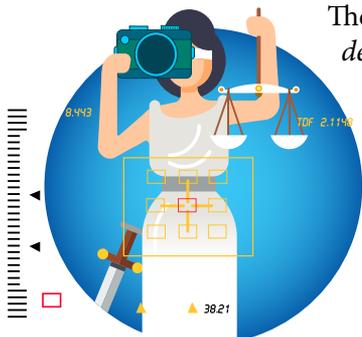
The Supreme Court, while agreeing that these administrative judges were not appointed properly, found an easy fix by saying that the United States Patent and Trademark Office director simply had to review their decisions whenever he/she deemed appropriate, and the fix was in.

That’s it! So elegant.

By this ruling, the court essentially made the next USPTO director a new tzar overnight by concentrating in the hands of one individual the ability to play “Patent God.”

Let us gloss over, for a moment, the mere impracticality of having someone who has already a full-time job running a large agency potentially review each decision that is appealed by the losing party.

Do you realize what this means in terms of the lobbying and jockeying that will go into who gets to become the next USPTO director? Will the tech lobby succeed in getting another Michelle Lee at the helm, who will follow the U.S. technology companies’ agenda of further weakening IP rights? And what about four years from now? And so forth? ☹



**Louis Carbonneau** is the founder & CEO of Tangible IP, a leading IP strategic advisory and patent brokerage firm, with more than 2,500 patents sold. He is also an attorney who has been voted as one of the world’s leading IP strategists for the past seven years. He writes a regular column read by more than 12,000 IP professionals.



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# How to Go Out on Top

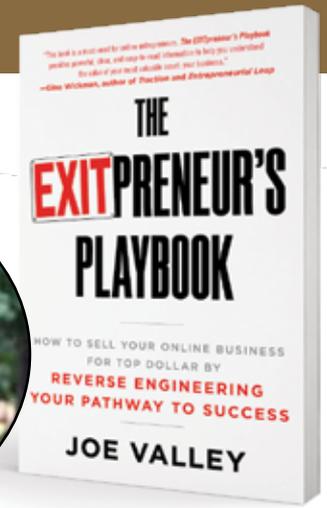
SO OFTEN IN LIFE, IT'S NOT HOW YOU START THAT COUNTS. IT'S HOW YOU FINISH.

**I**F YOU have an online business, you may feel you've maxed out on profits, and/or you want to sell. Or maybe your business has outgrown you. Either way, you'll need a selling plan that's every bit as important as the plan you started with as an original idea.

"The EXITpreneur's Playbook" has you covered. Author Joe Valley—who has built, bought and sold over a half-dozen companies of his own and is a partner at Quiet Light, one of the leading online-focused merger-and-acquisition firms—says: "The majority of all the money you'll ever make from your business comes on the day you sell—so it's important to get the exit right."

Valley relates real-life experiences such as that of "Mike," who knew that exit time was nigh. "I knew what to do, and I knew I'd get to it someday. But I woke up, and *someday* was here."

The book uses Valley's personal experiences and myriad actual examples, using clear math and logic while leading readers to the exit. On the way, they learn how to:



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- Avoid the "ignorance discount" when selling a business on your own
- Negotiate favorable deal terms and conditions
- Calculate the all-important seller's discretionary earnings
- Create rock-solid pillars every buyer wants

Valley not only explains how to exit your online business at the right time but how to repeat the process: Bootstrap, grow, sell, repeat. In "The EXITpreneur's Playbook," the going is good. ☺

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# How Long to Wait?

INTERIM USPTO DIRECTOR SAYS HE MAY MOVE AHEAD WITH SIGNIFICANT IP-RELATED DECISIONS **BY EILEEN MCDERMOTT**

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

**IPWATCHDOG** and LexisNexis held a “Conversation with the Commissioner of the USPTO” on July 15 in which Drew Hirshfeld, the interim director of the office, said he will consider moving forward on important initiatives if necessary.

*(Editor’s note: The United States Patent and Trademark Office commissioner for patents has been performing the functions and duties of the director since Donald Trump appointee Andrei Iancu resigned in January, when a new U.S. administration became official with the inauguration of Joe Biden as president.)*

Hirshfeld explained that he would prefer to wait until a political appointee is leading the office to move ahead on substantive reforms. However, he added that “I’m trying to run the agency as if I was in this permanently, knowing I’m not and I won’t be, because I think that’s the right thing to do for the system. If we’re going long enough without a nominee, then maybe I need to move forward on things.”

Hirshfeld and Gene Quinn, IPWatchdog founder and CEO, discussed possible necessary changes to encourage more diversity in the patent bar. Although

Hirshfeld expects to implement three changes noted in the March request for comment that the office issued within the next month, “we are planning to have a much more fulsome discussion” on closing the gender gap in the longer term, he said.

Such a discussion will ideally take place once a permanent director is appointed. But with no word on a potential nominee being named anytime soon, Hirshfeld indicated he would ultimately do what’s best for the office and stakeholders.

## What’s next on *Arthrex*?

Hirshfeld also addressed the status of changes being made in light of the Supreme Court’s *Arthrex* decision, which mandated that the USPTO director be able to review final written decisions of the Patent Trial and Appeal Board. As a result, the office announced an interim rule governing the process for requesting director review.

