

IN COOPERATION WITH



UNITED STATES PATENT AND TRADEMARK OFFICE ®

MAY 2023 Volume 39 Issue 05

# Inventors

DIGEST



# INFRINGED

INVENTOR STORIES • PROTECTING YOURSELF

## Just Once: An AI Byline

CHATGPT EMERGES WITH  
PROMISE AND PROBLEMS

## A Year of Impact

USPTO DIRECTOR  
GEARED FOR ACTION

\$5.95

PRSR STD  
U.S. POSTAGE  
PAID  
MARCELINE, MO  
PERMIT #13



Are you an

# INDEPENDENT OR PROFESSIONAL INNOVATOR?

If so, register for Invention-Con 2023,  
a virtual three-day annual conference  
on May 10-12.

You'll have the chance to:

- **Understand your value:** Learn what to offer to attract investors, harness the power of trademark protection, and explore licensing possibilities.
- **Connect to opportunities:** Find key resources, build your business plan, and get tips to craft the perfect pitch and secure funding.
- **Move your business forward:** Turn passion to profits, overcome obstacles, and pivot in the marketplace.

Register today to attend online or in person (May 12 only)  
at USPTO headquarters in Alexandria, Virginia:

[www.uspto.gov/inventioncon](http://www.uspto.gov/inventioncon)

## INVENTION-CON 2023

The Place for **Inventors**, **Makers**, & **Entrepreneurs**

USPTO's Inventors Conference · May 10 - 12 · In person/virtual



UNITED STATES  
PATENT AND TRADEMARK OFFICE ®

# Contents

May 2023 Volume 39 Issue 5



22

## Feature

- 24 **Knockoff Heartbreak**  
Stories to Warn and Educate Inventors

## Inventor Spotlight

- 20 **More Yum to Come!**  
Serial Inventor's Special Spoon
- 22 **In With Beauty, Out the Door**  
Woman's Ready-to-Wear Hair Pieces

## Departments

- 6 **Your USPTO**  
News, Upcoming Events
- 10 **Editor's Note**  
Caution About AI
- 11 **Everybody's Talking**  
Conversation Pieces
- 12 **Bright Ideas**  
Innovation That Shines
- 14 **Time Tested**  
The Screen Door
- 16 **Lander Zone**  
A Chatbot Writes
- 18 **Social Hour**  
Lemon8—Or Lemon?
- 34 **Meant to Invent**  
3 Big Questions
- 36 **Prototyping**  
Open Source, Part 1
- 40 **IP Market**  
Better Blackberry Deal?
- 43 **Eye on Washington**  
A Supreme Dodge; Patent Suits Myth
- 46 **Inventiveness**  
Focus on the Fun and Fascinating



14



ON THE COVER  
Padally inventor  
Lily Winnail;  
photo by Jeff Siner



20



# 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.

**SAVE THE  
AMERICAN  
INVENTOR**

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

## DIRECTOR'S BLOG

## An Impactful Year

*My first year as USPTO director was about gathering input via many formats; now it's time for more action on meaningful change* **BY KATHI VIDAL**

**O**NE YEAR into my role as director of the United States Patent and Trademark Office—at the intersection of IP law, policy, and innovation—I am focused on impact.

I've spent the past year listening and reading: in nearly 100 external stakeholder meetings; in internal, small group listening sessions with over 1,500 USPTO employees; reading your comments submitted via our requests for comments and your emails to my Engage with the Director inbox; participating in over 130 fireside chats, and in all my interactions across the world with inventors, entrepreneurs, and everyone who cares about making our IP ecosystem work for all.

If this year was often about listening and gathering the input and data to make meaningful, sustainable change, 2023 (and beyond) is about action.

Per our draft 2022-2026 Strategic Plan, the USPTO is advancing five strategic goals:

- Drive inclusive U.S. innovation and global competitiveness;
- Promote the efficient delivery of reliable IP rights;
- Promote the protection of IP against new and persistent threats;
- Bring innovation to positive impact;
- Generate impactful employee and customer experiences by maximizing agency operations.

Below are a few examples of this work in the past year.

### Driving inclusion, working globally.

Last year, the USPTO expanded its Council for Inclusive Innovation (CI<sup>2</sup>), and I joined the Economic

Development Administration's National Advisory Council on Innovation and Entrepreneurship as a co-chair to work across government and with the private sector to expand the innovation ecosystem—especially among under-represented and under-resourced groups, and in key technology areas. Under CI<sup>2</sup>, we launched our First-time Filer Expedited Examination Pilot Program to assist qualifying independent inventors and small businesses with getting a patent faster and to help their businesses grow.

We are also digging deep in specific communities.

We cofounded, along with U.S. Secretary of Commerce Gina Raimondo, our WE Initiative to inspire and empower more women leaders to jump-start their journeys of innovation. We are working with the Intellectual Property Owners Association and other associations to create a “mentorshIP” program that facilitates meaningful interactions between budding women entrepreneurs and successful women who can share lessons from their experiences. We issued our study on the geography of women in patents to better understand economic and socioeconomic correlations with patenting by women.

We are working with historically Black colleges and universities and minority serving institutions on expanding tech transfer initiatives. We are more fully engaged with the Native American community on how we can best support innovation and entrepreneurship on tribal lands and elsewhere.

Last year, we launched a new online resource, EquiP HQ, which features online games, interviews with inventors, and lesson plans for the classroom. We hosted events throughout the

Participating in the Energy Innovation Summit is one of the many ways we are working to make positive real-world impacts.



year for K-12 educators, including monthly webinars, our annual National Summer Teacher Institute, and our first Master Teacher of Invention Education Program.

We are doubling down on our pro bono legal services (free to qualifying applicants), which will open the doors for additional support and representation for innovators. In the past year:

- Our free services webpage amassed over 77,000 views, ranking it among the most popular pages on our website.
- We launched the Trademark Trial and Appeal Board Pro Bono Clearinghouse Program, and the PTAB Pro Bono Program.
- We expanded the Law School Clinic Certification Program.
- We solicited feedback on ways we can expand the patent bar, create a design bar, and expand opportunities for practice before the PTAB.

I've met with over two dozen foreign IP office leaders and have embarked on an ambitious global agenda to strengthen our respective IP systems. We entered into over a dozen cooperative agreements that identify concrete plans for promoting the transparency, accessibility, and reliability of our IP policies and practices.

We also developed and provided capacity-building programs, organized and conducted by USPTO attorneys, to help improve IP systems in key countries and regions to benefit U.S. stakeholders. Our Global Intellectual Property Academy conducted 222 programs this past year covering all areas of IP. It trained more than 10,679 officials from 161 countries and intergovernmental organizations, and over 6,526 small and medium-sized U.S. enterprises, U.S. government officials, and other U.S. stakeholders.

**Strengthening IP rights.** Our team has been actively engaged with Congress and in the courts, including working closely with the Departments of Commerce and Justice, to work to ensure our laws foster a strong innovation and entrepreneurship ecosystem.

We created more clarity and certainty in Patent Trial and Appeal Board practice in director review and discretionary denials in America Invents Act proceedings, and with post-grant challenges in general.

We requested and received comments on patent eligibility guidance, and on how to ensure robust and reliable patents.

**Protecting against fraud.** We conducted Trademark Modernization Act proceedings that have resulted in the cancellation of 1,097 unused goods or services out of

the 1,119 goods or services challenged. We implemented identity verification for all trademark filers to protect our system from scammers. We registered USPTO marks to thwart fraudulent solicitations by scammers to trademark customers. We issued 150 orders terminating over 600 invalid applications and sanctioning 70 registrations for violations of our trademark rules of practice and website terms of service.

We are dedicated to protecting businesses and their brands by informing consumers about the dangers and consequences of purchasing counterfeit or pirated goods through our partnership with the National Crime Prevention Council. Public service announcement campaigns for teens and tweens as part of our Go for Real campaign had a combined 78,435 airings on TV stations and over 570 million impressions.

**Enhancing the customer experience.** Internal improvements include a new Patent Public Search tool to make searching for grants and applications much easier; an improved routing and classification process that better matches examiners' expertise with the applications they examine; examiner training on new artificial intelligence (AI) tools to enhance prior art searching, and information technology systems upgrades.

We launched our AI/ET (emerging technology) Partnership and recently published a request for comments on AI and inventorship (responses due May 15). We are working on the responsible introduction of new AI into our workflow while we work across government and closely with the Department of Commerce on AI.

Climate change-related initiatives include our newly announced Trademarks for Humanity Awards Program; our Patents for Humanity Green Energy category; expedited examination procedures through the Climate Change Mitigation Pilot Program; and our partnership with the World Intellectual Property Organization's WIPO GREEN Program.

We are excited about what the rest of 2023 will bring and look forward to making a meaningful impact for our country and all of you!

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

For more information, visit [uspto.gov/blog/director/entry/one-year-of-bringing-innovation](https://uspto.gov/blog/director/entry/one-year-of-bringing-innovation).

## NEWS FLASH

## Awards Program to Honor Stewards of Environment

*Trademarks for Humanity to offer public recognition for brand owners*



The USPTO wants to honor brand owners who harness the power of trademarks to help solve humanitarian challenges.

The agency's new Trademarks for Humanity awards program is designed to recognize brand owners who improve the environment through their products and services.

Although future iterations will cover different challenges, the inaugural award cycle will focus on the environment.

The Trademarks for Humanity award joins other recent USPTO initiatives—such as the Patents for Humanity Program's green energy award category;

a joint work-sharing program with the National Oceanic and Atmospheric Administration; expedited examination procedures under the Climate Change Mitigation Pilot Program; and a partnership with the World Intellectual Property Organization's WIPO GREEN program—designed to address environmental challenges.

Applications for the Trademarks for Humanity award will be accepted from those owning an active U.S. trademark registration and using it in connection with products, services, or business practices that improve the environment. All types of registered marks are eligible, including trademarks, service marks, certification marks, collective marks, or collective membership marks. Winners will receive recognition at a public awards ceremony with the director of the USPTO and will be featured on the USPTO's website.

The USPTO is accepting applications for the Trademarks for Humanity award through July 14, 2023, or until 200 applications are received, whichever occurs first. For more information about how to apply, visit [uspto.gov/ip-policy/trademarks-humanity-awards-program](https://uspto.gov/ip-policy/trademarks-humanity-awards-program).

The United States Patent and Trademark Office (USPTO) is responsible solely for the USPTO materials on pages 6-9. Views and opinions expressed in the remainder of *Inventors Digest* are those of the writers and do not necessarily reflect the official view of the USPTO, and USPTO is not responsible for that content. Advertisements in *Inventors Digest*, and any links to external websites or sources outside of the USPTO sponsored content, do not constitute endorsement of the products, services, or sources by the USPTO. USPTO does not have editorial control of the content in the remainder of *Inventors Digest*, including any information found in the advertising and/or external websites and sources using the hyperlinks. USPTO does not own, operate or control any third-party websites or applications and any information those websites collect is not made available, collected on behalf of nor provided specifically to USPTO.

## WHAT'S NEXT

### GREEN ENERGY INNOVATION EXPO:

Green energy's impact in the fight against climate change will be the theme of this daylong event, May 17 from 9 a.m. to 5 p.m. ET at USPTO headquarters in Alexandria, Virginia.

About 300 members of the technology development and commercialization community who work in the green energy sector will attend. Attendees may showcase their innovation portfolios in front of key industry representatives and build relationships with other organizations. For more information, and to register: [uspto.gov/about-us/events/green-energy-innovation-expo](https://uspto.gov/about-us/events/green-energy-innovation-expo)



### CORPORATE LICENSING EVENT: "Successful Inventing:

The Corporate Licensing Process," the sixth virtual event in the Successful Inventing series, will be May 17 from 4 to 5:30 p.m. PT.

Among the topics: What do companies expect to see from the inventor? What companies to approach, and why? What are the licensing odds for success?

A question-and-answer session will follow the presentation. Please send questions in advance or during the event to [SiliconValley@uspto.gov](mailto:SiliconValley@uspto.gov). For more information, and to register: [uspto.gov/about-us/events/successful-inventing-corporate-licensing-process](https://uspto.gov/about-us/events/successful-inventing-corporate-licensing-process)

**PATENT PROTECTION ABROAD:** If you want to learn more about filing foreign patent applications, join this free session given by patent experts from the USPTO on May 26 from 2 to 3:30 p.m. ET. Discussion topics will include options to help protect intellectual property in foreign jurisdictions; an overview of the Patent Cooperation Treaty; and the use of the Paris Convention for non-PCT countries.

For questions, email [EasternRegionalOutreachOffice@uspto.gov](mailto:EasternRegionalOutreachOffice@uspto.gov). For more information, and to register: [uspto.gov/about-us/events/learn-how-protect-your-technology-abroad-0](https://uspto.gov/about-us/events/learn-how-protect-your-technology-abroad-0)

### HELP FOR ASIAN

**AMERICANS:** The 2023 Asian American Native Hawaiian/Pacific Islander (AANHPI)

**ASIAN AMERICAN  
NATIVE HAWAIIAN  
& PACIFIC ISLANDER  
INNOVATION**

Innovation and Entrepreneurship Program offers opportunities for independent inventors, entrepreneurs, small-business owners, and intellectual property professionals to learn about resources available to the AANHPI innovation community. The virtual event is May 31, from 3 to 4:30 p.m. ET.

For more information, and to register: [uspto.gov/AANHPIInnovation](https://uspto.gov/AANHPIInnovation)

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

# HELLO INNOVATION

We're Enventys Partners, your one-stop partner for building new products, creating new brands and breathing life into existing ones. Our efficient, collaborative approach helps you grow your business by creating and introducing innovative new products or selling more of the ones you already have.

Simply put, we bring products to life.

## HOW WE DO IT



Product Development



Industrial Design



Engineering & Prototyping



Manufacturing



Sourcing



Market Research



Crowdfunding  
(Kickstarter)



Digital Advertising  
& Marketing



Social Media  
Marketing



Public Relations

We've helped bring more than **2,500 products** to market. Is yours next?

