

Mo-Bowl Mobile Pet Water Bowl
 Help Alerter
 Cast Skate
 Hold-a-Phone
 Take It Pocket
 Drink Deputy / Travel Mate / Drink Mate
 Diaperbridge
 Re-Pillable Card
 Mother's Third Arm
 Air Guardian
 OrthoTote
 Take-Out-Time-Out Mat
 Roadside Message Board
 Walk-O-Long
 Umbrella Article Holder
 Shoulder Dolly
 EasyDown

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On the Go

We want it fast, we want it now, and we want it on the go. Americans love to be on the move, but hate the hassles that go along with it. It's that hunger for convenience that inventors feed off. They know we will crack open our wallets to make our lives just a little easier, a little more hassle-free. With all its complications, travel is the perfect feeding ground for inventors. There are so many bumps along the road, so many annoying and frustrating obstacles associated with driving and flying—airports, luggage, kids, pets, drinking, diapering—I'm getting cranky just thinking about it all. Inventors focus on those hassles and try to find solutions that we might all be willing to buy into.

One of the inventors in this category is a mom who needed a way to punish her kids when the family was away from home. At home, she could send them to the dreaded "time-out chair." On the road, that chair wouldn't fit in the car—and the kids knew it. Lisa Bogart Carvajal came up with an idea that gives her the upper hand even when she's nowhere near a time-out chair.

From giving water to the family dog while driving down the highway to carrying medications in your wallet, these inventors have found a way to get you from Point B to Point C without the usual pain in the A.



STAT BAR

PATENT: information not provided
PRODUCT PRICE: \$19.95
STATE: New Hampshire
INVENTOR'S AGE: 50
INVENTOR'S PROFESSION: engineer/inventor
MONEY SPENT: more than he's made—all money made goes back into product development
MONEY MADE: \$0
WEB ADDRESS: mo-bowl.com

Mo-Bowl™ Mobile Pet Water Bowl

Bowl Me Over

Inspiration comes in many shapes and sizes. For Rich Skowronski, his inspiration had four paws and long hair. “My dog, Bonnie, demanded it.”

Rich is talking about his invention, the Mo-Bowl Mobile Pet Water Bowl. You see, Bonnie, Rich’s golden retriever, must have water while going on any car trip. “When I moved to New Hampshire, I would often take Bonnie in the car with me for several hours, and I’d bring along water for her, but it would spill.” The final straw occurred when Rich took Bonnie on vacation and the water bowl spilled right onto the dog bed, leaving Bonnie with a soaking wet bed. That’s when he came to the conclusion there had to be a better way, or at least a drier way.

Rich is an engineer with twenty-five years of experience. “I looked to see

what was on the market,” he says, “and everything either looked good but didn’t work, or worked but was huge”—way too big for an ordinary car.

“Dogs have a spectacular need for water, and not just in the heat. Even in moderate or cool weather, dogs need a lot of water in the car. I felt I could fill a need that a lot of people didn’t even realize their dogs have: water is so important for both their safety and comfort.”

Rich already had “20-something” patents to his credit, including the flexible deck on treadmills and the cord that attaches telephones to the back of airplane seats. But it was the idea for a mobile pet



water bowl that led Rich to give over the management of his engineering business to his wife and devote himself full-time to developing a no-spill pet water bowl.

Inspired by travel coffee mugs, which are well-designed to prevent spills, Rich developed a design to fit in an ordinary car cup holder and assembled his own prototypes, which he and his wife test drove in their Jeep Wrangler along their half-mile-long bumpy driveway. “But nothing worked well. As an engineer, I wanted a product that would work perfectly.”

Using his engineering skills, Rich was able to build prototypes quickly, easily, and inexpensively. After setting up a wooden platform test bed to test his designs, Rich mounted a video camera at very close range to record the tests, and then watched the video frame by frame to find the key to a no-spill design.

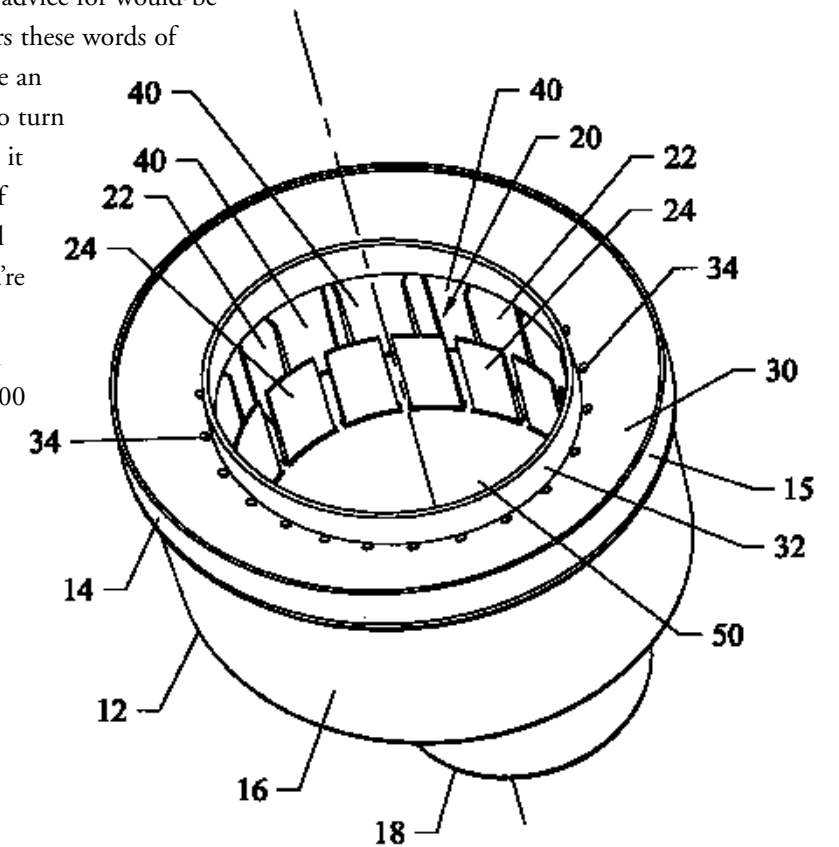
After a few final changes, Rich solved the mystery. “I’m amazed at how well it works now.” And most important, “Bonnie loves it.”

