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JULY 2025 Volume 41 Issue 07

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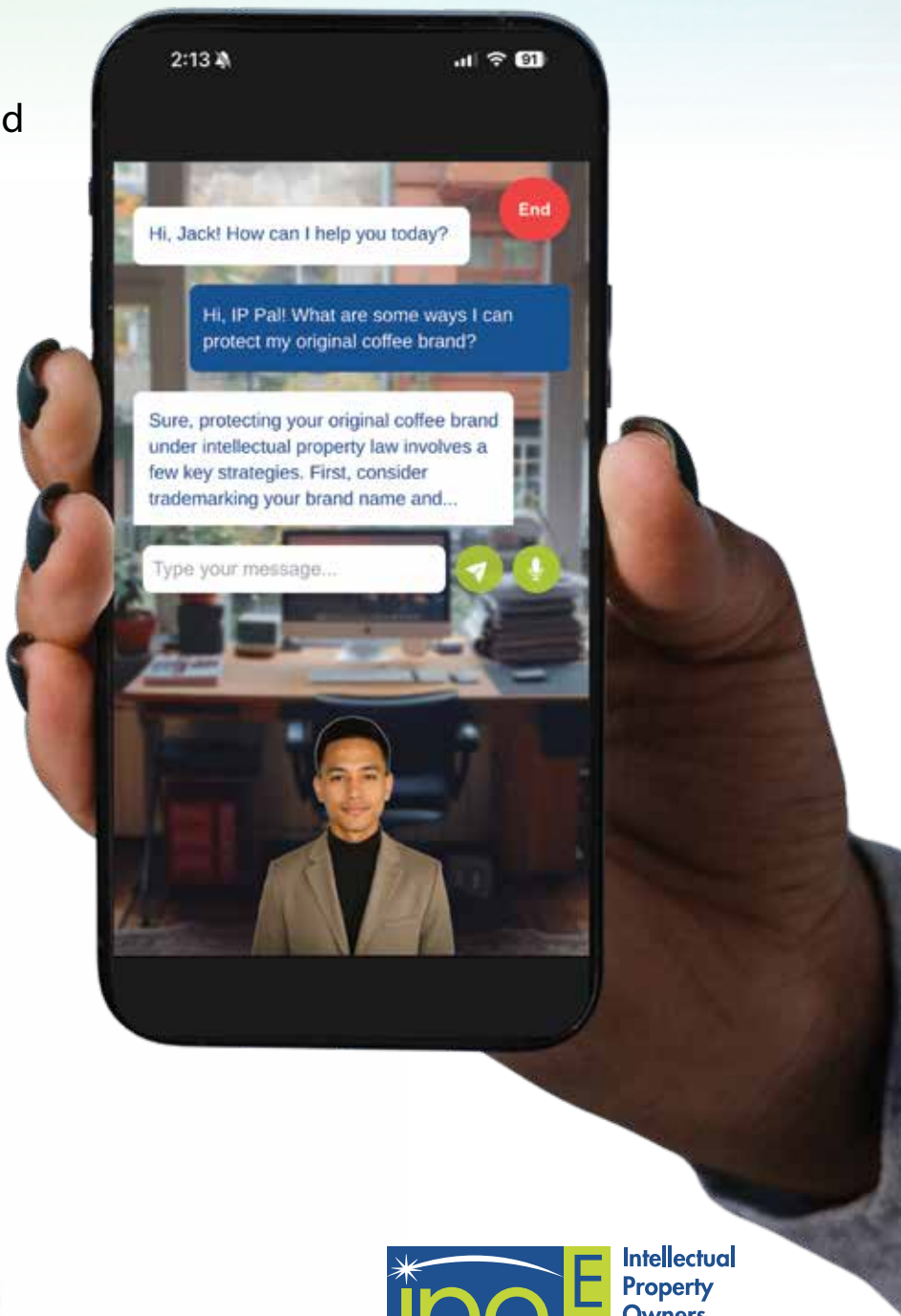

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Intellectual Property Owners Education Foundation

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IP Is Everywhere

IPOEF education campaign, highlighted by the AI-powered, groundbreaking IP Buddy, thrives on the road **BY REID CREAGER**

Above, left to right: At the Toy Fair, brands Mattel, Spin Master, Melissa & Doug and others spoke about the need to protect their innovations to continue to bring new ideas to the market, while keeping the old magic of iconic toys alive for future generations; IPOEF partner Jeremiah Fennell interviews David Picioski, head of marketing, Team Sports for Wilson. at the Super Bowl; Kristen Lurye, IPOEF deputy executive director, promotes IP Buddy at the Yale Innovation Summit; Jeremiah tests the Handshake-O-Matic from two inventors at the Invention Convention.

Even a 12-year-old can speak authoritatively about the importance of IP. Jeremiah Fennell does.

The reporter/influencer/sports broadcaster—best known on social media as Jeremiah One-And-Five—has captivated hearts across the country with his charismatic interviews and passion for storytelling. He recently joined with the Intellectual Property Owners Education Foundation (IPOEF) to promote the importance of IP via its IP Is Everywhere campaign, including through his personal experiences.

"At first, I didn't even know what IP meant," Jeremiah said. "But now I see it's in everything I love—football, sneakers, video games, and even the way I share my videos.

"I have built my own brand, and I want kids my age and others to know that we are surrounded by IP and that we can all be innovators!"

Jeremiah has joined IPOEF and Big Voice Communications at a range of high-profile events, including the Super Bowl, where he helped connect sports fans with the innovation and IP behind gear from brands such as Guardian Caps, Franklin Sports and Riddell.

He most recently appeared with IPOEF officials at the Invention Convention's U.S. Nationals, where student inventors from across the United States showcased original ideas ranging from sustainable packaging to smart devices. IP is Everywhere emphasized that protecting these ideas through IP rights is a crucial part of turning a concept into a real-world success.

At the New York Toy Fair, Jeremiah explored the connections between beloved toys and the patents and trademarks that protect them. The event highlighted the importance of safeguarding creative concepts as Jeremiah engaged with brands including Mattel, Melissa & Doug, Spin Master and Wild Republic.

Examples everywhere

It doesn't matter how young or old you are. Those sneakers you love, your favorite apps to tap, your go-to food or drink, your favorite music to stream, the car you drive—they're all examples of how IP Is Everywhere via branding, logos, patents, trademarks, copyrights and trade secrets.

The campaign is central to IPOEF's educational initiative aimed at raising awareness about the crucial role of IP in our lives. IP Is Everywhere seeks to highlight how IP drives innovation and creativity across sectors ranging from technology and entertainment to health care and agriculture.

"IPOEF is expanding opportunities for engagement with the intellectual property system," said Kristen Lurye, deputy executive

director for IPOEF. "By breaking down barriers to information, we empower more creators, inventors and entrepreneurs of all ages to protect and grow their ideas.

"Intellectual property rights are the foundation of innovation. They provide innovators with the ability to protect their creations, generate funding and collaborate effectively with others."

IP Is Everywhere has reached over 16 million people through media outreach. It invites people of all backgrounds to see intellectual property not as a complicated legal framework but as a tool for empowerment, creativity and progress.

"We wanted to show that IP isn't just for lawyers or big companies. It's for everyone," said Natalie Judd, principal at Big Voice Communications, the PR agency that developed the IP Is Everywhere campaign. "From the toys we played with as kids to the apps we use every day, IP shapes our lives."

Yet even as the impact of IP grows in the public eye—from rock stars selling their publishing rights for hundreds of millions of dollars to well-publicized lawsuits claiming theft of IP—understanding intellectual property still has an intimidation factor for many. The urgent need for better education about IP is underscored by a United States Intellectual Property Alliance survey, revealing that 70 percent of Americans are unable to distinguish between the forms of IP (patents, trademarks, copyrights and trade secrets).

"Many people might not know about intellectual property, or they think it doesn't apply to them," Lurye said. "IP is the heart of innovation for big companies, small businesses and individuals."

Those sneakers you love, your favorite apps to tap, your go-to food or drink, your favorite music to stream, the car you drive—they're all examples of how IP Is Everywhere.

As part of the IP Is Everywhere education campaign, IPOEF set out to demystify IP and make it more fun with its own creative tool—a world first that is poised to change how IP information is accessed and understood.

IP Buddy phenomenon

The launch of IP Buddy (June 2025 *Inventors Digest* cover story; inventorsdigest.com) continues to shatter the notion that IP is abstract or obtuse. With this free, first-of-its-kind service, AI-powered digital assistants can provide accurate, detailed, contextual answers to IP questions in real-time for everyone from middle-school students to entrepreneurs to teachers—whose role in educating about IP is core to the effort.

Featuring engaging avatars and helpful resources, IP Buddy turns what might seem like dense legal jargon into an approachable conversation.

IPOEF's Kristen Lurye (second from left), was joined by Big Voice Communications' Katie Dansereau (left), Natalie Judd and Jack Murphy at the Yale Innovation Summit.

At the Yale Innovation Summit in New Haven, Connecticut and Invention Convention in Dearborn, Michigan, emerging innovators, parents, educators and other leaders in innovation told IPOEF about the specific ways IP Buddy will help them.

"Without strong IP protection, the breakthroughs we rely on—from life-saving health care technologies to the devices that power our daily lives—simply wouldn't happen," said Henry Hadad, president of the IPOEF board. "IP Buddy is here to help people understand and engage with this vital system."

Parents at the Invention Convention said the program will help them learn so they can guide their child. A medical student at Yale said her laboratory was ready to launch a project and she was working with attorneys, but was excited about IP Buddy to help her better ask questions and understand what she was learning from them.

Asked about the importance of IP, many young people interviewed by IPOEF use words such as "empowerment. Validity. Rewards." It's a proven direction for protection.

"I actually was awarded a full utility patent through the Invention Convention U.S. Nationals," said Merra Ramaswami. "I knew patenting was an important way to protect my own intellectual property, and this was something that I really wanted to help people. I didn't want my idea stolen."

IP is motivation for young students who might otherwise be frustrated or worried about their future.

Intellectual property protection rewards creativity, which is not usually associated with getting high marks in math, spelling, English, geography or history. But ideas can be a ticket to the future. IP helps protect those ideas and futures.

Educating the educators

IPOEF is frequently told by parents and teachers that teachers must become more educated about IP to help students' ideas gain tangible value.

IPOEF provides free resources for students, teachers and those who are curious to learn about intellectual property—from podcasts to videos to classroom activities. It will launch a new digital resource this summer for teachers and non-IP professionals to bring IP to their communities.

Said Lurye: "Whether you're participating in a STEM program, invention competition, or you're tinkering in your garage on the next big idea, there is an opportunity to learn about how to protect your hard work through IP rights, and IPOEF wants to help."

IP Is Everywhere—and it should be known to everyone.

The nonprofit Intellectual Property Owners Education Foundation is "devoted to educational and charitable activities designed to teach and promote an understanding for the value of intellectual property rights and encourage innovation." To learn more, visit www.ipoef.org.

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FluidityIQ

Case Study: A Fresh Win

How FluidityIQ helped an independent inventor protect his energy-recovering residential air ventilation system

Inventor: Austin R.
Background: Mechanical Engineering graduate, Columbia University
Company: SWERV (swervair.com)
Innovation: Portable residential fresh air ventilation system with energy recovery

Inspired by his experience helping to design HVAC systems for large commercial buildings, Austin recognized a serious gap in the residential space: Indoor air quality in homes was often worse than in schools or hospitals, and few affordable, energy-efficient solutions were available for purchase.

He set out to change that, developing a sleek, energy-recovering ventilation unit that fits in a window like an A/C unit. Unlike traditional systems, it brings in fresh air from outside while maintaining indoor temperature and humidity.

The IP challenge

As Austin moved from idea to prototype, he knew intellectual property protection would be critical.

"If I wanted to commercialize this, I knew I needed to patent it," he said. "I wanted my IP to be broad enough to protect what I was doing but also specific enough not to infringe on other patents."

The patent landscape was unfamiliar territory, and hiring an IP attorney for a full search wasn't an option at the idea stage. So, he explored free tools.

"I started with Google Patents and ChatGPT," Austin said. "But Google's search engine was super frustrating. I'd search all the right keywords, and relevant patents wouldn't even come up. ChatGPT helped a little, but sometimes it hallucinated patents that didn't exist."

FluidityIQ and a key find

That's when Austin turned to FluidityIQ—an accurate, cost-effective patent search platform. "I reached out because I was having a lot of issues with free tools, and I wasn't ready to pay a lawyer since my idea was still in the very early stages. FluidityIQ gave me another way to move forward."

Austin's search in FluidityIQ surfaced a key patent—missed by other platforms—that was strikingly similar to his design. "That one was the closest thing I'd seen to my device. It forced me to narrow my claims a bit but also reassured me that what I had was still unique."

More confidence, action

Using FluidityIQ gave Austin more than just information. It gave him insight and peace of mind.

"It definitely gave me more confidence submitting the provisional patent. It made me feel like the time I was investing was worth it."

Austin will consult an IP attorney before a full patent filing, but FluidityIQ helped him take the first step on his own. He recommended it to a fellow inventor.

"I told my classmate, 'Google Patents is really hard to use. This tool actually brings up stuff that's similar to your idea and then also explains why it's relevant.' That's huge when you're just starting out."

The takeaway

For independent inventors trying to understand the IP landscape around their innovation without breaking the bank, FluidityIQ offers a smarter, faster way forward.

As in Austin's case, intelligence from the platform can help solo innovators get clarity on key business questions such as whether someone has patented something similar; what technology exists in the field and who it belongs to; where opportunities exist to further differentiate an idea, and whether it's worth investing in filing a patent application.

Ready to get started and see for yourself? Visit FluidityIQ.com

PART 2 OF 2

Patent Essentials

From a former USPTO official: How the patent process works, and how to make it work for you

In Part 1, FluidityIQ CEO Jeff Roy sat down with Rick Seidel, former deputy commissioner for patents at the USPTO, to explore why patent searches are critical for independent inventors and how to approach them effectively. In Part 2, these experts discuss the patent examination process, common mistakes to avoid, and helpful resources for first-time filers. This interview has been edited for clarity and length.

Jeff Roy: How does a USPTO patent examination work?

Rick Seidel: Once you file your application and everything is in order, it might sit for 12 to 18 months because of the current unexamined backlog.