For more information and to view samples of our work, [enventyspartners.com](http://enventyspartners.com)





## Ruh-Roh! Let's Show Some Caution With AI

*"Help! Help! Jane, stop this crazy thing! Jane! Help! Jaaanne!"*

It was Astro's fault. Or was it?

In the classic closing clip that shows production credits at the end of "The Jetsons," George Jetson was walking Astro on a leash on the family's moving walkway when the dog began chasing a cat—yanking the leash from George's hand and causing him to repeatedly slide under the walkway as it malfunctioned and sped up while he screamed for his wife's help. Astro and the cat watched in amusement.

"The Jetsons," which premiered in prime time in 1962, was ahead of its time in many ways with futuristic gadgets that included a robot maid and flying cars. The walkway gag was a reminder that even the most seemingly perfect futuristic technology has flaws.

The more things change ...

This month's column by Jack Lander marvels at the results when he asked artificial intelligence chatbot ChatGPT to write a story about the return of trade shows, post COVID-19. Our esteemed inventing veteran sees a world of possibilities—while acknowledging problems with the technology.

Jonathan Turley would definitely agree with the problems part. An attorney and legal scholar, he was informed recently by a UCLA professor friend that his name appeared in a search while he was conducting research on ChatGPT. "The bot was asked to cite five examples of sexual harassment by U.S. law professors with quotes from relevant newspaper articles to support it," Turley said in a TV interview.

Turley's name came up in the search. He was shocked and horrified.

"The AI system made up a *Washington Post* story, then made up a quote from that story and reported an allegation of harassment on a trip with students to Alaska. That trip never occurred."

So much for Bill Gates' claim that using AI in writing can reduce misinformation on the internet.

More important, who (or what) is accountable here? A chatbot? The person/people who devised the algorithm that produced false results? And what does this mean for news outlets determined to employ the chatbot software?

AI is here to stay—with future positive and negative outcomes that are manifest in all technology. Jane can't stop this crazy thing.

But like all inventions and innovation, AI will only be as good as the people behind it. And the people who take credit for it had better be prepared to be accountable for it as well.

—Reid

(reid.creager@inventorsdigest.com)

# Inventors

DIGEST

**EDITOR-IN-CHIEF**  
REID CREAGER

**ART DIRECTOR**  
CARRIE BOYD

**CONTRIBUTORS**  
BRUCE BERMAN  
ELIZABETH BREEDLOVE  
LOUIS CARBONNEAU  
JACK LANDER  
JEREMY LOSAW  
EILEEN MCDERMOTT  
APRIL MITCHELL  
EDIE TOLCHIN

**GRAPHIC DESIGNER**  
JORGE ZEGARRA

INVENTORS DIGEST LLC

**PUBLISHER**  
LOUIS FOREMAN

**WEBSITE ADMINISTRATOR**  
ELIZABETH BREEDLOVE

**FINANCIAL CONTROLLER**  
DEBBIE MUENCH

© 2023 Inventors Digest, LLC. All rights reserved. Inventors Digest, LLC is a North Carolina limited liability company and is the publisher of *Inventors Digest* magazine. INVENTORS DIGEST and INVENTORS' DIGEST are trademarks of Inventors Digest, LLC. Reproduction or distribution of any materials obtained in this publication without written permission is expressly prohibited. The views, claims and opinions expressed in article and advertisements herein are not necessarily those of Inventors Digest, LLC, its employees, agents or directors. This publication and any references to products or services are provided "as is" without any expressed or implied warranty or term of any kind. While effort is made to ensure accuracy in the content of the information presented herein, Inventors Digest, LLC is not responsible for any errors, misprints or misinformation. Any legal information contained herein is not to be construed as legal advice and is provided for entertainment or educational purposes only. Interested parties and inventors seeking legal advice should consult a lawyer.

Ad rates, subscriptions & editorial content:  
520 Elliot Street  
Charlotte, NC 28202  
info@InventorsDigest.com  
www.InventorsDigest.com  
reid.creager@inventorsdigest.com

## 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):

### “USPTO Magic Moment: He Brought Black Innovation to Light”

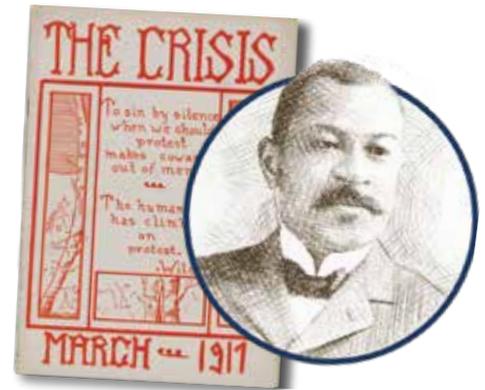
(February 2022):

Great article, but why hasn't Atty. Baker been more widely recognized and celebrated? “The Colored Inventor” should be compulsory reading and curriculum for K-12, as we do with Edison and Bell!

Keep sharing and educating. —GLENN GILLIAM

*Well said, Glenn. Henry E. Baker, who compiled the first list of African-American inventors amid rampant racial persecution during the late 19th century, helped change the course of American history. His tireless research provided*

*information that otherwise never would have come to light, and underscored the importance of inclusion in all aspects of life. His list has inspired generations of inventors of all kinds who historically have been denied recognition. USPTO acting historian Rebekah Oakes revisited Baker's contributions in last month's issue. —Editor*



Henry E. Baker's list of African-American inventors was publicized in the NAACP's main periodical, *The Crisis*.

## CONTACT US

### Letters:

*Inventors Digest*  
520 Elliot Street  
Charlotte, NC 28202

### Online:

Via [inventorsdigest.com](http://inventorsdigest.com), comment below the Leave a Reply notation at the bottom of stories. Or, send emails or other inquiries to [info@inventorsdigest.com](mailto:info@inventorsdigest.com).

## BURRITO CHAIN SUIT RESOLVED, AS FAST AS A BURP

It was rare stuff in a world where drawn-out litigation seems the norm: Restaurant introduces menu item on a Thursday, is sued for trademark infringement by a competitor on Tuesday, then settles on Thursday.

That was the timeline in the recent *Sweetgreen vs. Chipotle Mexican Grill* dispute.

In its April 4 filing in a California federal court, the latter claimed Sweetgreen, a salad chain, infringed on its trademark when it introduced its “Chipotle Chicken Burrito Bowl” for a limited time.

Two days after the filing—which immediately resulted in Sweetgreen's stock falling—a Sweetgreen representative said in a statement to CNBC that the company would rename the bowl the “Chicken + Chipotle Pepper Bowl.” Chipotle Mexican Grill said it accepted the compromise and that the two eateries had a tentative deal. Chipotle said in a statement that it is pleased Sweetgreen chose to

change the name in a way that protects its trademarks—although its reasoning is unclear.

In Chipotle's original complaint, the company said it sent Sweetgreen a cease-and-desist notice and asked the company to drop “chipotle” from the name. (A chipotle, or chilpotle, is a smoke-dried ripe jalapeño chili pepper used for seasoning.)

But in the renaming of the menu item that both parties agreed to, “chipotle” is still in the name.

Sweetgreen's new Chicken + Chipotle Pepper Bowl is made with the flavor of Chipotle peppers. It has blackened chicken, roasted chipotle Salsa, wild rice, cilantro lime black beans, sliced tomatoes, and cabbage.



# BRIGHT IDEAS



## Boxing Buddy

ROBOTIC TRAINING  
AND SPARRING PARTNER

[boxing-buddy.com](http://boxing-buddy.com)

Boxing Buddy features two rotating, soft-padded arms and the ability to simulate opponent strikes at various speeds, paces, and intensities. Practice defense, speed, agility, coordination and mobility at different rates and difficulty levels: Starter, Amateur, Intermediate and Pro.

The product's three modes include Random Sparring, Custom and Coach. One charge of the battery can power at least 10 hours of continuous use, with a battery indicator that shows the remaining power in the device. It recharges in 1.5 hours.

The product, which will retail for \$499, is to be shipped to crowdfunding backers in September.

## Quartet

SIDE TABLE  
THAT TRANSFORMS  
INTO FOUR STOOLS

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

Made for people living in small spaces, this quality hardwood table quickly transforms into four stools with no tools required.

Lightweight but with 300-lb. seating capacity for each, the quality hardwood stools come fully assembled. Legs come with bottom glides to protect floors; handles provide easy moving. The whole unit, stacked, weighs only 38 lbs.

The table can also be used for a nightstand. After the crowdfunding campaign (shipping begins in July), buyers can choose from either scalloped or polygon wood.

Quartet has a planned retail price of \$500.

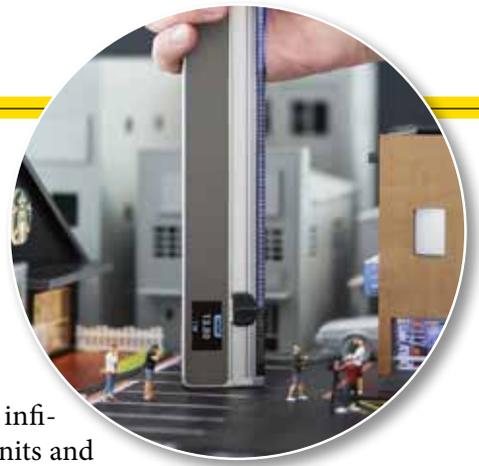




### NeoRuler

COMPREHENSIVE  
MEASURING FROM  
YOUR DESKTOP

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



NeoRuler features nearly infinite customizable scales, units and a 0.1mm resolution.

You can quickly switch between Metric and Imperial in one swipe without multiple calculations; get an explicit imperial decimal, fractional display in your hand; and get 90 built-in scales for maximum versatility. The customized scale lets you define your own scale, equally divide space quickly in any length, and mark accurately on the drafting of any length and width.

The ruler has a built-in pointer for measuring detail; pen holder; magnifier, and caliper.

NeoRuler will retail for \$129. Shipping for crowdfunding backers is planned for June.

**“Ideas are the seeds of invention and actions are the fertilizers.”**

— DEBASISH MRIDHA

### AliPillow

MEMORY FOAM,  
ANTI-SNORING PILLOW

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

With a contoured, cervical, design and memory foam that cradles the natural curvature of your neck and provides support for spine alignment, AliPillow is designed to help alleviate neck pain and snoring.

When the pillow detects snoring, four built-in airbags inflate according to the position of your head. This moves your head to a suitable position to expand the musculature of the throat, which can let the airflow pass through the airway smoothly. To ensure this works no matter where the snorer's head is on the pillow, four full-sized individual airbags are positioned from side to side.

AliPillow retails for \$99.



# Soothing Summer Staple



THE SIMPLE SCREEN DOOR, SYNONYMOUS WITH COMFORT FOR 200 YEARS, WAS BORN OF FORCED INGENUITY **BY REID CREAGER**

**R**ODNEY DANGERFIELD—bug-eyed, forehead-mopping, one-suit style-fits-all-decades Rodney Dangerfield—had an uncanny talent for creatively funny visuals. Ergo, his joke about the food being so bad at his house that a swarm of houseflies took up a collection to fix the hole in his screen door.

There's nothing funny about keeping bugs outside and cooler temperatures inside, which was a prime reason for inventing the door/window screen. But there is much more to this story.

It's a tale of innovation by necessity, a lasting public health achievement, and of an "inventor" whose credentials and very existence are so iffy that even misinformation sieve Wikipedia does not dare credit her.

## Early half solutions

What would a good Time Tested story be without conflicting internet claims of inventorship?

We are pleased to not disappoint. But the short answer is that the screen door should be attributed to Gilbert and Bennett, a company

that made wire mesh sieves for food processing during the Civil War.

Before this, people would sometimes use Dutch doors—a full door horizontally cut in half—to let in fresh air above waist level while keeping out pests of the non-flying ilk. But this did little to keep out flies and mosquitoes.

Cheesecloth was employed to cover windows for keeping out flies and other insects. (This wasn't just to prevent a nuisance; mosquito-borne sicknesses such as malaria and Yellow Fever had people dropping like flies in the 18th and 19th centuries. In fact, according to battlefields.org, mosquitos caused a malaria epidemic in the British Army stationed in South Carolina during the American Revolution that forced the troops to move to Yorktown.)

Cheesecloth is loosely woven, so it allows air to circulate. But it is delicate and easily torn—clearly a temporary means of providing relief from heat and pests.

## Sieve makers score

The diligent research of author and researcher Kristin Holt revealed that as early as 1823, "Wove wire for window screens" were referenced in the *American Farmer*. An advertisement for wire window screens appeared in Boyd's Blue Book in 1836. And two wire window screens were exhibited at Quincy Hall in Boston in 1839.

But Gilbert and Bennett Co. was the first to popularize wire screens for doors and windows on a widespread basis.

According to Holt, the sieve makers had a growing surplus during the Civil War because the Northern company could no longer sell in the Southern states. An employee came up with the idea to coat the wire cloth with paint to prevent

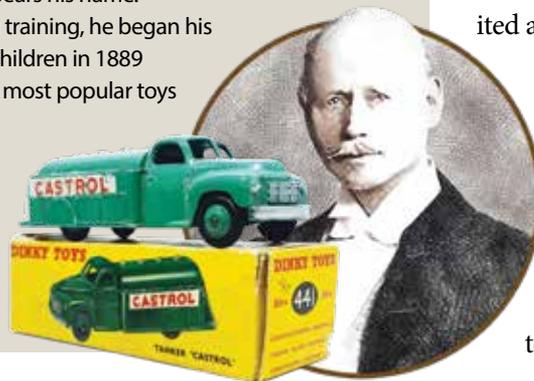
## INVENTOR ARCHIVES: MAY

**May 15, 1863:** English toy inventor **Frank Hornby** was born.

Hornby invented Meccano and Dinky Toys, as well as founding the model railway company that bears his name.