The Mo-Bowl went into production in September 2005 and is now available on the Internet and at pet stores. Rich’s next steps include getting the word about the Mo-Bowl directly to consumers via media coverage. In one successful appearance, Rich and Mo-Bowl were featured on a Home & Garden television show. He got the lead for this show through a connection he’d made at a local inventors’ club, a networking opportunity he advises other inventors to pursue.

As for additional advice for would-be inventors, Rich offers these words of caution: “If you have an idea and you want to turn it into an invention, it may take a couple of years of your life full time—that is, if you’re lucky. It will require money, so be careful not to waste \$100,000 in the process.”



Bonnie does a ‘spill-free’ demonstration.





STAT BAR

PATENT: #6796060

PRODUCT PRICE: unknown

STATE: South Carolina

INVENTOR'S AGE: 54

INVENTOR'S PROFESSION: handyman

MONEY SPENT: \$75,000

MONEY MADE: \$0

WEB ADDRESS: helpalerter.com

He looked to the heavens for help and found his answer in giving "help" to others.

Help Alerter™

He Saw the Light ... and It Was Flashing HELP

When Dave Meester prayed for help, he got the Help Alerter. Dave said something from above gave him the idea for a license plate holder that quickly converts into a flashing Help sign.

Dave Meester had been downsized out of a job six months before, and his spirits needed a lift. He looked to the heavens for help and found his answer in giving help to others.

Dave thought of the time his wife, Barbara, had to pull her car to the side of the road and wait nearly three hours before anyone stopped to help her. Add to that the frequent carjacking stories in the news, and Dave realized the need for drivers to have some way to safely alert others that they need help.

Dave doesn't think of himself as an inventor. He credits the idea of the Help Alerter to divine inspiration and went straight to his workshop. Weeks later, he came out with a license plate holder that quickly converted into a flashing Help sign.

He made the first prototype case out of plywood, borrowed the pivot arms from pieces of an old fishing tackle box, and used dome lightbulbs for lighting. Since then, he's refined the design and spent serious money to have good prototypes handmade by a prototype builder.

He plans on offering two models—one that is manually activated by getting out of the car and pulling the license plate down, and a more expensive model that is activated inside the car with a button on the floorboard.

"Say you're being carjacked. If you have a cell phone, could you use it? If you have OnStar, could you use it? Probably not without jeopardizing your situation. A silent button on the floorboard that activates the Help Alerter might be the only thing that would help



you in this situation. This could be the only chance you have. People would see the flashing Help sign and call the police."

Dave spent a year of weekends and evenings doing his own market research. "I would find a stretch of road where I'd pretend my car had broken down. I'd pull over to the side of the road, use my flashers, sit inside the vehicle—and wait. The average time I'd sit there before anyone would stop was twenty to thirty minutes. Then I'd do the same thing using the Help Alerter. My wait time was between eight and ten minutes—a drastic reduction in time! Plus, a police officer would stop more often when I used the Help Alerter than when I didn't."

He discovered that the higher police officer involvement was a result of people calling 911 on their cell phones

to report a stranded motorist, even if they didn't stop.

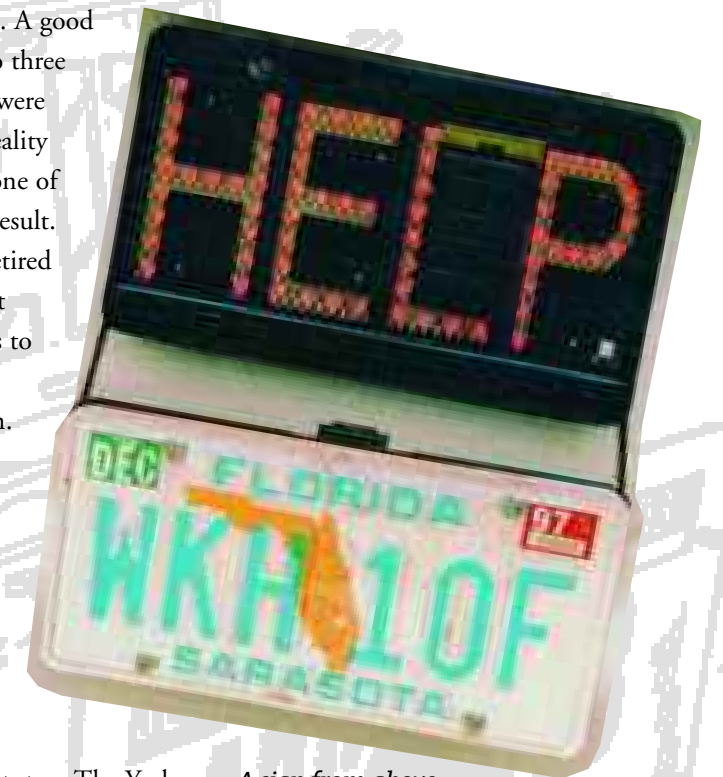
Dave explains, "A lot of people, especially women, are afraid to stop to help. But when they see that flashing request for help, they *will* make a phone call."

Dave's not yet at the point of having the Help Alerter manufactured. That's the next step. I'd guess I have \$60,000 to \$75,000 invested. A good chunk of that went to three

marketing groups, who were supposed to make it a reality and get it to market. None of them produced a good result. That's why Richard, a retired friend, and I are doing it ourselves. Richard wants to get involved because he feels it will be a hot item. I think they'll go like hotcakes."

Of 250 people Dave surveyed, 80 percent said they would buy the Help Alerter when it becomes available. He's got believers in the local sheriff's department, too. The York County, South Carolina, sheriff's department wants to do a TV commercial to endorse it. Dave knows an official endorsement can go a long way in alerting the public and advancing this venture.

Dave didn't think he could get a patent—he says he's no genius. He was sure someone else had already come up with this simple idea. But the patent was his for the taking. Perhaps there was a bit of divine intervention for this invention. After all, Dave did get a sign.