When an examiner picks it up, the first thing they do is read and really understand your invention, especially what you're claiming. Then they search for prior art, looking for anything that might already exist and impact whether your patent can be granted.

From there, they decide to allow or reject the claims, and they communicate that in a written office action or sometimes a phone call. This part of the process typically takes about 10-15 hours, depending on the complexity of the technology examined and the experience level of the examiner.

Jeff Roy: What helps move a patent application quickly through the examination process?

Rick Seidel: The biggest factor is communication. Calling the examiner, just picking up the phone, can make a huge difference. Their contact information is at the bottom of every office action.

Often, delays come from misunderstandings or back-and-forth exchanges on paper. But when you talk to the examiner directly, he or she can explain why something was rejected, and you might even learn how to overcome it.

That kind of dialog is incredibly helpful. It's easy to miss each other's point when everything's in writing, so reach out. Examiners are usually happy to talk. It's one of the most effective, underrated ways to move your application forward.

Jeff Roy: What tends to trip up independent inventors during the patent process? Any tips for avoiding these pitfalls?

Rick Seidel: A big stumbling block is the Application Data Sheet; it's critical but overlooked. It captures key info like your identity and any claims to priority, and getting it wrong can slow things down. But there are tools that can help with that—and most other aspects of the process.

The USPTO.gov website offers great resources, including a practice application (Training Mode) in the Patent Center. There's also live support from the Applicant Assistance Unit for guidance after filing, the Inventors Assistance Center for help navigating the process, and the Electronic Business Center for technical assistance.

Don't go it alone. Leverage the expertise of the USPTO staff in these resource centers and you'll be more successful.

Jeff Roy is cofounder and CEO of FluidityIQ, an AI-powered innovation intelligence platform transforming how inventors and their partners access and act on patent and research insights. With 30-plus years in leadership across startups to global enterprises, Roy has helped shape the modern information industry.

In his role as deputy commissioner for patents at the USPTO, **Rick Seidel** provided executive oversight to examination and processing operations. With over 40 years' experience, he's a leading voice on change management, innovation policy and enabling stakeholders to navigate the patent system with clarity and confidence.

Access the full interview and more inventor-focused resources and insights at FluidityIQ.com/InventorsDigest.

Taking the Fear Out of Intellectual Property

What is it about the concept of intellectual property that scares so many people?

Is it the name? The term originated anywhere from the 1600s to 1800s—as is often the case, pick an internet source and give the wheel a spin—and it's unfortunate the choice was so lawyerly sounding.

"Intellectual property" rightly sounds important. "Creative rights" is a good alternative, especially since rights are often synonymous with entitlement. And in this case, entitlement is not a bad word.

We are all entitled to protect our ideas. This has been ongoing in some form for thousands of years. The trick is to convince people how understanding IP is something they should be excited about.

So it's more than a little ironic that the quest to protect and monetize innovation is getting a big boost from ... innovation.

IP Buddy, a free Intellectual Property Owners Education Foundation program launched in May and featured in *Inventors Digest*, is the latest major tool in this effort. It's powered by uniquely reliable sourcing and delivered in a comfortable, human way via an unprecedented, AI-powered digital assistant.

Although the four IP Buddy information avatars are young, this program isn't just for kids and students. It's every bit as much for people who teach those kids and students, and others.

Teachers are crucial for the future of IP education. Invention education consultant Christine Lawlor-King, speaking recently at the Invention Convention U.S. Nationals, gave a literal "Teachers, listen here" directive in her comments:

"We do not get students understanding IP unless the adults—like teachers and principals and camp counselors—understand IP themselves. And unfortunately, IP seems really scary to adults. ...

"We need you to understand intellectual property so that we can get it into our classrooms. ... What we want is that our students are comfortable and confident in talking about their inventions because they know their idea and their invention is protected.

"And many of our young inventors want to start businesses. So they need to understand about trademarks and protecting their taglines and logos."

We can get past the dry-sounding name if this mission is served, in the name of all that is creatively relevant and important..

—Reid
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Inventors DIGEST

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A New Hollywood Script

AI AND COPYRIGHT LAWSUITS: THE PLOT THICKENS

IN THIS PLOT, for the first time, we've got Hollywood. We've got Shrek, Homer Simpson, Darth Vader and more. We've got the caliber of name calling that would be the envy of any politician. Most important, we've got the potential for a ruling that will have lasting impacts regarding what AI companies are allowed to do.

AI breakthroughs save lives; reduce human error; improve processes and workflows; and facilitate better communication throughout the world—amid countless other benefits. But the courts have yet to conclusively determine what is fair game in terms of AI companies training their models from data culled via the internet—and Disney and Universal are crying foul.

The two major studios filed a 110-page copyright infringement lawsuit in a U.S. district court in Los Angeles on June 11 against AI company Midjourney, claiming it unlawfully generates unauthorized copies of beloved characters such as the ones named above. The suit seeks unspecified damages.

"By helping itself to Plaintiffs' copyrighted works, and then distributing images (and soon videos) that blatantly incorporate and copy Disney's and Universal's famous characters—without investing a penny in their creation—Midjourney is the quintessential copyright free-rider and a bottomless pit of plagiarism," the lawsuit says.

Midjourney's presence in the AI image-generation space stands at about 20 million registered users, according to data insights firm Demandsage. The suit said Midjourney made $461 million last year from paid subscriptions.

The Associated Press reported that in a conference call with users, Midjourney Chief Executive David Holz said, "I can't really discuss any ongoing legal things because the world isn't cool like that, but I think Midjourney is going to be around for a very long time. I think everybody wants us to be around."

Holz told the AP in 2022 that he saw his company as "kind of like a search engine" pulling in huge numbers of images from across the internet. His response to copyright concerns was, "Can a person look at somebody else's picture and learn from it and make a similar picture?"

A larger question is whether the ruling will have ... larger implications if the plaintiffs win. Legal experts speculated that the Hollywood studios want a ruling that will affect more than just Midjourney; they want other AI companies to have to change their models.

—Reid Creager

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Via inventorsdigest.com, comment below the Leave a Reply notation at the bottom of stories. Or, send emails or other inquiries to info@inventorsdigest.com.

Clarification: *The June 2025 Inventor Archives did not list the date when George Washington Carver received a patent for a process of producing paints and stains. It was June 14, 1927.*

INVENTING 101

Investment Scouts Growing in Impact

BY DON DEBELAK

IN THE LAST TWO YEARS, I've been contacted by at least 15 inventors who have a great idea but need an investor.

Most experienced inventors would consider these people naïve, as it is not often an inventor gets one big investor. But there are growing opportunities in this quest.

In the past 10 to 20 years, investment scouts have played an increasing role in product innovation. These scouts work for or with angel investors, venture capital firms, manufacturers and marketers.

Often, these scouts are also investors. They attend trade shows, angel investor meetings and presentations, entrepreneur club meetings and any other avenue they can to find new products they feel has investment potential. Then, they help inventors present their ideas to other investors or investor groups they might know.

Investment scouts make it clear what inventors have to give up to get investors. Investors want involvement with the company, they like lots of updates, and frequently want positions on the board.

They also help bring in investors to hear a pitch about why investors should get involved in the company.

Investment scouts profit by selling their shares, and by receiving consulting fees and other services to the inventor or company they represent. They tend to look at certain-size investments, which can vary from scout to scout. Some start at $500,000 and less, all the way up to scouts who land major deals with companies like Procter & Gamble.

I was involved with an investment scout. We met the investor at an entrepreneur's club. I was working with an inventor with a new technology to improve the life of cutting tools.

The scout approached us with the idea that he could get investors in our company. He wanted to receive shares equal to 10 percent of the shares that he helped sell in the company. We agreed.

Over about eight months, he managed to raise about $800,000 for the company, mostly in amounts of $50,000. Those investors received shares that gave them at the time about 25 percent ownership in the company.

You usually don't find scouts. They find you. Often, investment scouts are happy doing one or two deals a year. I've found they don't like to be contacted by multiple inventors.

Chamber of Commerce Association meetings often have good contacts. If you can afford to take a booth at a regional or national trade show, you will also have a chance to meet an investment scout.

There are many legal wrinkles for taking on outside investors. Consult an attorney with knowledge of investment law before striking a deal.

VITAL VOCABULARY

Section 101 An oft-seen reference in *Inventors Digest*, especially in court-based stories involving patent eligibility, this is the section of the U.S. Patent Code that defines which kinds of inventions qualify for patent protection. Section 101 says patent protection can be sought for any invention of a "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." The Supreme Court's ongoing avoidance of Section 101 issues continues to create uncertainty about what is patent eligible.

Don Debelak is the founder of One Stop Invention Shop, offering marketing and patenting assistance to inventors. He is also the author of several marketing books. Debelak can be reached at (612) 414-4118 or dondebelak@gmail.com. Don's Facebook page: facebook.com/don.debelak.5.

Trade Secrets: Indefinite Protection

"**ONLY TWO EXECUTIVES** know the [Coca-Cola] formula and it is very fiercely guarded by keeping it under lock in the SunTrust Bank in Atlanta."

A site called Storypick.com is obviously drinking the Coca-Cola Kool-Aid.

This claim involving perhaps the most famous trade secret in America is good press for the company, but the fact is no one knows how many people are privy to the formula. Common sense dictates that with the sheer volume of the syrup produced daily, more than two people would have to know; in addition, the types and amounts of sugar in Coca-Cola vary in certain countries.

The claim that both executives know only half the formula adds to the drama—and absurdity—of the legend.

Coke has somehow protected its secret formula since it was first poured 133 years ago. It is likely Exhibit A for the importance of trade secrets, which are IP rights on confidential information that may be sold or licensed.

Criteria for a trade secret is that the information must be commercially valuable due to its secret nature; must be known to a limited number of people; and is subject to reasonable steps taken by the rightful holder of the information to keep it secret.

Unlike a patent or trademark, a trade secret can be protected indefinitely at the state and federal level, so long as it remains a secret and keeps its economic value. The trade secret owner must take protective steps, including filing non-disclosure agreements and non-compete agreements; implementing IT security infrastructure; and limiting the accessibility of crucial documents.

Trade secrets are only protected when obtained through improper means or a breach of confidence. When filing a trade secret claim, the holder of the information must show that proper precautions were implemented and that the secret was wrongfully obtained. Such examples include disclosure of someone else's trade secret without consent and the use of theft, bribery or espionage to get the secret.

FREE ONLINE HELP

JULY 12

Register today for the seventh virtual event on product development in the **Successful Inventing** series for 2025, presented by the United States Patent and Trademark Office and the Licensing Executives Society-Silicon Valley Chapter. This session, July 12 from 1:30 to 3 p.m., focuses on early-stage funding and informal planning involving founders, family and friends; state and federal agencies; equity loan/investment companies; and private investors. For details, visit www.uspto.gov/about-us/events/successful-inventing.

GOOD TO KNOW

The AI and Emerging Technology Partnership is an ongoing effort between the USPTO and the AI/ET community, including academia, independent inventors, small businesses, industry, other government agencies, nonprofits and civil society. The USPTO seeks to engage the AI/ET community on ongoing and future USPTO AI/ET efforts, such as using AI and ET within the agency to enhance the quality and efficiency of patent and trademark examination. The USPTO seeks the public's views on various IP policy issues that uniquely affect the AI/ET community. For questions or ideas about future topics, email aipartnership@uspto.gov.

Smart Tool of Ignorance

JOURNEYMAN PLAYER'S IMPACTFUL INVENTION IS THE LATEST IN THE CATCHER'S MASK'S LONG EVOLUTION **BY REID CREAGER**

A **SPORTSWRITER** wrote in the 1990s that in Major League Baseball, "Barry Bonds is Boardwalk. He costs the most money. Charlie O'Brien is like Mediterranean. He goes the cheapest."

No respect. No respect at all! As a boy, his bath toys were a toaster and a radio.

OK, not really. But O'Brien—he of the career .221 batting average—always got the joke. Though he knew the Hall of Fame would never be calling, he was talented and determined enough to hang around the majors for a 15-year career as a part-time player until 2000, when he turned 40. His game-calling and defensive acumen were such that star pitchers including Greg Maddux, Roger Clemens, Dwight Gooden and Chris Bosio insisted he be their personal catcher when he was their teammate.

Still, when he was a World Series champion with the 1995 Atlanta Braves, he got his ring from a UPS deliveryman. Rodney Dangerfield would have loved it.

