DIGEST

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TOY STORIES 1 PRODUCT CATEGOR

1 PRODUCT CATEGORY, 2 DIFFERENT PATHS

Invention-Con 202 IP INSIGHT FROM TRUSTED EXPERTS

Maneuver Man HENRY HEIMLICH'S MIXED LEGACY AT 50

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Check out our USPTO locations map to find in-person resources near you:

www.uspto.gov/locations



Contents September 2024 Volume 40 Issue 9

They Said What?

- 4 The patent system is a pie that we can grow as big
- 9 The case brings to light Google's heavy-handed as we want.
- monopolistic practices and how they wield their power to crush potential competition and innovation.
- **13** Today, our nation celebrates National Heimlich Maneuver Day—along with National Nail Polish Day, National Olive Day, and National Say Something Nice Day.



Feature

29 The Best-Laid Flight Plans 2 Different Toy Planes Take On **Different Building Problems**

Inventor Spotlight

- 22 Can't Slam This Dunk **Design Manager's** Oreo Cookie Dipper
- **24** Holidays With Pull Woman's Festive Drawer Pull Covers

Departments

- **6** Your USPTO Looking Back at Invention-Con 2024
- 8 Editor's Note 100 Issues. Let's Do 100 More
- 9 Everybody's Talking Google Taken to Task for its Tactics
- **10** Bright Ideas **Innovation That Shines**
- **12** Time Tested Heimlich a Mixed Medical Bag
- 16 Lander Zone How to Self-Manufacture
- 19 Inventing 101 Patenting Pet Products
- 20 Social Hour The Art of Cross-Promotion
- 27 Inventor Update Shawn Moye
- 34 Think Marketing Sales is Not Marketing
- 36 Inventing 101 Your Profit Formula
- **38** Prototyping **Injection Molding Fixes**
- 40 IP Market 'Shameless' War on ITC
- 42 Eye On Washington **RESTORE, NOFAKES Introduced**
- **46** Inventiveness Focus on the Fun and Fascinating

YOUR USPTO



Invention-Con 2024

USPTO's signature event inspires with personal, practical advice for improving inventors' intellectual property potential

Www hile some of America's most successful inventors and intellectual property (IP) experts gathered to share their experiences and expertise at the USPTO's annual showcase event, Christie Thoene talked about a hunger intended to whet our appetites.

"The patent system is a pie that we can grow as big as we want," said Qualcomm's vice president of quality and legal communications. She later added that the \$200 billion company "would not exist without the patent system."

Thoene spoke on Day 1 of "Invention-Con 2024: Expanding Your Intellectual Property Potential," August 16 at USPTO headquarters in Alexandria, Virginia.

The two-day event featured insights, advice, and resource help from those who have been there and done that to those who want to be there and do that. Day 1 consisted of panels followed by in-person networking opportunities. Day 2 included hands-on activities for inventors of all ages, including how to make your own wearable tech. Day 1 featured four sets of online panels on diverse topics presented by a range of inventors and IP experts from the U.S. and abroad, including eight women (three of whom were artificial intelligence (AI) specialists).

During the panel discussion "Why IP is beneficial to innovators and companies alike," Thoene noted the chronic underrepresentation of women and minorities in the patent ecosystem and how reversing the trend is crucial for growing that pie: "We know from our research that if more women and more people of color start patenting, we can add up to a trillion dollars to U.S. GDP. ...

"Patents, copyrights and trademarks we know are about 40 percent of the U.S. economy, and that number is getting bigger all the time. So there really is the opportunity for us, if we just can find ways to bring more people into the system."

In a dramatic example of the value of patents for everyone from corporate behemoths to small inventors, Thoene said Qualcomm generates about \$6 billion a year in licensing revenue and

Matt Nuccio (second from left), president and creative director of toy company Design Edge, has other panelists laughing during Day 1 of the USPTO's Invention-Con on August 16 at USPTO headquarters in Alexandria, Virginia. From left: Moderator Elizabeth Dougherty, **USPTO Northeast Regional Outreach** Office director; Raquel Graham, CEO and founder of Rog Innovation; and Asmod Karki, senior associate, FedTech.

that "a big chunk of that gets pumped back into our research and development programs and enables us to invent new things, which we hope is frankly making the world a better place.

"And we would not be able to secure that revenue if we weren't able to get patents and enforce those patents."

Thoene said women typically take patent rejection harder than men, a comment that elicited nods of agreement from the audience. James Howard, executive director of the Black Inventors Hall of Fame, discussed the mindset that is conducive to greater success.

His primary advice: "Be confident, and be informed."

He shared the story of Adrienne Smith, a women's football player with six national championships who invented a card game called Blitz Champs. She was confident enough to pursue a patent but did know what to do next.

"So, here's where the confidence and being informed becomes important," Howard said. "Whatever your product is, find out who's already succeeded, and you go to that individual."

Howard said Smith enlisted the help of three experienced entrepreneurs—one of whom was Ken Johnson, owner of the highly successful card game Phase 10. "Now she's talking about how to get her product licensed. She's doing it with confidence. She's doing it with being informed."

Unafraid of the word "failure," Howard encourages "failing and falling forward." And although many experts suggest enlisting the help of a patent attorney, he said, "You don't have to run to a patent attorney first. Get your NDA [non-disclosure agreement]. Be prudent. Be guarded, but be optimistic."

"Plug in and use the people power around you."

The second panel discussion, "The spark of creativity," involved much discussion about how to acquire funding. Dawn N. Myers, founder and CEO of Richualist, which specializes in tech-enabled hair care appliances, said plugging in is imperative during a time when funding for startups—especially those run by women and people of color—is almost nonexistent.

"Venture (capital) is dry. No one is funding early stage moonshots. So we have to be really creative. Again, this is an iterative process. ...

"It's going to be about putting together a suite of solutions that work for you. You're going to have to bootstrap. You're going to have to go to accelerators. You have to apply to grants. You're going to have to do the innovation challenges."

Alan Guyan, CEO and founder of Made Plus—which makes environmentally conscious footwear—sat next to Myers wearing shoes that he said were made from 6 ½ water bottles.

"The money's out there, even in this dry segment we have," he said. "It's really (about) the alignment of what the investors are looking for."

He gave the example of a four-legged stool, which requires the balance of equal components to sit right. "If you're after (only) a check, just stop, because that's not what you need. … You probably need some sort of guidance along the way. You probably need somebody who has some interest in what you're doing, having the passion."

Perhaps most important is the need for "a true vision of what you're going to achieve five or six years from now. Because that's what investors want to hear: They want to see how much of their money they get back, and how fast."

"There is no shortage of good ideas. There are shortages of solutions."

Matt Nuccio, president and creative director of toy company Design Edge, said during the panel discussion "Monetizing your IP through licensing" that often a major obstacle in getting licensing is people who get "married to their idea."

When this happens, he said, "They tend to overdesign it, and they also tend to put crazy extensions on it." He likened this to having 10 movie plots at once and expecting them all to be a hit.

A major challenge of licensing is to get in front of the right person, which can be daunting with no connections. Nuccio said LinkedIn works "tremendously well" for him, also suggesting trade shows.

"Don't be forceful or overdo it, either. Don't get greedy."

Before entering into any licensing agreement, ensuring sufficient legal protection is imperative. Raquel Graham, chief operating officer and founder of Roq Innovation—who got a licensing deal with her first product—strongly encourages retaining a patent attorney.

She said patent law is so complex that her lawyer talks to her "like a kindergartner, and I still can't get it.

"A good patent attorney will also help you with strategy, right? So, it's all tied together. A



Elizabeth Dougherty and Tomeka Oubichon, director and regional outreach officer, respectively, both with the USPTO's Northeast Regional Outreach Office, pose next to a poster of the newest USPTO Inventor Trading Card featuring prolific inventor Audrey Sherman on August 17 at USPTO headquarters in Alexandria, Virginia. The card was revealed publicly for the first time during Day 2 of Invention-Con.

good patent attorney understands the full scope and then can help you from A to B, far beyond just getting your patent."

Nuccio reminded inventors not to overlook the value of strong trademark protection, which he said is "the biggest mistake I see."

A trademark can be worth a thousand times more than a patent, he said—because although the product launches the brand, the brand can extend to hundreds more items.

"Go do it. Go make your idea happen."

Jerry Ma, moderator for the last of the discussion panels, "Practical AI: Solving real-world problems," reminded the audience that AI does not have to be an intimidating tool for entrepreneurs. Ma is director of emerging technology and chief AI officer at the USPTO.

Panelist Marianne Bekker, general partner at Progressive Ventures, provided three suggestions.

The first is to understand what AI can and cannot do. "AI can generate new data, AI can do matching, but just really understand that every single problem that it solves is different and unique." She suggested utilizing online courses and YouTube videos to enhance understanding.

The second part is to hire the right kind of talent. "There are a lot of AI experts out there that you can reach out to to kind of just get a consultation on what is and what is not possible. And then when you start to kind of get that knowledge base within your company, then you're going to be much better suited to implement AI within your culture."

Finally, "Don't be afraid to try it out yourself." For example, Open AI has a tool called Custom GPT, where "you don't really need to understand code, but you can customize a version of chat to solve your problem.

"You can see it in data. You can play around with the model, to make it operate, like, for a use case that you know of. ... That by itself will teach you a lot of the things that you need to learn to then use AI in a more professional manner."

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DIRECTOR'S BLOG

Addressing an Application Backlog

BY KATHI VIDAL

Inpredictable macro effects, including a pandemic that had an outsized impact on our application inventories, have created an "inherited backlog" of patent and trademark applications.

In 2020 and 2021, the USPTO and other intellectual property (IP) offices around the world predicted a slowdown in patent filings and adjusted hiring targets accordingly. However, the slowdown in filings was more modest and short-lived than expected. That, combined with the increased time allotted per application and the competitive labor market for those with the technical degrees and backgrounds needed for patent examination, resulted in an increased backlog.

Regarding trademarks, during the pandemic more people started their own companies, launched new products, increased cross-border e-commerce, and filed trademark applications to improve their brand protection. That led to unprecedented application levels in fiscal years 2020 and 2021.

Over the past two years, USPTO leadership has worked with our employee unions to implement immediate

measures to address pendency times for patent and trademark applications. We are also working with our more than 10,000 employees in Patents and nearly 1,200 employees in Trademarks on additional measures to provide an even more efficient, thorough, and wellreasoned review of each application.

In 2022, the USPTO began implementing processes for routing patent applications to increase the likelihood that a patent application would be assigned to an examiner with the right technical background in the first instance. We also extended working hours.

The USPTO also recognizes that optimizing workflow plays a key role in reducing our inventory of unexamined patent applications. Not only are we overhauling our approach to timing and routing, we are also making great strides in improving the classification process and exploring the use of artificial intelligence to get the correct application to the examiner with the relevant expertise.

If you have ideas to help us further reduce pendency, please share them at uspto.gov/ about-us/engage-director.

Kathi Vidal is under secretary of commerce for intellectual property and director of the United States Patent and Trademark Office.