With no formal engineering training, he began his career by making toys for his children in 1889 before producing some of the most popular toys of the 20th century.

Hornby was named among the top 10 toy inventors ever in a poll of modern-day toy makers in 2015. People still build Meccano models and collect his toys.



rust, and sold it for use as window screens—which naturally evolved into door screens.

The company ultimately made wire cloth a major part of its business on its way to becoming a major manufacturer of screens for doors and windows. It later introduced steel wire, also resistant to rust.

On July 7, 1868, Louisiana company Bayley and McCluskey received U.S. Patent No. 79,541 for screened roof-top rail-car windows, allowing ventilation, while preventing “sparks, cinders, dust, etc.” from entering the passenger compartment. By 1874, E.T. Barnum Co. of Detroit advertised screens that were sold by the square foot.

Yet according to Holt, window screens designed specifically to prevent insect entry still had not been patented in the United States, even though by 1900 “several patents were awarded for particular innovations related to window screen design.”

As that innovation spiraled, screen doors and window screens helped all but eradicate parasitic diseases by the 1950s.

### Hannah who?

Alas, the stubborn contagion known as internet misinformation has not been eradicated.

Using the search engine Bing, if you ask who invented the screen door, the big-type answer is Hannah Harger.

Using the search engine Google, if you ask who invented the screen door, the name Hannah Harger is nowhere to be found.

In an anonymous post on Amazon’s Alexa Answers, Harger is identified as the inventor of the screen door in 1887. “More than likely she was just trying to keep bugs out of her home, and away from her fresh-baked pies.”

Both this “fact” and the pies theory appear half-baked. Per Scott Huler, writing for *Our State* magazine:

“We are told by a book called ‘Women Invent!’ that in 1887 one ‘Hannah Harger of Manchester, Iowa, worried about all the flies that were bothering her babies, invented and gained a patent for the screen door.’

“This fact infests the internet like those pesky flies, but it has no provenance. Given that that the State Historical Society of Iowa could find not a single mention of Hannah Harger in its archives, in Manchester or anyplace else, I am



inclined to question at least Harger’s location, if not her very existence.”

Yet the Harger myth was also repeated in the *Des Moines* (Iowa!) *Cityview*, which gave no source for its claim.

A perfectly imperfect exclamation point came from the Feldco door and window company, which debunked the Harger claim while spreading some incorrect information of its own:

“There’s a circulating myth that states the screen door was invented in 1887 by a woman named Hannah Harger in Manhattan, Iowa. While it would be nice to credit the inventor of the screen door, there’s simply no record of a person by that name ever living in Manhattan, Iowa.”

That’s because there is no such place as Manhattan, Iowa. Every internet source claiming inventorship by Hannah Harger says she lived in Manchester, Iowa, which is an actual place.

The screen door is a forever comfort, keeping us cooler and largely de-bugged in our homes. But it might take a galaxy of houseflies to build a patch large enough to keep all this bogus information from flying through the airwaves. ☺

Above left: An early example of a screen door is displayed by E.T. Barnum Co. of Detroit.

Above: These two advertisements are by Gilbert and Bennett Co., the first to popularize wire screens for doors and windows on a widespread basis.

# Trade Shows

## Recover From COVID-19

OPERATORS RETHINK FORMATS AS MANY SHOWS NOW OFFER BOTH IN-PERSON AND VIRTUAL OPTIONS **BY CHATGPT**

*Note from Jack Lander: In my column last month, I wrote about how ChatGPT, my artificial intelligence service, failed to help me perform a patent search. For the present issue, I asked my AI to write a 900-word article on the trade show recovery after the worst of COVID-19.*

*I have not edited or revised the article in any way. Also, the article is valuable to inventors who hope to find a licensee for their patented invention. The trade shows are where you can meet and present your pitch to directors of marketing, even presidents of the smaller companies.*

*So, you see the potential of artificial intelligence! Hang on for a thrilling ride into the future.*

*P.S. from the editor: The ChatGPT text was clear and error free, though devoid of personality, with minimal word tightening by human hands. The foundation of Inventors Digest will always be the unique voices of our human authors and experts.*

**A** **SVACCINES** become more widely available and restrictions are lifted in many regions, the trade show industry is slowly recovering from the impact of the COVID-19 pandemic. After a year of canceled and postponed events, the return of trade shows is a welcome sign for businesses that rely on these events to generate leads and make connections.

One of the biggest challenges facing trade shows in the post-pandemic world is the need to balance the desire for in-person engagement with the continued concerns around the pandemic. Many organizers are implementing new health and safety protocols to protect attendees, such as enhanced cleaning protocols, mandatory mask-wearing, and social distancing measures.

In some cases, events are held entirely outdoors or in larger venues to allow for more

space between attendees. Trade shows are also utilizing technology to limit contact and reduce the risk of transmission, such as touchless registration and digital badges.

The return of trade shows is particularly important for industries that rely heavily on these events to generate business.

For example, the travel and tourism industry has been hit hard by the pandemic, and trade shows are a vital way for businesses to connect with potential customers and partners. The return of these events is also crucial for industries such as fashion and retail, where in-person engagement is a key part of the customer experience.

Despite the challenges, the trade show industry is adapting to the post-pandemic world and finding ways to innovate and differentiate themselves from virtual events. Here are some ways in which trade shows are recovering from the pandemic:

### Hybrid models

One of the biggest trends in the trade show industry is the adoption of hybrid models that combine in-person and virtual participation. This allows attendees to engage with the event in a way that suits their preferences, whether attending in person or participating virtually.

Hybrid models also open opportunities for exhibitors to reach a wider audience and generate leads through virtual channels.

Many trade shows are investing in technology to support their hybrid models, such as virtual booths, interactive webinars, and chatbots. These tools allow exhibitors to engage with attendees in new and innovative ways, such as offering product demos, hosting panel discussions, and providing one-on-one consultations.

## New formats

The pandemic has forced trade show organizers to rethink their traditional formats and find new ways to engage attendees. For example, some events are adopting a more relaxed and informal atmosphere, with networking events and happy hours designed to encourage attendees to connect and share ideas.

Other events are focusing on sustainability and environmental impact, with eco-friendly initiatives such as zero-waste policies and carbon offset programs. This reflects a growing trend toward sustainability in the business world and highlights the role trade shows can play in driving positive change.

## Virtual events

While in-person trade shows are starting to return, virtual events are likely to remain an important part of the trade show landscape in the post-pandemic world. Virtual events offer a number of benefits, such as reduced costs and increased flexibility, and can be an effective way for businesses to connect with a wider audience.

However, virtual events also present their own challenges, such as reduced engagement and the need for innovative technology to support interactivity. As a result, many trade shows are investing in virtual event platforms that offer more engaging and interactive experiences for attendees.

## Marketing and promotion

With so many trade shows competing for attention post-pandemic, effective marketing and promotion is more important than ever. Trade shows are finding new and innovative ways to market themselves, such as social media campaigns, influencer partnerships, and targeted email marketing.

Trade shows are also leveraging the power of data and analytics to better understand their audiences and tailor their marketing efforts accordingly. By analyzing attendee data, trade shows can identify trends and preferences that can inform their marketing and promotion strategies.



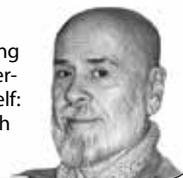
## Many trade shows are investing in technology to support their hybrid models, such as virtual booths, interactive webinars, and chatbots.

## Conclusion

The return of trade show exhibitions is a positive sign for the industry, and for businesses that rely on these events to generate leads and make connections. Although the pandemic has presented significant challenges, the trade show industry is adapting to the post-pandemic world and finding new ways to innovate and differentiate themselves from virtual events.

From hybrid models to new formats, virtual events, and effective marketing and promotion, the trade show industry is poised to thrive for years. 🎯

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



# Lemon8—or a Lemon?

NEW LIFESTYLE APP, WILDLY POPULAR ALMOST OVERNIGHT, HAS SIGNIFICANT ROADBLOCKS **BY ELIZABETH BREEDLOVE**

**W**ITHIN THE past couple months, a new social media app called Lemon8 has exploded in popularity in the United States.

Owned by ByteDance—the parent company that also owns TikTok—Lemon8 jumped to the No. 1 one spot in the lifestyle category on the App Store in early April. The app wasn't even in the top 200 the month before.

Lemon8 launched in Japan in 2020, then began making its way across Asia. It only recently launched in the U.S. market.

## Function and features

Lemon8 is often described as a combination of Instagram and Pinterest. It centers around video and photo sharing with an emphasis on food, beauty, wellness and travel content.

In short, it's a video- and photo-sharing social media app. It describes itself in the App Store as a “content sharing platform with a youthful community” where users can “discover beautiful, authentic and diverse content.”

Rather than sharing spontaneously or in real time, Lemon8 is designed for curated, aesthetically pleasing content. By combining the polished photos and videos of Instagram with the product and categorization features often found on Pinterest—and serving content to users with a personalized algorithm akin to TikTok—the app appears to be a great place for social media influencers and content creators to share recommendations, suggestions, tips and more.

The Lemon8 app includes graphic design tools to create images and videos with helpful text and aesthetically pleasing graphics. Using these tools, users can add titles to their content; label elements of their content such as ingredients in a recipe; share where they purchased products they highlight; and offer tips and

suggestions within their photos. They can also add hashtags to their content to categorize it, and affiliate links to the products they highlight.

Some note that Lemon8 appears nearly identical to a popular Chinese app called Xiaohongshu, which means “Little Red Book.” This is similar to how TikTok has replicated the Chinese app Douyin.

## Who is it for?

Lemon8's user base demographics remain to be seen. However, according to the *New York Times*, the “ideal creator portrait” is a 22-to-26-year-old woman living in Los Angeles or New York who creates content focused on fashion or beauty.

It appears that Lemon8's U.S. launch strategy involves paying influencers and content creators to post on Lemon8 and encourage their followers on other platforms to join them there. Regardless of whether they are paid or not, many content creators have taken to their most successful platforms to tell their followers to check out their Lemon8 content.

Lemon8 has not officially launched in the United States. According to a *New York Times* article published on March 29, the app is to be launched in May 2023.

As of this writing, brands and marketing agencies are keeping an eye on Lemon8. The marketers who know about it are interested and waiting to see if it takes off like TikTok, or whether consumers quickly lose interest in it.

Good marketers constantly seek new platforms that are on an upswing, but they also want to make sure it's popular and scalable before devoting significant resources toward it.

As of now, Lemon8 is almost certainly not the most important social media platform for brands and companies. There are many other



## Keep watch on Lemon8 if your target market overlaps with its ideal content creator or, moving forward, the platform's user demographics.

social networks with a much larger audience and better longevity.

However, it may be worth keeping a pulse on Lemon8's performance—especially if your target market overlaps with Lemon8's ideal content creator or, moving forward, the platform's user demographics.

### Words of caution

One issue with Lemon8 that some marketers find concerning is the lack of a commercial monetization plan. Content creators can include affiliate links, but as of this writing, Lemon8 has no ads.

This could lead to a few different issues.

First, if Lemon8 isn't making money, the app could suddenly shut down, leading to the loss of your hard work building a successful account on the platform.

Second, it means that there isn't an opportunity for paid ads, and that all your success will need to be organic. This could be a good thing if you don't have the budget to pay for ads and don't want your content to get drowned out by paid ads, but it can be very challenging to gain traction with organic content.

The larger potential pitfall with Lemon8 is the parent company's legal troubles.

President Trump tried to ban TikTok in 2020, but his efforts were undone by President Biden in 2021. Since then, privacy concerns continue

to abound, with some states banning TikTok on state-issued devices. This led Congress to ban the device on government devices as well at the end of 2022.

In March, TikTok CEO Shou Zi Chew was grilled by lawmakers on both sides of the aisle about growing concerns over privacy issues and concerns over the way the app affects children. The Department of Justice is also investigating TikTok for surveilling American journalists.

The Biden administration has asked ByteDance to sell its stake in the company or face a possible ban over national security concerns. There is concern that the Chinese government could gain access to information ranging from a user's location to his or her exact keystrokes, or that China could use TikTok's recommendations to spread misinformation.

According to the *Washington Post*, 41 percent of Americans support banning TikTok, while only 25 percent oppose it.

Much remains to be seen about how ByteDance can monetize the platform, and whether it will continue to be allowed in the United States. 📌

**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.



# More Yum to Come!

ELECTRODE-BASED SPOON DESIGNED TO PROVIDE BETTER TASTE FOR HEALTHFUL FOODS **BY JEREMY LOSAW**

**SERIAL INVENTOR** Ken Davidov had an invention that would make healthful foods taste better, but he didn't have a good prototype.

Then came the break he needed: COVID-19.

As millions of people experienced taste loss during the pandemic, Davidov knew the time was ripe to leverage his SpoonTEK— an electronic spoon that stimulates the taste buds during eating to enhance flavors.

SpoonTEK uses a series of electrodes in the handle and bowl of the spoon. When food is in the spoon and a finger makes contact with the electrode in the handle, an LED lights up indicating it is activated and ready to eat. When the food touches your mouth, a small, electric current transfers to the tongue and stimulates the taste buds, enhancing the flavors.

The electric impulse is not enough to feel a shocking sensation, but is enough to engage the sugar and salt receptors to enhance those flavors and dampen sour ones.

SpoonTEK is waterproof, easy to clean and made of food-safe materials. It is available through Davidov's website and on online retailers that include Amazon.

## A stim-spoon marriage

SpoonTEK is the latest in a line of spoon- and electrode-based innovations for Davidov. With a background in sales and marketing, he began in the toy industry with Hasbro in the 1980s before starting an import business in New Jersey.

Always one with an eye for invention, he developed and licensed a yogurt spoon and handle that was molded into the lids of tall, single-serve yogurt containers and was tall enough to reach the bottom. He licensed it to General Mills, resulting in what he estimates were 1 billion Columbo Yogurt cups made with his lid spoon.