Help from hockey

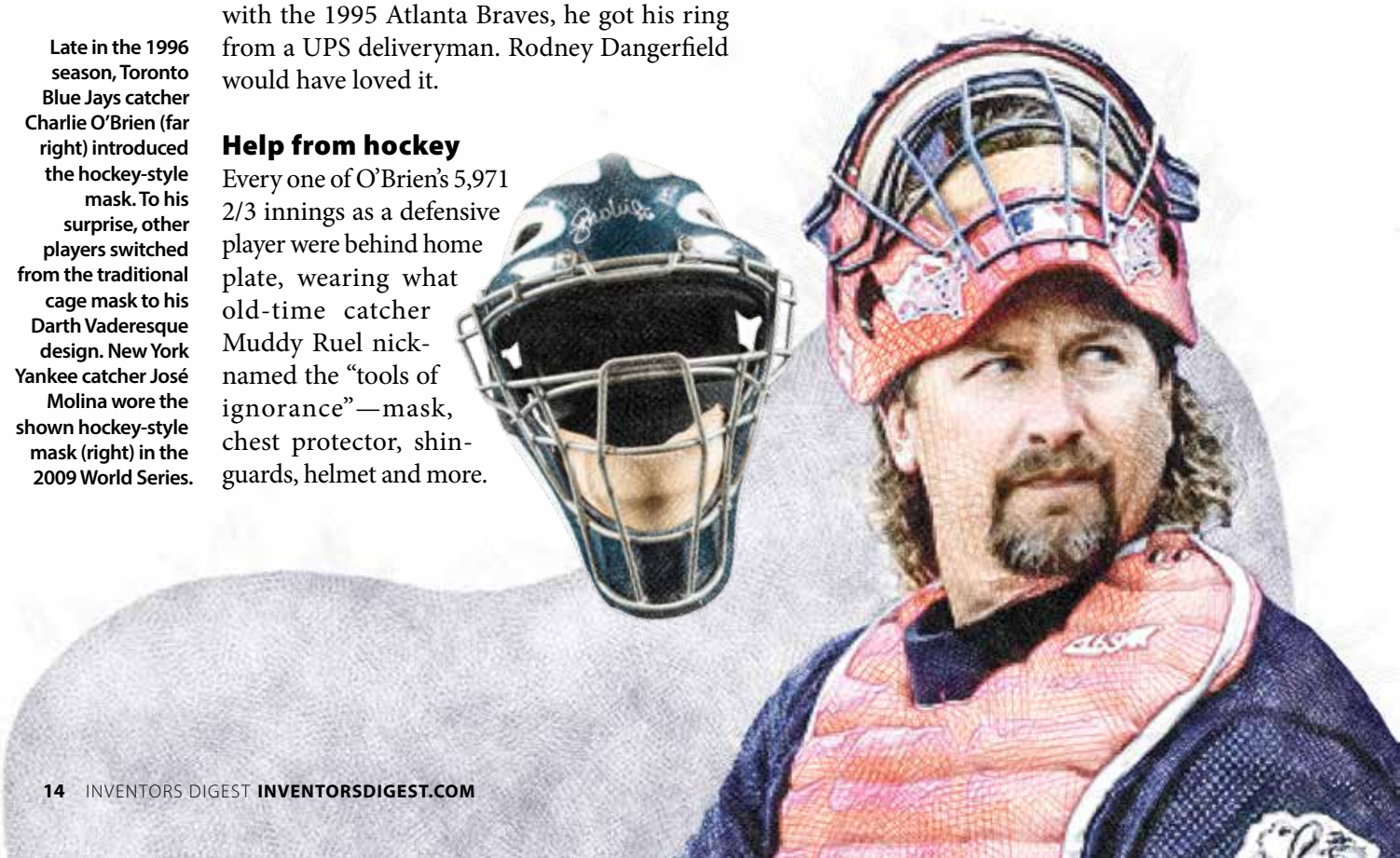
Every one of O'Brien's 5,971 2/3 innings as a defensive player were behind home plate, wearing what old-time catcher Muddy Ruel nicknamed the "tools of ignorance"—mask, chest protector, shinguards, helmet and more.

But like many catchers, O'Brien was often the smartest player on the field: knowing the best pitch to throw to a hitter in a particular situation; helping to position other defensive players based on hitters' tendencies; knowing his pitcher's skills, limitations and competitive intangibles that could determine a game's outcome.

He helped win games with his head. It made sense that he figured out something to better protect it.

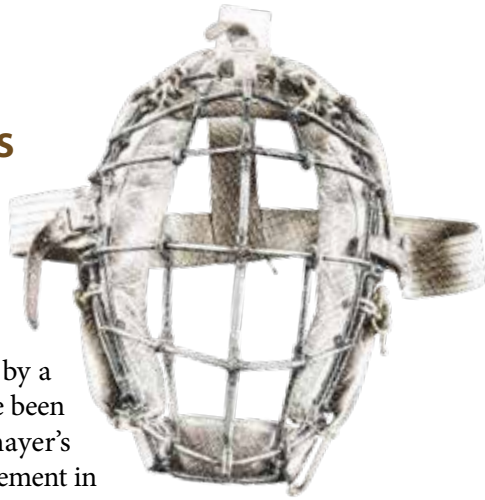
In the mid-1990s, O'Brien decided his catcher's mask was not sufficient for this. Foul tips from hitters, richocheting backwards after originating from 95- and 100-mph hurled missiles, caused frequent headaches.

As he watched a hockey game one night, he noticed that goalies—often hit in the mask with tremendous force from pucks—were much better protected. He teamed with the Canadian



Late in the 1996 season, Toronto Blue Jays catcher Charlie O'Brien (far right) introduced the hockey-style mask. To his surprise, other players switched from the traditional cage mask to his Darth Vaderesque design. New York Yankee catcher José Molina wore the shown hockey-style mask (right) in the 2009 World Series.

The earliest documented catcher's mask was invented in 1876 by Fred Thayer of Waverly, Massachusetts, adapted from a fencing mask and used by a Harvard player.



Van Velden Mask Co. to develop an angled, hockey-style mask that not only provides more protection for baseball (top, sides and back of head) but also better peripheral vision with its larger front opening. The angling deflects the ball, rather than it hitting the catcher flush.

O'Brien was the first to wear his model, a Darth Vader-esque creation called the All-Star MVP, in a game on September 13, 1996. (His 1997 Upper Deck card even mentions the distinction.) The mask soon became universally adopted by other players and teams.

Puckjunk.com scored nicely with these comments about the practicality and science in play:

"A goalie mask might be the perfect replacement for the old, outdated traditional two-piece headgear. A goalie could just brush off getting hit with a puck, which is much harder than a baseball. For instance, a ball will compress under impact, whereas a puck does not. ...

"The new mask took only its shell construction—a seven-layer sandwich of fiberglass, Kevlar and a cornucopia of other materials—from the hockey mask. Besides the layers of protection, the new mask also increases the catcher's vision so that taking the helmet off to catch a pop-up became unnecessary."

Earliest patented models

We couldn't find any patent in connection with O'Brien's invention—which, technically, is more like an innovation because of how much it heavily borrowed from the hockey mask. But his All-Star MVP arguably had as much, uh, impact as many patented catcher's mask predecessors dating to the 1870s.

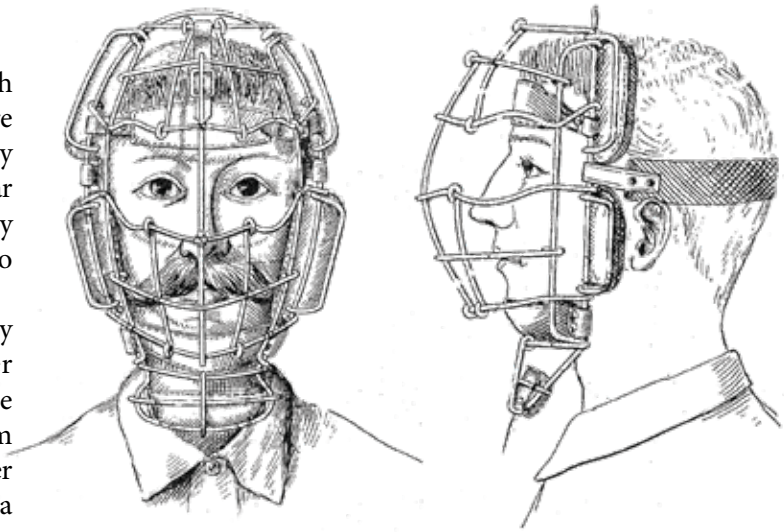
Chuck Rosciam's excellent piece in the Society of American Baseball Research's Summer 2010 Baseball Research Journal chronicles the mask's early, if not earliest beginnings. Rosciam wrote that one invented in 1876 by Fred Thayer of Waverly, Massachusetts, adapted from a fencing mask and used by a Harvard player, may have been the first—although Thayer's titled invention, "Improvement in Masks," suggests otherwise.

U.S. Patent No. 200,358 describes a device "intended to protect the face of a player from being hit or injured by a base-ball while in flight toward him, and also at the same time to not materially obstruct his sight. It is usually to be worn by the catcher or person in rear of the striker or bat-wielder."

The mask went into the Spalding catalog for the 1878 season. It featured a steel-mesh frame with simple forehead and chin rests fortified with padding made from "imported dog skin," according to one Spalding catalog.

With the essential aspect of safety addressed, the next challenge was being able to see out of these things.

A wire-basket cage called the open-view mask—U.S. Patent No. 376,278 (below) by George Barnard of Chicago in 1888—gave way to A.J. Reach's Open Vision and Wide Sight mask (U.S. Patent No. 1,012,223). Patented in December



JOSÉ MOLINA AND FRED THAYER MASK: LIBRARY OF CONGRESS, WASHINGTON, DC

1911, it removed the vertical bar for better visibility without sacrificing structural strength.

Catchers aren't the only people behind home plate who wear a mask. So it was fitting that an umpire, James E. Johnstone of Newark, New Jersey, conceived the platform mask (U.S. Patent No. 1,449,183, in 1923). Its distinction was as a one-piece aluminum casting with horizontal crossbars instead of soldered mesh.

Simplicity and efficiency were the goals here, per the description: "This invention contemplates the elimination of wires and of their separate pieces connected in various ways, by rendering available a one-piece integral vizor in the nature of a thin shell of very lightweight yet malleable metal of a nature capable of being formed by a single [casting] operation; thereby reducing the cost an creating a more serviceable and more desirable vizor."

According to Rosciam, carbon-steel wire mesh remains the material of choice for masks. "Catchers prefer the welded-wire guard because it has better air movement and fewer massive bars that could obstruct visibility. Carbon-steel wire is used because it's flexible but strong. The goal is to get some deformation in the mesh to reduce some of the shock but still retain structural integrity."

Crucial attachment

Although protecting the face and head are the catcher's mask's primary role, it's just as important to protect the throat. This was dramatically demonstrated in a harrowing accident on September 6, 1976, at San Diego Stadium—and involved a catcher who wasn't even behind the plate at the time.

The Los Angeles Dodgers' Steve Yeager was kneeling in the on-deck circle in the top of the seventh inning against the Padres when teammate Bill Russell made contact with a pitch that shattered his bat. Baseball Egg recalls: "One of those pieces of white ash, a large, jagged spear, struck Yeager in his neck, puncturing his throat. Within seconds the front of his uniform was bloodied as Yeager fell to the grass.

"Fortunately, something he didn't do probably saved his life. Yeager didn't try to pull the largest piece of wood from his neck. As a result, the jagged piece of lumber stayed secure in the wound, lessening the flow of blood from his neck. Fortunately, the bat had missed his jugular."

Yeager underwent a 90-minute surgery to remove the bat from his neck and made a full recovery. The Dodgers fashioned an apparatus that hangs from the catcher's mask to protect the throat.

Their innovation, while essential, was not original.

Rosciam noted that throat protectors date as far back as 1888, as seen in a Spalding advertisement for the Spalding's Trade Marked Catcher's Mask No. 30 with a patented neck protection. In 1903, Victor Sporting Goods' catcher's mask model 314N offered a neck extension piece. The latest masks have the throat protector integrated with the wire face cage.

INVENTOR ARCHIVES: JULY

July 3, 1979: The phrase **"Radio City Music Hall"** was trademark registered.

As the largest indoor theater in the world since its opening on December 27, 1932, the 47-year delay in this intellectual property designation for a U.S. cultural monument shows the relative lack of importance placed on IP in the 1900s.

In 1928, a group of New Yorkers convinced John D. Rockefeller Jr. to support the construction of a new opera house for the Metropolitan Opera Co. He leased the land on which the theater was later built. When the stock market crashed in 1929, the opera project was canceled, but Rockefeller was determined to honor his lease as a way to celebrate American optimism and prosperity.

The stage of the music hall is the length of a New York city block; the steeped arches are designed to mimic the sunrise.

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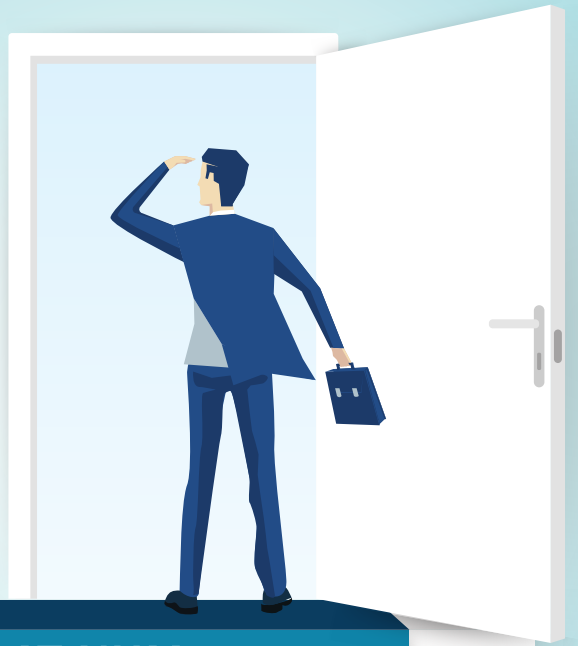

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Listen Up. Get Visual!

GET NOTICED, USING THESE STORYTELLING TIPS WHILE SHOWCASING YOUR INVENTION ON INSTAGRAM

BY ELIZABETH BREEDLOVE

CONTRARY TO common misconceptions, Instagram is not just a place for influencers, bloggers and celebrities.

During the past decade, the popular social networking site has become a powerful platform for inventors, makers and small business owners. The key isn't to follow trends blindly; it's to tell your story in a way that is honest, engaging and visual.

And you don't need to be a professional photographer or a social media wizard to do it.

Consider the story of Carl Matthews, a fictitious inventor with an experience based on that of many real entrepreneurs.

When Carl created his first prototype, he wasn't sure what to do next. At 62, with a background in electrical engineering and little experience in social media, he faced a question many inventors ask: How do I get people to notice this thing I've poured my heart into?

Friends told him to get on Instagram. His granddaughter said the same. But he felt a bit unsure.

Wasn't Instagram just selfies and influencers? What could it possibly do for someone like him?

As it turns out, quite a lot.

Every invention has a story

It's sometimes easy to forget that Instagram is, at its heart, about stories. Not in the flashy Hollywood sense, but in the way we all tell stories every day—such as a friend showing you something new over coffee, a neighbor explaining how he or she fixed a broken mower, or a grandparent sharing a craft project made with a grandchild.

The trick with Instagram is to translate these natural stories into pictures and short videos.

You don't need a perfect product to start. In fact, the process is often more interesting than the polished result. People like seeing how something gets made, especially when there is clear thought and effort behind it.

Show the problem, fix it

If your invention solves a real-world problem, that's the hook. Show that problem in action, then show how your invention makes it easier, faster or cleaner. Don't explain it all in text. Let your visuals do the work.

You don't need acting skills or fancy editing, just a steady camera and a clear view of what's happening. This alone can capture someone's attention as they scroll their feed.

Be real, not perfect

Carl's Instagram videos were simple: in his kitchen, talking while he showed off his invention. His dog wandered through the background sometimes, and his granddaughter occasionally helped with the camera.