NEWS FLASH



Artificial Intelligence

AI-RELATED GUIDANCE UPDATE: The USPTO issued a guidance update on patent subject matter eligibility to address innovation in key emerging technologies, including in artificial intelligence (AI). This will assist USPTO personnel and stakeholders in determining subject matter eligibility under patent law of AI inventions. The update builds on previous guidance.

Full text of the update is available at **uspto.gov/AI**. Corresponding examples are available on its AI-related resources webpage. The USPTO will accept public comments on the guidance update and the examples through September 16, 2024. See the Federal Register Notice for instructions on submitting comments. **DIGITAL REPLICAS REPORT:** The United States Copyright Office released Copyright and Artificial Intelligence Part 1: Digital Replicas, the first in a planned multipart report on copyright-related legal and policy issues associated with the emergence of AI technology. This report addresses legal and policy issues surrounding AI-generated digital replicas, or the use of digital technology to realistically replicate an individual's voice or appearance.

SEEKING VOLUNTEERS: USPTO user and customer experience teams regularly conduct research—including interviews, usability testing of prototypes, or feedback sessions—to better understand your experiences as a USPTO customer. We may contact you to ask you to participate.

Volunteering does not commit you to participating. If you are interested in participating in future research, complete the form at **uspto.gov/about-us/ website-improvements**.



100 Issues! Let's Go For 100 More

April 30, 2016—a Saturday—began in typical fashion for me. After playing softball with my former *Charlotte Observer* coworkers, I was waiting for a doctor in an emergency clinic for a decided non-emergency, the kind of injury men my age can sustain if they sneeze wrong.

The phone call I received was nothing to sneeze at: *Inventors Digest* publisher Louis Foreman, who had interviewed candidates for editor-inchief, told me the position was mine.

I was thrilled. I got home and told my wife, who was just as happy for me but laughed nervously when I said, "What in the world did I just do?"

The writing/editing part was no problem, after a 30-plus-year newspaper career mostly spent at major metro dailies in those capacities—usually as a sportswriter. But I was not well versed in the inventing or intellectual property space; as I have said here before, I thought intellectual property was Gore Vidal's house.

Plus, I had only three weeks to start and complete the June issue—with no magazine experience, no experience as a boss, no cover story, no clue about the machinations for editing and sending stories.

Without Carrie Boyd, I could not have done it. The *Inventors Digest* art director met me soon after at Barnes & Noble, where she told me more about the magazine and we hurriedly planned how to get the first one done. There was no time for either of us to be scared. There was work to be done.

This month, we have completed our 100th issue of *Inventors Digest* together.

Inventors Digest's primary mission is educating and advocating for the independent inventor. We've been able to assemble a strong team of subject-matter experts in many different disciplines. We have a proud co-sponsorship with the United States Patent and Trademark Office.

We also are committed—through cover stories and related content—to growing the small number of women and minorities who have patents. We want to educate, encourage and yes, entertain.

Of course, this does not happen without you. We are constantly gratified by your support and kind comments. And we hope to build even more momentum with a website update as we prepare to turn the corner toward our 40th anniversary early next year.

So, if I have said it once, I have said it 100 times: Thank you! Wish there was more time to celebrate—but there is work to be done.

> —Reid (reid.creager@inventorsdigest.com)

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Everybody's Talking

Bad Week for Google

Computer systems company says it was knocked off, bullied by search engine giant, cites need for better patent protection

NAUGUST 9 op-ed piece in Fortune by Chuck Hong, cofounder of Netlist—a leading provider of high-performance modular memory subsystems—claimed Google grew tired of paying Netlist for its proprietary technology, began to build knockoff products, and cut off Netlist as a supplier. Then, Hong said, when Netlist tried to initiate licensing discussions, "Google sued us preemptively and launched multiple challenges to our patents.

"When its own challenges failed, Google enlisted its suppliers like Samsung to harass us with endless patent challenges. Thus, it created an ordeal that has now gone on for the past 14 years in the U.S. Patent and Trademark Office (USPTO) and in the federal courts.

"Today, instead of investing in R&D and developing as many new products as possible, Netlist is forced to spend tens of millions of dollars on protracted litigation to protect our past inventions."

Google responded to *Fortune* and denied any wrongdoing.

"These claims are bogus. We don't even make the same products as Netlist. Throughout our discussions with them, they have attempted to weaponize the legal system instead of compete on the merits of their products. We have a long-standing commitment to respecting patent rights, and we have robust processes in place to ensure our products are developed independently."

Inventors Digest spoke with Hong about his op-ed piece and the reaction.

"We have received an overwhelmingly favorable and supportive response from companies across different industries and of various sizes, as well as from individual patentholders," he said.

"We are helping to raise awareness of what needs to change to protect innovators and supporting American values of justice, fairness, innovation and entrepreneurship." Asked how independent inventors can fight to protect their patent rights, Hong advocated for two current bills: the RESTORE Patent Rights Act, which would re-establish injunctions as the standard legal remedy for patent infringement, and the PREVAIL Act, which would reform Patent Trial and Appeal Board practices.

Hong said not everyone in Big Tech is a bad actor. "We worked with Dell, IBM and HP in the early 2000s to collaboratively address memory challenges they faced. Netlist created a number of innovative solutions to meet their unique needs.

"We had great working relationships with these companies. They fairly compensated us for our proprietary technology, and respected and valued our capabilities."

The same week as Hong's op-ed piece, in a landmark ruling, a federal judge ruled Google illegally monopolized online search and advertising by paying companies like Apple and Samsung billions of dollars a year to install Google as the default search engine on smartphones and web browsers.

"The case brings to light Google's heavyhanded monopolistic practices and how they wield their power to crush potential competition and innovation," Hong told *Inventors Digest*. "The hope is (the ruling) will allow innovation and competition to flourish, and that patent holders can be fairly compensated for their IP—all of which should benefit further innovation and the American consumer."

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BRIGHTIDEAS

Tap Strap 2

WEARABLE KEYBOARD, MOUSE AND AIR GESTURE CONTROLLER *tapwithus.com*

A single-handed, customizable keyboard made from skin-safe thermoplastic polyurethane, Tap Strap lets you control your devices for 10 hours on a full charge with seven days of standby.

With Keyboard Mode, type letters, numbers, symbols and characters into your smart devices on any surface. AirMouse Mode features input and output control, using Air Gestures into any Bluetooth device. In Optical Mouse Mode, the precise 1,000 DPI optical mouse enables on-the-go navigation, selection, scrolling, dragging and dropping in any environment on any surface. Controller Mode lets you turn complex commands into simple finger taps and Air Gesture swipes to control your favorite apps, games and devices.

Tap Strap 2 retails for \$99.



KT2 Kungfu Turtle POCKET-SIZED ROBOT kamerobotics.com

KT2 is a programmable, customizable robot with uses ranging from fighter robot to coding education.

The Lego-like assembly process and clear instructions help you build your first robot in just 12 simple parts and 20 steps. KT2's flexible limbs enable it to perform a range of kung fu moves. A dedicated operating system, TurtleOS, unlocks the full potential of this 4-joint action robot.

In desktop mode, KT2 performs various actions and senses your emotions through vibration and touch sensors.

The Solo KT2, which will retail for \$149, is set for shipping to crowdfunding backers in November.

ASIWO UI

ALL-IN-ONE, UNIVERSAL UNDERWATER SCOOTER *asiwo.com*

The ASIWO U1 Universal Underwater Scooter is designed to elevate your aquatic adventures. With a powerful motor, the U1 provides mobility for stand-up paddleboarding (SUP) and kayaking, enabling one or two

individuals to explore the water at impressive speeds.

The U1 also supports a variety of DIY possibilities with an array of optional spare parts. Designed for SUP enthusiasts, it is compatible with 99 percent of stand-up paddleboards. It offers three speed modes, reaching up to 12km/h, and 80 minutes runtime.

The U1 can also be used for underwater diving and snorkeling, although these are not its primary usages. It will retail for \$1,299, with a September timetable for shipping to crowdfunding backers.

"Simplicity is the ultimate sophistication." -LEONARDO DA VINCI



Kineon

WEARABLES FOR STOMACH AND MIND HEALTH indiegogo.com

These wearables are a combination designed to unlock the power of red light laser therapy, allowing vagus nerve stimulation to enhance your gut-brain connection while reducing stress and improving sleep.

Using a non-invasive, holistic approach, HEAL+ targets the gut, the command center of your body's signaling. CALM+ focuses on balancing the nervous system, the pathway for these signals.

Purported benefits include boosting mood, reducing brain fog, jump-starting motivation, reducing stress and anxiety, and easing flight-or-fight mode.

The HEAL+ and CALM+ bundle will retail for \$998. It is scheduled to be shipped to crowdfund-ing rewards backers in December.

A Mixed Medical Bag

ON THE 50TH ANNIVERSARY OF THE HEIMLICH MANEUVER, DEBATE REMAINS ABOUT ITS INVENTOR'S CLAIMS BY REID CREAGER

MONG OTHER honors during his more than half-century career as a thoracic surgeon and medical researcher, Dr. Henry Heimlich was inducted into the Engineering and Science Hall of Fame, Golden Plate Award of Academy of Achievement, and Safety and Health Hall of Fame.

Surely there were many congratulatory handshakes and hugs, maybe even the occasional slap on the back.

OK, maybe not that last one.

Fifty years ago, Dr. Heimlich introduced the Heimlich Maneuver—a series of abdominal thrusts intended to save choking victims—in a medical journal article. Although his

technique has never been disputed as a possible means of preventing tragedies, the brash and outspoken physician/ inventor remains a subject of live debate almost eight years after his death at 96.

His procedure to save choking victims is said to have saved thousands. So how did this discovery lead to such controversy and vitriol?

Rapid acceptance and fame

P GOFS

June 1, 1974 is the name of a live album of songs performed at the Rainbow Theatre in London, and the day singer Alanis Morissette was born.

Dr. Heimlich would tell you this is Trivial Pursuit compared to the fact that on that day he published an article, "Pop Goes the Café Coronary," in the magazine *Emergency Medicine*. (The term "Café Coronary Syndrome," according to the National Institute of Health's National Library of Medicine, refers to "fatal choking on food.") The title showed Dr. Heimlich, chief of surgery at Cincinnati's Jewish Hospital, was already in fine form as a pitchman.

Emergency Medicine, June 1974

"What's really needed ... is a first-aid procedure that doesn't require specialized instruments or equipment and can be performed by any informed layman—or even considered by a physician before resorting to tracheostomy with its attendant hazards," he wrote.

He recounted that as he and his team experimented on beagles, he realized that when he pushed upward on the dog's diaphragm and compressed its lungs, a tube in the dog's throat became dislodged and allowed it to breathe normally again.

Ten days later, *Chicago Daily News* science columnist Arthur Snider wrote about the article: "A leading surgeon invites the public to try a method he has developed for forcing out food stuck in the windpipe of persons choking to death."

Snider's story was reprinted nationwide. Eight days later, the *Seattle Post-Intelligencer* reported that a retired restaurant owner used the procedure to rescue a choking victim. An August 12 editorial in the Journal of the American Medical Association was reportedly the first to refer to the procedure as the Heimlich Maneuver.

Dr. Heimlich—a respected but fairly anonymous thoracic surgeon in his mid-50s—saw his life's course change forever.