Davidov became interested in electrode stimulation, and developed and launched two products: the Sonic ProClean toothbrush, which creates negative charges to help loosen plaque during brushing; and a neurostim headband called LIFTiD, a device intended to maximize brain attention and focus that he pitched on "Shark Tank."

The intersection of the work he was doing with micro current electronics and spoons provided the spark for SpoonTEK. Davidov had a prototype of SpookTEK as far back as 2017, but it was far from being a product at that time. The prototype was crude, with no momentum in its development.

"We had a shoddy, shoddy prototype. We knew we could impact taste, but we didn't have a good design," he said. Then came COVID-19 and its widespread effects on people's ability to taste.

"We said, 'You know what? We gotta get this out there. ... We wanted to see if we could help people who lost their taste.'"

Development accelerated—rapidly. In a flurry of activity,

**"We said, 'You know what? We gotta get this out there. ... We wanted to see if we could help people who lost their taste.'"** —KEN DAVIDOV



Davidov worked with factories in Asia to get the product finished.

Using video calls and shipping prototypes back and forth, he and his team created a professional design for the product and had it fully engineered. In 6 months, he went from an early prototype to launching it on Indiegogo—a massive achievement, given the constraints of travel and collaboration in 2020.

SpoonTEK was launched on Indiegogo in late 2020. The campaign was successfully funded at over \$44,000; more than 1,000 spoons were pre-ordered.

With that market validation proving the concept's viability, production began. However, there was some trouble with the first units.

Six hundred spoons shipped to backers were found to have an issue. Davidov sent replacement spoons to customers, and subsequent manufacturing runs have been error free.

### Prolific with patents

With his long background in product development, Davidov believes strongly in patents and intellectual property.

He has many patents, including those for SpoonTEK, and spends a lot of money on IP to protect his innovations because he is often a first mover in a category and a target for knockoffs. He is already starting to see a few copycat SpoonTEK-like products in the market.

Taste loss is not the issue it was since the lessening of COVID impacts, but Davidov's product still has great utility in the wellness space. It allows people to eat foods that are healthful and perhaps not traditionally delicious, but still feel the pleasure as if they had eaten something that has a more pleasing flavor.

He continues to work on innovations in electronic stimulation, including a new beverage that he hopes to launch soon.

"There is a lot on the forefront here with electric current," he said. "It is just the beginning." 📱

*Details: spoonTEK.com*

Inventor Ken Davidov, shown overseeing a demonstration for SpoonTEK, rushed to improve his prototype after COVID-19 resulted in millions of people having trouble tasting food.

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



# In With Beauty, and Out the Door

WOMAN'S READY-TO-WEAR HAIR PIECES FOCUS  
ON SAFETY AND EASE OF USE **BY EDITH G. TOLCHIN**

**A**FTER I COMPLETED the manuscript for my forthcoming book, “Secrets of Successful Women Inventors” (October 2023, Square One Publishers), more female inventors have been surfacing—but it was too late for me to add their stories.

If this keeps up, it may lead to a sequel!

Here’s a wonderful line of ethnic beauty products created by Tiffini Gatlin.

**Edith G. Tolchin (EGT):** What is the “Latched and Hooked” concept? Why is it different from other ethnic hair styling products?

**Tiffini Gatlin (TG):** Latched and Hooked is where innovation meets self care.

On average, black women spend 45 minutes, daily, in the mirror styling their hair. Latched and Hooked was created in part to offer ready-to-wear hair pieces that blend with kinky, curly and coarse hair textures and get you out the door in 60 seconds or less.

Our hair products are different because our polymer fibers are formulated free of soluble heavy metals, lead content,

phthalates and formaldehyde (the latter two, potentially harmful chemicals). This helps keep your scalp and skin free of toxins.

**EGT:** What is your background?

**TG:** I am a former corporate bank executive turned entrepreneur and digital influencer. In 2015, I became a pioneer in the hair and beauty industry after turning my side hustle into the first patent-pending process of pre-curved and looped synthetic hair, after growing concerned that I might burn my clients if they are rolling and dipping the hair in boiling water.

Since launching Latched and Hooked, I continue to create options for all women to safely look and feel beautiful. I reside in Georgia with my husband and four children.

**EGT:** How did this line come about?

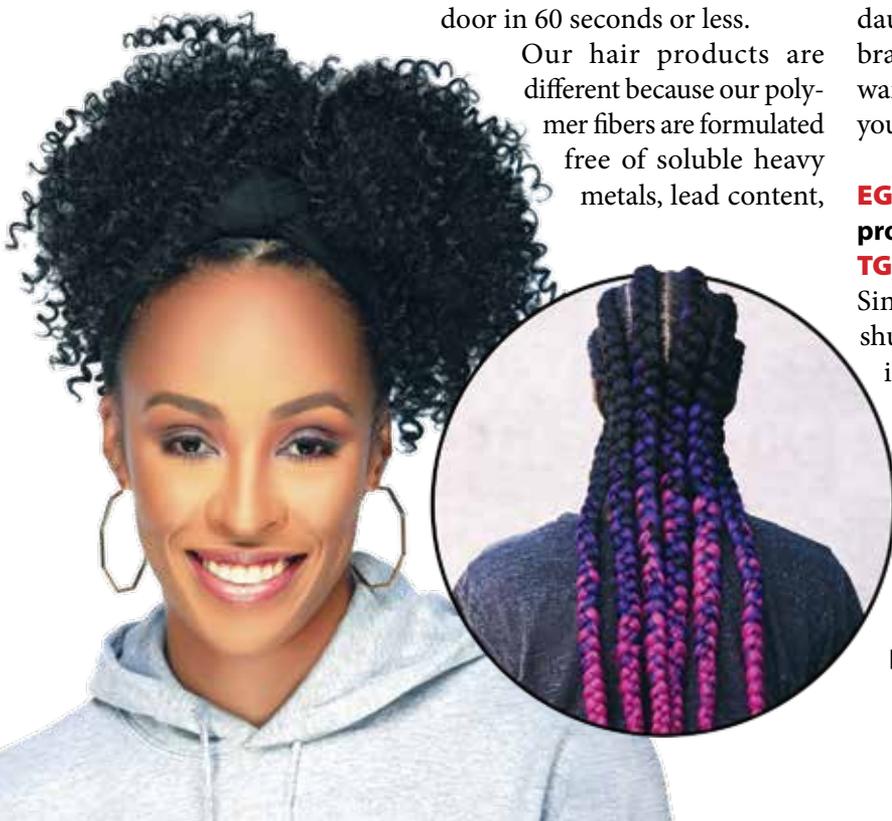
**TG:** This company came about after my oldest daughter suffered from scalp irritation, and braids became unbearable to wear. I knew I wanted to create a company that didn’t make you compromise beauty for pain.

**EGT:** Where are you manufacturing? Any problems with logistics?

**TG:** I manufacture in China and Bangladesh. Since COVID, we have experienced factory shutdowns because of the strict COVID laws in China that require 14 days of quarantine if there is a breakout. We’ve also experienced import fees that are three times higher than what we’ve been used to paying, and forced us to import via ocean freight.

**EGT:** What is your experience with intellectual property for your various products? Do you hold any patents?

Latched and Hooked pieces are about fullness while being absent of harmful chemicals.



**TG:** I do not currently hold any patents. I had a provisional design patent on a product I created in 2016, but I could never get the full patent approved.

It's a very difficult, long and expensive process, and in the process I had my original designs (down to the packaging and copy) duplicated and mass produced by other beauty manufacturers.

**EGT: How many products are you featuring? What is your most popular product?**

**TG:** I currently have five unique SKUs. My most popular is our colorful braiding hair. We are selling on our website, Amazon and, recently, on QVC.

**EGT: Have you ever considered applying for "Shark Tank" or done any crowdfunding?**

**TG:** I have considered applying to "Shark Tank." I've even gone to an open casting. I have not done any crowdfunding, but I've done a "friends and family raise" of over \$40k.

**EGT: Have you had any problems fulfilling orders during the recent pandemic?**

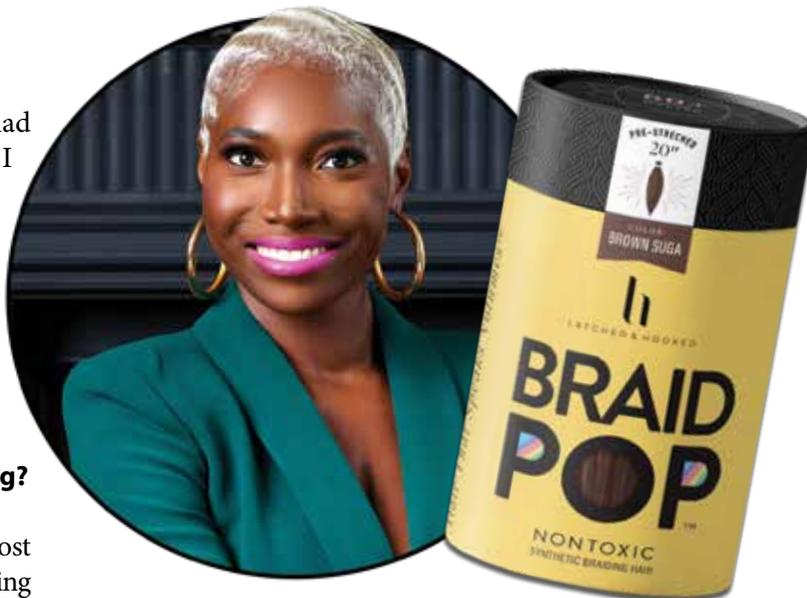
**TG:** During the pandemic, we were actually performing at our best. I received a \$100k cash award from Google For Startups and used part of the money to purchase enough inventory to actively ship, regardless of if our manufacturing partners had to shut down. Beauty supply stores at that time were not considered "non-essential," so we had a high demand from consumers looking for our products.

**EGT: Have you had any other issues in developing your product line? Has being a woman been an issue?**

**TG:** I'm in a Korean-dominated market, so it's been extremely difficult to research information that's been kept secret for so long. I've had to hire sourcing agents to make deals on my behalf just so I can compete with similar profit margins.

**EGT: What is next for Latched and Hooked?**

**TG:** With our recent launch on QVC in February 2023, I hope we are able to secure additional purchase orders at other national retailers, making it easier and more convenient for our



**"My oldest daughter suffered from scalp irritation, and braids became unbearable to wear. I knew I wanted to create a company that didn't make you compromise beauty for pain."** —TIFFINI GATLIN

customers to purchase their hair in the same place they purchase their milk and other household goods.

**EGT: Has anyone been instrumental in helping you bring your products to market?**

**TG:** Lisa Price, CEO and founder of "Carol's Daughter" (carolsdaughter.com), has been a mentor to me in the beauty space. Whenever I have a question, she makes herself available to help me.

**EGT: What do you advise inventors seeking to develop a beauty product?**

**TG:** If you define a problem and you are passionate about solving it, don't seek validation. Solve the problem, and the rest will come. 📌

*Details: [latchedandhooked.com](https://latchedandhooked.com)*

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



---

# Knockoff Heartbreak

THESE INVENTORS HAVE FELT THE PAIN—  
AND THEY WANT TO HELP PROTECT YOU

**A** **H, THE KNOCKOFF. COPYCAT. RIPOFF.**  
The legal term for it is infringement. By any name, it is a sad reality in the inventing world.  
In fact, this issue of *Inventors Digest* features two Inventor Spotlight stories in which product creators said they experienced this plague, which is as old as inventing itself.

Innovating—improving or changing an invention for the better—is one thing. But imitation, while being the sincerest form of flattery, can seriously jeopardize inventor rewards and deflate the creative spirit that is an essential element in our entrepreneurial economy.

These inventor experiences can help teach you how to react—and just as important, how to prepare. —*Reid Creager*

---



## LILY WINNAIL

### FIGHTING FOR HER 'BABY'

Lily Winnail is known for a countenance and comportment that mirror her flowing waves of sunlit hair. But she was in a dark place.

Some time after launching Padalily—a car seat handle cushion designed to protect the crook of a parent's arms when carrying a baby—the suburban Charlotte mother, inventor, actress and entrepreneur learned that a large company was infringing on her own “baby.”

The native Canadian had achieved the American dream for which so many creators and entrepreneurs strive. Now she felt “protective—and angry. But I was also hopeful that the infringers would be reasonable, and perhaps once they saw this was a protected idea, they would stop selling immediately.”

Winnail “worked really hard to get my idea out there.”

In a June 2016 *Inventors Digest* cover story, she discussed how she had conceived and created a 6.5-by-11-inch wrap-around, decorative foam pad that would fit all baby seat handles.

How she was so nervous about walking into a store with a basket of her new product. How she ended up selling one to a woman outside the store. How she received U.S. Patent D667,241. And how she turned her invention into a line of products that amassed millions of dollars.

“The Padalily was born of necessity, and a desire to help other moms who might struggle with carrying

their car seats. There are not a lot of original ideas out there, so it's easier for large companies to knock off the little guys and add products to their existing lines or collections.

“Some try to get around the patent; others just risk it and hope they don't get hit with a lawsuit. Lawsuits are extremely costly, and a stay-at-home mom running a business from the guest room doesn't seem like a threat.”

### Settling but unsettled

The knockoff attempts had started early.

She invented the Padalily (padalily.com) in 2007, and within a year saw Etsy homemade replicas popping up. “At that time, we were U.S. Patent Pending, and a simple letter to the seller and to Etsy resulted in the infringers ceasing sales. Many times, sellers do not realize they are infringing, and contacting them first can resolve the issue.”

One subsequent knockoff was particularly galling to her because “their version was an exact copy.” So Winnail didn't just get angry. She got busy.