None of it looked professionally produced, but it felt sincere. That's what made the difference.

This is the kind of content that builds trust. Behind-the-scenes clips, messy test runs, hand-drawn sketches, even failures—these all make people feel like they're watching something grow from the ground up. They want to see how the idea comes together because it makes them part of the journey.

Good light, a steady hand

Lighting makes a big difference, even with a phone camera.

You don't need a studio setup; just place your invention near a window during the day and let natural light do the job. Avoid harsh overhead lighting or bright lights behind you that cast shadows. A clean background helps, too.

Hold your phone steady—or even better, use a basic, inexpensive tripod. Some tripods

come with a remote, so you can hit "Record" and speak freely without fumbling with your phone.

If you want to film overhead, you can rig a basic arm with clamps, or stack books to get the right angle.

Build the story over time

You don't have to post every day, but regular updates help. A photo or video two to three times a week keeps people engaged.

Think of each post as one piece of a larger story. It might be a new prototype, a trip to the hardware store, or a clip of you working at your desk. It doesn't have to be newsworthy; it just has to show forward motion.

Instagram "Stories," which appear as short-lived updates across the top of the app, are perfect for these moments. You can post casual updates, like testing out a part or receiving a shipment of materials. It adds to the behind-the-scenes feeling people enjoy.

Don't forget the caption

A photo or video gets someone to stop scrolling, but the caption helps keep them interested.

However, a good caption doesn't need to be long. Just say what's happening in the picture and why it matters.

What are you working on today? What's a challenge you're facing? Why did you make a particular design choice?

Write like you're talking to a curious friend or family member. Be conversational, be yourself, and when people comment or ask questions, reply.

Instagram's algorithm rewards that kind of engagement, and your followers will appreciate it, too.

Show a mix of content

Over time, your Instagram profile becomes a type of gallery of your work. This is why it helps to post a variety of content.

Try to include clear shots of your invention, action videos showing it in use, updates from your workspace, and personal moments now and then (a short clip introducing yourself goes a long way).

This gives people the full picture of who you are and what you're doing. People follow people, not just products.

People like seeing how something gets made, especially when there is clear thought and effort behind it.

Start conversations

Instagram is, at its heart, a place to connect. When people comment, ask questions, or share ideas, take the time to respond. You might meet future collaborators, customers, or even friends.

If you're stuck on what to post next, let your audience help. Questions like "What do you think of this version?" or "Would you use this product?" can lead to valuable insights.

With posts like this that encourage engagement, you're not just telling your story but continuing a conversation.

One post at a time

Carl eventually used Instagram to prepare for a crowdfunding campaign. By the time he launched, his followers were already familiar with the invention, had seen the early sketches and test runs, and were cheering him on.

Carl didn't go viral, but that wasn't the point. He built a small, loyal following who liked seeing an idea come to life. That's all it took to open the door to his first batch of pre-orders.

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.

Good Vibrations

2 PH.D.S' SMART DEVICE FOR SORE KNEES INTERRUPTS PAIN SIGNALS TO PROMOTE MORE MOBILITY **BY EDITH G. TOLCHIN**

KNEEMO® is an invention close to this writer's heart (and bum knee)! I was recently surfing for solutions and came upon this invention, whose co-inventors are Jenny Hledik, Ph.D. of Lake Oswego, Oregon, and Tom Andriacchi, Ph.D., of Lake Tahoe, Nevada.

Edith G. Tolchin (EGT): What are your backgrounds?

Jenny Hledik (JH): I am the chief operating officer of SomaTX Design Inc. (SDI) and a biomechanical engineer with over 20 years of experience in musculoskeletal biomechanics research, medical device design and clinical trial testing.

I spent years as a researcher at Stanford University and the Veterans Affairs Hospital, where I focused on developing a multidisciplinary understanding of orthopedic conditions and the development and testing of non-invasive ways to help people stay active and manage joint pain.

Tom Andriacchi, Ph.D., is an emeritus professor at Stanford University and president of SDI. For over 50 years, Tom has conducted research in orthopedic biomechanics, studying how injuries and conditions like osteoarthritis affect the way we move.

Tom has developed numerous products to treat musculoskeletal conditions, including joint replacement implants and a load-modifying shoe for knee osteoarthritis. His work has earned international recognition from both engineering and medical societies.

EGT: Please tell us about your company.

JH: SDI was founded in 2019 to bring KneeMo to market. The company is dedicated to enhancing mobility and improving the quality of life for individuals with musculoskeletal pain through innovative, non-invasive solutions.

EGT: What is KneeMo? Explain how it works.

JH: KneeMo is a smart, wearable device designed to reduce knee pain and help people move more comfortably. It consists of two motion-sensing bands worn above and below the knee.

KneeMo analyzes the wearer's movement in real time and delivers vibration that's precisely timed to each person's unique movement patterns. The vibration works by interrupting pain signals on their way to the brain, a concept known as the "Gate Control Theory" (of pain). In simple terms, it "distracts" the nervous system with motion-activated vibration, which has been shown to reduce knee pain and improve quadriceps muscle function during movement.

We designed it to be simple, comfortable and easy to wear so people can stay active and keep doing the things they love, with less pain getting in the way.

"We saw a real need for an effective, non-invasive, drug-free solution that could reduce knee pain, encourage activity and help restore function during movement." —JENNY HLEDIK

Motion-sensing vibration technology is a hallmark of KneeMo, co-invented by Tom Andriacchi, Ph.D.

EGT: What inspired KneeMo?

JH: Tom was my adviser and head of the Stanford BioMotion Lab when I was pursuing my Ph.D. in biomechanical engineering there, and we've worked together for many years since! Our research focused on how pain, injuries and conditions like osteoarthritis affect the way people move, and how subtle changes in movement can impact the knee joint over time.

The idea for KneeMo came from a shared desire to take what we learned in the lab and turn it into something real that could help people manage their knee pain not just in a clinic, but in their everyday lives.

Knee pain is one of the most common musculoskeletal issues worldwide. We saw a real need for an effective, non-invasive, drug-free solution that could reduce knee pain, encourage activity and help restore function during movement.

EGT: What types of knee conditions can KneeMo help with?

JH: KneeMo is designed for people dealing with chronic knee pain from a variety of causes—including osteoarthritis, past injuries like ACL or meniscus tears, or other conditions that lead to ongoing discomfort. These issues often come with impaired quadriceps' muscle function, [and quadriceps] play a key role in stabilizing and supporting the knee.

KneeMo has been shown to improve quadriceps' function during activity, making it a helpful tool not just for pain relief but or supporting better movement. We also have users wearing KneeMo following surgeries like total knee replacement, or as part of rehab for injuries, to help make daily movement and rehab exercises more comfortable.

EGT: What makes KneeMo different from other knee pain treatments on the market?

JH: Traditional treatments like medications and surgery can help, but they often come with risks of side effects, high costs and long recovery times. And they don't directly reduce knee pain during movement to encourage staying active, which is important for both joint health and overall well-being.

Other options, like traditional knee braces, can offer support but often restrict motion and don't address restoring muscle function, which is key to long-term functional improvement.

We developed KneeMo to change the way people can manage their knee pain—by reducing pain and improving muscle function during movement with motion-sensing vibration technology. It's a non-invasive, drug-free way to help people stay active and enjoy everyday movement with more comfort and confidence.

EGT: How long did it take to go from a research concept to bringing KneeMo to market?

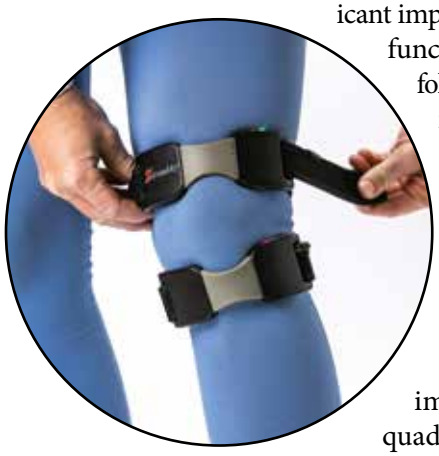
JH: The foundational research behind KneeMo goes back decades, but developing a consumer-ready product based on our research concept took about nine years! We began with initial research and prototyping, followed by clinical testing, and then design for manufacturing.

EGT: What kind of testing and validation did you do before launching KneeMo?

PHOTOS COURTESY OF KNEEMO

JH: Before launching, we conducted rigorous clinical testing to validate its effectiveness in reducing knee pain and enhancing mobility. We did clinical studies at Stanford with individuals experiencing knee pain from osteoarthritis, ACL injuries and meniscus tears.

In our initial, single-day study, we saw a significant improvement in quadriceps' muscle function during walking. That was followed by a longitudinal, randomized, controlled study. After four weeks of using KneeMo, study participants reported less knee pain during walking and navigating stairs—benefits that weren't seen after using the control treatment.



Improved quadriceps muscle function was among the findings published in peer-reviewed journals.

We also observed measurable improvements in mobility and quadriceps muscle function during movement. These findings, which were published in peer-reviewed journals, motivated us to bring KneeMo to market so that it could help others with knee pain.

EGT: Is KneeMo patented?

JH: Yes, we have two issued patents (U.S. Patent Nos. 11,285,034 and 11,576,807) covering KneeMo's technology.

EGT: Can users customize using KneeMo? Any apps involved?

JH: KneeMo is ready to use right out of the box, but we also have an app that allows users to customize their experience. The KneeMo app connects to the device and lets users select activity types like jogging or cycling, which adjusts the algorithm behind how the device responds to movement.

Users can also adjust the vibration intensity to their comfort level and use the app to track their usage and activity.

EGT: Have you run into any challenges with manufacturing or logistics?

JH: Manufacturing a technically complex product at scale can be difficult, especially as a small startup.

One of the biggest hurdles we faced initially was the global chip shortage, which affected our ability to source key components. Like many others, we had to get creative and stay persistent to keep moving forward.

EGT: Where are you selling? Do you use a distribution center, or are you fulfilling orders yourself?

JH: Right now, we're selling KneeMo directly through our website: thekneemo.com.

We're also working on partnerships with health care providers to offer KneeMo to their patients. We fulfill orders through a distribution partner located in Indiana, allowing us to ship efficiently and reliably.

EGT: What's been the most rewarding part of creating KneeMo?

JH: The most rewarding part has been hearing about the impact that KneeMo has had on our users' daily lives—from helping during rehab after an injury to enabling people to return to activities they love, like jogging or pickleball, with less pain.

EGT: Any plans to expand your product line?

JH: Yes! We're exploring how this same approach—smart, motion-activated vibration technology—can help with other musculoskeletal conditions and mobility challenges. Our goal is to continue building science-backed solutions that help people affected by musculoskeletal pain.

EGT: What advice would you give to inventors looking to bring an idea to life?

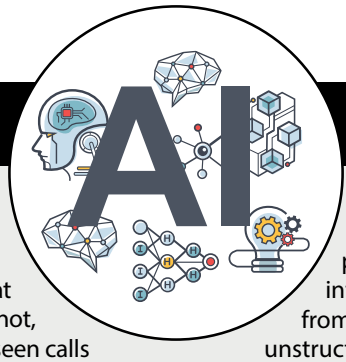
JH: My biggest advice is to start with a real problem that matters to you and to others, and to have a true understanding of the problem you're solving. From there, be ready to be persistent, adaptable and willing to learn things outside of your comfort zone.

Don't let setbacks discourage you. The process of bringing an idea to life will present challenges, but being resilient, flexible and staying connected to your "why" are key.

Details: somatxdesign.com

Edith G. Tolchin has written for *Inventors Digest* since 2000 (edietolchin.com/portfolio). She is the author of several books, including "Secrets of Successful Women Inventors" (https://a.co/d/fAGlvZJ) and "Secrets of Successful Inventing" (https://a.co/d/8dafJd6).

AI ABCs



3 TERMS, 3 DIFFERENT MEANINGS

Artificial intelligence terms "machine learning," "deep learning" and "neural networks" are often mistakenly used interchangeably. This causes confusion—and if there's one thing AI does not need to be associated with, it's more confusion.

So don't become frustrated to the point of tears. Think tiers.

IBM has a palatable way of boiling this down. Think of the three terms "as a series of AI systems from largest to smallest, each encompassing the next."

The one-paragraph summary says that, of course, AI is the overarching system. Machine learning is a subset of AI, with deep learning a subset of machine learning. Neural networks make up "the backbone of deep learning algorithms."

(Many of you know what an algorithm is by now. If not, the best definition we've seen calls it a finite sequence of instructions that a computer must perform to solve a well-defined problem. It's this process that determines rankings for search engines and more.)

Definitions for the three linked terms, from GeeksforGeeks:

Machine learning is a branch of AI that allows algorithms to uncover hidden patterns within datasets, allowing them to predict new, similar data without specific programming for each task. This makes machine learning especially useful for tasks that involve large amounts of data and complex decision-making.

Deep learning mimics neural networks of the human brain, letting computers autonomously uncover patterns and make informed decisions from vast amounts of unstructured data. This is changing the way machines understand, learn and interact with complex data. Deep learning requires abundant computing power and huge amounts of data.

Computer **neural networks** are machine learning models that mimic the complex functions of the brain. These models consist of interconnected nodes or neurons that process data, learn patterns and enable tasks such as pattern recognition and decision-making. Their ability to learn from vast amounts of data affects technologies such as natural language processing, self-driving vehicles and automated decision-making.

—Reid Creager

Independence DAYS

QVC SUCCESS STORY MICHELLE MORRISON WRITES A NEW CHAPTER WITHOUT A LICENSEE—BUT WITH FAITH, FAMILY AND GRIT **BY REID CREAGER**

ON APRIL 12, 2020—a month into the COVID scare that changed the world—an anxious Michelle Morrison settled in for some television that changed her life.

It wasn't your typical Easter Sunday for anyone else, either. Shock waves from the epidemic reverberated as businesses worldwide closed amid uncertain futures. Panicked families quarantined themselves by the millions, their financial fates seemingly left to chance and/or government payments.

Not exactly an optimal time for Morrison's Glide Mats to launch on national TV.

She thought about her mother, who had predicted that one day her daughter's products would appear on QVC. She died of cancer in 2006.