The procedure is said to have saved thousands of lives in the past half-century, though the exact number can't be verified. (Search that question online, and one answer you get is 50,000 lives saved. That number came from Henry Heimlich.)

He became a national media fixture, even demonstrating the procedure on Johnny Carson on "The Tonight Show." From 1986 to 2005, published guidelines of the American Heart Association and the American Red Cross recommended only the Heimlich as treatment for choking.

Not bad for the former drum major of Cornell University's Big Red Marching Band, who had married the daughter of dance studio empresario Arthur Murray in 1951.

But eventually, his life was complicated by his public disdain for other choking prevention

PATENT

Dr. Henry Heimlich's patents include:

- Instrument for drainage of the chest (U.S. Patent No. 3,463,159), published August 26, 1969
- Collapsible respiratory exerciser (U.S. Patent No. 4,323,078), published April 6, 1982
- Respiratory exerciser (U.S. Patent No. 4,350,167), published September 21, 1982
- Tracheal tube (U.S. Patent No. 4,987,895),
 published January 29, 1991

(Heimlich Maneuver is a trademark of Deaconess Associates, Inc., No. 1,082,922.)



methods; controversial medical claims, some involving the Heimlich Maneuver; family infighting; and hubris that a lot of people and organizations found—wait for it—hard to swallow.

'Father's deadly quackery'

Fast-forward 50 years to the day of Dr. Heimlich's groundbreaking medical journal article. On June 1, 2024, his son, Peter Heimlich, posted the following on his investigative journalism blog, Sidebar:

"Today, our nation celebrates National Heimlich Maneuver Day—along with National Nail Polish Day, National Olive Day, and National Say Something Nice Day.

"As Sidebar readers know, the Heimlich Institute is a Cincinnati nonprofit which for decades circulated my father's deadly quackery: infecting patients with malaria to supposedly 'cure' cancer, Lyme Disease, and AIDS; the Heimlich maneuver for drowning rescue, whose use resulted in dozens of poor outcome cases including children; the Heimlich maneuver to treat asthma and cystic fibrosis, and other frauds.

"Therefore, in the spirit of National Say Something Nice Day, I have something nice to say about this vile enterprise. "It's on life support.

"Since then, it's been an 'in name only' organization: no assets, no income, no nothing—except filing near-blank annual IRS filings like this most recent 990-PF dated March 21, 2024."

Peter Heimlich noted that one of the two remaining principals at the institute was his brother, Phil Heimlich.

In 2007, Peter was named in a defamation lawsuit filed by the Save-A-Life Foundation, which promoted the Heimlich Maneuver. He and others were accused of falsely claiming that the foundation taught improper first aid methods.

How did this welcome, important discovery lead to such controversy and vitriol?

"I have never had a failure," he told the *Washington Post* in 1989. "Every single thing I have come up with has earned approval and respect of the medical profession."

Controversial claims

Henry Heimlich always rejected the notion that hard slaps to the back can help a choking victim. He called them "death blows." His detractors noted it was in his best interests to make that claim.

In a 1990 interview with Larry King, he dismissed a back slap or finger in the throat to relieve choking: "In both instances, the object was being pushed tighter into the throat."

A 1982 study (partially funded by Dr. Heimlich) had supported this notion. In 1985, the U.S. surgeon general announced that the Heimlich Maneuver was the only reliable method to stop people from choking; the American Red Cross followed suit.

As noted by his estranged son, Dr. Heimlich claimed his maneuver could also be used for resuscitating drowning victims—and for both acute and preventive treatment of asthma.

The American Red Cross does not endorse the maneuver for drowning; other experts claimed that performing the Heimlich on a drowning victim added to the damage. As for asthma, a 1977 article in *Modern Medicine* noted that it is



a disease of chronic inflammation—something the maneuver cannot treat.

Dr. Heimlich revealed his most unconventional theory after teaming with doctors in China to test the notion that injecting malaria into patients who have Lyme disease, cancer and HIV, then letting it go untreated for a few weeks, can strengthen their immune systems. The U.S. Centers for Disease Control and Prevention is among those opposing this therapy.

Forward.com, an Jewish independent nonprofit, reported that in 2014, Dr. Heimlich told the *Boston Globe* that Julius Wagner-Jauregg, a Nobel Prize-winning Austrian doctor, used malaria therapy as a treatment for paralytic dementia caused by late-stage syphilis.

However, the website added: "Dr. Heimlich did not mention that Wagner-Jauregg's methods became obsolete with the widespread use of penicillin in the 1940s. Nor did he note that Wagner-Jauregg was generally discredited in the medical community as a fervent Nazi, anti-Semite, and supporter of eugenics."

The more outlandish his claims seemed, the more Dr. Heimlich dug in.

"I have never had a failure," he told the *Washington Post* in 1989. "Every single thing I have come up with has earned approval and respect of the medical profession."

Red Cross reverts

The *Washington Post* story was a testament to the doctor's skill and innovation, as well as his bravado.

"He fashioned the Heimlich Chest Drainage Valve (*Editor's note:* patented in 1969) from a rubber five-and-dime-store toy, the kind that makes a Bronx cheer when you blow on it. That was in the early '60s. It took five years to convince the U.S. Patent Office that the device, which already was reversing fatality statistics on lung-collapsing chest wounds in Vietnam, was more than a flutter valve with a tube.

"Typical Heimlich.' He interjects the phrase frequently when talking about his chutzpah."

"Henry is a very nice man and a very competent individual and a very intelligent person," the Red Cross's Larry Newell said in the article. "But I question why the media continues to go ahead and try to make something out of something that isn't anything."

Put off—and maybe alarmed—by Dr. Heimlich's controversial conclusions and standing in the medical community, in 2006 the Red Cross removed "Heimlich" from the name "Heimlich maneuver" and relabeled the method as "abdominal thrusts." Most important, it reverted to back slaps as the recommended way to save a choking victim's life, with abdominal thrusts now the backup plan.

Dr. Heimlich was disappointed. "I have no desire to diminish the good work that the American Red Cross has done, such as in times of natural disasters," he told Mental Floss, "but telling people to hit a choking person on the back could potentially lead to death."

All choking situations and victims are not the same. It remains unclear whether a choking victim should receive five back blows or five abdominal thrusts.

But it is clear that the accomplished Dr. Heimlich was one of a kind. $\hat{\mathbf{o}}$

INVENTOR ARCHIVES: SEPTEMBER

September 22, 1791: Michael Faraday, who invented the electric motor, was born.

Faraday was a British physicist and chemist also known for his discoveries of electromagnetic induction and the laws of electrolysis. In 1820, he reported the first synthetic compound of chlorine and carbon.

Faraday invented several new kinds of glass. One was the first substance found to be repelled by the poles of a magnet. He also invented an early form of the Bunsen burner for laboratory use.

He was a lab assistant for Sir Humphry Davy, a prominent scientist who discovered many elements that included boron and calcium. When Davy was asked about the best discovery he ever made, he said it was Faraday.

LANDER ZONE

How to Self-Manufacture RECENT PERSONAL EXPERIENCE IS A REMINDER OF THE MYRIAD CHALLENGES BY JACK LANDER

FEW YEARS AGO, I agreed to help a young married couple from Vietnam launch a product the wife invented. My role was that of engineer and patent-protection counselor.

The product needed a number of design changes, which were not simple because the couple had already contracted for very expensive plastic-injection molds. In fact, the molds had already produced a few hundred of the two halves of the product.

This was to be a short-term job. But as sales began to grow, production problems became obvious, and my stay in Texas, far from my Connecticut home, increased accordingly.

Although my transportation, meals and sleeping accommodations were paid for, the cash flow of this fledgling company wasn't yet sufficient to pay for my time. As time passed, the three of us became close friends, and I was enjoying the challenges—being "back in the engineering game" after several years in retirement. This was my intermittent lifestyle for a couple years.

One of the first problems we tackled was that of annoying molding "flash," the extremely thin projections of plastic that sneak out from between the

halves of the mold during the high pressure of the injection cycle.

Theoretically, the molds should close so perfectly that flash cannot occur. Ha!

At that point in production (a few hundred units per week), Kieu (the wife) was to trim the flash with an X-acto knife. This was time-consuming, tedious work, so I proposed using a small, handheld torch to melt the flash. But she was very afraid of fire and refused to consider it.

The next problem was that the two molded sides of the product did not fit together perfectly, which was necessary for the product's operation. This should have been the molder's problem.

My assessment was that sufficient time was not allowed for the plastic to cool in the mold halves before ejection. But more time cooling would raise the price, and perhaps impede production in the future.

I tested reheating the halves in a kitchen oven at various temperatures and times, and the stresses in the parts normalized, solving the misfit problem. I proposed purchasing a professional bakery oven, but again, cash flow was already strained. An old electric stove solved the problem.

Patents and practicality

Meanwhile, Kieu had ordered a U.S. patent search, for which the assessment was encouraging, and she proceeded to file for a patent on her invention/product.

I advised her that only about 60 percent of patents applied for result in an issued patent, and that these may not issue with all the claims that were asked for in the application. She understood but didn't consider stopping the application, on which she had to make payment as the attorney's work progressed.

Kieu was also determined to file for patents in major foreign countries as soon as the business income would support their cost. I advised strongly against such filings.

Not only would the cost be high, she couldn't depend on the ethics of foreign manufacturers.

EXPENSES VS INCOME



Theoretically, the molds should close so perfectly that flash cannot occur. Ha!

If a foreign business infringed her patent, she would have had to sue, using a patent attorney in the country of the patent's issue. That would mean a costly visit to the attorney, and payment of all lawsuit expenses that would follow.

It would be terribly impractical for a small, U.S. business to engage in the whole idea of patent protection in foreign countries. If an invention has that much potential, licensing the patent and all manufacturing rights to a large company with deep pockets would be the most sensible approach.

Another strategy could have been to ignore the patent process altogether and risk an eventual infringement complaint. By "ignore," I mean to intentionally avoid searching for patents on her own, or delegating such a search to a patent services firm. This way, Kieu could have truthfully claimed no knowledge of the patent status of a product like hers.

To protect herself against a lawsuit, she could have begun a "royalties" fund and banked 5 percent to 10 percent of the income from sales of her invention. This way, if a patent holder demanded back payments for past royalties, she would have the money for that.

Furthermore, the patent holder would probably be receptive to issuing a license to Kieu so that she could continue to manufacture. Her ethics would be respected, and an amicable agreement would likely follow. And Kieu's product would have patent protection as valuable as if the patent had issued to her.

The main risk would be her investment in molding tooling in the case where the patent holder refused to grant her a license.

Points to remember

Problems continued to arise. The latching mechanism was too difficult for older people to operate. I developed a rework procedure that added to production time. A hinge-pin refused to stay in place, and Kieu solved that by herself.

At last, production settled down to a routine which, unfortunately, subtracted from the profit the couple had anticipated at the outset. But being too optimistic about sales volume and net profit are to be expected for most startups, especially those of inexperienced entrepreneurs. Still, many highly profitable businesses have to start with inadequate capital.