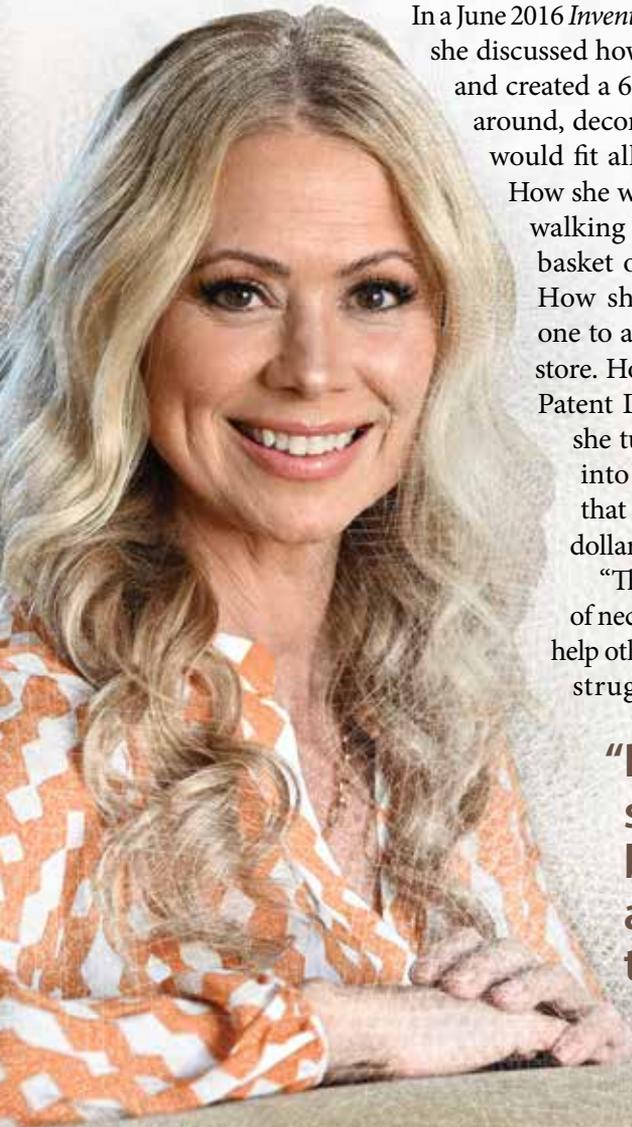
She called the attorney who helped secure her patent. Then, a distasteful but unconventional step: “As much as I cringed at doing this, I bought the infringing products to examine them.”

What followed was a sad but valuable lesson, one for which all prospective inventors must brace. It starts with hiring a good and reputable patent attorney.

Winnail had a patent attorney on retainer “for a few thousand dollars. This included the attorney sending a cease-and-desist letter, fees, and court filings.

“We settled before the case went to court. Otherwise, costs would have been in the \$20,000 range. I was hoping for a better outcome, but I learned a lot about bullies, dishonesty, greed, and how easy it is for people to get around the agreement they signed.”

**“People could relate to my story. It is a story of the American dream. I focused on building a brand and marketing myself along with the product. I still feel this was the best way to have done it.”**



We asked her whether she would or could have done anything differently. She said no. When we asked if she would help educate inventors about infringement, help protect them via her experience and even provide some optimism, her answer was a resounding “yes.”

### The patent’s role

First, she said, there have been several Padalily copycats over the years. Second, inventors who are infringed must realize that to even get to that point is a major achievement.

“The value of a patent is in the execution of the idea, not the idea itself. Ninety-seven percent of patents filed with the USPTO never make it to market. Of that 3 percent that make it to market, you have to be quite successful before a large company notices and knocks you off.

“I don’t think it’s possible to avoid infringement. But as the original—with a valid story of blood, sweat and tears mixed with triumphs and victories—it’s easier to develop a loyal following.

“People could relate to my story. It is a story of the American dream. I focused on building a brand and marketing myself along with the product. I still feel this was the best way to have done it.”

So, how important is a patent for preventing infringement? Although Padalily’s patent pending status in 2007 helped Winnail eliminate the first copycats, she said the answer to that question is nuanced and situational.

“Whether you have a patent or not, when your product becomes popular, it is going to get noticed by big companies. A patent might keep the ‘good guys’ from copying you—the ones who respect the work you have put in and recognize that you applied and received a patent because you wanted to be the only one on the market—but the ones who don’t care will do whatever they can to get around it and see what they can get away with.

“A patent does have value if your company or product gets big enough that you want to sell to a larger company. It looks good on paper and adds value to your portfolio, but a buyer will also be looking at sales, profit margins, your brand, your reach, etc.

“In my case, focusing on my brand and sales is more important than having a patent. I know

## IT’S NOT ALL BAD

Ever optimistic, Winnail believes there is a bright side to people and companies copying her product.

“It means your product is superior,” she said. “I studied density and buoyancy of foam more than I like to admit in order to provide the best cushion and support for parents. The copycats simply did not, and therefore delivered an inferior product.

“Nothing makes me more proud than to read a bad review on the copycat product and then read that the customer switched to my product and called it a godsend!”

Along those lines, Winnail advocates for proactive choices that can help diminish the ugly specter of infringement—“which will happen. And when it does, you will know it’s because you are successful.

“Focus on the story, the brand, and making it the best choice. I would advise getting a provisional patent application, allowing the use of “U.S. Patent Pending,” for one year.

“Within that year, give it your best shot. Sell as much as you can, and if you want to try and sell out to a larger company, do it toward the end of that first year where you can show a potential buyer how much you’ve sold and that you are under a U.S. Patent Pending. This gives the buyer the option to pursue the \$15,000-\$20,000 utility patent if they so desire.”

this isn’t the case for everyone. An example might be technical IP, where very specific details are patented and might not ever be seen by the end user. But the patents hold tremendous value to a potential buyer of the IP and is worth defending.”

She emphasized that having a patent is not bulletproof in terms of possible infringement—but that if you are willing to spend money for a patent attorney to defend your invention or product, your chances of success are much greater.

“Having a product copied when you have a patent doesn’t mean a thing unless you hire a patent attorney to defend it. I could show an infringer my patent—including all the images, drawings and specs—and it wouldn’t mean anything unless I spent the money to fight my case. You have to be willing to defend it with the best legal tools available.”



### The best use of time

Winnail said inventors plagued by multiple copycats may ultimately have to decide how long they feel like playing infringement Whac-a-Mole.

“We might get one to stop selling, and then another pops up soon after. You start the whole process over again. It comes down to: Where do you want to spend your time? Fighting the copycats?”

“For us, it was a smarter use of our time and energy to continue making Padalily the best product out there—collaborating with other brands and marketing our story.

“We still see copies pop up on Amazon all the time. If you type in Padalily on Amazon, the knockoffs show up sometimes even above our product! Amazon has not been helpful when we’ve pointed out s we included a copy of our patent, with detailed images, showing the obvious.”

## LIZ CROUCH

‘DO YOUR RESEARCH!’

One of the greatest journeys I’ve taken in my life was the invention and promotion of The Cupcake Rack.

Ideas that came to my mind were always fleeting. I always thought they were good ideas; I just didn’t know what to do with them.

Watching “Shark Tank” gave me the incentive to try to take one of my ideas to the next level. I didn’t know how to do that, but watching “Shark Tank” helped me begin the journey.

I decided that if I came up with an idea that I thought a lot of people would enjoy, I would write it down, and then take all the steps necessary to bring that idea to life. I was cognizant about my ideas, analyzing them, and excitedly waiting for one that I thought was a really good idea.

And finally, an idea came to mind: The Cupcake Rack!

I invented The Cupcake Rack as a bootstrap business and used Google, “Shark Tank,” and inventors websites to learn the path of inventing. I had no idea what I was doing—but it was exciting to learn the steps, overcome the obstacles, and watch my product come to life.

**“I had made changes to my invention without updating my patent—which I know now I should have done but didn’t know then.”**

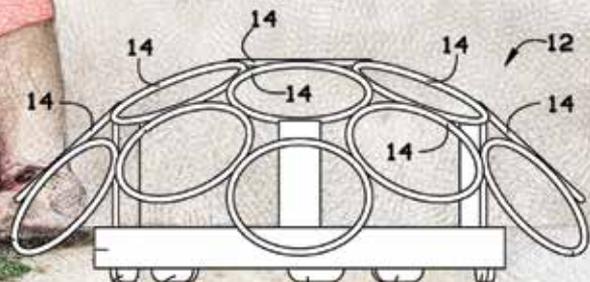


FIG. 4

I borrowed money from my 401(k) just to get started. I spent every extra minute I had at home—after working a full day and taking care of my family—on my invention.

With every step came obstacles that would bring me to tears. So I would pray a lot, cry a lot, and with God's help, figure out how to overcome every obstacle.

I found a website called Edison Nation, which was full of wonderful, like-minded people and had a ton of information on how to invent a product.

Edison Nation and the Edison Nation family became my second family. I loved that website, all the hopeful Inventors there, and the great team of leaders!

### **Success and pain overnight**

The Cupcake Rack idea was conceived in August 2012. I filed for a patent, found a manufacturer in China, did tons of research, learned how to build a website, learned social media and a ton of other stuff in 2013—and actually began selling my product in June 2013.

It was an exciting journey. I was thrilled to be a patented inventor with a product that I conceived in my mind being sold to people who really thought it was a good idea! There were many challenges along the way, but God brought us through each one.

After a few years—finding a little bit of success by being on TV shows such as “The Steve Harvey Show” and MSNBC’s “Your Business With JJ Ramberg,” HSN, as well as the March 2019 cover story for *Inventors Digest*—one day I got an order from a company called Allstar. When I filled the order, I had no idea that I was sending my product to one of America's biggest As Seen On TV companies.

Soon after, one of my favorite customers, Michelle's Custom Cakes in Salem, Oregon, contacted me and told me she saw an advertisement on Facebook for a product called The Tasty Bouquet. She asked if that was The Cupcake Rack.

I saw the ad and was shocked to see that, yes, this was The Cupcake Rack—but it had a different name and was being sold by somebody other than myself or any of my wholesale customers.



At first, I was a little giddy: It's pretty flattering when your idea is stolen from you from one of America's top As Seen On TV companies. But I had a patent to protect myself, so that gave me confidence that I could benefit from their sales.

Unfortunately, because I didn't have the knowledge I needed to really protect myself with my patent, I had made changes to my invention without updating my patent—which I know now I should have done but didn't know then.

I found out through some legal sources that what Allstar was doing by selling my product under their name and copying it was actually not against the law. There was no infringement because of the changes I made to my invention, since I never updated my patent.

### **An expensive lesson**

I was giddy no longer. I was in tears. I couldn't believe somebody could steal my idea without any repercussions, and I didn't know what to do.

I turned to a few of my inventor sources and contacts for help—one of them Eventys Partners founder and *Inventors Digest* publisher Louis Foreman. He was so great. He helped me calm down and deal with this problem.

Louis told me that one of his friends, Todd Stancombe, was friends with Scott Boilen, the

owner of Allstar. He would ask Todd to put in a good word for me to see if there was anything we could work out with Scott.

After that conversation, I was able to have a phone call with Scott—at which time he offered me a referral agreement so I could get some benefit from sales of The Tasty Bouquet. I was extremely appreciative because in all fairness, there was nothing Scott was required to do on my behalf. He never did anything legally wrong.

With the experience I went through, my suggestion to inventors is that when filing a patent, be sure to update it if you update your product.

There's a fine line between how much information to include in your patent. You need to put in enough information to keep the patent strong and secure—yet not so much information that makes it easier for somebody to infringe on it.

Do your research! Try not to be in such a hurry to get your product out there that you overlook some of the small details that could be a huge obstacle later in the life of your product.

I wish you all the best with your ideas, and I hope your journey is as exciting as mine was with The Cupcake Rack.

## KELLY BAGLA

A LAWYER—INFRINGEMENT!

Conducting a routine internet search, Kelly Bagla found more than she wanted.

The founder of Bagla Law Firm APC, an international, award-winning business formation and asset protection law firm, she had invented the Eardorables® line of plush toys for children in 2013.

In 2020, “I happened to Google ‘Eardorables’ and found a person selling headbands under that exact name. It took one demand letter from my firm to this person, who immediately ceased using my registered trademarked name.

“Since I was the first to file a trademark application for the name Eardorables and have continually used the name with the registered mark (the R in a circle), it was very easy for me to prove that I was the only owner of Eardorables.”

Bagla had filed for a utility patent for the design of her invention, and filed for trademark protection for her invention name very early: “I did not want all my hard work, time, and money spent in creating Eardorables to be infringed upon by

## KEEPING YOUR PATENT STRONG

In his monthly/bimonthly newsletter, Tangible IP founder and CEO Louis Carbonneau listed suggestions for keeping your patent valid after issuance—and hopefully keeping infringers at bay. The highlights:

### **Avoid making public disclosures.**

The first mistake when people have an invention is that they can't wait to brag about it—whether to family and friends, to potential partners and investors, etc.

Don't talk about the invention without a written nondisclosure agreement in place, and file a provisional patent application that will preserve rights worldwide while giving you an early priority date against third-party filings or prior art.

### **Don't just claim the invention.**

Most patents we review have the same common flaw: They essentially claim the invention as described. This often leaves too many options for competitors or infringers to design around the claims.

When you hire a patent attorney to help draft your patent application, you must be proactive and work through a design-around exercise, asking yourself what the “bad guys” would do in order to avoid reading on your claims. Add this to your specification, and have your patent attorney write additional claims.

**Research prior art thoroughly.** Most issued patents that are challenged in the United States are declared invalid. This number hovers around 80 percent before the Patent Trial and Appeal Board.

Most patent owners neglect to search for relevant prior art before filing their patent applications. Most



## “Not protecting your IP could result in hundreds of thousands of dollars spent in fighting infringement cases in court, and potentially losing rights to your work.”

unauthorized people. In addition, I would always enter into nondisclosure agreements with anyone I spoke to about my invention.”

As do others, Bagla strongly suggests retaining a good attorney to protect your IP.

“Few inventors are attorneys, and therefore are not equipped with the legal knowledge of how to protect intellectual property,” she said. “Moreover, inventors usually work on a shoestring budget, leaving very little to nothing to spend on legal.”