She thought about her older brother, who died of cancer in 2014. He invented a no-drop guitar pick and tried to get it to market with her until his death.

She thought about her father, her creative muse; she thought about the encouragement from her husband, children, family, friends.

Now Morrison's lifelong dream to become a successful entrepreneur was subjected to the ultimate test, in a world that wasn't the same world anymore.

Morrison's determination to support her brother's invention—these no-drop guitar picks—was the spark she needed to establish Creative Inventive Solutions LLC in 2014.

Goosebumps: SOLD OUT

"It was a touchy time," she remembered in a recent Zoom with Inventors Digest. "But during that 8-minute segment, everything went very well—and I saw that such and such color just sold out!

"And I sat there. I sat there. I felt like it was ... it was ... it didn't feel real. And just, I mean, five years later, I'm getting goosebumps."

No proof needed. The goosebumps were in her voice. They were in her eyes.

"As QVC prepared to move on to the next product, on the screen, it flashed big and wide—SOLD OUT. And for the five years that they were on license, I guarantee that every time I saw that notification I had tears of gratitude. It was like a dream every single time."

Like all of us, Morrison has lived personal and professional dreams—and nightmares. But like so few, her success model is fortified by her faith; an unusually supportive family; profound love of country; a desire to help others, and a willingness to confront risk in all circumstances.

Those drivers steer her independently, and together.

"Whether I'm licensing or launching, what matters most to me is building strong relationships rooted in trust and integrity," she said. "That foundation has guided every step of my journey."

The foundation of said foundation is rooted in God, family, friends—even her dogs—"those

PHOTO BY TO THE MOON AND BACK PHOTOGRAPHY BY BETH TRUXALL

who are here and those I carry in my heart who've stood by me and this dream that's meant so much. Their love and encouragement have carried me through seasons of uncertainty, growth and grief."

Positioned to dream and more

Morrison is convinced she can realize her dreams because she lives in a country that is conducive to it.

Relatives have served in the Civil War, World War II, Korean War, Vietnam War and both Gulf wars. Her uncle, an Air Force colonel, and father-in-law, a Navy chief warrant officer 4, were career military members.

"I've always had much respect for their dedication and selflessness. That kind of loyalty and love for our country definitely influenced my path as an inventor to live the American Dream.

"I'm passionate about giving back to those who have served, and I'm excited to focus on finding manufacturing options in the United States"—a commitment that was a factor in her licensing-to-launching move.

Her father, who inspired her love for art and creativity, remains her biggest supporter.

Her pre-inventing past, working at places like Bloomingdale's and Coca-Cola, helped her understand the value and power of strong branding and customer connection. As a licensed optometric technician, "I got to lean even more into building trust with patients, which felt like such a natural fit."

Yet in a career that has seen more pivots than an automatic sprinkler head, her love for inventing and creating has been a fixture always encouraged and nurtured.

Her father, Dorsey Clapper, inspired her love for art and creativity. "Even as a child, I dreamed up innovative ideas—like a makeup brush that dispensed powder through holes at the base of the bristles. My mother always encouraged my brother and me to pursue not just our dreams but our talents."

'Eureka' through pain

In 2005, Morrison had begun brainstorming names for a future product line with the help of her mother, family and friends. The next year, her mother got her cancer diagnosis. Nancy Clapper died a month later.

Michelle Morrison's dream had been deferred during years of grief and searching when her older brother, Rick, asked her to partner on his Pro-Pic invention in 2013. "It was just the spark I needed to get my dream on track," she said.

Shortly after, her brother was diagnosed with Stage 4 cancer. He insisted they both push forward with his plans. She quit her job and in 2014 established Creative Inventive Solutions LLC to support his invention, and began researching how to get his pick to market.

Rick defied doctors' timelines "and lived a year filled with faith, hope and ambition"—but died in December without his dream fulfilled. With her husband's and family's encouragement, Morrison decided to continue her pursuit of creating products.

By 2016, she was connecting with potential licensees while submitting product concepts. One pitch was for her Kitchen Coaster, a solution to help move heavy stand mixers across a counter.

As often happens in inventing, a personal obstacle led to the realization of a problem and opportunity. Morrison's case of frozen shoulder ultimately spawned a red-hot product.

Also known as adhesive capsulitis, frozen shoulder is characterized by thickening of tissue in the shoulder joint, causing it to tighten. "So when I needed to get my 25-pound-plus stand mixer from the back corner of my counter, it was tough. I kept improving the versions over several months' time, and one day I thought: 'This could help other people, too!'"

She pitched her renamed Glide Mats—"a heat-resistant, low-profile mix of natural rubber on the grippy side and a polyester blend on the sliding side"—to almost 80 companies. One was Cooks Innovations, where founder Peter Vander Stichele responded: "Looks great but regretfully not for us."

PHOTOS BY KRISTI GAETZ

Re-pivot redeux. Morrison took a more visual route and filmed a demo video, showing how many heavy kitchen products—a Vitamix, air fryer, coffee maker—could glide across a counter with a soft pull by using her product.

By 2019, many companies were interested in licensing Glide Mats. Morrison chose Cooks Innovations and Vander Stichele, the latter who worked closely together to prepare for the product launch.

"He kept me involved every step of the way—from the name and packaging to the marketing materials. Peter also wanted me to be recognized as the inventor, which I deeply appreciated. He even arranged for an interview and featured it on their website."

Even after Vander Stichele sold the company, president and CEO Nicolas Perrupato continued that same spirit of collaboration.

Glide Mats aired multiple times on QVC and QVC2 from 2020 to 2024. They were featured on shows including "Good Morning America," the "Tamron Hall Show," and with several online retailers, where they maintained a 4.7-star average rating online.

"Meijer was the first retailer to give Glide Mats a chance. They'll always have a special place in my heart," Morrison said.

Out to launch

But Morrison gradually sought more control over the many aspects of her product. Despite

"Whether I'm licensing or launching, what matters most to me is building strong relationships rooted in trust and integrity. That foundation has guided every step of my journey."

the fact that her relationship with Cooks Innovations was fruitful and comfortable, she made the decision to launch on her own.

A product licensee typically oversees details that are daunting to many inventors, most notably manufacturing or selling. Evolving from licensing to launching, Morrison said, is "a whole new world—sourcing materials, understanding production timelines and minimum order quantities, managing quality control, finalizing marketing material, establishing sales channels ..."

She emphasizes her gratitude to Cooks Innovations.

"Licensing was a great chapter, and I'm grateful for everything I learned through that partnership. But as time went on, I found myself wanting to be more involved in the decisions that shape the product and the brand, and to get it back on track with my original vision.

"Bringing it in-house gave me the opportunity to do that—to refine, expand, and lead the next chapter with a clearer vision."

Her decision—involving a product that has a proven and sustained following worldwide—reflects an always-escalating pursuit of higher standards, better efficiencies. From COVID to tariffs, she is unfazed by the fact that sometimes challenges will not be a glide.

"Working through them is incredibly rewarding. Even though I was included in many of the decisions while I had a licensing partner, it's very different now. The incredible relationships I've developed along the way have shared their trusted connections, which is huge."

Recent challenge points

Such relationships come in handy during storms that can build overnight.

Earlier this year, while sourcing U.S. manufacturers, "I placed our first order overseas, where they've been manufactured by the licensee from the start.

"After working through manufacturing revisions, Glide Mats were on their way to the ship when the highly inflated tariff situation escalated, so I had to hold off shipping until the tariffs were reduced. While licensed, we'd seen similar challenges with COVID and the costs associated with shipping Glide Mats and shipping being halted.

"Just as I received the final OK for two purchase orders from Meijer Supercenter, my licensee told me Glide Mats were sold out and they weren't sure when we could fulfill the purchase orders. Fortunately, Meijer worked with us. I am so grateful!

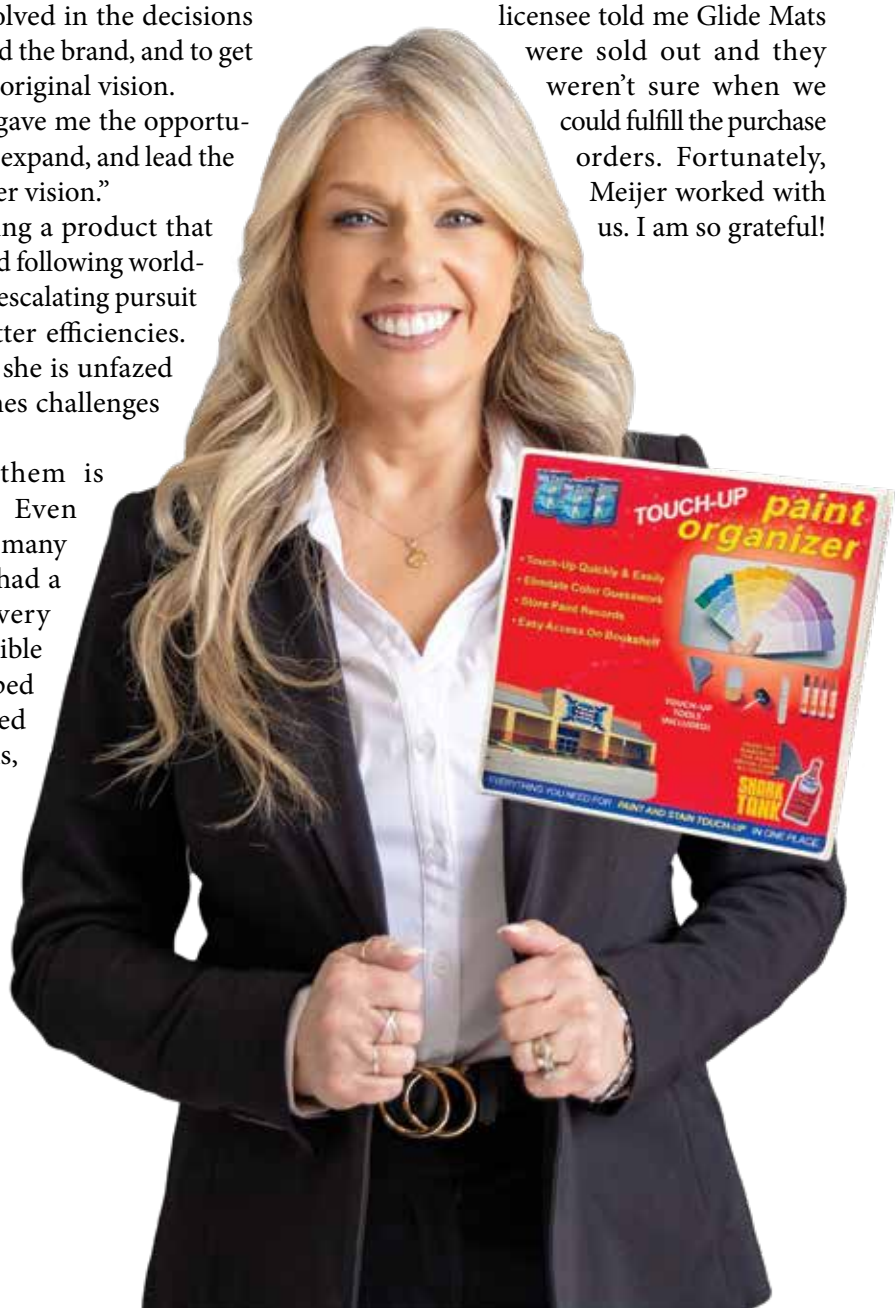


PHOTO BY TO THE MOON AND BACK PHOTOGRAPHY BY BETH TRUXALL

The Touch-Up Paint Organizer is a patent-pending kit that keeps everything in one convenient place for quick, easy touch-ups on walls, trim, and more—at home or in the office.

"Even though I was included in many of the decisions while I had a licensing partner, it's very different now."

"Both times, my faith got me through it. Many people were dealing with the same challenges, some with even more to lose."

Morrison made The Big Transition without any backers or loans. Although her decision to go it alone was gradual, her commitment to investing in herself has always been part of who she is.

"I've been setting aside every bit of income from licensing deals, product collaborations and partnerships over the years, knowing that one day, I wanted to invest in myself and self-fund one of my products—never realizing it would be Glide Mats.

"It definitely has its daunting moments. But I draw a lot of strength from my family, who have modeled hard work, integrity and persistence. That combination of heart and grit made me who I am."

Living the giving

Morrison's Creative Inventive Solutions is now certified by the Women's Business Enterprise National Council. "It means a great deal to contribute to the marketplace with both purpose and heart. Giving back and supporting meaningful causes will always be part of the journey."

Another part of her giving back is her insistence on supporting original inventors in a world of knockoffs. Glide Mats have one patent and two trademarks, but Morrison knows she can't fight every perceived imitator.

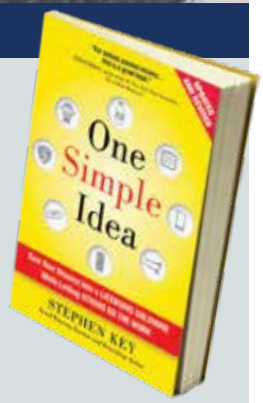
"Copycats are everywhere, ready to duplicate what inventors pour their time, money, and sleepless nights into creating and improving. That's why I always encourage people to make sure they're buying the original—not a knockoff. And I do the same for other products, too. I'll gladly pay a little more to support the inventor every time."

Like any good business or businessperson, Morrison shows deep gratitude for her customers: "I've loved reading their reviews and have been genuinely touched by the stories of how Glide Mats have helped in your homes. I'll keep reading every single one."

Michelle Morrison's story is one of dreams deferred and dreams matured, of heartaches endured. She encourages all aspiring and proven inventors to persist, regardless of tribulations or jubilations.