*(Editor’s note: The USPTO issued this written statement on June 29. “As a result of the recent Supreme Court decision in U.S. v. Arthrex, Inc., the United States Patent and Trademark Office (USPTO) has implemented an interim procedure whereby review of a Patent Trial and Appeal Board (PTAB) final decision may be initiated sua sponte (of one’s own will) by the Director or requested a party to a PTAB proceeding.*

**The USPTO has been without a fulltime director since January.**



“At this time, a party may request Director review of a final written decision in an inter partes review or post-grant review by filing a request for rehearing by the Director of a PTAB decision and concurrently submitting a notification of that request to the Office by email to Director\_PTABDecision\_Review@uspto.gov, copying counsel for the parties.”)

The office began receiving requests for review almost immediately.

Hirshfeld explained that “everything we’re doing in the process, we’re deliberately calling interim. What we’re putting in place is flexible and can be modified.”

He added that following the *Arthrex* decision, he and others at the office started to brainstorm about what the decision meant and agreed that, at a minimum, the director needs to *sua sponte* be able to review final decisions. However, Hirshfeld feels very strongly that people should be able to directly request review as well.

### **Biden executive order**

Hirshfeld also addressed the sweeping executive order issued by Biden on July 9, which included several sections in which the USPTO is implicated.

One such section asks the attorney general and the secretary of commerce “to consider whether to revise their position on the intersection of the intellectual property and antitrust laws, including by considering whether to revise the Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments issued jointly by the Department of Justice, the United States Patent and Trademark Office, and the National Institute of Standards and Technology (NIST) on December 19, 2019.”

Hirshfeld said he anticipates the USPTO and NIST will be involved in the discussions, but “it’s all very new” so he had no additional information. ☺

**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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Whether your concern is how to get started, what to do next, sources for services, or whom to trust, I will guide you. I have helped thousands of inventors with my written advice, including more than nineteen years as a columnist for *Inventors Digest* magazine. And now I will work directly with you by phone, e-mail, or regular mail. No big up-front fees. My signed confidentiality agreement is a standard part of our working relationship. For details, see my web page:

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*Best wishes, Jack Lander*

## IoT Corner

African startup **Hello Tractor** is working to connect farmers on the continent to the equipment they need.

Dubbed the “Uber for tractors,” Hello Tractor is using Vodafone’s connected technology for the remote monitoring and dispatching of tractors and combines to areas that need it the most.

The mobile app tracks the equipment’s location, service hours and scheduled maintenance for equipment owners, and farmers can book time with machines as needed the way Lyft and Uber do for local transportation. There is a huge disparity between the number of tractors and farmers who need them.

—Jeremy Losaw



## What IS that?

One reviewer and Danny DeVito fan wrote: “I am absolutely in love with this beautifully crafted piece of art. My wife took my house, dog, and children and moved to California, but none of that matters now that I have this pillow.” Actually, it’s a **sequined pillowcase**, so you’ll have to find a pillow to stuff it with. Either way, it’s the stuff of strange dreams.



## Wunderkinds

**Kelly Ann Greene’s** “baby saver” invention won the market potential award at the Invention Convention U.S. Nationals hosted by The Henry Ford in July. The 17-year-old from Kansas City, Missouri, earned a spot in the worldwide competition in August.

Greene designed her patented invention to attach to a car seat. The black box detects when the temperature rises, then uses GPS and cellular technology to alert parents and 911 that a baby was left in a hot car. Greene and others received mentorship and support from the Linda Hall Library in Kansas City, which hosted the KC Invention Convention.

**4,400** The approximate number of **mousetrap patents** issued by the United States Patent and Trademark Office between 1838 and 1996. It’s one more reminder that you don’t always have to come up with an original idea; sometimes you just have to innovate better.



## WHAT DO YOU KNOW?

**1** The Barbie doll, invented by American businesswoman Ruth Handler and debuting in 1959, was inspired by:

- A) 1950s fashion model Suzy Parker
- B) Marilyn Monroe
- C) Jayne Mansfield
- D) German doll Bild Lilli

**2** **True or false:** The Stanley Cup, the championship symbol of the National Hockey League, is trademarked by the NHL even though the league does not own it.

**3** **True or false:** Margarine was invented to fatten turkeys.

**4** Which famous inventor said this? “All creative people want to do the unexpected.”

- A) Hedy Lamarr
- B) Benjamin Franklin
- C) George Washington Carver
- D) Eli Whitney

**5** Which company had more patents as of May 2021—Elon Musk’s Tesla Motors, or Hyundai Mobis?

**ANSWERS:** 1.D. Bild Lilli also had her own separate dresses. To resolve copyright problems, Mattel bought rights to Bild Lilli in 1962. 2. True. The cup is held on a charitable trust. 3. False, despite a Facebook claim to the contrary that went viral. French chemist Hippolyte Mège-Mouriès invented it in 1869 for people. It’s also a myth that margarine is one molecule away from plastic and that its inventor was trying to make plastic at the time. 4.A. 5. About 600 for Tesla Motors, 4,000 for Hyundai Mobis.

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