A sign from above



STAT BAR

PATENT: US #6878125 (May 12, 2005)

PRODUCT PRICE: estimates will be at least \$75

STATE: New Jersey

INVENTOR'S AGE: 51

INVENTOR'S PROFESSION: retired fireman

MONEY SPENT: \$6,000

MONEY MADE: \$0

WEB ADDRESS: not yet

Cast Skate™

Cast Away

When Bob Bentivegna was forced to take an early retirement from the Jersey City Fire Department, he didn't go without a fight. Bob was a 51-year-old local boxing champion who'd won in the first round against both the New York City Fire Department and Police Department, and took three rounds that ended in a decision against the Newark Fire Department. You don't mess with Bob.

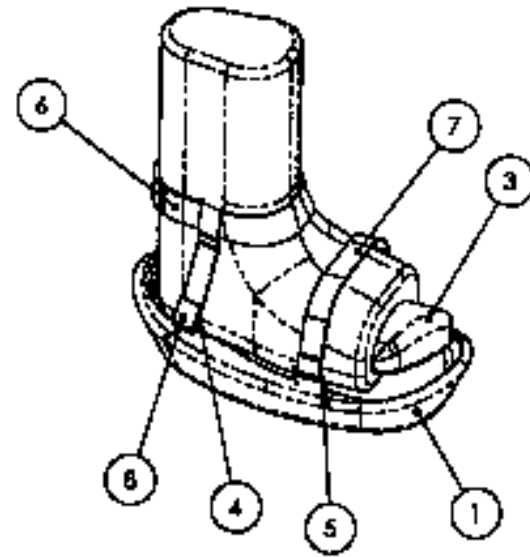
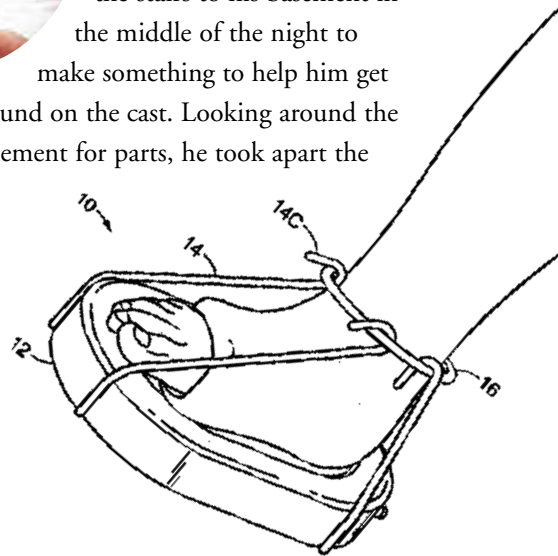
Bob may be tough, but his feet were not. Twenty-three years of getting in and out of fireman boots with stiff bunker pants on took their toll. His feet were deteriorating. The doctors took X-rays, MRIs, and bone scans, found a stress fracture in his ankle, and told him he couldn't go back to work. No more jumping off the rig for this guy. He was also sentenced to wear a rigid cast for six weeks.

For most people, this would be a major inconvenience; for Bob it was intolerable. "The problem was that I had no relationship with crutches. I could use them, but I just couldn't accept them. . . .

I cut them up and threw them in the garbage, thinking, 'I can't do this; there's got to be a better way.'"



It was a warm Indian summer night and, already restless, Bob couldn't sleep. Out of desperation, he crawled backwards down the stairs to his basement in the middle of the night to make something to help him get around on the cast. Looking around the basement for parts, he took apart the



headrest from a sit-up bar and removed its oblong cushion. He then cut two bungee cords in half and screwed them to the plastic bottom of the headrest. Next was determining how to anchor the cords.

Looking around again, he saw the rigid brown drive belt from a vacuum cleaner and slipped it over the toe of his cast. He rolled the drive belt up over his ankle and attached it to the bungee cords. It worked. The Cast Skate was Bob's ticket to freedom for the next six weeks. He could pivot off his bad foot and lean on his good leg. The Cast Skate was easy to put on and take off. When Bob went to bed, he just kicked off the four cords, keeping the cushion on the bottom of his cast.

Six weeks later, when Bob got the cast off, he showed his Cast Skate to his orthopedic surgeon. The doctor

examined Bob's invention and liked it. A patent search revealed that no one else had a patent on this idea. So that meant Bob's feat wouldn't step on anyone's toes. In fact, its construction was so unique that he was able to get a utility patent, not just a design patent, and his patent was granted on the first application. In the world of patents, that's a big deal.

Next, Bob's invention needed some attention, which is difficult for a single inventor to get. So he went to the Yankee Invention Expo in Connecticut. A few months later, he received a couple of letters from interested manufacturers. "My wife and I were doing backflips. But we still have to sit back and be patient. Nobody hurries in this business. They just don't. It took a year and a half to get my patent and that's like overnight. No one has a sense of urgency about my product, except for me."

Today, Bob gets promo material in the mail and always responds to

licensing inquiries. But he knows to be suspicious of anyone who asks for money up front. "Some of these people want \$6,000, plus 20 percent of the proceeds, and have you sign over your patent for the full twenty years. I'm not comfortable with that."

Bob has already spent about \$6,000 on his invention, most of that on his legal fees. "It's not wise for someone in my position to dish out thousands of dollars. The product needs to speak for itself."

Bob has read an armload of books on the invention and patent process. He doesn't skate around the fact that the Cast Skate is still in its early stages. "One of my books says, 'Even an overnight success takes a long time.' If you're an independent inventor, you have a long road ahead of you."

And Bob and his Cast Skate are heading down that road one step at a time.



Bob's victory over the agony of de-feet



STAT BAR

PATENT: pending

PRODUCT PRICE: \$19.95

STATE: Massachusetts

INVENTOR'S AGE: 51

INVENTOR'S PROFESSION: sales

MONEY SPENT: \$100,000+

MONEY MADE: N/A

WEB ADDRESS: hold-a-phone.com

In just three years, Jim has gone through all of his savings to create his Hold-a-Phone.