All in all, Kieu and her husband did a remarkably good job of launching a product. But there comes a time for most products when expenses exceed income, when it's time to move on or develop other products.

A few suggestions, in case you are driven to invent and produce your invention:

• Study the manufacturing processes that you will need and their low-volume alternatives.

- Consult with vendors who will supply your product's components. Ask, "How would you make this component if it were your product"?
- Have in mind the next product you will consider producing. Study its market and methods of producing it before you need it.
- Do not consider investing in foreign patents until you are a much larger and profitable business.
- Consider using the money you will have to spend on the patent process and the money needed for all other setup expenses. It probably makes sense to avoid the patent process altogether.
- If your product has such great potential that it will need foreign patents, consider licensing it to a large company rather than manufacturing it yourself.

• And the partner to the previous point: Start out with simple products that serve a limited market. These are much easier to profitably produce.

I am reminded of a quote by a very wise woman, Oprah Winfrey. It applies to many of us who at times fear to proceed with our inventions:

"Do the one thing you think you cannot do. Fail at it. Try again. Do better the second time. The only people who never tumble are those who never mount the high wire.

"This is your moment. Own it." 🖗

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.





INVENTING 101

Patenting **Pet Products**

AS FUNCTIONS AND IMPORTANCE FOR THESE ITEMS GROW, SO DOES YOUR NEED TO KNOW BASIC CRITERIA

The following is an abridged LinkedIn post by Carson Patents^{*}, *reprinted with the company's permission.*

ET PRODUCTS have evolved far beyond traditional toys and accessories—now encompassing advanced health care solutions, smart feeding devices and wearable technology for pets.

Patented inventions in the pet supplies industry aim to improve the well-being and quality of life for companion animals. As pets become increasingly integral to family life, there is a greater demand for products that address their physical health, safety and well-being.

The pet supplies industry is highly interdisciplinary, involving research and development across various fields. This includes veterinary science, which ensures the health and safety of pet supplies; wildlife biology, which studies animals in their natural habitats to inform captive care for exotic pets; agricultural biotechnology, which develops advanced, pet-friendly ingredients; materials science, which creates durable and functional products; and AI technology, which enhances smart features in devices and applications for pet care.

For instance, developing next-generation dog kibble involves both veterinary science and agricultural biotechnology to ensure optimal nutrition.

Patents protect the unique features and technological innovations of these products, helping developers prevent imitation and maintain a competitive edge. This protection encourages ongoing innovation and investment in pet care technology, benefiting pets and their owners.

4 criteria for patentability

Pet products must meet these basic criteria to be eligible for patent protection:

• It must consist of patent-eligible subject matter, meaning that the invention must be a machine, process, product, or composition of matter (combination of two or more substances or composites). Natural phenomena and abstract ideas are not patent-eligible subject matter.

- It must be novel or new, meaning it has not been previously published or disclosed. Conducting a prior art search can reveal whether an invention is novel.
- Utility or usefulness is a must. The pet product must have a practical application. Fulfilling this criterion is not normally an issue for pet product innovations.
- The pet product must be non-obvious, or not readily apparent to someone skilled in the relevant field.

Depending on the nature of the invention, utility patents, design patents, and even plant patents can be used to protect inventions in the pet care industry.

Utility patents, which protect how an invention works, can protect a wide variety of inventions—including new pet food ingredients or formulations, health care solutions, habitats and other accessories, wearable devices, and applications that support optimal pet care.

Design patents, which protect the appearance of an invention, can protect the design of a pet care invention such as a harness, habitat, wearable device, or feeding device.

If you develop a new plant variety that is safe for pets to consume or interact with, it can be protected by a plant patent.

Given the global market for pet care products, securing patent protection in various countries is essential. Using an international Patent Cooperation Treaty application can streamline the process of obtaining patents in multiple jurisdictions.

Are you an inventor seeking patent protection for your pet care invention? Contact Carson Patents at carsonpatents.com/contact-us/.

The Art of **Cross-Promotion**

HOW TO MAXIMIZE THE STRENGTHS OF 4 PLATFORMS TO CREATE A COHESIVE MARKETING STRATEGY **BY ELIZABETH BREEDLOVE**

W E HAVE written in this space about the various strategies for social media marketing on individual social media platforms. But what about using those platforms together to best maximize impact?

Cross-promoting your invention across LinkedIn, Facebook, Instagram and TikTok requires a thought-out strategy that leverages the unique strengths of each platform. By creating interesting content, maintaining consistent branding, tailoring content to each platform and actively engaging with your audience, you can create a cohesive and compelling social media marketing campaign.

As we explore strategies for cross-promoting your invention across these four major social media platforms, let's start with a little about each one to understand their strengths.

LinkedIn is the go-to platform for professionals, making it ideal for business-to-business marketing and establishing thought leadership with your brand. This is where you can network with industry leaders, potential investors and business

MEASURING AND ADJUSTING

As with any marketing strategy, pay close attention to each post's analytics so you can adjust your cross-promotion strategy as needed.

- Use the analytics tools provided by each platform to track key metrics such as engagement, reach and conversions.
- Establish benchmarks for your campaigns. Regularly compare your performance against these benchmarks to gauge success.
- Regularly examine your data to identify what's working and what's not. Adjust your strategies based on these insights.
- Don't be afraid to try new types of content and strategies. Social media is constantly evolving, and staying innovative can give you an edge against your competitors.

entify just ghts. partners. Content shared should be informative, showcasing your invention's technical specifications, market potential and industry relevance.

Facebook is about community building and detailed advertising involving your invention. Its robust advertising tools allow for precise targeting and exceptional return on investment, and its varied content formats (text, images, videos, links) enable detailed storytelling. Use Facebook to share updates, gather feedback and create a loyal customer base.

Instagram thrives on visual content, so it brings important visual storytelling and brand aesthetics. It's the best place to showcase the design and functionality of your invention through high-quality images and short videos.

TikTok's algorithm favors creative and engaging content, giving inventors a chance to go viral. Short, snappy videos that highlight your invention's unique features in a fun and relatable way can quickly capture attention.

Developing content strategy

A cohesive social media strategy involves three distinct factors that must be considered as you create and post meaningful, effective content:

1. Consistent branding across platforms

Visual identity: Use consistent colors, fonts and logos across all platforms. This helps in building brand recognition.

Voice and tone: Maintain a voice and tone that reflects your brand's personality. Whether it's professional, playful or inspirational, consistency helps in reinforcing your brand image.

2. Tailored content for each platform

LinkedIn: Share whitepapers, case studies and articles that demonstrate the technical prowess and market impact of your invention. Participate

in relevant groups and discussions to establish thought leadership.

Facebook: Post regular updates, host live Q&A sessions, and create detailed posts about your invention's development process. Use Facebook Ads to target specific demographics and interests.

Instagram: Focus on high-quality visuals. Use posts to highlight key features, Stories for behind-the-scenes content, and Reels for quick demos or user testimonials.

TikTok: Create engaging and entertaining videos that showcase your invention in action. Participate in trends and challenges to increase visibility. Use hashtags strategically to reach a wider audience.

3. Integrated campaigns

Launch announcements: Coordinate these across all platforms to create a buzz. Start with a teaser campaign leading up to the launch day.

Cross-promotion: Use each platform to promote your presence on the others. For example, share a LinkedIn article on Facebook, invite your Instagram followers to join a TikTok challenge, or promote an Instagram Live on your Facebook page.

User-generated content: Encourage your audience to create and share content featuring your invention. Repost user-generated content across platforms to build community and authenticity.

Leveraging platform features

Each social media platform offers unique features that inventors and entrepreneurs can leverage to promote their inventions. You can share the same basic content across platforms.

LinkedIn: With LinkedIn Articles, write in-depth articles about your invention's development, industry trends and market potential. This positions you as an expert in your field.

Join relevant LinkedIn groups and participate in discussions. Create a LinkedIn Page for your invention to share updates and engage with followers.

Facebook: Facebook Live lets you host live sessions to demonstrate your invention, answer questions and interact with your audience in real time.

With Facebook Groups, create or join groups related to your industry. Share valuable content and engage with group members to build a community around your invention.



LinkedIn, Facebook, Instagram and TikTok offer unique features that inventors can leverage to promote their inventions.

Use Facebook's Ads Manager to create targeted ad campaigns. Utilize A/B testing to optimize your ads for better performance.

Instagram: Use Instagram Stories for quick updates, behind-the-scenes content and interactive polls or Q&A sessions.

Instagram Reels lets you create short, engaging videos that highlight your invention's features or show it in action.

If applicable to your brand, use Instagram Shopping to tag products in your posts, making it easy for followers to purchase directly from your Instagram profile.

TikTok: Participate in trending challenges and create your own to engage users. This can help your content go viral.

Use TikTok's Duet feature to collaborate with other users or influencers. This can increase your reach and credibility.

Utilize the platform's creative effects to make your videos more engaging and visually appealing. €

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.



Can't Slam This Dunk

DESIGN MANAGER'S INVENTION AIMS FOR A CLEANER, NON-CRUMBLING OREO DIPPING EXPERIENCE BY JEREMY LOSAW

HE BEST way to eat an Oreo cookie is to dip it in milk.* There is just something about the way the milk perfectly absorbs into the cookie and the filling that allows it to all melt into your mouth in a wave of goodness.

However, this is not for the faint of heart.

Oreo dunkers need to be aware of the potential peril. Your hands can get in the milk, and oversaturated cookies can fall apart and fall to the bottom of the glass.

Fortunately, there is a groundbreaking product designed to elevate the cookie-dunking experience. Inventor Raeshon McNeil and his brand ohso good products have released the Cookie Dipper, which promises a mess-free, perfectly soaked cookie every time.

Simple system

The Cookie Dipper is an innovative kitchen gadget designed to make dunking sandwich cookies in milk seamless and enjoyable. It features a plastic cookie holder and a special milk glass.

The cookie holder allows one or two cookies to be placed perfectly in the glass and holds them securely during the dunk—and keeps them from falling into the milk if they happen to fall apart. The cylindrical milk glass is marked with different milk fill levels for various dipping preferences, from the lowest level, the "toe dipper,"

to the maximum level, the "super dunker." The product is available in two different sizes, the Little Dipper and the Big Dipper. It also features an optional cookie tray to hold the cookies around the circumference of the glass.

A design manager at Charlotte's Enventys Partners, McNeil is an Oreo lover. So it was inevitable that he would try to innovate on the experience of consuming his favorite cookie.

"There's always a pack at the house," he said. "I think their slogan is 'Milk's favorite cookie,' which I tend to agree with."

After years of dunking Oreos in milk, he was frustrated by having the cookies get too soggy and fall to the bottom of the glass. But he said "The inspiration came from wanting to create a solution that allowed you to dip the cookie without having to get your fingers wet and get them all in the milk."

Hard challenges

The simple elegance of the design belies the challenge it was to develop the product.

The initial prototypes were 3D-printed on a desktop printer. McNeil thought they would work right away.

However, the cookies were harder to work with than he originally thought. His first designs did not hold the cookies well enough; they would slip and fall into the glass when they got soggy.

There was also the challenge of dealing with the irregularity of the assembled sandwich cookies, which tended not to be perfectly aligned with each other.