TOP RIGHT PHOTO BY KRISTI GAETZ

MICHELLE MORRISON

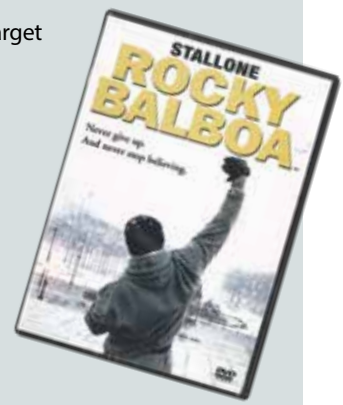


OCCUPATION: Founder/CEO, Creative Innovative Solutions

HOME: Amherst, Ohio

FAMILY: Steve (husband); Brittany, Steve (children); Zack (son-in-law), Ezra, Arlo (grandsons); Smokey, Summer (dogs)

FAVORITE INVENTING BOOK: "One Simple Idea," by Stephen Key



HOBBIES: Art, photography, archery/target shooting, baking

MOST INSPIRATIONAL PERSON: Sara Blakely

FAVORITE SONG: (Only one? I love music!!) "Don't Stop Believin," Journey

FAVORITE MOVIE: "Rocky"

FAVORITE QUOTE: "Whether you think you can or you think you can't, you're right." — Henry Ford

"To fellow inventors holding onto a dream: I hope you take a chance on yourself. You deserve it.

"Find a great mentor or coach—I've had many who became lifelong friends—and plug into the inventor community. They understand your passion like no one else and will cheer you on every step of the way.

"Even the smallest step can lead somewhere extraordinary. I'm cheering you on. You're not alone."

BRIGHT IDEAS

Solderix

PROTOTYPING USING
PRINTED CIRCUIT BOARDS
solderix.com

Solderix is a LEGO-like platform for easy prototyping and learning about electronics, mechanics and robotics using printed circuit board modules.

Completely modular and reusable, the same boards can be used in many different projects that will be released over time. Solderix can improve dexterity, spatial thinking and creativity.

Zoom is the basic car kit, made of several different boards like mainboard that has motor drivers and a place for Solderix's SolderBit main controller based on ESP32. You get four motor adapter boards for N20 motors at 250 RPM, which are fast and agile enough to go outside or inside.

Set to be shipped to crowdfunding backers in November, Solderix will retail for $278.

Kamingo

BIKE-BOT CONVERTER
kamingo.co

Kamingo is said to transform a bicycle into a high-performance, 750-watt e-bike in 10 seconds.

The converter includes three modular components: a handlebar-mounted controller, a battery that fits into a standard bottle cage, and a rear hub motor that mounts via a quick-lock base.

Riders can switch between three modes: Standby, for natural bike pedaling; Assist, for adaptive pedal support, and Cruise, for throttle-powered riding (in supported regions)—without stopping the ride. Kamingo also comes with a Bluetooth lock. The battery has more than 90km of range (56 miles).

With a projected retail price of $589, Kamingo is to be shipped to crowdfunding backers in December.

Acemate

TENNIS ROBOT FOR RALLY PLAY

acematetennis.com

Makers of AI-powered Acemate say it is the world's first tennis robot for rally play.

Featuring 4K binocular eyes and omni-directional wheels, the robot moves, receives and competes like a real opponent. It includes a catch net; inner buffer net; ultra-HD, 4K dual cameras, and ball ejection motor. It can hit balls up to 80 mph. The ball launcher supports a variety of ball types, including flat, topspin and slice.

Unlike monocular cameras, Acemate's binocular 4K vision captures depth and speed, enabling precise 3D tracking and real-time shot analysis with centimeter-level accuracy. The robot, which will retail for $2,329, is to ship to crowdfunding backers in August.

"We have to continually be jumping off cliffs and developing our wings on the way down."

—KURT VONNEGUT

eufyMake E1

PERSONAL 3D-TEXTURE UV PRINTER

eufymake.com

Promoted as the first of its kind in the world, the compact eufyMake E1 is designed to be smarter, more affordable and user friendly than most UV printers—which are complicated and made for factories.

With AI algorithms, eufyMake E1 allows you to turn 2D designs into 3D textures without any experience. It prints on any material, with more than 1 million available colors, and has a maximum print size of 32 feet.

Features include dual laser and snapshot camera perfect positioning; ultra-high precision; automatic height adjustment that adapts to any surface; and modular freedom. The built-in JetClean system provides cleaning and maintenance.

The system will retail for $2,499.

The 25% Rule

FUNDAMENTAL PRINCIPLE INVOLVING ROYALTIES IS AN ESSENTIAL GOVERNING TOOL FOR INVENTORS/ENTREPRENEUR

BY WILLIAM SEIDEL

I AM CONSTANTLY ASKED: "What's the average royalty?" My answer is, "There is no average."

There are industry ranges that usually depend on the strength of the property.

According to Investopedia, the 25% Rule, also called the Royalty RAule, is an accounting guide stating the royalty paid should be no more than 25 percent of the gross profit margin. Companies use this as a guideline.

Do not construe this to mean payment on the profit. There is an enormous difference.

First, the mere mention of 25 percent of anything will start a panic. Second, you want payment derived from the company's revenue, not its profit. Third, there is no need to mention the Royalty Rule; it is a guide for internal evaluation only.

The Royalty Rule sacrifices accuracy for ease. This is a governing tool and an administrative guide for a company to manage the profits to ensure a payment to a vendor does not exceed the window of an acceptable profit. It is important to understand what the company can afford to give up to negotiate the best possible deal.

Working without this information is a handicap, causing the entrepreneur and inventor to negotiate blindly.

Variable ranges

Myth: "A 5 percent royalty is unfair when the company makes 95 percent."

No one makes 95 percent of the revenue, but it is common to make a royalty of 5 percent. As Edison said, "Genius is 1 percent inspiration and 99 percent perspiration."

A 5 percent royalty appears to be generous by Edison's standards.

The question should be, 5 percent of what? Five percent of the wholesale price is commonly accepted.

Five percent of the retail price could be as much as a third of the company's profit. However, 5 percent of the manufacturer's profit may be as low as 1 percent of the wholesale price.

Although a 5 percent royalty appears to be a small number, it usually ranges from 10 percent to 30 percent of the licensee's profit.

This is comparing apples to apples. If a consumer goods company is profiting 10 to 20 percent, it is doing about average. Procter & Gamble—makers of Charmin, Crest and Tide, among many others—has recently had a five-year average net profit of 13.65 percent.

For example, with a wholesale price of 10 dollars, a healthy 15 percent profit is $1.50, which goes to the stockholders and owners. A 5 percent royalty on the wholesale price translates to $0.50 per unit, but it's 33 percent of the profit.

This may work for small companies, but it would have to be a very valuable property to justify paying a third of the stockholder's profit. It is more likely to see a royalty from a leading company in the range of 1-3 percent, to minimize discontent from the stockholders and owners.

Passing down profit

The 25% Rule has been in use for over 40 years—confirmed by analysis over decades of licensing, and profit data, across many different companies and industries.

The rule says the royalty paid should be no more than 25 percent of the gross profit margin. Do not construe this to mean payment on the profit. There is an enormous difference.

Goldscheider published an empirical study in 2002, concluding that across all industries, the median royalty rate was 22.6 percent of the profit. As a rule of thumb, this is close and usable for an understanding and negotiation.

If your product or concept is a high-volume, low-profit type of product, you will be lucky to get 5 percent. The toy industry often offers 5 percent unless there are high manufacturing or promotional costs involved, in which case it would be lower. But that can be substantial if it sells millions of units.

If it is a high-profit item, you may get 10 percent or more. This is because of the company operations, the available profit margin, the competition and the total revenue it will generate.

For example, I licensed a breath freshener that was also a smoking cessation to a radio infomercial company. The company sold it direct to the consumer for $19.95, the packaged cost was $1.45, and I negotiated a royalty of 17 percent because it was a giant profit margin for the licensee.

Flat Fee means control

Myth: "I'm gonna make a dollar for every one sold."

This makes your math simple, but it may not be acceptable to a licensee. It also may not be the best deal for you. There are too many changing conditions, cost changes to the manufacturer, price changes and discounts that affect the revenue.

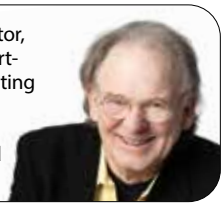
A Flat Fee Royalty is an amount per unit sold and preferred by inventors. A flat fee does not fluctuate with the changes in costs and prices. A flat fee per unit is offered because it is a lower cost to the licensee than a royalty based on a percentage of the revenue.

Manufacturers may offer a flat fee so they can have cost control, knowing other component costs will increase and yours will remain the same. It is a safe bet the costs and prices will change.

The bottom line is to know your costs, what customers will pay and the company's position so you can see it from their view. If you have this, you can use the 25% Rule.

Focus on what the company can afford to give up, not what you need. There is much to know.

William Seidel is an author, educator, entrepreneur, innovator, and a court-approved expert witness on marketing innovation. In his career and as the owner of America Invents, he has developed, licensed, and marketed billions of dollars of products.



Game Design Tutorial

AWARDED PRO PROVIDES STEP-BY-STEP PROCESSES AND STRATEGIES FOR INVENTING A GAME **BY APRIL MITCHELL**

AS A PROFESSIONAL GAME DESIGNER, I know that the idea of getting started can be overwhelming.

People typically are not sure how to go about this—or know if their game idea is good enough or ready to pitch to companies, or self-publish. Sometimes, people mistakenly think they have a new game by changing the theme of a popular game.

In hopes of helping get you started or deciding whether to move forward with your idea, I'll share the steps I take when designing a game.

Games are typically started in one of two ways—from a name or theme, or specific game mechanics.

A category all its own

The first thing to know and understand is that designing a game is not like designing or inventing a product in any other category.

Often, an inventor can come up with an idea, make a virtual prototype or physical prototype to show proof of concept, then make marketing material (sell sheet or sizzle video) and start pitching to companies for license. Many products can be licensed without lots of iterations and testing in several industries.

I have invented housewares products and designed kitchen gadgets that are on the market. Though this process takes time and effort, it does not typically compare to the time and commitment it takes in designing a game.

Usually, games need many playtests (more on this later) and at least a few iterations. Some games may only need 6-8 playtests; others need 25-plus playtests to work out all the outcomes and math of a game.

The number of cards, faces of dice, probability, spaces on a board, time of game and more take time and many playtests to get just right.

Think of designing a game like writing a paper for school. You should not turn in your first draft that has not been edited.

The more playtests (edits) you have, the better and more solid game you will come out with!

2 ways to start

The ideation stage should include research and usually includes inspiration from somewhere.

Games are typically started in one of two ways—from a name or theme, or specific game mechanics. I often start with a name or theme I think of during various brainstorming techniques and then build the game mechanics around that theme so that it is a cohesive experience.

Games are experiences, after all. We should create an experience to remember and have that in mind as we create, whether the experience is fun, intense, strategic, getting to know each other, learning, etc. Word associations, brain dumps, multi-game mash-ups and trendy words are great places to start for inspiration.

After I have a list of fun words or themes to explore, I do some research to see if the theme is overused or if a name is in use or has a trademark. From there, I start jotting down ideas on ways to play the game—which include fun mechanics I have seen or played.

Before, as well as thinking of new mechanics or use for things in a game.

Mechanics and pieces

Working out game mechanics and which game components to use is vital to a successful game and the experience that is created.

It's important to play different kinds of games to become aware of various game mechanics; you can't use a game mechanic or come up with a new variant of it if you are not first introduced to it. Watching game reviews and "how to play" videos are also a great way to learn about a variety of game mechanics—which will help you become a better game designer.

After I have some ideas of the game mechanics and components I'd like to use, I write up some basic game directions. I think about how I'd like the players to interact during the game and who I think this game is for (ages and number of people). I let these factors help navigate my game directions more clearly, as well as the length of time I'd like the game to be.

I now have a general idea of how the game will be played. Sometimes I may have two ideas on how it should be played and will need to test them both to see which is better.

Learning through playtime

Now it's time to make a playable prototype to playtest your game.

This should not be anything fancy or time consuming to make. I will often make and print some cards through Canva and even hand-make or write cards on regular paper. I have also made game boards by taping together construction paper.

If I am working with a partner and his/her design abilities, I may have a better prototype. But in all cases, this is not the stage to have artwork paid for or have a professional-looking prototype. Right now, you are just testing things to see how the directions work—and if the game mechanics and game components work well together.

I often do a solo playtest first to see how things work out, and whether I have the correct number of cards and components. Next, I playtest with my family to see how the gameplay goes.

This is the time to ask questions, try new things, change the rules as I go—to not be afraid to try things that aren't in the rules.

Ideation, playtesting, mechanics and pieces, pitching for a license, game design, packaging: All this and more have gone into April Mitchell's many games.

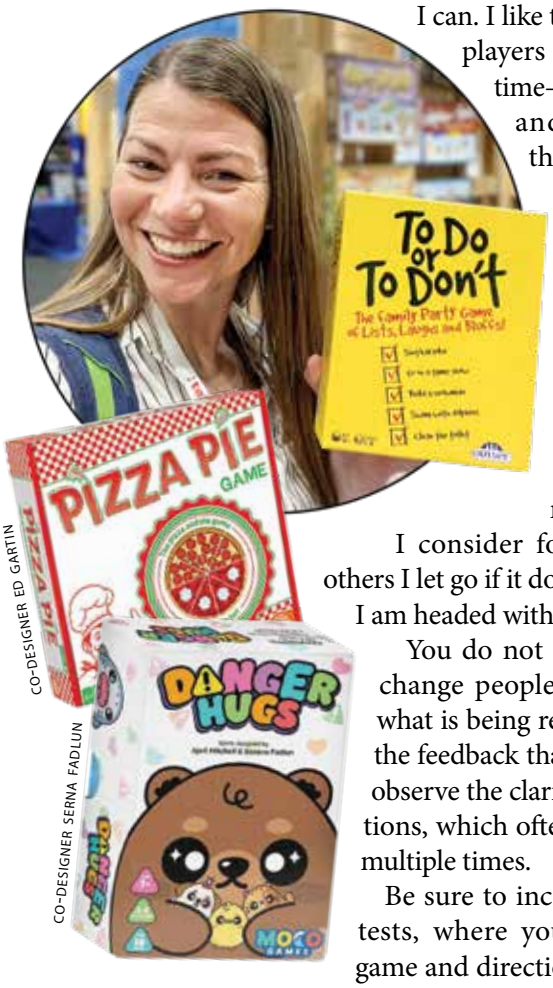
The first playtest with others is a time to learn, and to expect to leave the table with new rules, changes to the gameplay and things to think about. With this information, I retool the game. Sometimes I may even need to make new game pieces or throw out things that didn't work, but it's all part of the process.