Hold-a-Phone™

Excuse Me, Your Wrist Is Ringing

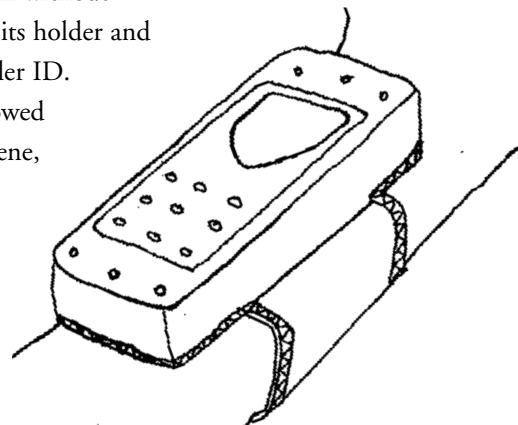
After missing calls and a broken dropped phone, Jim McGrath wondered. Is there any possible way to keep a cell phone handy and still have your hands free?

That's the question 51-year-old Jim McGrath had been asking himself. Being in sales, Jim needed his cell phone to be accessible—no holds barred. So he studied several types of phone holders on the market. Some models would hold a phone, but had to be taken out of the holder to be used. He thought about bicep armbands, but the phone was too high to see the caller ID or to talk into it in that position.

So Jim decided on the wrist position and focused on the two main styles of cell phones: bar and flip phones. The idea was to be able to talk without taking the phone out of its holder and yet be able to see the caller ID. Choice of material narrowed quickly. He chose neoprene, which is soft and wear-able, lends shock absorbency to the phone, and stretches,

allowing one design to accommodate several sizes and brands of cell phones. And its pliability allows the user to dial through it.

In just three years, Jim has gone through all of his savings to create his Hold-a-Phone. "Luckily, I only had to make two prototypes. The first company I used was in Taiwan. They almost got it right the first time. I only made a few changes and it was done. I found Korea's manufacturers more expensive than China's. Now I get them made in China and save one dollar per holder. But I



Hands-free phoning

have to stay on top of the Chinese manufacturer—the quality control can get sloppy. I'm up late every night instant messaging to China, and working on new inventions."

Thankfully, after investing \$100,000, he doesn't have to spend money on it now. He's gotten a lot of free publicity. *Runner's World* magazine ran two sentences about it, and even without a photograph, he sold more than 200 that month. He's just starting to buy advertising.

As one buyer said, "My husband is confined to a power wheelchair and only has limited use of his right hand (his left hand and arm are immobile). We strap the Hold-a-Phone to his left wrist above his wristwatch. This enables him to make and receive calls using only his right hand and a Bluetooth wireless earpiece. . . . We love it!"

Jim's marketing strategy is to contact everybody—there's no holding him back. The Hold-a-Phone is sold on his website and in a few catalogs and stores. It's been a challenge to get it into retail stores. Sporting goods stores say it's a cell phone item and cell phone stores say it's a sports item. Without his aggressive marketing, he'd be left holding the bag—or, phone.

To take hold of the market, Jim bought all of the Internet domains related to the phrase "hold a phone," hyphens or not, and he worked his website to come up number one on Google searches for "arm phone holder" and "wrist phone holder." Once people have one Hold-a-Phone, they buy more for their friends and running mates. Most just don't know it's out there.

By moving the cell phone from the belt to the wrist, Jim McGrath hopes to change the way we communicate. With Hold-a-Phone, this inventor has put a lot on the line, but it's a "wrist" he's willing to take.



STAT BAR

PATENT: pending

PRODUCT PRICE: \$8.49

STATE: Washington

INVENTOR'S AGE: 35

INVENTOR'S PROFESSION:
product designer

MONEY SPENT: \$25,000

MONEY MADE: \$0

WEB ADDRESS: takeitpocket.com

“Used car sales is the obvious use for Take It Pocket, but activism is not as obvious. That’s why I’m doing it.”

Take It Pocket™

It’s a Sign

Jack Huang and his wife, Flora, had just purchased a new car and were trying to sell their old car. “Using plastic ‘For Sale’ signs didn’t interest me because they blocked my view while driving, and they were simply unattractive.” So Jack designed a flier to post on bulletin boards and put up on telephone poles.

Flora, a real estate agent, had several of those bulky acrylic Take One literature holders around the house. “I think somewhere between seeing those holders at home and having just shopped for a car and noticed the metal window key boxes auto dealers use, the idea for a Take It Pocket entered my head.”



Jack cut up some clear vinyl folders into a bunch of vinyl sheets. He then taped the vinyl sheets together and made four prototypes, mostly to try different materials. Jack’s Take It Pocket is a clear plastic sleeve that attaches to a car window. It has two pockets, one that can hold a message and, if you lift the message panel, a second that can hold 8½-by-11 fliers.

Since the car sold right about the same time Jack made the prototypes, he didn’t get to use his product. “The idea went into my drawer of ideas. And for the next three years I didn’t do much with it.”

In late 2005, after leaving his job at Microsoft to start a new venture, Jack was digging through the drawer and found his old Take It Pocket. “I started gathering data about the number of



This invention can be used to sell a car—and also much more . . .

registered cars and the various ways people use fliers, and came to the conclusion that this could become a new way to communicate. Just as Post-it Notes changed the way we communicate, so could my Take It Pockets.”

Jack says he saw his product as more than a silly way to help sell used cars. People could use their parked cars to sell a point of view. For example, his Take It Pocket could be used to elect candidates, raise money for charities, or make people aware of issues.

People he showed his invention to would say, “Are you sure this doesn’t already exist?” But Jack checked—and it didn’t. So he filed for a provisional patent.

Jack regards cancer awareness as a good fit for two reasons: there’s breast cancer in his family and, as it happens, Lance Armstrong’s LiveStrong cancer awareness wristbands are yellow. Jack’s last name Huang means yellow. For Jack, that’s a sign.

“It’s a new way to talk about issues. I love the idea of making a difference . . . to leave something behind that *means* something is powerful for me.”

If you don’t think a few sheets of clear plastic can change the world, Jack Huang isn’t worried. He has confidence in his Take It Pocket. If you don’t agree, it’s an opinion that you can Take It or Leave It.

Jack then started to look for local plastic manufacturing companies that could produce his Take It Pocket. Next, he tested many different car sleeve plastics on his back deck to see which ones could tolerate sun, wind, and rain.