"It took me way too long to understand this as a designer—that they didn't work the way I wanted them to because I was trying to move too fast and

"The inspiration came from wanting to create a solution that allowed you to dip the cookie without having to get your fingers wet and get them all in the milk."-RAESHON MCNEIL





cutting corners, and not actually thinking about the shape of the cookie versus the shape of the funnel well enough," he said.

He eventually nailed the design of the cookie funnel and then added a cylindrical glass with different levels to indicate how much of the cookie the eater wants to submerge.

IP protection

As a practicing industrial designer who helps his clients develop intellectual property, McNeil understands the importance of patent protection and pursued it for the Cookie Dipper. He filed a provisional patent application to protect the concept during the initial launch and plans to convert it to a full utility patent.

Having filed IP helped give him the confidence to launch the product online; he felt that the relatively simple-looking design could potentially be a target for counterfeiting.

Eventually, he aspires to license the technology, so the patent will be key to securing a deal.

McNeil decided to manufacture the product in Asia. He leveraged an existing contact with a molder for the plastic components and used Alibaba to find suitable glass containers.

Initially, he aimed for a traditional tapered pub glass design but pivoted to a cylindrical design when he realized that the mouths of different sized pub glasses were different and would not be compatible with a single-size Cookie Dipper. He eventually added a cookie tray to the product. It holds the cup in the center, with the cookies arranged vertically around the circumference.

Broader vision

The Cookie Dipper was launched on Amazon and on McNeil's website under the ohso good brand. He has been selling the product for over a year, and the many positive reviews on Amazon have validated the need to ensure that every cookie dipped is perfectly soaked and mess-free. Big Dipper, or Little Dipper? That decision might be as difficult as the time-honored debate on the best way to eat an Oreo.

McNeil is now focused on growing sales and boosting his marketing efforts, particularly with the impending holiday season when cookies are in high demand. His vision is to continue expanding the product line and adding more creative kitchen products to the ohso good brand, with the goal to deliver unique solutions to life's everyday kitchen challenges. ©

Details: ohsogp.com

*Inventors Digest's editor-in-chief, who for better or worse is old enough to remember these things, recalls a 1970 Oreo commercial that disagrees with the author. Its jingle:

"Do you know exactly how to eat an Oreo? Well, to do it, You unscrew it Very fast.

Cause a kid'll eat the middle of an Oreo first And save the chocolate cookie outside for last.

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



Holidays with Pull

WOMAN'S SLIP-ON GRIPS FOR KITCHEN CABINETS ADD FESTIVITY WITH CONVENIENCE BY EDITH G. TOLCHIN

ERE'S A new product to help glam up those often-boring kitchen cabinet handles. Festive and colorful, the new Knobēz line for various holidays was invented by Morgan Uhl of Tampa.

Edith G. Tolchin (EGT): How did your idea come about? When did you invent the line?

Morgan Uhl (MU): I invented Knobez because I wanted to add clutter-free decorations to my kitchen for the holidays.

While sipping my coffee and enjoying a warm fireplace one day in early November 2021, I had the idea: "What if I could make my cabinet knobs look like Christmas ornaments without having to change my hardware? What if I could just grip over my existing hardware to add a decoration while still being able to use my hardware for function?"

I went to search for such a decoration on multiple search engine platforms and came up empty. The invention of Knobez started that very day with the pursuit of inventing a clutter-free, decorative cabinet knob cover that was able to grip over a variety of different styles and sizes of knob hardware.

> EGT: Did it take long before you created the perfect prototype(s)? How many tries?

MU: I started jotting down ideas for my product on November 7, 2021. I searched for items on Amazon that I could combine to create a prototype.

I spent much of late 2021 and early 2022 working to create a functional prototype so that I could explain my invention and show the application to the plastic mold injector factories for quotes.

I was quite surprised at how many factories I called that were not interested in my idea. I found out very quickly that I needed to make a CAD design for my invention so that I could send a file for the factories to review and quote. I went through about six different designs for my idea before settling on the concept of gluing two objects together: a decorative hard plastic piece, and a stretchy TPE (thermoplastic elastomer) piece so that the two pieces could become one product, Knobez.

After contacting close to 100 U.S. manufacturers and hearing "no" or receiving ridiculous quotes, I was able to purchase my prototype mold in June 2022 from Bruin Manufacturing in Marshalltown, Iowa, and I had the unfinished product in hand by October of that year. I spent the entire holiday season of 2022 decorating every glitter ornament Knobez by hand and sealing the glitter as well. I was able to conduct a soft launch to show proof of concept.

"I went to search for such a decoration on multiple search engine platforms and came up empty. The invention of Knobez started that very day ..."



EGT: Have you had any manufacturing difficulties?

MU: Unfortunately, there was a miscommunication about the finished product price moving forward in the spring of 2023 and I had to cut ties with Bruin, as the price per piece was not feasible for making a profit.

I was back in the search for a manufacturer for Knobēz, but this time I knew exactly what I was looking for. I came across a conference on LinkedIn called the Inspired Home Show. They shared their schedule for the entire conference and the speakers, along with their titles.

I was able to connect with one of the speakers listed, Carmine Denisco, with the United Inventors Association. Carmine owns EarMark Sourcing and was able to give me the names of three different factories that were more than capable of manufacturing my product. Knobēz are currently manufactured in South Korea.

EGT: What are Knobez made of?

MU: Knobēz are made entirely of plastic. They consist of a hard plastic decoration with a TPE stretchy gripper underneath. The idea is to stretch the gripper over your entire existing cabinet knob so that the user can either use the Knobēz or the cabinet knob for operational function.

EGT: Because it's a product that might be mistaken for candy by children (i.e., candy canes) are you having them safety tested?

MU: There are currently no safety tests performed on Knobēz or Handlez (another style).

EGT: Have you had any difficulties with logistics?

MU: Logistics is completed through EarMark Sourcing. The only difficulty that I have found is to be estimating the shipping time and customs clearance.

EGT: Have you tried crowdfunding?

MU: I have not tried any crowdfunding for Knobēz. I have been able to finance all my startup costs with a line of credit from TD Bank, personal funds and preorder sales.

EGT: Are your products patented?

MU: I have a family friend whose expertise is intellectual property and IP litigation. I was able to reach out to him to ask about how to go about protecting my idea.

We performed a patentability search, followed by a provisional utility patent application. I have since filed a final utility patent and filed a provisional design patent application for my new Handlez. Knobéz knob covers are able to grip over a variety of different styles and sizes of knob hardware.



MU: I am currently working on

There are six different Knobéz seasonal/holiday collections. six different Knobēz collections: Pumpkin Knobēz (consisting of a fall pumpkin and a jack o' lantern pumpkin); Peppermint Knobēz (consisting of red and pink peppermints); Valentine's Knobēz and Peeps Bunny Knobēz; and Star Knobēz for the summer—as well as Peppermint Knobēz XL for larger and square shaped cabinet knobs.

SPECIAL HONOR FOR EDITH G. TOLCHIN

Our longtime *Inventors Digest* writer recently received a Recommended Citation from the Journal of the Patent and Trademark Resource Center Association for her newest book, "Secrets of Successful Women Inventors" (2024, Square One Publishers). This followed a book review by Professor Suzanne Reinman at the Patent and Trademark Resource Center in Stillwater, Oklahoma.

EGT: What, if any, obstacles have you encountered while developing the products?

MU: I encountered issues with the integrity of the gripper when moving from my U.S. manufacturer to my manufacturer in South Korea. I was able to provide excellent customer service and offer replacements to customers. I was also able to communicate the issues with the factory, which now has quality control checklists in place for future collections.

EGT: How have sales been? How long have you been selling?

MU: I was able sell over 11,000 units of Knobēz and Handlez within just six months of fully launching. In the last 14 months, since launching the pre-orders for my signature red peppermint collection, I have been able to sell over 26,000 units of Knobēz and Handlez.

EGT: Can you offer advice for inventors looking to develop a new household product?

MU: My advice is to surround yourself with people who are going to give you their best and want to you succeed.

My CAD designer is quick and super easy to communicate with. My patent attorney, Alex, is always available and while not inexpensive, very good at what he was able to provide. My current business relationship with Carmine Denisco from EarMark Sourcing has proven to be more like a partnership with someone who wants to see me succeed with my products and is encouraging as well as efficient and effective with seeing my factory production through to completion. o

Details: Knobez.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/fAGIvZJ) and "Secrets of Successful Inventing" (https://a.co/d/8dafJd6).



Shawn Moye

T'S BEEN A FEW YEARS—the June 2021 *Inventors Digest*, to be exact—since we first told you about Shawn Moye's E-Sports Trainer. The wearable smart training device is designed to help athletes improve their skills and mechanics through real-time feedback and monitoring via sensors that track and analyze performance, providing audio feedback.

Moye recently told us about a newer iteration of his product called the Smart Sports Trainer, targeted for younger athletes.

"The hardware and software built in helps young athletes develop consistent training habits based on the user's own form, which helps strengthen the neural pathways associated with developing muscle memory," he said. "It has technology that tracks trends to help athletes train smarter and perform better—improving accuracy, technique, speed and endurance." The first stage of the product is benchmarking the player during a practice session. The smart watch learns the young athlete's initial style and transfers the data to the app. From the app, the user is able to set goals and will have gamification function between users of the product.

Progress tracked for basketball, for example, is related to speed of release, repetition of form and arch of shot.

Moye also said he will be exhibiting at Toy Fair 2025, the industry's signature event, March 1-4 in New York City. "I'm really excited to be a part of this," he said.

Endorsed by Barbara Corcoran of The Corcoran Group and "Shark Tank"...



"... A gift to anyone who's ever had a winning idea..." Read the compelling stories of 27 esteemed, hard-working women inventors and service providers, (many of whom have appeared on "Shark Tank"). All have navigated through obstacles to reach success and have worked hard to change the stats for women patent holders, currently at only about 13 percent of all patents. *HEAR US ROAR!*

Available for purchase at Amazon (https://tinyurl.com/334ntc3w), Barnes & Noble, edietolchin.com, and at squareonepublishers.com.



Edith G. Tolchin (photo by Amy Goldstein Photography)



Reviews INDIE Book Awards.

Edith G. Tolchin knows inventors! Edie has interviewed over 100 inventors for her longtime column in *Inventors Digest* (www.edietolchin.com/portfolio). She has held a prestigious U.S. customs broker license since 2002. She has written five books, including the best-selling *Secrets* of *Successful Inventing* (2015), and *Fanny* on *Fire*, a recent finalist in the Foreword

(ad designed by joshwallace.com)



Back for Nore

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THE BEST-LAID FLOGHT PLANS HOW THE BUILDING OF 2 DIFFERENT TOY PLANES CAN TAKE ON MANY PATHS AND PROBLEMS

BY APRIL MITCHELL

AT INVENTORS DIGEST, OUR COVER AND INVENTOR SPOTLIGHT STORIES

often take you behind the scenes to show how an invention or product evolved. This includes how it was conceived, and the often arduous journey to retail space.

Let's take a nosedive into the making of two toy airplane products that recently hit the retail space. Both took time and lots of experimentation to get just right. Both are unique, and both share similar triumphs and challenges—with totally different flight paths to completion.