I make some changes and get the game back to the table for more playtesting as soon as I can. I like to play again with the players who played the first time—maybe some friends and neighbors—and then start incorporating other players.

Eventually, I like to get the game in front of other game designers for feedback whenever possible. As people play the game, I ask questions and take notes. Some feedback I consider for making changes; others I let go if it doesn't get me to where I am headed with the game.

You do not need to make every change people suggest. I listen to what is being repeated and consider the feedback that is consistent. I also observe the clarity of the game directions, which often must be rewritten multiple times.

Be sure to incorporate blind playtests, where you hand players the game and directions and don't step in at all: You simply observe and see if they play the game as it was intended by the clarity of the game directions.



Blind playtesting, in which the inventor gives no input while watching others play the game, is a tried-and-true method for determining what works and possible problem areas.

Once you have things settled, take the opportunity to make a better prototype if you feel it's needed. But again, professional artwork and pieces are not necessary at this stage.

Pitch perfect

Next up is making marketing material to present your game to various publishers for license.

The non-negotiable with marketing material is a sizzle video for a game. A sizzle video should show how to play your game and how enjoyable it is in a quick 1-2-minute video.

I typically start with writing a voiceover script based on my game directions. I simplify the game directions the best I can in a fun way. Then I match the script with videos of the gameplay, using a storyboard of video shots I will need, or simply write down which shot I need underneath the sentence in the voiceover script.

I then set up a time to shoot the video footage of my game—showing the game all set up on the table, group shots of people playing and laughing, and individual people playing in a variety of views. Once I have the video footage, I make a video adding the audio from the voiceover script and lay down the videos that show what is being talked about at the same time. This, of course, needs some editing to come together nicely.

I make sure to start the video with the word "Confidential," then a slide with the name of the game and my information; the video footage with the voiceover; and a slide of my name and contact information.

Many publishers like to receive a sell sheet of your game. Some may require it. I find that hobby publishers tend to request them more often than mass-market publishers.

A sell sheet is a nice way to have everything on one page for a quick look. It should have a "beauty" or "hero" shot of your game and a brief description of how to play, or quick directions of 1-2-3 with a sentence per step—and even images if you have room.

The age, number of players and time for gameplay should be indicated on the sell sheet, as well as the game components listed and your contact information. You can find a variety of sell sheets online as guidelines.

Creating a pitch deck for games—especially strategy games—can also be beneficial (though not typically required from publishers). It can also be handy if you have an idea for marketing the game or want to show the trend that it is capturing.

A simple order of slides for your pitch deck would be: Confidential slide, Tee-Up slide (background, trends, the why behind your game), Marketing slide, Product Concept Slide/s, Sizzle Video, Summary Slide, and Thank you slide.

I typically do not make a pitch deck for every game I present to publishers. I only use one when

I think it will be beneficial to break things down further and discuss more than can be shown in a quick video.

Out into the world

Once you have your marketing material ready, it's important to research the best companies for your game. This is something you can also do throughout the whole game design process.

Where do you see this game on shelves? Which companies make games in the same categories? Which companies are open to outside innovation?

When you can answer these questions, you should contact these companies on LinkedIn or at trade shows.

So many game publishers are open to innovation. Some have submission portals online. Others will meet with you in person at a show or on a Zoom call to hear your pitch.

There are always new companies accepting outside game pitches. A great place to do research is to look up exhibitors for industry trade shows. And there is always the option of self-publishing.

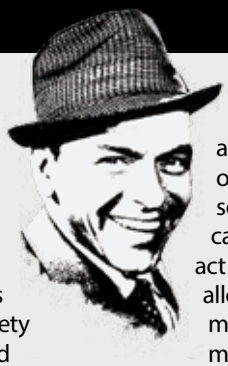
Keep the doors open and enjoy the journey!

If you would like to learn more about game design, please visit my website, 4AsCreations.com, for other resources.

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 who in 2024 won the TAGIE Award for Game Inventor of the Year.

NOW STARRING: IP

Is AM/FM Loophole 'Somethin' Stupid'?



Frank Sinatra ran out of time in his 10-year mission to get traditional AM/FM stations to pay royalties to performers. Is daughter Nancy running out of time, too?

For decades, the Sinatras have been outspoken champions of intellectual property rights for artists and musicians. In December 1988, Frank wrote a letter to artists and musicians advocating that royalties be paid to performers by AM/FM broadcasters.

Performers are paid when their music is played on streaming services or media players such as ITunes—but major radio companies like IHeartMedia, which owns 855 stations, do not have to pay performers or their record labels.

Authors of the American Music Fairness Act, introduced in Congress in 2023 and reintroduced this February, say "the United States is the only democratic country in the world in which artists are not compensated for the use of their music on AM/FM radio." This is only partially true—because of a loophole that the bill's supporters are trying to close.

Composers and songwriters receive payments for the public playing of their records through collective licensing groups such as the American Society of Composers, Authors and Publishers (ASCAP) or Broadcast Music Inc. (BMI). So naturally, if those writers are also the performers on those songs, they're getting paid. But there's no such payment for "just" a performer.

In other words: Linda Ronstadt, who wrote only five of her songs during her career, isn't getting paid when you hear her "Blue Bayou" or "You're No Good"—or basically anything else—on traditional radio.

(It's true that AM and FM radio are said to have an uncertain future, as some automakers are installing radios without the AM band. But there are data to support that those mediums may be merely transforming, not dying.)

The Music Modernization Act, passed in 2018, was a big step for performers' rights but failed to address the AM/FM issue.

The law improved how streaming services pay licensing and royalties. It also included parts of the Fair Play, Fair Pay Act that set rules for how traditional broadcasters paid royalties. Although the act included language that would allow recording artists to get performance royalties, that part didn't make it into the final language.

Nancy Sinatra is 85 now. In 2008, she provided written testimony to the House Judiciary Committee Subcommittee on Courts, the Internet, and Intellectual Property Hearing on The Performance Rights Act. She urged action "on behalf of all recording artists—from the bass players, horn players, string players, drummers and vocalists, whose names are rarely known by the public, to those who are fortunate enough to be the headliner on a marquee, on a CD cover or an iTunes download."

She also talked about the one-hit wonders: "Radio uses that hit every day to go to the bank. Imagine the recording artist who recorded but didn't write that hit, knowing that radio profits from that recording but he or she does not."—*Reid Creager*

Using Sheet Metals and Sheet Plastic

3 POPULAR ONLINE SITES CAN PROVIDE THE MATERIALS YOU NEED TO WORK WITH **BY JACK LANDER**

ADDITIVE CONSTRUCTION is the hot subject in prototyping today. 3D printing is its main interest.

Although it seems fairly new, the process was developed in 1984 by Chuck Hull. He wasn't using the molten plastic drip process; he was hardening a photosensitive resin.

The concept of three-dimensional printing was conceived in a 1945 science-fiction article by Murray Leinster, followed by a similar article from Raymond F. Jones. This sequence of concept to invention is classic for most complex inventions, followed by several improvements and variations by many inventors.

YOUR HANDY CONVERSION CHART

One of the problems that often arises is translating gages and millimeters into inches so that we have a "feel" for thickness and sometimes for length. This list of equivalents will be helpful.

1 inch	=	25.4 mm
1 mm	=	approximately .03937 inches or .04
10 mm	=	.3937 inches or .4
24 gage	=	.024 inches
22 gage	=	approximately .030 inches
20 gage	=	.0375 inches
18 gage	=	.048 inches
16 gage	=	.0595 inches
14 gage	=	.075 inches
12 gage	=	1.05 inches

Sheet plastic is still measured in inches and millimeters.

Suggestion: copy this data into a file on your computer. It will be useful sometime in the future, I'm sure.

Materials and gluing

With that history background, my main topic is the two sources of common materials you may need for your prototypes: sheets of plastic or metal.

One of the most popular methods of fabricating a prototype is to cut out shapes from sheets of material and then glue, solder, or weld them together. It's fundamental.

In fact, I happen to be constructing a prototype for which I need a small piece of sheet steel. No other material will substitute for steel or iron because it is the only standard metal that will react with a magnet.

So, where do I get it? If I could find a local sheet metal fabricator, I could ask for a small piece of scrap. Being a metal-removal kind of business, there is probably half a barrel full just waiting for the scrap-metal salvager.

But there is no metal fabricator within several miles of where I live. Could there be craft or hobby suppliers who sell metals and plastics in sheets and bars?

You betcha. I found at least three good ones: Hobbylinc, eBay and Amazon.

As mentioned above, gluing is one way to join pieces of plastic or even pieces of metal. A variety of cement (glue) is offered by the sources I suggest, but I favor one in particular that has amazing grip on most anything and is very strong. It is called E6000. Give it a try.

No other material will substitute for steel or iron because it is the only standard metal that will react with a magnet.

Amazon offers sheets of steel, aluminum, brass—even pure silver—in an amazing range of sizes that will suit most prototypes most inventors need to make. Hobbylinc offers similar sheets and sizes, and adds bronze copper and lead.

All three offer sheets of plastic of many thicknesses, lengths and widths, and in color or clear. Most all these materials can be cut with tin snips (sheet metal scissors) or sawed with hobby saws, also available at these three businesses.

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.

FOND FAREWELLS

Leonard Lauder, who played a key role in transforming his parents' Estee Lauder brand into a global phenomenon, died June 14 at 92.

The company's former CEO and chairman emeritus was also known for his contributions to New York City's arts and his work in the fight against diseases such as Alzheimer's and breast cancer. One of his survivors is his son Gary, managing director of Lauder Partners, inventor, and subject of the April 2025 cover feature in *Inventors Digest*.

Dr. Robert Jarvik, designer of the world's first permanent artificial heart used in a human, died May 26 at 79. He designed the Jarvik-7, made of plastic and aluminum. It was implanted in Barney Clark, a 61-year-old retired dentist, on Dec. 2, 1982, at the University of Utah. The surgery was led by Dr. William C. DeVries.

Dr. George Elwood Smith, one of the co-inventors of the CCD image sensor who played a pivotal role in the development of digital photography, died May 28 at 95. In 1969, as a researcher at Bell Labs, Smith and his colleague, Willard S. Boyle, sketched out an idea on a blackboard that became the first digital image sensor, the charge-coupled device (CCD).

The Rise and Rise of Intangibles

OPENAI'S BREATHTAKING $6.5 BILLION BUY OF A NO-PRODUCT, NO-REVENUE ASSET CONTINUES A TREND **BY LOUIS CARBONNEAU**

IF YOU'RE still rubbing your eyes over OpenAI's recent $6.5 billion acquisition of Jony Ive's hardware startup io, rest assured you're not alone. No product. No revenue. Not even a single device on the market.

This may go down as one of the most expensive bets ever made purely on intangibles. And yet, is it really that unusual anymore? Welcome to the age of IQ-to-IP economics, where the most valuable corporate assets can't be boxed, stored, or insured against fire—only against infringement.

Once upon a time (say, in the 1970s), 80 percent of a company's market value was tied to physical stuff—plants, inventory, real estate. Fast forward to today, with at least 90 percent of the S&P 500's value residing in intangible assets.

Those figures, by decade: 17 percent in 1975; 32 percent in 1985; 68 percent in 1995; 80 percent in 2005; 84 percent in 2015; 50 percent in 2020.

From software code to brand equity, user data to patented algorithms, the "invisible stuff" is now the main stuff. Companies don't buy factories. They buy future potential, wrapped in IP, proprietary know-how, and team résumés.

Recent examples:

- Google's $3.2 billion acquisition of Nest (2014). What did Google really buy? Not thermostats, but Nest's software IP, user base and brand.
- Facebook's $19 billion acquisition of WhatsApp (2014). No revenue model. Minimal hardware. The value? User growth and encryption know-how.
- Microsoft's $26.2 billion purchase of LinkedIn (2016). Tangibles? Hardly. It was all about data, algorithms and brand.
- Salesforce's $15.7 billion acquisition of Tableau (2019). IP and software talent accounted for the lion's share.
- Arm Holdings' $40 billion attempted sale to NVIDIA (2020, blocked). Valuation was based almost entirely on patent assets and design IP.

These deals demonstrate what we at Tangible IP have long advocated: Ideas matter—but protected ideas matter more.

What separates a napkin sketch from a billion-dollar exit? The answer is and remains, enforceability. Studies repeatedly show that

SQUIRES' PLEDGE, AND WARNING

If you tuned into the Senate Judiciary Committee on May 21, you might have caught John Squires, President Trump's nominee for USPTO director, making his case to the committee. (More, Page 42.)

The hearing was largely cordial, with Squires fielding questions on patent eligibility, PTAB reforms and the USPTO's backlog. He positioned himself as a defender of national security and a proponent of free-market solutions, drawing on his experience in using patents to combat terrorist financing post-9/11.

On the topic of Section 101 patent eligibility, Squires didn't mince words. He pointed out that China's patent system offers more expansive subject matter eligibility than the United States, particularly in emerging technologies (he could have added Europe to the list). He argued that this disparity is costing America in terms of competitiveness and innovation.

As for the confirmation process, the Senate Judiciary Committee has held the hearing, and the nomination has been placed on the Senate Executive Calendar. Squires passed the committee vote, 20-2, to be followed by a full Senate vote. The timeline for confirmation remains uncertain.

Within the IP community, reactions to Squires' nomination have been mixed. Some appreciate his emphasis on patent quality and his experience in both the public and private sectors. Others are cautious, awaiting more concrete policy positions, especially regarding PTAB reforms and patent eligibility standards.

As always, the proof will be in the pudding—or in this case, the patents.

These deals demonstrate that ideas matter —but protected ideas matter more.

companies with strong IP portfolios are more likely to receive funding;

are valued at higher revenue multiples; are less likely to go bankrupt, and create more and better-paying jobs.

And let's not forget: IP can be monetized, licensed, collateralized and litigated—making it the Swiss Army knife of business assets, minus the corkscrew.

OpenAI's multi-billion dollar bet on a concept-stage hardware firm may seem extravagant, but in the broader context of today's economy, it's just another Tuesday in the boardroom.

If your company's value is mostly intangible, you'd better make it defensible—or risk watching it walk out the door each evening.

So, by all means, keep hiring geniuses. Just be sure their output ends up in the IP column, not just the cloud.

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.