Now, Jack has already manufactured about 5,000 Take It Pockets and is about to launch this product. Instead of pursuing the used car sales route, he’s teaming with *KnowCancer.org* to use his Take It Pockets to raise cancer awareness. “Used car sales is the obvious use for Take It Pocket, but activism is not as obvious. That’s why I’m doing it.”





STAT BAR

PATENT: information not provided,
TM registered

PRODUCT PRICE: \$9.95

STATE: Kentucky

INVENTOR'S AGE: 59

INVENTOR'S PROFESSION: salesman

MONEY SPENT: \$30,000

MONEY MADE: "not enough"

WEB ADDRESS: drinkdeputy.com

"I would love to say we're kicking butt, but we're not."

Drink Deputy™/Travel Mate™/Drink Mate™

"Look, Mom, No Hands"

Denny Kays heard the concerns of a grandma who watched her grandson repeatedly throw his "sippy cup" while her daughter was driving—and then watched with dismay as her daughter repeatedly turned around to pick it up! A crash just waiting to happen . . . but not with our hero Denny around.

He thought about the problem and came up with Drink Deputy, a harness to hold a bottle or sippy cup. If baby tossed the bottle, it would stay tethered to the car seat, stroller, high chair, grocery cart, or whatever. The bottle wouldn't hit the floor and wouldn't get lost.

This 59-year-old had worked in sales all his life, first selling doors and more recently baby photographs. It might have been that baby connection, but whatever it was, he took the idea and ran with it.

It took at least fifty prototypes to find the right design and the right elastic that

would fit most bottles and sippy cups. The memory elastic he found has a ten-year guarantee and won't let even the largest sippy cup slip out. That's a good memory.

After having Drink Deputy evaluated by the Juvenile Products Manufacturers Association (JPMA) and Consumer Product Safety Commission, Denny was ready to put this Deputy on duty.

He initially showed it at a baby fair in Chicago. JPMA and ABC Kids Expo and other baby-kid shows are how he got his business rolling. Buyers liked it, and sales started



Bottle bye-bye no more

to crawl in. Today, an exclusive distributor sells it in twenty-six states and Canada. Specifically, it's sold in baby boutiques, gift stores, hospital gift shops, by Web businesses, and in mom-and-pop stores.

While the Drink Deputy has benefited from free publicity in newspapers, ads in magazines, and TV time, sales have been

just so-so. "I would love to say we're kicking butt, but we're not. We need to have a much bigger advertising budget than we have. That's the struggle. The second is the difficulty of getting it into regional stores—so many stores don't want to deal with a one-item vendor."

The idea of developing a Drink Deputy for adults hit him after giving samples of the Drink Deputy away at a trade show. Later, at the airport, Denny saw at least fifteen people from the trade show with a water bottle attached to their suitcase—using his Drink Deputy!

As soon as Denny got home, he redesigned his Drink Deputy so that it would attach to a belt, suitcase, or purse. The adult Drink Deputy would handle the popular 20-ounce water bottles and accommodate other sizes, too, with a top that fit over the cap, keeping the bottle upright. Denny decided to call this Drink Deputy for adults Travel Mate.

The idea to put various company names and logos on these drink holders came from a cheerleading coach chaperoning girls at a competition. Seeing his Travel Mate, she decided that every girl on the team had to have one "because the publicity would be great for school spirit and it would be a good fundraiser."

Denny began selling the Travel Mate for major fundraisers. He uses a pink ribbon design for breast cancer walks and runs (his wife Penny is a ten-year

breast cancer survivor). Because people carry a water bottle more than they wear a certain T-shirt, the cause's name and logo get more publicity than standard giveaways provide.

Denny's Travel Mate now has the U.S. government's attention. The Department of Agriculture Forest Service is interested in it for firefighters—it's hard to keep them hydrated. VA Health Care sees how great it could be for people in wheelchairs. And the Army and Marine Corps recruiters think Travel Mates would be a better giveaway than their traditional coffee mug and T-shirt.

Denny sent a sample of Travel Mate to 300 random readers of *North American Fisherman* magazine and received an 81 percent approval rating from fishermen. So Denny responded by designing Drink Mate with the outdoorsman in mind. It securely attaches to a chair, tree stand, belt, or backpack. No outdoorsman should ever go thirsty again.

Denny knows the secret to his success is more publicity and he wishes he had the money to buy more ad time. He wanted to go on QVC television, but was told they don't sell baby products.

Denny is still working it and, if he has his way, the Drink Deputy and Travel Mate will find their way into every American home.

Drink Deputy, we copy that, 10-4.



STAT BAR

PATENT: US #6918147

PRODUCT PRICE: information not provided

STATE: New Jersey (but moving to Maryland)

INVENTOR'S AGE: 39

INVENTOR'S PROFESSION: pharmaceutical corporate lawyer

MONEY SPENT: \$200,000

MONEY MADE: "not much"

WEB SITE: diaperbridge.com

"Can't someone invent something that can cover up the sink hole?"

Diaperbridge®

Is the Diaperbridge a bridge too far?

Garrett Stackman could be nominated as Dad of the Year. Not only does he change diapers, this 39-year-old likes it. "I like to be involved. There's an intimacy in doing everything for your baby, even if it smells bad." And it's this strange love of diaper changing that gave birth to Garrett's portable changing station.

The Diaperbridge story started when Garrett and his wife, Lisa, were visiting in Maryland and went to a fancy restaurant for dinner. While there, Lisa took Alex, their three-month-old son, to the bathroom to change his diaper.

Finding no place to change him and realizing it was too cold to go out to the car, she changed Alex on the floor. Yuk. Lisa voiced her anger at the situation when she returned to the dining table.

"There's a perfectly nice vanity in there. Can't someone invent something that can cover up the sink hole?"

"I'm pretty handy," says Garrett, "so as soon as we returned home, I gathered

materials." He laminated pressboard and a stop hinge so that when the Diaperbridge was unfolded, it made a sturdy platform. Then he attached harnesses for the baby and was ready to test it out. "When we

put it over a sink, we realized we were sunk. If the baby grabs the faucets, he or she can get wet—or worse, scalded. And while a baby would be securely affixed to the platform, the platform itself could fall off the counter. The last thing

we wanted was a baby getting hurt." So Garrett made a flip-up panel that covered the faucet, and added additional straps. "I used a 4-point harness to hold the baby in place. Most harness



setups are 5-point, but you need the crotch-point open to change a diaper." Yup, that's a critical point.