Whether inventing, manufacturing, selling your product yourself or inventing and licensing your invention to another company, it will need to go through many steps and/or iterations. Both products here have a unique story. What will yours be? The Aero-Storm Pneumatic Airplane, by Top Secret Toys (left) and Sky High Flyer, by NSG (right), are a prime example of the varying challenges in building a toy in the same product category.

Sky High Flyer, by NSG

nsgproducts.com

How it flies: Grab the plane by the top and load it onto a traditional flying disc by spinning it onto a bolt located on the top middle of the disc, throw it into the air either underhand or Frisbee style, and watch as the plane separates from the disc and soar on its own.

There is some flexibility with how you play with the Sky High Flyer, depending on your skill level.

Terry Alan had built an initial prototype of the Sky High Flyer using a balsa plane that functioned well, but with concerns about the longevity of the product and how it would hold up.

The plane screws onto the disc fully in four or five revolutions. If you have experience throwing a flying disc, it is recommended you tighten it fully before launching the disc. If you are a young child or inexperienced at throwing a flying disc, screw the plane down with only two or three revolutions so it will release from the disc sooner once thrown. An idea takes wing: Sky High Flyer is the creation of independent inventor Terry Alan of Source Concepts LLC. He brought his invention to the attention of Eugene Cluney at NSG Products to review in hopes of licensing it. They set up a Zoom meeting where Alan showed Cluney his initial concept and prototype—and Cluney was instantly hooked on the idea.

The toy took some time going from prototype to retail ready. It was a game at one time and had a few different versions before Alan pitched it to Cluney.

Alan had built an initial prototype using a balsa plane that he shared with Cluney. It functioned well, but they were concerned about the longevity of the product and how it would hold up after multiple uses.

They decided it would be best to find a more durable material that would still function as intended.

"We didn't realize it at the time, but this would prove to be quite a challenge: finding the right material that was strong enough to hold up over time yet lightweight to properly function," Cluney said.

In time, they found a high-density, flexible foam material that fit the bill.

They also had the issue of attaching the plane to the disk. The nut-and-bolt system were heavy in comparison to the weight of the plane.

It took multiple rounds of sampling and testing for them to find the exact spot on the plane to insert the bolt for peak performance. They moved the location of the bolt on

the plane closer to the front or further to the back to test the samples. These adjustments, by as little as a centimeter, would completely alter the flight.

"We easily went through 15 to 20 samples before finalizing the item," Cluney said. "After changing the plane from the inventor's balsa wood to a more durable foam plane, finding the perfect release from the disc and flight of the plane was much more difficult than we had originally intended." This process was mostly trial and error for the NSG team. Experiments included making planes with different material and density, testing their flights off the disc, and trying different locations for the bolt until they found the perfect combination.

NSG Products has a manufacturing patent on the Sky High Flyer that helps protect it from

knock-offs. There are molds for all components of the product. All of the assembly is done by the factory before shipping it out.

"Luckily, this is a fairly simple product that does not require extensive assembly," Cluney said. "It is really just making sure the nutand-bolt system is secured to the disc and the assembled plane."

"This would prove to be quite a challenge: finding the right material that was strong enough to hold up over time yet lightweight to properly function."

-EUGENE CLUNEY, NSG PRODUCTS

Aero-Storm Pneumatic Airplane, by Top Secret Toys topsecrettoys.us

How it flies: This motorized plane with real motor sounds requires no batteries, using a revolutionary, patented micro air pressurepowered engine. Place the pump over the nose of the plane on a flat surface, give 20 or 25 fulllength pumps, hold the plane underneath with wings parallel to the ground, flick the propeller and throw-and watch it perform corkscrews, loops, bank turns and more.

Top Secret Toys co-owners Jeff and Steve Rehkemper (left to right) had previous experience with pneumatic planes.

With its micro air engine, the Aero-Storm can also self-start if tossed into the wind by someone older who can throw it harder than a child.



An idea takes wing: The story behind this toy plane is full of twists and turns, as one concept evolved into another and sparked innovation.

Just as with the Sky High Flyer, "There were many difficulties involved in producing a durable product anyone could fly," said Steve Rehkemper, co-inventor of the Aero-Storm.

He and brother/co-inventor Jeff Rehkemper are also the owners of Top Secret Toys, which manufactures and sells the product. The brothers worked on the Air Hogs airplane years before the Aero-Storm Pneumatic Airplane was invented.

A pneumatic toy airplane was created in 1996 by British inventors John Dixon and Peter Manning, whose prototype of a compressed airpowered toy airplane was constructed from found parts-primarily a lightweight plastic soda bottle and a hobby air engine.

Canadian toy company Spin Master licensed the technology and hired a renowned toy invention, design and development company in Chicago owned by the Rehkemper brothers.

The company conducted extensive prototyping and engineering efforts using sophisticated CAD engineering software and CNC machining. They used fresh engine parts and foam fuselages each day after crashing prototypes time and time again until the design was optimized.

"To get the original motor powerful enough and light enough to power the plane sufficiently, approximately 30 motors were machined and assembled, each having minor tweaks as the process of trial and error played out," Steve Rehkemper said. "At the same time that the motor was being optimized, the foam fuselage was also going through the same optimization."

During development, test flights were required, which in turn produced many crashed airplanes for the team. Some of these expensive prototypes were lost in the tops of trees or on the roofs of buildings.

In order to understand whether or not changes made to the motor were really improvements, it was important for the team to be able to exactly duplicate the aerodynamic

airframe from scratch—rather than taping or repairing crashed airframes.

Spin Master and the Rehkempers, along with their friend and factory owner in China, William Babbs, built what became the first in a long line of modern-day flying toys. They were branded Air Hogs.

About five years after the first pneumatic planes (Air Hogs) were made and sold, the Rehkempers invented a smaller, lighter and simpler air engine that allowed the plane to become smaller and lighter. This required less air pressure and air volume, thereby requiring far fewer pumps by the user to pressurize.

"This optimized design with a micro air engine is the product we produce and sell today," Rehkemper said.

That second, more refined version of the Air Hogs airplane is now made and marketed by the Rehkempers through their Top Secret Toys company under the brand name Aero-Storm Pneumatic Airplane.

The Aero-Storm airplane has molded EPP foam wings/fuselage and injection-molded ABS motor/prop subassembly that all attach to a PET air reservoir.

The motor and prop subassembly must be made first and attached to the front of the air reservoir. Then, the foam parts can be added to finish the plane before loading into packaging and making their way to the retail space.

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



"There were many difficulties involved in producing a durable product anyone could fly."

Sales Is Not Marketing

SALFS

MARKETING

ONE BRINGS ALL THE GLORY AND THE CASH; THE OTHER LAYS GROUNDWORK WITH A STRATEGIC PLAN BY WILLIAM SEIDEL

N MANY YEARS of managing marketing and teaching it, I have seen a lot of misunderstandings and misnomers. Perhaps the biggest is the failure to understand the difference between sales and marketing.

This ad appeared in the San Francisco Chronicle:

"Marketing Guru Needed! We have an urgent need for a marketing genius to make fast sales. We have everything a good marketer needs, all the brochures and telephones in place and the opportunity to make big commissions."

Yes, it is true! "A marketing genius" is needed, because an ignoramus is running the company.

Sales are needed because the company needs cash. This company is dying, and it doesn't know why.

The company believes more sales will solve its cash problems. Sales can remedy short-term cash problems, but it will be the same next month. And brochures and telephones are not marketing.

SELL A PRODUCT; MARKET A CONCEPT

You do not market a product or a service. You sell a product or a service. You market a concept and its benefits. The following should clarify the confusion between sales and marketing.

- Car dealers sell cars. Auto manufacturers market cars.
- Sales pitches features. Marketing promotes benefits.
- Sales is now. Marketing is 1 to 5 years.
- Sales is for cash now. Marketing is for repeat business.
- Sales converts leads. Marketing generates leads.
- Sales pushes customers. Marketing pulls customers.
- Sales pays for marketing. Marketing makes it easy for sales.

• Sales builds revenue. Marketing builds value. Good marketing provides qualified leads to sales. Better marketing presells it, so sales simply take orders. A primary task of marketing is to generate and qualify leads, not to close sales. Sales may qualify and prospect for leads, but this is better served by market research and advertising to promote the product and pull in prospects.

Same team, different goals

Sales and marketing have different objectives and tactics, but they are on the same team.

Sales has direct contact with customers, negotiates and follows up. But it is marketing that interests them with content and the value of the offer.

Sales may work on commission, but marketing needs a budget.

Sales creates cash by converting prospects to customers. The effectiveness of sales is measured by the number of sales completed, divided by the number of leads provided.

Marketing creates and promotes the message, generates interest and leads. The effectiveness of marketing is measured in part by the success of the lead generation program. Marketing increases the quality of the leads, which directly increase the number of sales.

Marketing is much broader than sales. It provides a strategic plan to reach potential

customers with the right message. When the marketing is working, the leads are qualified and enhanced with valuable market data. This defines the message, effectively reaches the most likely customers, and increases sales.

Marketing is all about the reorders, because it's proof of demand. Reorders prove the product. If you sell it once, you are not marketing; you are simply making a sale.

Marketing generates leads with advertising, direct mail and over 200 different methods of reaching and influencing the customer.

Marketing lays the groundwork

Does marketing serve sales, or does it lead sales?

There are sales-driven companies and market-driven companies. Both are viable. It is a question of focus, because both need sales, and both need marketing.

Sales-driven companies have challenges. Their approaches are short-term and immediate. This can cause customer issues and retention problems. One of the biggest concerns is that cash shortfalls can be a never-ending push, which takes enormous energy, resources and costs.

Sales often gets the glory for bringing in revenue—but it's marketing that lays the groundwork, influences the prospects to buy and makes it easy for sales.

Conventional marketing supports loyal customers and gets more of them. When products are proven, such as Oreos, introducing Chocolate Covered Oreos is a line extension that is low risk and fits existing shelf space, distribution and brand recognition.

Companies offering consumer goods such as appliances (durable goods) and laundry detergents (nondurable goods) are usually sales driven. For a company with established distribution, it is often retaining existing customers, increasing sales and growing revenue.

Marketing's huge challenges

Marketing must lead when the products are new to the market or innovative.

Marketing a new product poses many problems: no history, no comparison, and no shelf space. No one knows what it is, what to do with it, or why it is needed.

This is product pioneering. It requires a sizable demonstration and promotional budget. New strategies are needed to win over competitive budgets, better protection and established distribution.

Marketing leads when the product is isolated on the shelf or online. Marketing establishes the best position, package and message for the product to sell itself.

Marketing must lead when the focus is longterm growth and value to establish and expand



You do not market a product or a service. You sell a product or a service. You market a concept and its benefits.

distribution, create predictable revenue and value at a profit.

The ad got one thing right

Yes, a "marketing genius" can make sales problems disappear.

With the right marketing strategy, sales can achieve great things. Repeat sales and scalability occur when you have distribution. And you get distribution when your marketing is working.