PHOTO BY SNAP SAVVY STRATEGIES

patent law firms fail to request that they do, because they know full well that it will mean in many cases it does not make sense to pursue patent protection after looking at the prior art.

This is a vital step before sinking what will be, on average, more than \$50,000 for obtaining a single patent (including maintenance fees, and this amount goes up to several hundred thousand over the life of the patents if you file in many countries).

And by search, I do not mean a Google search done in house. I mean a professional search that includes non-patent literature such as scientific articles, journals, product specifications, etc. yielding reliable results.

No inventor I know can do this alone and expect great results, as it requires both skills and access to subscription-based databases. So bite the bullet, pay the money—less than \$2K most of the time—and have a firm do this for you. Then reassess whether a contemplated invention overcomes the prior art—and remember that it will be three years before it issues (on average).

A lot of new technology will hit the marker by the time it comes to force. Will it still be as relevant then?

### **Add method claims whenever possible.**

Not every invention can be protected via method claims,

but most are. This is important, mostly for claiming damages from an infringer and avoiding marking requirements.

Under patent law, the inventor and his/her licensees must “mark” the product(s) that practice the invention. This is done by literally putting the patent number on said product, or more generally via website marking where the products are sold.

This serves as constructive notice of the existence of the patent(s)

and is very important when asserting or licensing patents, since most of the assertion value stems from past infringement acts.



Nonetheless: “If you are going to go down the inventing road and want to bring your invention to market someday, I cannot stress the importance of securing a good attorney who can help protect your IP from the start. Not protecting your IP could result in hundreds of thousands of dollars spent in fighting infringement cases in court, and potentially losing rights to your work.

“Keep inventing and innovating! But don’t overlook the magnitude of how important it is to legally protect your inventions from the beginning.”

## JOSH MALONE

### LANDMARK DETERMINATION

No anecdotal discussion of infringement is complete without including Josh Malone and his Bunch O’ Balloons.

Malone quit his corporate job in 2006 to pursue his entrepreneurial dream. He scored a historic victory for inventors around the world in November 2017, when a jury in the Eastern District of Texas ruled that telemarketing company Telebrands and its subsidiary, Bulbhead.com, had stolen his idea for a device that fills and ties more than 100 water balloons in 60 seconds.

A cutthroat legal battle ultimately cost Malone his patent rights. Eventually, those rights were

restored and he was awarded \$31 million in damages.

The full saga (*Inventors Digest* cover story, December 2018) is much more layered: the tens of millions Malone spent on legal fees, as Telebrands continued to copy his product even after losing multiple court decisions; the emotional toll and time away from his family to defend his invention; the shocking lessons about the “workings” of U.S. court systems; the post-trial appeals and proceedings that ensued.

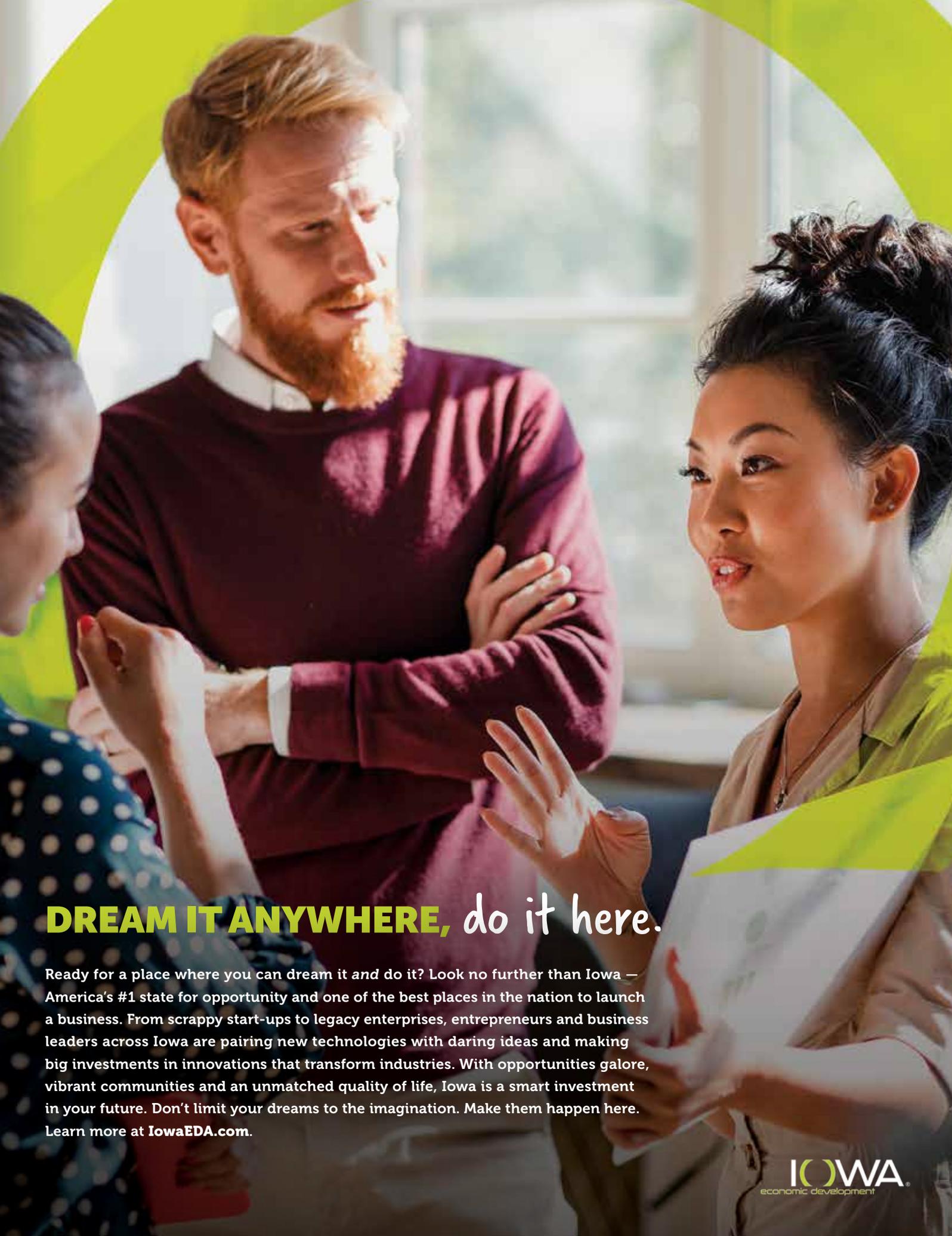
His victory left him ecstatic—but also exhausted and embittered. As he told *Inventors Digest*: “The courts have created these procedures and rules that say even when you win, you don’t get to stop the bad guys. They’ve created all these challenges to whether you really are entitled to this patent or not.”

Malone has moved his family near the Washington, D.C., area so that he is logistically better positioned to fight for inventor and patent rights with the advocacy group US Inventor, which sponsors legislation as part of its mission.

**“The courts have created these procedures and rules that say even when you win, you don’t get to stop the bad guys. They’ve created all these challenges to whether you really are entitled to this patent or not.”**



PHOTO BY ELIZABETH MALONE



## **DREAM IT ANYWHERE,** do it here.

Ready for a place where you can dream it *and* do it? Look no further than Iowa — America's #1 state for opportunity and one of the best places in the nation to launch a business. From scrappy start-ups to legacy enterprises, entrepreneurs and business leaders across Iowa are pairing new technologies with daring ideas and making big investments in innovations that transform industries. With opportunities galore, vibrant communities and an unmatched quality of life, Iowa is a smart investment in your future. Don't limit your dreams to the imagination. Make them happen here. Learn more at [IowaEDA.com](http://IowaEDA.com).

# 3 Big Questions

THE MOST COMMON QUERIES FROM FLEDGLING INVENTORS,  
AND RESPONSES FROM MY EXPERIENCE **BY APRIL MITCHELL**

**I AM ASKED** a lot of questions on LinkedIn from inventors with an invention idea who want help. The three most common ones:

- Where do I start?
- To whom should I license my product, and how do I find this person or company?
- Do I need a patent?

These are great questions—and if you ask multiple people, you will get multiple answers. So, these answers are just my opinion from my experience, from coaching many inventors through the process of idea to pitching, to signing a licensing contract. I hope you find these answers helpful.

**1 Where do I start?** Research. First, know your product inside and out. Know what your goal is with your product, and why you think it is necessary and beneficial to move forward with it.

Think about these things as well: Does it solve a problem? Is it fun? Do you think it will make life better or easier for people?

Think about things like material, size, weight, and where it might need to be manufactured. Where do you envision your product selling, and for how much money? Do you have any ideas on how to market this product? Why is it important for you to continue on this inventing journey?

You should also know which products are currently on the market that are similar to your new product. Along those lines:

Which products exist that solve the same problem or are in the same category? What is selling online? What is in the physical retail spaces? What is the price of these products? How good/bad is the quality of these products? What are people saying in the reviews of these products? Would your new product fill a gap in this category or offer a new solution?

Know how your product differs from these others on the market. What separates your product? It is important to know your competition and what your unique selling point is, so you can market it better or pitch it better if wanting to license to a company.

If your product is not different or does not have a unique selling point, I suggest thinking about what you can do to make it that way. How can your product stand out and be, or look, superior to similar products?

**2 To whom should I license my product, and how do I find this person or company?**

This can seem tricky when starting out. What I like to say is, when you did or do your research and you find companies making similar products or products in the same industry and category, take note of them.

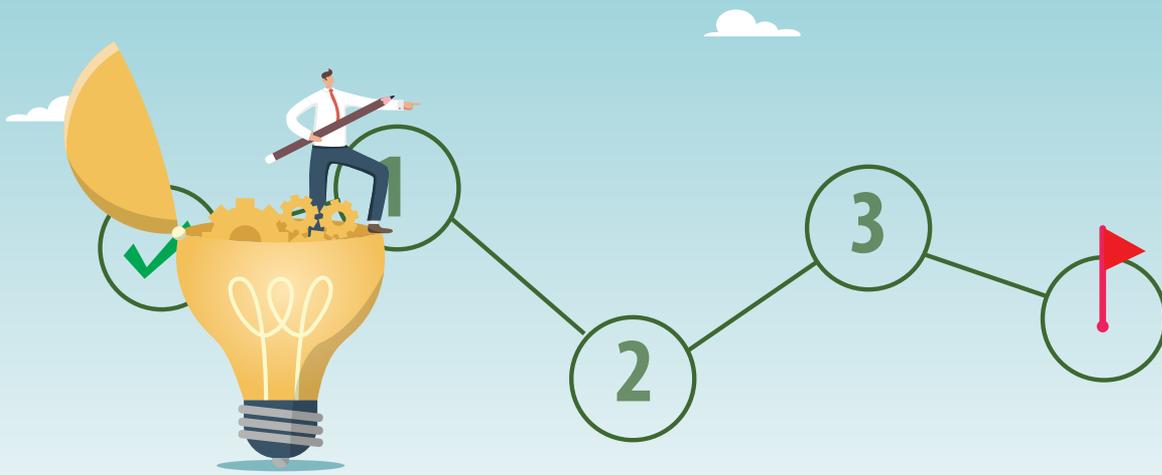
Write down those companies. Make a spreadsheet or keep them listed in a notebook, as you will want to come back to them later in your journey.

Consider the manufacturing aspect. If you were to manufacture your product on your own, who would be your competition? Which companies are making a similar product, or one that could potentially compete with yours?

Write them down. These companies, these manufacturers, become your potential licensees. These are companies to which you will present your concepts.

Another great way to find companies is to go to industry trade show sites and review the exhibitor list.

Companies at shows actively sell products. They may be open to outside innovation, so you can contact them via email, phone call or LinkedIn. Most often they have a company website address linked to their name on the exhibitor list.



## Know your product inside and out. Know what your goal is with your product, and why you think it is necessary and beneficial to move forward with it.

Go to their website and see if they are selling products for which your product will be a fit. If so, contact them.

**3 Do I need a patent?** First, I am not a lawyer and do not give legal advice. But here is what I do: I hold a couple of patents and am in the process of trying to get a few more—although I do not patent all my concepts.

I have found that not all my products are patentable. I also do not want to spend the money trying to patent everything I invent.

What I typically do is file an affordable Provisional Patent Application on an invention before starting to pitch it to companies. This allows me 12 months to find out if any companies are interested in the concept, as well as work out any roadblocks with the invention, before I go full speed ahead and hire a patent attorney to write a full patent for my invention.

If no companies are interested in the concept and I do not plan on taking it to market myself, I typically let the PPA run out and concentrate on other products. I feel that if no one is going to manufacture my concept, I don't want to pay for a patent just to have it sitting there not in use. A very large majority of patents are just that: patents that were never made into an actual product for retail. I do not spend my time on those.

### A note on best practices

People contact me because I have licensed products and because of my social media

presence, LinkedIn profile, writing this monthly column in *Inventors Digest*, and being a guest on podcasts or inventing groups. I had help from others along my journey, and I like to give back and share my knowledge and try to answer messages from new inventors—though I can't always get to them all.

There are so many who have gone before you on this inventing journey who are happy to answer a few questions for you. Please remember to be mindful when contacting others for help.

It is a good practice to never send attachments or links to things without permission. As a practice, I don't open those; I am always working on several products and may be working on something similar. It puts us all in a sticky situation.

With that in mind, sometimes I get questions that I just don't answer: "How much money do you make?" "Can you give me the contact information for X company?" "Can you evaluate my product?"

If you ask appropriate questions to others, I am sure you will find that so many successful inventors are happy to lend a helping hand. 🙌

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



## PART 1 OF 2

# Inside Open Source

SHARING SOURCE CODE, DESIGN DETAILS HAS CHANGED HOW WE BUILD NEW PRODUCTS **BY JEREMY LOSAW**

**W**HEN I PICKED UP *Make* magazine for the first time, it felt like a game changer.

I was working for a NASCAR team at the time. My apartment was a short walk to a shopping center with a Barnes & Noble and a wine store that also had craft beer. Friday night was for walking to Barnes & Noble to post up in the magazine section for an hour before picking up a four-pack of Tetley to take home for the evening.