Once they had a viable prototype, Garrett and Lisa searched for plastic manufacturers. Through the Internet, they hooked up with a top plastic guy near their home in Morristown, New Jersey. He designed a mold that can make half a million pieces. They started the patent process and the patent was issued on his wife's birthday. "I'm an attorney, but I don't specialize in product safety, so we hired specialized attorneys and a testing firm to make sure the Diaperbridge is approvable and complies with regulations and laws in the U.S."

The next step was to market the Diaperbridge. Garrett participated in three trade shows and got a handful of orders. "I'm normally a pencil pusher in an office, so I don't get to hawk wares to people. But at these shows, nobody got by my booth without getting their hand on the Diaperbridge. . . . It's exhilarating. I'll never forget that experience. I spent several days being a bit of a nut, making the most of every opportunity."

Garrett did get some sobering news while there. "A lot of the big guys said, 'Sorry, but you have to get this made in China; it's too expensive.' I don't want to do that. It's hard to coordinate. I have a full-time job as a pharmaceutical corporate lawyer, and my wife is the director

of human resources at a hotel. We can't just take off for two weeks to do this. And besides, we don't have a distribution channel, such as Target, Babies "R" Us, or Wal-Mart, set up.

"We thought we could do it all and it would sell itself. From the stainless steel pins to the waterproof sticker, every step of the way has been a huge research project. I'm ready to stop getting my hands dirty with this business and be in a royalty situation. Lack of results might just be this product, or the way this particular business works. In pharmaceuticals, people come after the products." It seems there's a world of difference between diapers and drugs, he's finding out.

"We have a PR firm, but it takes a full, coordinated approach to sell a product—website, magazine ads, and a store presence—because people want to touch it. We went for broke trying to get on The Oprah Winfrey Show and news shows. But even when you're on for a couple of minutes, people don't buy your product; they just become familiar with it."

The Stackmans have invested a great deal trying to solve the world's diaper-changing dilemma. "Our costs of \$200,000 have been spread over three years, and we have decent jobs, so it's not killing us." But then there are all those Diaperbridges languishing in their garage!

There's no question the Stackmans are pooped. "I'm a test-tube guy. I can develop the product, but I don't have the marketing ability or penetration strategies to actually sell it." Garrett wants someone to take his patent and bridge his efforts. But even though he's looking for some company to take over his product, he's not giving up. "I believe you've got to take a chance on something you believe in at some point in your life. It's been really fun."

Still, every time Garrett drives by the restaurant in Maryland, he stares at it and thinks, "You either did me a huge favor or you're mocking me, kicking me in the butt." Garrett will cross that Diaperbridge when he gets there.

Baby on board





STAT BAR

PATENT: information not provided

PRODUCT PRICE: \$5.99–\$6.99

STATE: New Hampshire

INVENTOR'S AGE: 59

INVENTOR'S PROFESSION:
print broker

MONEY SPENT: \$25,000

MONEY MADE: undisclosed,
but doing very well

WEB ADDRESS: repillable.com

Re-Pillable Card®

For the Love of Aspirin

“If aspirin, a pill that can open up your heart and thin your blood, were invented today, it would sell like crazy—even for five or ten dollars a pill, and even if it just got rid of your headache. But it’s sold for two cents!”

After reading two articles about aspirin in *Men’s Health* magazine, John was ready to put in his own two cents. One article touted aspirin as the greatest medication ever because it can stop a heart attack without damaging the heart. Two months later, a second article said that aspirin is so important to men’s health that all men should have six bottles strategically placed in easy-to-reach spots hidden just about everywhere.

This struck John as ridiculous, so he wondered, “Where, on a man’s body, could he carry a few aspirin to save his life?” In his pocket, they’d be covered in lint. Wrapped in foil, they’d be just one more thing to forget. Shoes, even penny loafers, were out. A hat? Nope, who wears a hat? And that’s when it hit him—the wallet. Of course! Most men either carry or are close to their wallets 24/7.

So, what fits in a wallet?—money and credit cards. With that, John fashioned a prototype out of cardboard, like a thick credit card. He put it in the front slot but, when he closed the wallet, it got gigantic. Wallets are already too big. “My Irish grandmother in heaven must have guided my hands, because the next thing I did was put it in the top credit card slot. I turned away to take a call, and looked all over for the card. Then I tilted the wallet toward me and my mouth dropped open. I saw the prototype in the fold. There’s room—and enough for two!”

He called his best friend Ken Weinum with his bright idea and Ken, who had the money to back it, said “I’m in.” A patent attorney’s search came up empty-handed, and declared this invention too important to not be out there.

John showed and explained his crude prototype to an injection-molding company. It took a dozen tries on a CAD (computer aided design) program, but finally the design for the Re-Pillable Card was born. Like a credit card with a pillbox across the top, it can hold three pills in the left compartment and two on the right.

Because *Men’s Health* magazine had inspired his invention, John wanted to share his product with them first. After seven months of trying, “We were in it. All of a sudden, we had thousands of hits on our website and tens of thousands of orders. We still get half a dozen a week from that article. People must be reading the old article in doctors’ offices.”

Three months later, *Diabetes* magazine ran an article. The medication for diabetics didn’t fit in the original Re-Pillable Card, so at the suggestion of the editor, John created the Re-Pillable Max Card that fits in most wallets, but not



all. “Since it’s so important to have your medicine with you at all times, if it doesn’t fit in your wallet, buy a new one! Take the Max Card down to Macy’s and try it out; make sure it fits.”

Then John received an e-mail from South America, written all in caps. Someone had bought two, and loved them. Now he wanted to buy hundreds of thousands. John thought, “Yeah, right.” A few months later, the same guy emailed to say he wanted 200,000 and where did John want the money transferred? John was still skeptical, until the funds hit his bank account a few hours later. His next e-mail showed what this customer wanted the 200,000 Re-Pillable Cards to look like: pewter gray, not John’s blue, with an engraving of the Bayer logo and, above that, the Levitra name and flame logo. Between the logos was a tagline in Spanish.