It's all about marketing, and marketing is all about value. Think marketing! €

William Seidel is an author, educator, entrepreneur, innovator, and a courtapproved 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.

INVENTING 101

Your Profit Formula PRICING AND PERCEIVED VALUE VERSUS MANUFACTURING COSTS CAN HELP DETERMINE IF YOU MAKE MONEY BY DON DEBELAK

KEY EVALUATION step—one overlooked surprisingly often by inventors—is to answer the question: "Can the product make money?" Pricing and perceived value versus manufacturing costs is a key issue.

Inventors often have at least some idea of what customers will pay for a product, based upon what competitive products cost. But they typically don't know how to estimate manufacturing costs.

Manufacturing cost formula

As a general rule, a product needs to be manufactured for 25 percent of its expected price to consumers to make money. This is due to distribution and selling costs. That means that your manufacturing costs must be less than 50 cents if your product's retail price is \$2.

> What makes this process difficult is that the 50-cent cost is for largescale production.

Because inventors are always starting small—sometimes, they only

have a prototype—their costs will be high or even very high because

they don't have the volume to generate a lower price and their costs will almost never meet the 25 percent threshold.

Inventors should have a variety of ways to estimate what a full-volume cost will be. Because a product cost includes both manufacturing costs and packaging costs, you need to estimate both.

Steps and considerations

The easiest way to estimate costs is to find products with very similar construction and packaging to yours. You might have to use two different products or even in different industries—one for construction and one for packaging.

So if your product is made of high-impact plastic and holds garden tools and is 24 inches high by 24 inches wide by 18 inches deep with 12 slots for garden tools, you would look for another product made of high-impact plastic parts with similar complexity. Then get costs on that product, as well as yours, for small-volume production. You can use the percentage difference in those prices to determine your expected costs.

Other considerations:

Establish your product's cost in large runs. Use the retail price of the product and multiply it by 25 percent (0.25). That price should be close to the manufacturing price, because most products in retail sell for four to six times their manufacturing cost.

Your price will not be the same as the comparable product. Get quotes from manufacturers for both your product and for the comparable product.

Figure out how the comparable product is made. If you don't know, you can contact SCORE, which will meet with you at no cost. You can find the closest SCORE office at score.org.

Once you know the process your product will follow, you need to locate manufacturers that can bid on producing 1,000 and 5,000 units. You can find these manufacturers by: asking industry contacts; checking the Yellow Pages or in a business-to-business phone book; looking in industrial directories, available in larger libraries; or the Thomas Register of American Manufacturers (thomasnet.com), which has a fairly complete list of manufacturers listed by categories and state.

When you have a quote for both your product and the comparable product, you can see what the difference is.

Let's say the quote for your product is 25 percent higher than the comparable product. Then your product's cost for high-volume production will be the cost of the comparable product you obtained earlier, multiplied by 1.25, or 125 percent. •

Don Debelak is the founder of One 5 Invention Shop, which offers marketi and patenting assistance to inventor: He is also the author of several market books, including *Entrepreneur* magazi Bringing Your Product to Market. Debelic can be reached at (612) 414-4118 or dondebelak@gmail.com.



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Injection Molding Fixes

5 COMMON IMPERFECTIONS AFTER THIS MASS PRODUCTION PROCESS, AND HOW TO REMEDY THEM **BY JEREMY LOSAW**

HE PROCESS of injection molding can be mysterious.

Injection molding is a mass manufacturing process used to create products from plastic materials. It works by heating plastic pellets until they melt, then injecting the molten plastic into a mold whose cavity is shaped like the final product. Once inside the mold, the plastic cools and hardens, taking the shape of the mold.

This process is widely used because it allows for production of large quantities of identical parts quickly and efficiently: Parts can be made in seconds (as compared to hours on a 3D printer). And the cost per part is low.

Although parting lines are a normal part of the injection molding process and hard to avoid, manufacturers try to minimize their appearance.

Injection molding is used to make everything from small components like bottle caps to large items like car bumpers.



However, injection molding machines are big, expensive and tucked away in factories that most inventors and innovators cannot access. The steel molds required to make the plastic parts are expensive and time-consuming to make—and are only good to make one part or set of parts.

A number of imperfections can occur if parts are not designed properly. Here are the five most common part defects and how to avoid or minimize them.

Parting lines

This is a visible line in the plastic that is raised from the surface of the part.

The parting line is where the two halves of the mold come together. The mold halves are never perfectly aligned enough to be the same surface, and when the plastic is injected into the mold, it creates the parting line where the mold comes together.

Although this is a normal part of the process, manufacturers try to minimize its visual presence. Often a part will be designed so that it will be very close to the edge, or at least not in an area where it will come in contact where the user will touch it and be distracted by it.

Ejector pin marks

Similar to the parting line, ejector pin marks are the result of the mechanics of the molding process.

Because the molten plastic shrinks as it cools, it tends to shrink itself onto the core (male half) of the mold and does not naturally release from the mold. So, sliding fingers in the mold under the core of the mold push up on the part from underneath when the part is not quite fully



Injection molding is used to make everything from small components like bottle caps to large items like car bumpers.

cooled. This pushes it away from the mold so the operator can remove it.

This process creates circular dents on the plastic part, which disrupt the surface and generally look ugly. Fortunately, designers understand this part of the process, so they create the part such that the aesthetic surface is on the cavity side (female half) of the mold.

You generally never see ejector pin marks on products unless you take them apart and look on the inside of them.

Sink

This refers to a small depression or dimple that can appear on the surface of the part.

This happens when the plastic cools and shrinks unevenly, usually in thicker areas of the part where the plastic takes longer to cool and solidify. As the plastic contracts, it creates a sunken spot on the surface. This creates an imperfection on the surface that is detrimental to the aesthetics of the part.

The best way to avoid this is to keep the thickness of the part as even as possible. That way, the part will cool evenly and maintain the desired shape. If a change in thickness is necessary or unavoidable, it is best to make the transition in thickness as gradual as possible.

Injection marks

These are small blemishes or raised spots on the part where the plastic was injected into the mold.

During the injection molding process, the plastic is forced into the mold through an opening called a gate. After the part has cooled and solidified, the gate is cut or trimmed off, but it often leaves a small mark or slight imperfection.

Designers work closely with mold makers to ensure the gates are placed in an area of the part where it will be the least distracting.

Machining marks

These are patterns—often circular swirls—that sometimes appear on the surface of an injection-molded part.

The molten plastic is very efficient at flowing into every microscopic surface of the mold and will show whatever texture is on the surface. The molds are made by milling the metal to form the cavities. If not removed, the swirl pattern in the mold that is the result of the machining process will transmit to the part.

This is an aesthetic flaw, not structural, and is easy to remedy. The molds can be either polished smooth or can be given a textured surface. This eliminates the swirls and makes the parts look finished and ready for consumer use. •



'Shameless' War on ITC

INTERNATIONAL TRADE COMMISSION, WHICH CAN PUNISH PATENT INFRINGERS, FEELS ATTACKS LED BY BIG TECH BY LOUIS CARBONNEAU

W E RECENTLY noted the large number of significant patent verdict awards of 2024. Although those are usually a positive indicator of the health of the patent market because they may instill *some* fear in serial infringers, the reality is, they have their limit the same way a blue-collar worker winning the Powerball does not mean the middle class is suddenly looking to brighter prospects.

Nevertheless, we saw two more large verdicts this summer: one for over \$100 million against Amazon and one for a whopping \$847 million against Verizon.

Both will likely be appealed, possibly overturned and almost certainly reduced. But they should serve as a reminder that there is some level of accountability for infringing on other people's intellectual property.

In this regard, it is interesting albeit not surprising that we are seeing even more frontal attacks in the United States on the last agency standing

Big Tech's complaints were so egregious that U.S. Rep. Thomas Massie (R-Kentucky) lost his temper: "I'm appalled that you guys are here testifying like this." that can really punish patent infringers—namely, the International Trade Commission.

I will remind readers that the ITC, despite its moniker, is a U.S. agency whose mission is to protect American companies against illegal imports. This includes counterfeit goods and those who infringed U.S. patents, as long as some "domestic industry" test is met.

Once it receives a formal complaint, it investigates and can adjudicate on patent infringement cases. Although it cannot grant damages (plaintiffs have to file in district court for that), it can issue an "exclusion order," which is the closest thing to an injunction, and block infringing goods from being imported/sold in the largest market of the world.

This creates leverage for patent owners that they have lost since the 2006 decision in *eBay v. MercExchange* did away with injunctions. We also saw this in the *Massimo v. Apple* saga a few months ago.

Well, Big Tech is now lobbying Congress aggressively to curb the ITC power, based on the specious arguments that 1) it is wreaking havoc in its manufacturing operations (which it can't if the goods are not imported), and 2) that it is duplicative of the district court system (we just explained that it is not). A public hearing at the House IP sub-committee on July 23 put this latest attempt on full display.

Big Tech's complaints were so egregious that U.S. Rep. Thomas Massie (R-Kentucky), who is sympathetic to the small inventors' plight, lost his temper during the hearing: "I'm appalled that you guys are here testifying like this. This is shameless ... what you're saying is if you're only stealing 10 percent of the product, let us keep importing it, let us just keep stealing it."

Even if the impact of the ITC can be major in some cases (Apple, after much screaming and lobbying the White House, simply disabled a subpar feature in its Apple watch to satisfy the exclusion order), two wrongs do not make a right.

Weakening the ITC's power would make the United States even more irrelevant when it comes to patent enforcement. ©

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.





INTERDIGITAL V. LENOVO: Who Won?

The IP community has followed the battle between Interdigital and Lenovo very closely these past months. The trial attracted hour-by-hour reporting.

At the end, the court sided with Interdigital, condemning Lenovo to pay back damages on its infringing SEP patents. The U.S. company did not take long to tout this as a major victory.

However, the royalty rate established by the UK court ended up being roughly in line with Lenovo's calculations, and far below what Interdigital had hoped. This means a good public win for Interdigital but a disappointing decision for all Standard Essential Patent owners who will see royalty rates plummet for their innovation.

In a related announcement, Interdigital reported that it entered a worldwide licensing agreement with Google.

TRUST IN UPC GROWS

To most of us, the past decade has appeared to be a self-imposed "patent peace" between large competitors. The reality, however, may be more closely correlated to trust issues in the U.S. institutions tasked with supporting legitimate patent infringement claims than some kind of legal restraint.

At least, this is what recent activity between operating companies before the Unitary Patent Court in Europe suggests, as we are seeing a flurry of new cases brought before the UPC by household names such as Chinese telecom giant Huawei and U.S. solar manufacturer First Solar.

We have discussed at length the flurry of activity before the UPC driven by its rapid docket, competent panels of judges and ability to issue injunctions when necessary.

We predict this trend will continue as long as patent owners feel they can get a fair shake in court, a quick resolution and injunctive relief when necessary—all current attributes of the UPC.

Unfortunately for small patent owners who tend to only protect

their invention in the United States, the UPC development remains of little assistance to them. Help will need to come from U.S. institutions themselves.