The first editions of *Make*, first published in 2005 as a quarterly, stood out with the large format and matte texture on the cover. More important, unlike my other favorite “rags” of the era—like *Details*, which were about lifestyle and had as many ads for luxury items as articles—*Make* was filled with articles about things you could do and build.

As someone who was always tinkering and building, it felt like someone had downloaded the thoughts in my brain and splattered them into a periodical.

What I did not fully understand at the time was that *Make* was and still is a loudspeaker for the open source movement. It

encouraged the use of hardware and software tools such as Arduinos, where the designs were fully published and that were purposefully built for people to use and modify for their own purposes.

In the past 15-plus years, the open source movement has exploded and continues to have a profound impact on the

way we build new products. In the first of this two-part series, I will discuss the rise of open source before discussing how to use open source tools in new product development in Part 2.

## The process, defined

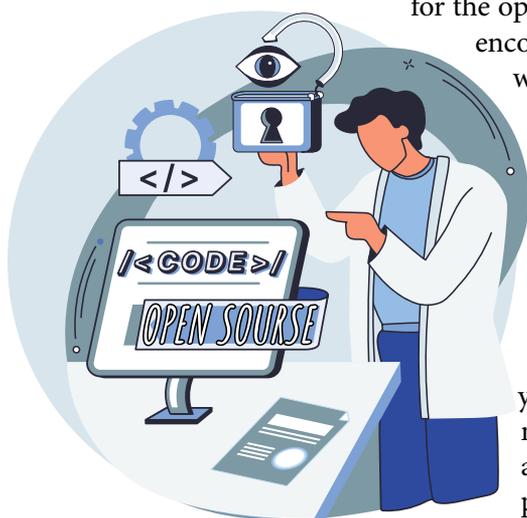
Open source is software or hardware in which the source code or the root design is made available for use or modification by other developers. The details of the design are fully published—and therefore easier for other developers to take what has already been built and either modify for a new purpose or improve the core functionality to make an overall better piece of software or hardware.

Common open source software projects include the operating system Linux, which is an alternative to Windows and iOS, and Mozilla, a web browser that started as Netscape. In the hardware world, the Arduino microcontroller and its family are the most famous and widely used open source platforms.

Makers and developers can use the Arduino as sold to integrate into projects, or they can use the freely published schematics and PCB designs to spin their own custom projects.

Open source development has a community aspect. Many people collaborate, often from disparate geographical areas, to work on a common piece of software or use common hardware or software to build their own projects.

Users learn from communities that are developing hardware and code, and are encouraged to publish what they are working on to inspire or help others with their projects. Websites such as [hackster.io](http://hackster.io) and [hackaday.io](http://hackaday.io) are filled with unique projects using open source tools. People can download the steps to build the same project or a version thereof.



## Open source development has a community aspect. Many people collaborate, often from disparate geographical areas, to work on a common piece of software or use common hardware or software to build their own projects.

Nonetheless, open source is big business. Companies including Adafruit, Arduino, Raspberry Pi and SparkFun have built businesses around providing open source hardware and software to makers and product developers. There is even an organization called the Open Source Hardware Association that serves to provide standards for open source hardware, raise awareness of the movement, and organize events for promotion of the community.

### History

The open source movement started in software.

In the early days of computing dating to the 1950s, software was only developed by high-tech companies and universities. Computers were shipped with the source code; companies such as IBM openly solicited their users to submit improvements.

Eventually, computers and the software to run them became big business. In 1974, software was officially considered a copyrightable work, which allowed it to be legally protected. At that point, software companies also started pre-compiling their code and did not share the source code.

A faulty printer brought open source software to prominence. Richard Stallman, working at the MIT Artificial Intelligence lab in the late 1970s, wrote a piece of code to modify the software on the printer to message others in the lab when it was jammed, saving a lot of paper and time.

The lab then procured a new printer from Xerox. But when Stallman attempted to perform the same modification, he was denied the source

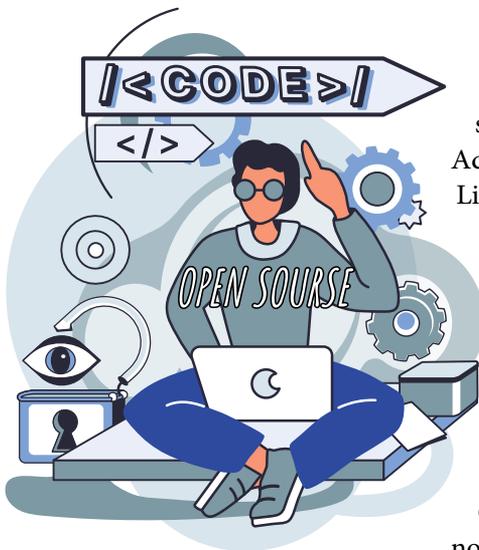
code files from the manufacturer. This sparked his interest in open source software and led to him creating the GNU codebase that was a precursor to Linux and his founding of the Free Software Foundation.

The actual term “open source” was coined by Christine Peterson in 1998. It followed on the heels of Netscape releasing its source code for its web browser Mozilla. This gave a very public face to the open source community, as millions of everyday users relied on its development and maintenance.

Open source hardware was soon to follow. Arduino, founded in 2005 in Italy, was a student-led project at the Interaction Design Institute Ivrea—a lower-cost alternative to the Basic Stamp microcontroller that was widely used at the time.

Arduino’s open source design and example code revolutionized the maker community, with over a quarter million units made by 2011 and spawning thousands of projects that used it as its backbone.





Also in 2005, the open source hardware company Adafruit was founded by Limor Fried. Adafruit designs and sells open source hardware, and hosts sample projects and software on its website to teach people how to use microcontrollers and IoT.

**Now in full force**

Once fringe, open source is now mainstream.

It is estimated that over 99 percent of Fortune 500 companies use some open source software. One, notably, is Microsoft—which in 1976 shunned the movement with Bill Gates penning “An Open Letter to Hobbyists” that

called for programmers to stop stealing his code. Microsoft now owns GitHub, which hosts a plethora of open source software.

By crowdsourcing software and hardware development to the masses, open source has improved the speed and quality of development that would have taken a huge budget and team to accomplish privately. Big companies are understanding this power and integrating open source into their business practices.

The trickle-down effect is that makers, inventors and hackers also have a treasure trove of sample code, hardware and projects that they can use to get their products spun up quickly and with small, agile teams. Thanks to the open source world, an electronic device company starting its journey by building early prototypes with Arduinos or Adafruit boards is now commonplace. 📌

An advertisement for 'The Opinionated Editor' by Edith G. Tolchin. On the left, there are two book covers: 'Fanny on Fire' by Edith G. Tolchin and 'Secrets of Successful Inventing: From Concept to Commerce' edited by Edith G. Tolchin. The background is a stack of books. On the right, the text reads: 'The Opinionated Editor' in large blue font, followed by 'Edith G. Tolchin' in a smaller blue font, and 'Editor • Copywriter • Journalist • Author' in a smaller black font. Below this, it says 'Helping you to say it WRITE!' in blue, followed by the website 'www.opinionatededitor.com' and email 'editor@opinionatededitor.com' in blue. At the bottom right, it says '@QueenWrites' and '845-321-2362' in black. A yellow pencil is shown pointing towards the text.

# Climb the Charts

Since 1985, **Inventors Digest** has been the world's most consistent and trusted friend to the independent inventor.

**No. 1** in inventor resources.

**No. 1** in education.

**No. 1** in inventor news.

**No. 1** in inspirational and entertaining stories.

**No. 1** in the most innovative and useful products.

We have always been a labor of love, depending on the financial support of benefactors who are as invested in the future of inventing as we are.

Please consider a sponsorship at one of the following levels:



Your sponsorship comes with attractive advertising opportunities in the magazine and at [inventorsdigest.com](http://inventorsdigest.com), as well as other possible perks.

**PLATINUM**  
SPONSORS

**GOLD**  
SPONSOR

**SILVER**  
SPONSOR

ENVENTYS  
PARTNERS

UNITED STATES  
PATENT AND TRADEMARK OFFICE  
**uspto**

SAVE THE  
**AMERICAN**  
INVENTOR



THE MICHELSON INSTITUTE FOR  
INTELLECTUAL PROPERTY

**Subscribers:** Pledge \$50, \$100, \$250, \$500, or \$1,000 a year to help support the world's longest-running magazine devoted specifically to inventors and inventing. We'll include a mention of your name or the name of your organization each time we run this notice, and at **[inventorsdigest.com](http://inventorsdigest.com)**. Thank you for helping to keep alive the spirit of innovation.

For more information, call 704-333-5335 or email [info@inventorsdigest.com](mailto:info@inventorsdigest.com).



# A Better Deal?

BLACKBERRY'S SALE OF ITS MASSIVE PATENT PORTFOLIO REVEALS SOME POTENTIAL CRACKS IN THE HUGE NUMBERS

BY LOUIS CARBONNEAU

**O**N SEVERAL OCCASIONS, I've commented about Canadian flagship Blackberry's mistake in its initial attempt to sell its 32,000-patent portfolio last year. It had initially announced a \$600 million deal before it was properly sealed, only to see the transaction disintegrate a few months later.

Fast-forward to late March. Blackberry ("BB") again publicly announced it had sold the portfolio for "up to \$900 million" this time, which is the number it wanted the market to focus on. The buyer is Malikie Innovation Ltd, affiliated with Key Patent Innovations Limited.

To pre-empt similar legitimacy questions, the BB press release mentions that the deal is fully funded by a leading U.S.-based investment firm with over \$30 billion in assets under management—rumored to be private investment firm Centerbridge. The transaction still needs approval from both Canadian and American antitrust authorities. (Incidentally, there is no mention of having a Canadian investor as a prerequisite to the deal being approved, as was the case initially.)

So, did BB negotiate a much better deal than the first one, worth the wait for its shareholders? Not so sure.

Under this agreement, BB will only receive \$170 million in cash at closing, with another \$30 million to be paid in three years. What happens after that is far from guaranteed—much like an NFL player contract in which most of the money earmarked after the first year is potentially aspirational.

There is a revenue-sharing plan in place. But a dive into BB's SEC transaction filing reveals how hard it will be to get additional dollars from the buyer, especially after recent decisions affecting the valuation of Standard Essential Patents (SEPs).

According to the filing, the company will also be entitled to receive annual cash royalties from

the profits generated from the patents subject to the sale, on the following basis: 8 percent of the first \$500 million of profits; 15 percent of the next \$250 million of profits; 30 percent of the next \$250 million of profits; and 50 percent of all subsequent profits.

Let's consider a scenario where Malikie, the buyer, generates as much as \$1 billion in licensing revenues over time. If the expenses are capped at 50 percent between the funder and the law firm retainer, Malikie will return a profit of \$500 million—of which only 8 percent, or \$40 million, will return to BB.

The split for additional revenues gradually gets better for BB, for a good reason: It is a lot less likely to happen.

To reach the cap of \$890 million, Malikie will need to derive a total profit of \$2.076 billion, or generate over \$4 billion in total revenue, which is unprecedented in today's market.

I wish the buyer the best, but I doubt it will get even close to that amount. You also have to factor in the fact that with litigation, the time to money is generally 5-7 years—and funders attach a premium to time.

To put things in perspective: When Blackberry announced it was going to put its patent portfolio for sale in 2021, it derived close to \$300 million in revenues (mostly profits) from its licensing activities in that year only. Therefore, Blackberry essentially sold its crown jewels for less than a year's worth of gross revenues, with only modest potential for a significant upside.

Selling the deal to the public as a \$900 million transaction seems to be another exercise in intellectual gymnastics from its management, something to which we have become accustomed. However, there is hope; apparently, Blackberry kept a hundred families of patents to itself. Let's hope these were the really good ones.



## Blackberry will only receive \$170 million in cash at closing, with another \$30 million to be paid in three years. What happens after that is far from guaranteed.

### Death by a thousand cuts

As we focused elsewhere in this issue (Keeping Your Patent Strong, page 30) on the many mistakes by patent holders that can later affect the enforceability and validity of a patent, the following is mostly a list of the many ways alleged infringers can strategically kill or maim a patent when defending a patent assertion case.

First, despite the apparent presumption that patents are not only valid but also critical for society because they allow for innovations to be known to all, there are public policy considerations that actually limit patent rights.

The U.S. Supreme Court has emphasized the importance of maintaining a balance between promoting innovation and allowing imitation and refinement of inventions. Patents are now qualified “public franchises” that take rights from the public; however, statutory requirements prevent the issuance of patents whose effects remove existing knowledge from the public domain.

Under that doctrine, both the United States Patent and Trademark Office’s initial review and the Patent Trial and Appeal Board’s *inter partes* review protect the public’s paramount interest

in seeing that patent monopolies are kept within their legitimate scope.

SCOTUS has also emphasized the public’s right to use unpatentable and formerly patented inventions, carefully guarding the patent-expiration cut-off date, just as it has the patent laws’ subject-matter limits.

A patentee should not be allowed to exact royalties for the use of an idea that is beyond the scope of the patent monopoly granted. The patent system is a double-edged sword, providing monetary incentives that lead to creation, invention, and discovery; but also, the exclusivity of patent protection impedes the flow of information and raises the price of using patented ideas once created.

The Supreme Court has also held that patents on obvious combinations harm the public, as they withdraw what is already known into the field of their monopoly and diminish the resources available to skillful men and women. Granting patent protection to advances that would occur in the ordinary course without real innovation inhibits progress and may deprive prior inventions of their value or utility.



Clear claiming is essential for promoting progress, and the boundaries of patent rights should be clear because this enables efficient investment in innovation. Patent laws require inventors to describe their work in full, clear, and exact terms, as part of the delicate balance the law attempts to maintain between inventors and the public.