These went to Mexico City for Bayer Mexico. “They could order millions now. I wanted it to be aspirin, but my first hit was for ED (erectile dysfunction) pills.” John might still make it big with the aspirin makers soon. He is talking with Bayer Aspirin U.S. about plans to shrink-wrap the Re-Pillable Card as a value-added incentive to not buy generic.

The Re-Pillable Card is really catching on now, and each time a new chapter unfolds in the Re-Pillable story, it’s told in the local Nashua, New Hampshire,



Keeping aspirin next to credit cards: makes cents.

newspaper, where John is a hometown hero. “Here’s this little guy from New Hampshire exporting American-made products to Mexico. My congressman should be patting me on the back. That’s how NAFTA is supposed to work, as a two-way street.”

John has already sold well over 400,000 cards and was in the black after the first year. John and Ken’s initial investment of \$25,000 paid for the first mold and they’ve kept it rolling from the sales that came in. They now have four molds, so they can make 250,000 cards a week. “*Men’s Health* was the key to everything: our initial sales, *Diabetes*, and Levitra. And we haven’t even spent a nickel on advertising.” At 59, this former print broker says he might retire yet. Not a bitter pill to swallow, eh?



STAT BAR

PATENT: US #5823486 as Universal Flexible Arm; TM as Mother's Third Arm

PRODUCT PRICE: \$19.95

STATE: Arizona

INVENTOR'S AGE: not saying

INVENTOR'S PROFESSION: homemaker

MONEY SPENT: \$300,000

MONEY MADE: still in the red

WEB ADDRESS: 4innoventions.com

"Sales are great. I'm holding my own."

Mother's Third Arm™

Armed and Ready

What mother hasn't wished for an extra set of hands, especially during those tough infant and toddler years? Margo Smith, mother of five and grandmother of eleven (blending families with her husband, she has a total of twenty-six grandchildren) knows this wish all too well.

When you're a mom in the trenches, being armed with a third arm could give you that extra hand to win the baby battle. And this grandmother wanted to help mothers everywhere.

Margo wanted to make something that would hold baby bottles, sippy cups, and toys, and would attach to car seats, strollers, tables, high chairs, and shopping carts. She went to stores and confirmed that nothing like this was in the marketplace. Next, she did the patent search, then the prototype construction, and finally did focus group testing to get the public's opinion. The focus groups loved her invention. Margo was ready to move forward.

Sometimes in product development, an invention takes on a life of its own. The inventor recognizes one user group for the product, but the public sees another user group. That's what happened with Mother's Third Arm. This baby product found its way into the arms of wheelchair users and their caretakers, who have embraced Mother's Third Arm and the independence it provides. If wheelchair-bound children can move their heads to where the cup is held, they can sip from a straw. Margo says, "A product is either a need or a want. For mothers who have a child in a wheelchair, Mother's Third Arm is a need." And they're grateful to have this need met.

Margo thought of the idea in 1996, got her patent two years later, and then had 10,000 manufactured in



Hands down, a smart idea

Phoenix. She brought her costs down by getting 20,000 made in China. Out of those 30,000, she only has 1,500 left. Mother's Third Arm is not sold nationally, but an earlier model was—through Toys "R" Us, Baby Depot, and other outlets. That one-size version broke when people tried to put different size cups in it. So Margo took it off the market and improved it to hold various sized bottles and cups. She has been selling it through catalogs, the Internet, and her office in Phoenix, as well as giving away thousands to children's disability charities.

Margo hopes that, before long, her invention will be in all the stores and on the Home Shopping Network. She is working with a big company that has plans to take Mother's Third Arm all over the U.S., Canada, and Europe. "I've

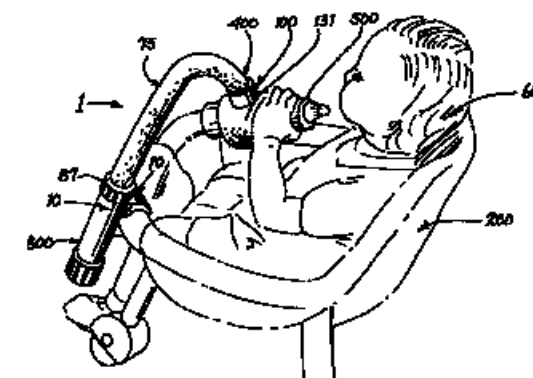
been looking for these people for a long time. Instead, they found me through a website." If the deal goes through, Margo will no longer be responsible for manufacturing Third Arm. Instead, the big company will make the product and the patent will remain in Margo's name. Margo says that, if it happens, she'll rest easy in the arms of this deal.

Last fall, Margo entered Mother's Third Arm in Proctor & Gamble's achievement contest, and out of 400 products, it came in third. Do you see the irony here? Mother's Third Arm came in third. And it turns out, the contest brought in more than just kudos. "Target is very interested, as is Canadian Tire."

To get Mother's Third Arm this far, it has cost Margo an arm and a leg. She's spent about \$300,000 over nine years and is now more than eager to get out of

the red. "Sales are great. I'm holding my own. But I'm still putting my own money into it." She lost a bundle through scams. "I was scammed by three companies. As soon as I got my patent, a company said that for only \$5,000 it would help me get my product out. Companies like these don't do anything for you but take your money. And it's too small an amount to sue over."

Through it all, she's had the unfailing support of her husband, family, and friends. "The first few years, everybody was happy for me. Now when I see friends, I wonder if they're afraid to ask, thinking, 'Oh dear, is it still going?' No one ever told me I was crazy. People



might have thought it, but they haven't said a word."

Whether Mother's Third Arm makes it or not, when you see the effort Margo has put into her invention, you just have to stop and give her a big hand.



STAT BAR

PATENT: pending

PRODUCT PRICE: probably between \$100–\$200 (power pack itself goes for \$70 wholesale)

STATE: New York

INVENTOR'S AGE: 40

INVENTOR'S PROFESSION: baby strollers customizer, limo driver

MONEY SPENT: a lot

MONEY MADE: nothing yet

WEB ADDRESS: theairguardian.com

"My son is now four years old and hasn't wheezed a day in his life!"