Action on Infringement

RESTORE ACT SEEKS TO FACILITATE INJUNCTIVE RELIEF FOR PATENT HOLDERS IN DISPUTES **BY EILEEN MCDERMOTT**

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

U .s. SENS. Chris Coons (D-Delaware) and Tom Cotton (R-Arizona) have introduced a bill to restore the presumption of injunctive relief to patent owners facing infringement.

The Realizing Engineering, Science, and Technology Opportunities by Restoring Exclusive (RESTORE) Patent Rights Act of 2024 would essentially abrogate the 2006 Supreme Court ruling in *eBay v. MercExchange*, a case that many patent owners argue has played a key role in weakening the value of patents.

A House companion bill was introduced by U.S. Reps. Nathaniel Moran (R-Texas) and Madeleine Dean (D-Pennsylvania). The bill is also being cosponsored by Reps. Chip Roy (R-Texas), Hank Johnson (D-Georgia), and Deborah Ross (D-North Carolina) in the House.

Many say the Supreme Court's 2006 ruling in *eBay v. MercExchange* has made it much harder for patent holders to get injunctions.

Restoring the presumption

According to the bill text, Section 283 of the patent law would be amended to add the following language:

"(b) REBUTTABLE PRESUMPTION.— If, in a case under this title, the court enters a final judgment finding infringement of a right secured by patent, the patent owner shall be entitled to a rebuttable presumption that the court should grant a permanent injunction with respect to that infringing conduct." The *eBay* case changed the courts' previous practice of usually issuing injunctions upon a finding of infringement, in favor of applying a four-factor test to determine whether an injunction is warranted. According to a one-pager issued with the RESTORE Act on July 30, this has resulted in requests for permanent injunctions in patent cases post-*eBay* falling by 65 percent for "companies that use their patented technology to manufacture a product."

Grants of permanent injunctions to such companies also fell by more than 65 percent, and requests and grants for "licensing patent owners, like universities and research clinics," dropped by 85 percent and 90 percent, respectively.

Opponents of restoring pre-*eBay* approaches to injunctive relief have presented other data that claims the *eBay* case did not have a dramatic impact on the ability to obtain injunctions. In a November 2023 panel hosted by the Federalist Society, Laura Sheridan, head of patent policy at Google, said "*eBay* is working in a balanced, flexible way."

Infringement called 'predatory'

The one-pager claimed that the post-*eBay* approach to injunctions "has incentivized a widespread practice of "predatory infringement" by large, multinational companies because it is cheaper for them to steal technologies than to license them"; has made litigation more expensive; and threatens to harm the U.S. economy and global innovation leadership.

The term "predatory infringement" has recently been favored by pro-patent advocates in lieu of "efficient infringement" to more clearly illustrate the practices that have been incentivized since *eBay*. In the same November 2023 panel that Sheridan spoke on, Professor Kristen Osenga of the University of Richmond School of Law supported wider use of "predatory infringement," explaining that "if an injunction is on the table, you will probably think twice about infringing. If you aren't afraid of an injunction, you might have an entirely different mindset ..."

The "rebuttable presumption" contemplated by the bill would allow alleged infringers to argue that an injunction is not warranted in certain circumstances, such as harm to the public, but the burden would be on the infringer to prove as much.

"Under our current system, it is cheaper for large companies to steal patented technologies from our inventors and entrepreneurs than to license those technologies lawfully," Coons said. "The RESTORE Patent Rights Act will give the long-established exclusivity right teeth again to protect innovation and ensure our continued leadership and competitiveness on the global stage."

Supportive comments

Innovation Alliance Executive Director Brian Pomper called the lack of injunctive relief in U.S. courts "one of the biggest problems plaguing America's innovation ecosystem."

He added: "It has allowed Big Tech and other large companies to practice predatory infringement, where they shamelessly steal patented inventions simply because it is cheaper than paying reasonable licensing fees for the technology."

David Kappos, co-chair of the Council for Innovation Promotion and former U.S. Patent and Trademark Office director, said: "Right now, IP thieves can get away with a slap on the wrist, knowing they'll likely face only a one-time fee, even if found liable."

Kappos' colleague at C4IP and fellow former USPTO Director Andrei Iancu said: "inventors cannot effectively protect their inventions without the ability to exclude. The RESTORE Act



defends American innovation from unlawful infringement, safeguarding our economy and national security."

The Alliance of U.S. Startups & Inventors for Jobs and Conservatives for Property Rights also came out in support of the bill.

If passed, when?

Although the fate of the bills is unknown and unlikely to be determined during this election year, Michel said last year that the mere introduction of legislation could build momentum.

Michel told IPWatchdog that he predicts the RESTORE Act will pass, but how soon is the key question.

"And will it be soon enough? Passage is not likely this year and maybe not next year, either. But it is becoming increasingly clear with the passage of time that the unavailability of injunctions for most patent owners, even after proving infringement, is crippling our patent system and discouraging the investments needed to retain the U.S. lead in advanced technologies." ♥

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.



Goal: NO FAKES BILL SEEKS TO PROTECT VOICES AND LIKENESSES FROM BEING UNFAIRLY USED THROUGH GENERATIVE AL BY EILEEN MCDERMOTT

U.S. SENS. Chris Coons (D-Delaware), Marsha Blackburn (R-Tennessee), Amy Klobuchar (D-Minnesota) and Thom Tillis (R-North Carolina) have officially introduced the "Nurture Originals, Foster Art, and Keep Entertainment Safe Act of 2024" (NO FAKES Act).

A discussion draft of the bill was first introduced in October 2023, with the stated goal of protecting people's voice and visual likenesses from being used unfairly through generative artificial intelligence. (*Editor's note:* Generative AI, also known as gen AI or GAI, is AI that can create original content such as text, images, video, audio or software code in response to a user's request.)

The July 31 announcement also follows an April 2024 hearing of the U.S. Senate Judiciary Committee's Subcommittee on Intellectual Property, in which six witnesses testified about the need to strike the right balance in drafting the bill.



The introductory press release included supporting statements from organizations including OpenAI, The Walt Disney Co., Warner Music Group, the Authors Guild, the Recording Industry Association of America, the Motion Picture Association, Universal Music Group, and SAG-AFTRA.

The Human Artistry Campaign also voiced its support, with the senior adviser, Dr. Moiya McTier, calling it "strong legislation" that will put "every American in control of their own voices and faces against a new onslaught of highly realistic voice clones and deepfakes."

Bill's specifics, exceptions

The proposed legislation would establish a federal property right for every individual in his or her own voice and likeness. There are exceptions for news, broadcast, advertising/ marketing and documentary use, public criticism or commentary and "fleeting or negligible" use, among others.

An "actual knowledge" standard would be required to prove liability. The right is not assignable during the life of the right holder but is licensable for up to 10 years (or 5 years for minors under 18), and expires 70 years after the death of the individual.

There are provisions for post-mortem transfer of the right and renewal procedures as well. It would also preempt all existing state laws.

The bill would establish a notice and takedown process for removing unauthorized replicas and would not hold platforms liable for linking or referring users to unauthorized content, "as long as the online service removes or disables access to the unauthorized digital replica as soon as technically and practically feasible after receiving notice of a claimed violation." Online service providers must also designate an agent as the contact point for reporting violations. It also calls for a three-year statute of limitations running from the date the plaintiff discovered "or with due diligence should have discovered" the violation. Remedies are \$5,000 per work embodying the unauthorized digital replica or actual damages for individuals who engage in prohibited activity; \$5,000 per violation or actual damages for online services; the greater of \$25,000 per work embodying the unauthorized digital replica or actual damages for entities that are not online services. Injunctive relief and punitive damages for willful violations are available.

According to an article by Complete Music Update (CMU), artists will especially welcome the bill's restrictions on assignment and licensing, as they are "keen to ensure that companies in the music industry don't pressure artists into transferring control of their likeness and voice to business partners on a long-term basis."

Among the organizations with supporting statements for the bill was OpenAI.

Al's double-edged sword

During the Senate hearing in April, artist Tahliah Debrett Barnett ("FKA Twigs"), explained that she is using AI to enhance her career but is also being exploited by it.

On the one hand, she said she has created an AI version of herself that she can use to speak in multiple languages in her own voice, which helps her reach and connect with fans more effectively. She said that AI also allows artists to "spend more time making art."

However, she has also found songs seemingly made by her online that she didn't actually create or perform.

"It makes me feel vulnerable, because as an artist I'm very precise. ... If legislation isn't put in place to protect artists, not only will we let artists down who really care about what we do, but it also would mean that fans wouldn't be able to trust people they've spent so many years investing in."

Also on July 31, the U.S. Copyright Office released Part 1 of its Report on Copyright and Artificial Intelligence, focusing on digital replicas. It recommended that "Congress enact a new federal law that protects all individuals from the knowing distribution of unauthorized digital replicas." ©

Classifieds

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www.lnventor-mentor.com Best wishes, Jack Lander

INVENTIVENESS

IoT Corner

IoT platform and hardware company Particle announced a powerful new IoT hardware platform called the **Tachyon**, a single-board computer with the computing horsepower of a mid-range smartphone mated to seamless integration with the Particle IoT ecosystem.

The device, which has the same form factor as a Raspberry Pi, is compatible with Pi's extensive library of peripheral hats. It has WiFi and cellular connectiv-

> ity with enough computing power to run machine learning algorithms and Al applications.

The device launched on Kickstarter at the end of July, with units set to ship in early 2025. — Jeremy Losaw

Wunderkinds

Shea Curran, a fourth-grader from Palos Heights, Illinois, won the Most Authentic Award in the Junior Division at the Young Inventor Challenge for her game Zombie Zania. The goal is to collect all six organs for your zombie that match the color on your zombie's wrist, using instruction cards. Registration for the next YIC began August 5 and ends October 27. Details: **peopleofplay.com/blog/ young-inventor-challenge-registration-is-open**

What IS That?

Welcome to Gnome Man's Land! **The Godzilla Gnome Garden Statue** stands a mighty 9 inches tall and weighs 1.35 pounds formidable enough to scare, well, nothing and no one. Buyers/reviewers seem



Get Busy!

With robotics and digital transformation atop the list of current technological innovation, the beautiful mid-September Chicago temperatures are an added draw for the International Manufacturing Technology Show, September 9-14 at McCormick Place. Details: **imts.com**

WHAT DO YOU KNOW?

True or false: Three years old is the youngest permitted age for owning a U.S. patent.

The Inventor's Patent Academy, a free class providing knowledge and tools for patenting your invention, was created by Invent Together and which corporate giant? A) IBM B) Sony

- A) IBM C) Microsoft
- D) Qualcomm

3 Which U.S. innovation pioneer was born first—Henry Ford, or Thomas Edison?

4 Michael Jackson's 1993 patent for anti-gravity lean shoes was allowed to expire. He auctioned them in 2009 for how much?
A) \$600,000
B) \$1.5 million
C) \$3 million
D) \$7 million

5 who invented basketball and the words "basketball," "center," "forward," "guard," and "dribble," had 65 patents.

ANSWERS: 1. False. There is no age minimum. 2. D. 3. Ford, 1863; Edison, 1847. They were good friends, even owning vacation homes next to each other. 4. A. 5. False. He had none. He wanted basketball to be accessible to everyone.

Ff-c6

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





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