Defendants have a variety of arguments they can use to argue against a patent infringement case—such as arguments regarding claim construction, expiration, or abandonment of a patent. They may also argue there was no past damage due to a lack of marking on products or other notice of infringement, or there was no direct infringement at all.

Defendants may also challenge the patent’s validity by arguing the wrong inventors were named, or by using the doctrine of equivalences,

reissue, re-examination, or post-grant reviews. They can also argue inequitable conduct during prosecution, improper adjustment of patent term, lack of ownership or standing, laches, estoppel, waiver, prior public disclosure, commercial use, sovereign immunity, patent exhaustion, lack of personal jurisdiction, or improper venue.

To mitigate these risks, inventors must properly draft, claim and prosecute patent applications. They should closely follow the process and ask tough questions along the way.

After all, inventors won’t know how good their patent is until they really need it—and by then, it may be too late. ☹

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



## Introducing the CATERPEELER



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

**April Mitchell**  
4A’s Creations, LLC  
PRODUCT DEVELOPER FOR HIRE  
[april@4ascreations.com](mailto:april@4ascreations.com)



# Hit your target



Since 1985, **Inventors Digest** has been solely devoted to all aspects of the inventing business. Other national magazines merely touch on invention and innovation in their efforts to reach more general readerships and advertisers. Advertise with *Inventors Digest* to reach our defined audience.

## Inventors DIGEST

For more information, see our website or email us at [info@inventorsdigest.com](mailto:info@inventorsdigest.com).



# A Supreme Dodge

HIGH COURT REFUSES TO HEAR DABUS CASE, AVOIDING QUESTION OF AI AS AN INVENTOR **BY EILEEN MCDERMOTT**

*All Eye on Washington stories originally appeared at IPWatchdog.com. IPWatchdog's third annual Patent Litigation Masters™ 2023 program will be May 15-17 in Asburn, Virginia. See the website for more details.*

**O**NE DAY before the United States Patent and Trademark Office was to hold its first public listening session on AI inventorship, the U.S. Supreme Court on April 24 denied certiorari in the case of *Thaler v. Vidal*, which asked the court to consider the question: “Does the Patent Act categorically restrict the statutory term ‘inventor’ to human beings alone?”

Dr. Stephen Thaler lost his case at the U.S. Court of Appeals for the Federal Circuit last August, when the CAFC said the USPTO’s reading of the statute as clearly referring to inventors as a natural person was “unambiguously” correct.

The USPTO denied the application, titled “Devices and Methods for Attracting Enhanced Attention,” in May 2020 for failure to “identify each inventor by his or her legal name” on the Application Data Sheet. The ADS listed a single inventor with the given name DABUS and the family name “Invention generated by artificial intelligence.”

DABUS stands for “Device for the Autonomous Bootstrapping of Unified Sentience.” The Application listed Stephen L. Thaler as the assignee, applicant and legal representative. The U.S. District Court for the Eastern District of Virginia subsequently granted summary judgment to the USPTO.

The CAFC agreed with the USPTO’s reading of the statute and said that the court therefore need not consider “metaphysical matters” about “the nature of invention or rights, if any, of AI systems.”

## USPTO seeks input

Despite the CAFC’s confidence, the USPTO announced this year a request for public comments on AI inventorship and is holding public listening sessions on the topic—an indication there may be

interest in tweaking practices to accommodate new technologies.

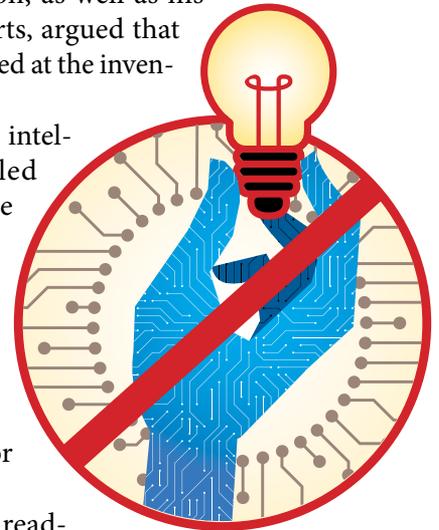
The USPTO is asking for input on 11 questions, including “how does the use of an AI system [in the invention process] ... differ from the use of other technical tools”; whether AI inventions may be patentable under current patent laws on joint inventorship; and if statutory or regulatory changes should be made to better address AI contributions to inventions.

Thaler’s SCOTUS petition, as well as his past briefings to other courts, argued that DABUS autonomously arrived at the inventions in question.

“In this case, an artificial intelligence (AI) system called DABUS learned no more than background knowledge of scientific disciplines and then arrived at two separate inventions, one for an innovative emergency beacon, and another for an innovative container for liquids,” the petition said.

The USPTO and courts’ reading of the statute is incorrect, according to Thaler, and a holding that an autonomously created and novel invention is not eligible for patenting simply because the inventor is not human “runs counter to the text and structure of the Patent Act and to this Court’s precedent,” the petition added.

According to Thaler, the terms “inventor” and “individual” are not restricted to natural persons. ☞



**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.





# Myth Opportunity

THE NOTION THAT PATENT LAWSUITS ARE OUT OF CONTROL IS WIDELY REPORTED—BUT IT’S JUST NOT TRUE **BY BRUCE BERMAN**

**T**HE SIMPLEST facts are sometimes the most difficult to comprehend.

Patent suits are not as pervasive as they are portrayed in the media or by defendants. Remarkably few are filed relative to the number of patents that are active.

The necessity to litigate patent disputes to get the attention of potential infringers and hold a meaningful licensing discussion has likely

increased the total number of suits filed. If it has, it has not had much of an impact on the net total.

This suggests that many patent holders who should be suing are not.

Factoring out about 40 percent of suits that are attributed to volume filers, the figures are even more dramatic. Patent litigation is not the out-of-control, innovation-eating epidemic perpetuated by bad actors we have been led to believe.

**Among the approximately 4 million active U.S. patents, the average number of filed suits each year since 2017 is about 3,800. The number of those litigated to those in force is about one-tenth of 1 percent.**

## A diminishing fraction

As technology provides more opportunities to innovate and invent, it is no surprise that patent grants have grown. With the number of active U.S. patents increasing, the number of patent suits brought annually in U.S. district courts, including those brought by volume filers, has been flat since 2017 and down since the introduction of the Patent Trial and Appeal Board in 2012.

Despite the increased number of U.S. grants, patent suits are an increasingly smaller fraction of active patents.

Many potential tech licensees today will consider taking a license only if forced to in response to litigation. Plaintiffs must be prepared to wait as many as five years for a resolution and invest anywhere from a few million dollars to more than \$10 million.

On average, 3,800 patent suits are filed each year. The number tried is only about 200, or about 5 percent of annual filings. As many as 97 percent of patent suits settle.

Unfortunately, I am told, a potential licensor today must sue first to show it is serious. If that were not the case, there would likely be even fewer suits.

Given the incredible number of active patents, the question is not “why are there so many suits?” but “why are there so few?”



## 4 million and counting

There were approximately 3,340,000 active U.S. patents based on 2020 figures. In 2021, the USPTO granted 327,798 utility patents; 325,445 were issued in 2022, bringing the estimated current total of active patents in the range of 4 million.

The average number of filed suits each year since 2017 is about 3,800. The number of those litigated to those in force is 0.00113772, or about one-tenth of 1 percent. Of the suits filed, annually, approximately 200 are tried, or 0.00005988% of active patents. That's 6/1000 of active patents based on 2020 figures.

Excluding so-called volume plaintiffs, patent suits are running at only about 2,300 per year since 2017, or about 1,500 (39 percent) less than the suit total. The trend is down from 10-year suit highs in 2013 and 2015 and flat since 2018, at a little over 2,200.

## Confusion conundrum

Defending at all costs against patent disputes is about more than law. It is symbolic, and without injunctions that can halt product sales, it is smart—dare I say efficient—business from a shareholder perspective. For this reason, confusion is better than clarity.

If disputes are slow and expensive, a lot of the alleged bad actors will go away. The problem is that many of the good ones will go away, too—those who deserve to be recognized for their contributions. There are likely a lot of them. It may not appear that way at first, but this spells trouble for innovation and commerce.

So the next time you read there are too many patent lawsuits, you may want to look at the facts. Apparently, not everyone cares to do this. ☺

**Bruce Berman** is CEO of Brody Berman Associates, a management consulting and strategic communications firm he founded in 1988. He has supported 200-plus IP-focused businesses, portfolios and executives, as well as law firms and their clients.



# Classifieds

## COPYWRITING AND EDITING SERVICES

Words sell your invention. Let's get the text for your product's packaging and website perfect!

Contact Edith G. Tolchin:  
(845) 321-2362  
[opinionatededitor.com/testimonials](http://opinionatededitor.com/testimonials)  
[editor@opinionatededitor.com](mailto:editor@opinionatededitor.com)

## PATENT BROKERAGE SERVICES

IPOfferings is the one-stop patent broker for today's independent inventor. In addition to patent brokerage, IPOfferings provides patent valuation services, intellectual property consulting, and patent enforcement assistance for the inventor confronting patent infringement.

For more information about IPOfferings, visit [www.IPOfferings.com](http://www.IPOfferings.com) or contact us at [patents@IPOfferings.com](mailto:patents@IPOfferings.com).

## PATENT SERVICES

Affordable patent services for independent inventors and small businesses.  
Provisional applications from \$800.  
Utility applications from \$2,500.  
Free consultations and quotations.

Ted Masters & Associates, Inc.  
5121 Spicewood Dr. • Charlotte, NC 28227  
(704) 545-0037 (voice only) or  
[www.patentapplications.net](http://www.patentapplications.net)

## NEED A MENTOR?

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:

[www.inventor-mentor.com](http://www.inventor-mentor.com)

*Best wishes, Jack Lander*

## IoT Corner

Retailer and tech company Amazon has opened its **Sidewalk** wireless network to developers.

Launched two years ago, Sidewalk uses Amazon devices already installed in homes and makes them available for low-bandwidth IoT devices.

The network, which covers approximately 90 percent of the U.S. population, was originally proposed to message Hop (email service) notifications between Ring doorbells should one lose connection to the cloud. Now Amazon has opened this network to developers to build third-party devices.

Amazon is offering development kits and expects many new devices to be compatible with or run exclusively on the network in the future. —*Jeremy Losaw*



## Wunderkids

**Maria Elena Grimm** was 11 when she noticed her family's water had a slight brownish hue. She developed a method for purifying water in which tiny pieces of resin (in the form of plastic beads) can filter out an antibiotic called sulfamethazine, which is commonly found in water supplies in rural areas. Her work, published in the *Journal of Environmental Quality* in 2013 when she was 14, won the 2015 Siemens Competition in Math, Science and Technology. Maria is now a process engineer at Neurona Therapeutics.



## What IS That?

The next time someone criticizes you for your boring gifts, you can give them this. Yes, you can actually buy a **finger** on Amazon—for instructional use or ... whatever. The fingers are donated bone that was then sold to vendors. But check your state's laws and see if it's legal for you to own it.

## Get Busy!

Celebrate the 25th anniversary of **National Inventors Month**, which was created in 1998 by *Inventors Digest*, the United Inventors Association of the USA, and the Academy of Applied Science. Tell us which inventor has inspired you the most, and why.

## WHAT DO YOU KNOW?

- 1 Which was invented first—electric car locks, or the car cupholder?
- 2 **True or false:** Copyright infringement is a criminal offense.
- 3 Which statement about Benjamin Franklin is not true?
  - A) He never got a patent for an invention.
  - B) He preferred "air baths"—sitting naked in his cold indoor chambers for 30 minutes at a time—to water baths.
  - C) He never owned slaves.
  - D) He is a member of the International Swimming Hall of Fame.

- 4 **True or false:** A U.S. patent was awarded for a mousetrap equipped with a spring mechanism that activated a handgun.



- 5 For the first time since 1993, IBM was not the world leader in patents granted in 2022. Which company was No. 1?
  - A) Samsung
  - B) Canon
  - C) Intel
  - D) Apple

1. Electric car locks, 1914; car cupholder, early 1950s. 2. False. It's a civil matter. 3. C. He owned at least a couple slaves during his lifetime but eventually became an abolitionist. 4. True. U.S. Patent No. 269,766 was awarded December 26, 1882, to James A. Williams of Fredonia, Mason County, Texas. 5. A. Samsung had 6,248 patents. IBM was second with 4,389.

# DON'T MISS A SINGLE ISSUE!

Whether you just came up with a great idea or are trying to get your invention to market, **Inventors Digest** is for you. Each month we cover the topics that take the mystery out of the invention process. From ideation to prototyping, and patent claims to product licensing, you'll find articles that pertain to your situation. Plus, **Inventors Digest** features inventor pros and novices, covering their stories of success and disappointment. Fill out the subscription form below to join the inventor community.



## Inventors DIGEST

**ORDER ONLINE NOW**  
[WWW.INVENTORSDIGEST.COM](http://WWW.INVENTORSDIGEST.COM)

TO PLACE NEW ORDERS OR RENEW SUBSCRIPTIONS BY MAIL FILL OUT CARD, OR CALL 1-800-838-8808 OR EMAIL US AT [INFO@INVENTORSDIGEST.COM](mailto:INFO@INVENTORSDIGEST.COM).

NAME (please print)

ADDRESS

CITY/STATE/ZIP

E-MAIL

PHONE

referral code/referring subscriber (if applicable)

1 YEAR \$42.00 U.S.  2 YEARS \$78.00 U.S.

Make sure to enclose payment and send to  
INVENTORS DIGEST 520 Elliot St., Suite 200  
Charlotte, NC 28202



Start your patent  
journey today!

Someone will cure diabetes.

Someone will build a smarter AI.

Someone will create a new energy solution.

Are you that someone?

## — THE INVENTOR'S — PATENT ACADEMY

In this first-of-its-kind, free e-learning tool, you'll get to know the world of patenting and IP, hear from real inventors, prepare for the challenges you may face when patenting, and learn to protect your invention so you can bring it to life.

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