SEP-ARATION ANXIETY

I rarely talk about Standard Essential Patents (SEP). It is the realm of a few large patent owners who aggregate (either internally or via patent pools) hundreds if not thousands of patents that by magic will read on a newly developed standard. Then they license those to implementers, and the big guys get into a fight each time.

Nonetheless, this is a very important topic that has worldwide geopolitical ramifications—and each country or region has been trying to play its own cards.

Let's start with the United States, where the official SEP strategy appears to be: "If it ain't broke, let the courts figure it out."

The USPTO, along with the National Institute of Standards and Technology and the Department of Justice, continues to support a light-touch, voluntary approach.

They've doubled down on education, international coordination and "market-led" frameworks, which is Washington-speak for "we hope private parties will behave."

Spoiler: They rarely do.

Hop across the pond, where the European Commission tried something bold: actual regulation. Its 2023 draft SEP regulation proposed a registry, essentiality checks and a centralized dispute resolution mechanism housed at the European Union Intellectual Property Office—basically, trying to corral SEP licensing into a tidy bureaucratic spreadsheet.

Major SEP holders weren't keen on a system that might cap their royalties, while implementers worried that even the commission's best intentions might result in an even messier mess.

Add a good dose of inter-member state squabbling, and voilà—by February 2025, the proposal was quietly shelved.

From a licensor's angle, SEPs are the lifeblood of innovation. From a licensee's view, they're a tollbooth on the road to progress.

From a policymaker's perch? It's hard to please everyone when the standard is moving and the patent is essential.

68 Percent?

SQUIRES' COMMENTS AT HIS CONFIRMATION AS NEXT USPTO DIRECTOR CONTAIN SOME SURPRISES

BY GENE QUINN AND EILEEN MCDERMOTT

All Eye on Washington stories originally appeared at IPWatchdog.com.

JOHN SQUIRES, President Trump's pick to become the next director of the U.S. Patent and Trademark Office, had his confirmation hearing before the Senate Judiciary Committee on May 21. Squires said his focus will be on ensuring patents are "born strong" in light of the fact that—according to his remarks—*inter partes* reviews (IPRs) at the Patent Trial and Appeal Board show there is a 68 percent error rate.

In other words, nearly 7 in 10 patents issued by the office are currently "defective," according to Squires.

IPWatchdog contacted the USPTO and Squires for confirmation of this statistic. A spokesperson for the USPTO said the office is not sure where the number came from, and Squires had not responded as of the time of publication.

In response to a question from Senator Ted Cruz (R-Texas) about whether the PTAB is effectively an arm of Big Tech that disproportionately favors large challengers, Squires surprised many by suggesting the problem is not with a PTAB that is aggressively invalidating issued patents statutorily presumed to be valid; the problem is found on the front end, which leads to poor-quality patents routinely being issued by the office.

"If you look at the data, the concerns are in plain sight," Squires said. "IPRs have a 68 percent defect rate. If the American patent system was a factory, 68 percent of the products we put out are found defective in a later proceeding."

Prior art confusion

Squires said the way to "address it"—presumably the large number of defective patents issued by the office—is to focus on the input and have patents be "born strong," which entails improving quality by, among other things, incentivizing prior art to be disclosed during examination.

What Squires meant regarding incentivizing the disclosure of prior art is not clear. This would lead the casual observer to perhaps believe there is no incentive to disclose prior art during prosecution, which is not the case.

Material prior art known by the applicant is already required to be disclosed by applicants per patent law, and the penalty for

not disclosing such prior art is functionally forfeiture of the patent through a holding of inequitable conduct. Further, patent examiners spend hours searching for prior art themselves.

"Having improved quality, I think, will alleviate many concerns," Squires told Senator Cruz—a response that again was less clear and direct than it could have been but which seemed to some to reinforce that Squires believes the problem is not with an overactive PTAB.

Future help from AI?

To be fair, the disjointed nature of the hearing and the numerous questions of Department of Justice nominees relating to whether they would advise President Trump to ignore a court order—made it at least somewhat difficult to follow.

Nevertheless, when responding to Senator Cruz, Squires harkened back to his opening statement when he explained there is a need for more reliable, higher-quality patents to be issued by the USPTO. After characterizing patent examiners as "world class," he went on to say that one way better patents can be issued is by leaning into the use of artificial intelligence to issue patents of "provable quality," as well as "to learn from, reduce and remedy mistakes that manifest later."

Also, during his opening remarks, Squires discussed the need to move U.S. systems more efficiently into the future.

"We want [innovation] to be better, cheaper, faster, more sustainable, to get us to market more quickly with quality and confidence. At present, unfortunately, our system is going in the other direction.

"But with 'born-strong patents' and robust quality marks, we can reclaim America's primacy, revitalize industry and growth, proudly export our culture, boost national security and improve our lives."

Supports pro-patent bills

Squires responded to questions on many subjects:

Patent trolls and litigation financing: During the hearing, Sen. Chuck Grassley (R-Iowa) asked Squires about his past involvement with the creation of the funding arm of Fortress Investment Group and whether he has represented litigation funders. Squires said he has not been involved with Fortress since 2017 and has never represented litigation funders in any capacity. He also noted that he has been critical of patent trolls in his writings and said that troll practices are exploitative of inventors. (Editor's note: A patent troll is a person or company that tries to enforce patent rights far beyond the actual value of a patent.)

John Squires surprised many by suggesting the problem is not with a Patent Trial and Appeal Board that is aggressively invalidating issued patents statutorily presumed to be valid.

Patent reform: Sens. Thom Tillis (R-North Carolina) and Chris Coons (D-Delaware) asked Squires about his thoughts on the currently pending patent reform bills they have been leading the last few years—the Patent Eligibility Restoration Act of 2025 (PERA), the Promoting and Respecting Economically Vital American Innovation Leadership Act (PREVAIL Act), and the Realizing Engineering, Science, and Technology Opportunities by Restoring Exclusive (RESTORE) Patent Rights Act of 2025. Squires said that patent eligibility uncertainty is "costing American competitiveness" and that the recent hearing held by the Senate IP Subcommittee on foreign threats to American innovation demonstrated that China's patent system "has more expansive subject matter area" than the United States, which "should be troubling to all Americans."

Senator Coons also asked Squires about PREVAIL, and he agreed the PTAB is in need of reform. "We have 15 years of data since the America Invents Act and it seems to be skewed in favor of one versus the other. Reform may help flatten out that curve," Squires said. Squires was equally supportive of RESTORE.

Chinese IP theft: Senator Eric Schmitt (R-Missouri) asked Squires about how the United States can better combat this, particularly in light of emerging AI models like DeepSeek and recent statements from high-profile individuals about abandoning IP altogether. Senator Tillis interrupted Squires' answer, however, and asked that he provide a detailed answer in writing for the record, which Squires agreed he would do.

Though consistent with the theme of needing a system that produces better quality patents, Squires saying that 68 percent of the product of the USPTO is defective is hard to reconcile.

What next?

Though consistent with the theme of needing a system that produces better quality patents, Squires saying that 68 percent of the product of the USPTO is defective is hard to reconcile. It is hard to reconcile with statements supportive of PREVAIL and acknowledgement that the PTAB needs reform, and even more difficult to reconcile with recent actions by the USPTO under Acting Director Coke Stewart, which are being carried out at the direction of Commerce Secretary Howard Lutnick.

After a confirmation hearing, the nominees can be expected to receive numerous questions in writing from senators, which we know will be the case at least with respect to questions relating to theft of intellectual property by China. As senators, staffers and stakeholders pore over this hearing, we suspect that there will be many follow-up questions asked of Squires that will give him the opportunity to clarify his testimony in a more complete manner.

Gene Quinn is a patent attorney, founder of IPWatchdog.com and a principal lecturer in the top patent bar review course in the nation. Strategic patent consulting, patent application drafting and patent prosecution are his specialties. Quinn also works with independent inventors and start-up businesses in the technology field.

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

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IoT Corner

Cybersecurity company **Bitsight** uncovered a huge network of connected security cameras that stream live footage from sensitive locations, according to IoT News.

The company found more than 40,000 accessible cameras, streaming live footage from sensitive locations including private homes, company offices, factories and hospital rooms. For tens of thousands of devices, a simple web browser and the correct IP address are all an attacker needs to begin spying.

The United States has the highest number of exposed devices at approximately 14,000, followed by Japan with around 7,000.

Wunderkinds

Anuki Mudalige, a ninth-grader from Lewis Center, Ohio, was Best of Show Award winner at the Invention Convention U.S. Nationals, held in June at the Henry Ford in Dearborn, Michigan. Her invention, NeuroBreath, is an AI-powered, wearable device designed to guide users through breathing exercises to enhance mental well-being and reduce stress. Anuki also won a $2,000 scholarship from Ohio STEP, a STEM program.

What IS That?

Swippitt is a two-part phone-charging system. The first is Swippitt Link, a battery case for the iPhone. The second is a toaster-like device, the Swippitt Hub, that houses and charges five batteries that work in the Link case. When you insert the Swippitt Link-encased iPhone into the Hub, the battery in the Link is swapped out with one of the charged batteries in the Hub. Just don't butter your phone after you pull it out.

Get Busy!

Complete early-bird registration for IPWatchdog's second annual **Women's IP Forum**, September 15-17 at IPWatchdog Studios in Ashburn, Virginia. All speakers will be women.
ipwatchdog.com/2nd-womens-ip-forum-2025

WHAT DO YOU KNOW?

1 **Inventor Rube Goldberg, born on July 4, 1883, was best known for which occupation?**
A) Baseball player **B)** Composer
C) Politician **D)** Cartoonist

2 **True or false: Thomas Edison's last invention was the alkaline storage battery.**

3 **Who is the world leader on the 2025 Patent 300 List among automobile companies—Toyota, or Hyundai?**

4 **John Adams and famed inventor Thomas Jefferson, rivals who became friends, both died on July 4, 1826. What were Adams' last words?**
A) "Thomas Jefferson survives."
B) "Repression is tyranny."
C) "America survives."
D) "My spirit lives."

5 **True or false: Elon Musk's first invention was a video game.**

ANSWERS: 1.D. He produced almost 50,000 cartoons and was famous for his "invention drawings." Goldberg was awarded the Pulitzer Prize in 1948. 2. False. It is not certain what Edison's last invention was. 3. Toyota, 10th overall with 2,428. 4.A. Adams was wrong; Jefferson died five hours earlier. 5. True. He created Blastar at 12 while growing up in South Africa.

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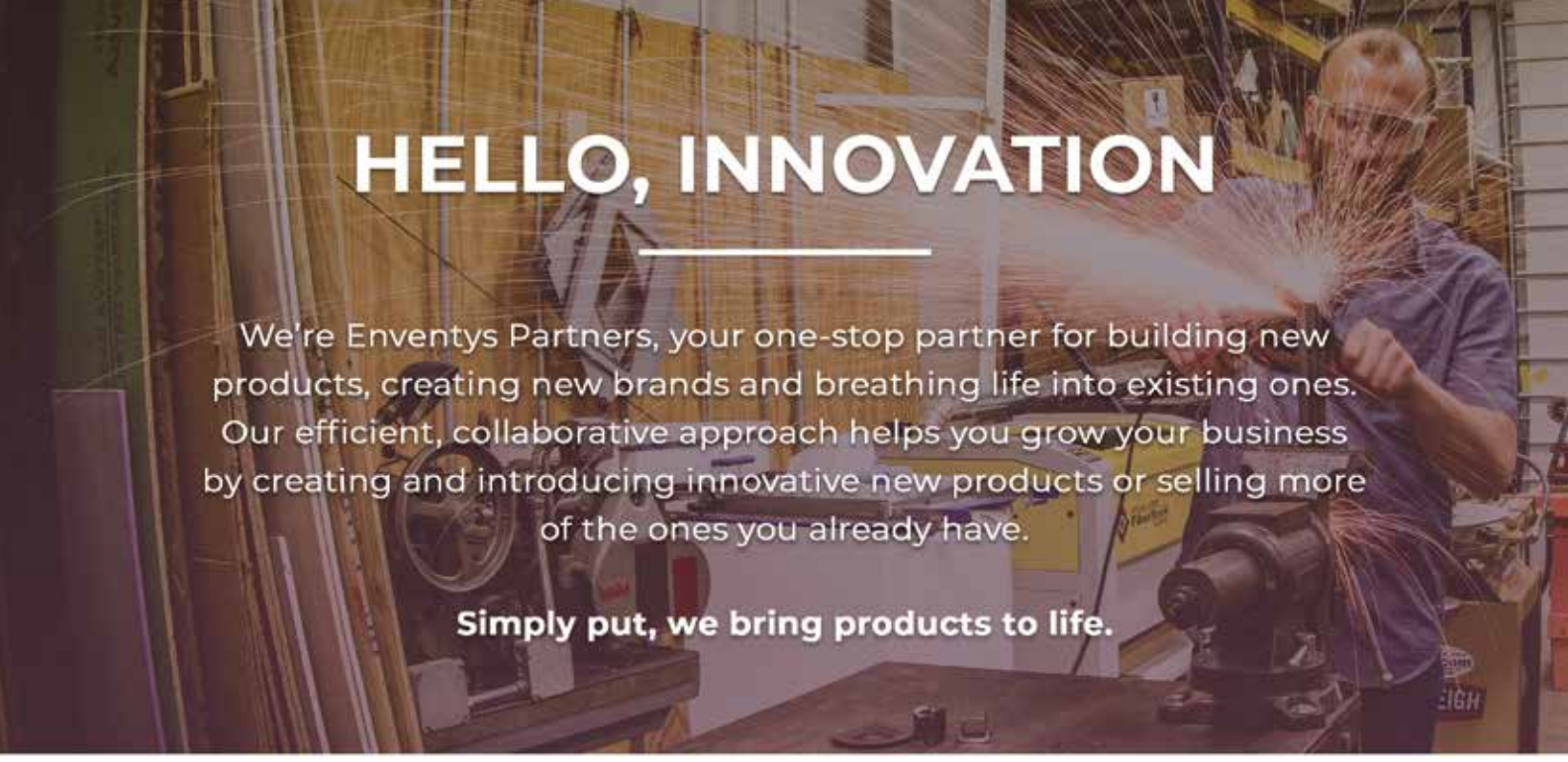

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