Air Guardian™

Air Today, Gone Tomorrow?

Hal Koch is one devoted dad. And his son Kyle is one lucky kid. Having suffered with asthma and coming from a family with respiratory problems including emphysema, Hal wanted to protect his son from developing breathing problems.

When Kyle was brought home from the hospital, the nurses said that he was not to go outside for the first month. Concerned about air quality, Hal surfed the Internet and learned that our air is not as clean as we think. Every year, over 10 million school days are missed and billions of dollars are spent on medical costs because of air pollution in this country. Hal learned that if a child's immune system is impaired early, it sets the stage for problems down the road.

And it is on the road that Hal focused on air issues. He wanted to protect his son's developing lungs. "People were having heart attacks from driving behind cars blowing exhaust in their faces. Every mode of transportation these days has an in-cabin air filtration system. The type of transportation that needs air filtration the most is the baby stroller."



Born and raised in Queens, New York, Hal saw parents using covers on their strollers even on nice days, worried about fumes from buses. Keep in mind that most kids sitting in strollers are breathing right at tailpipe level, so they are getting doused with diesel exhaust. Even away from the city, Hal saw many

parents taking their kids to the school bus while a younger sibling waited in a stroller. These siblings would wave goodbye, then get a blast of bus exhaust blown right in their faces. Yuck.

So, along with customizing Kyle's stroller with, get this, mag wheels, headlights, taillights, undercarriage lights, rearview mirrors, DVD player, speedometer/odometer, temperature gauge, a cell phone holder and charger (because no parent should be caught without a cell phone), and a solar panel to keep everything charged—Hal invented the Air Guardian to filter the air Kyle breathed. "My son is now four years old and hasn't wheezed a day in his life!" I'm sure Hal breathes a sigh of relief over that.

Hal's first prototype came together in a day, with the help of his then two-year-old son, who put the O-rings on the tubing. Hal went to Home Depot, grabbed selected items off the shelves, and put them together. He named the first unit the Air Octopus because the ventilation tubes looked like an octopus's arms. Deciding this design was too big and bulky, Hal bought more things from Home Depot and made a few more prototypes. The result is the Air Guardian, which is about the size of three cassette tapes. It attaches to the inside of an enclosed stroller, car seat, or bike trailer. The fans in the Air Guardian draw

contaminated air through filters that, according to Hal, scrub the air clean up to 99.7 percent. The clean air is then blown toward the baby's face, like a breath of fresh air.

Hal says everybody in the whole world supports his invention. Hal took the Air Guardian to the Yankee Invention Expo and it proved to be the star of the show. A month later, he was on *The Tonight Show with Jay Leno* for his "Pitch to America." Kyle arrived at the show in his souped-up stroller. The audience got to vote—is the Air Guardian a likely "sell" or "no sell." They voted it "a sell." Hal's next big move was a spot on ABC's *American Inventor* show. He's gotten some impressive airtime.

Hal was motivated to take the Air Guardian to market after he lost his job as a limousine driver two years ago, but he has always landed on his feet. Now he's customizing strollers.

"The Air Guardian is not on the market yet, but it is patent pending. People come up to me wanting to be an investor on this project. But I have perfect credit and I'm not looking for just the money. I need someone who can help me with research and development,

someone who has the knowledge to bring it to market."

Hal has worked out most of the details; he even has a product motto: The Air Guardian: Bettering the Quality of Life for Our Little Ones.

With any luck, the right guardian angel will partner with Hal and together they'll protect the next generation's lungs. But right now, it's still up in the air.



On the Go] 21 [



STAT BAR

PATENT: #669863

PRODUCT PRICE: \$11.95

STATE: New York

INVENTOR'S AGE: 61

INVENTOR'S PROFESSION:
businessman

MONEY SPENT: \$300,000–\$600,000

MONEY MADE: undisclosed

WEB ADDRESS: orthotote.com

OrthoTote™

Strapped for Cash

Every business traveler knows the drill. You're running through the airport looking for a gate, ticket clutched in your hand. As you weave in and around the other travelers, you can feel the strap of your travel bag slowly slipping off your shoulder. What a pain. My own solution would be to just work out more and have bigger shoulders. David Finkelstein had another idea.

David's shoulders also would not hold the strap of his travel bag. "Every five feet I walked," he remembers, "the bag fell off my shoulder. It was very annoying." This inconvenience spawned an invention, and ultimately a new career for David, a businessman who never dreamed that, at age 61, he'd be an inventor.

David graduated with a degree in accounting in 1967, but "I always hated it," he says. "I have a creative bent, and accounting is the opposite of that." So after three years in accounting, David went into the medical supply business, where he stayed for thirty-five years and was successful enough to eventually finance his invention.

Now, let's go back to the airport, where a frustrated Finkelstein fought to

keep his bag on his shoulder. David considered the problem and realized he needed to reverse the power of gravity, which was pulling the bag down the slope of his shoulder. He devised an attachment to a shoulder strap that would reverse the downward angle of the shoulder. The OrthoTote was on its way to arriving at airports everywhere.

"I drew up pictures and went to an intellectual property attorney. This was before September 11, 2001. It took two years to get the patent back. I got a utility patent, which is better than a design patent."

David took his drawings to an engineering firm to produce prototypes, all financed out of his own pocket. "It took twenty-five changes. It was like Goldilocks



Shoulder a heavy load

and the Three Bears—this version was too soft, that version was too sticky."

David says he was "blown away" by how long the process took. He would wait six to eight weeks to receive a prototype from the engineering firm, only to see within minutes that the version was flawed. Then he'd have to wait several more weeks for the changes to be made.

Throughout the process, David's two daughters served as "test pilots" for OrthoTote, giving him frank feedback. He left his medical supply business to concentrate fully on the OrthoTote, and enlisted the partnership of his lifelong friend, Brian.

In mid-2005, test runs complete, the OrthoTote was finally ready for its debut. "I decided to manufacture it fully in the U.S. Although I probably could

have saved money going out of the country, I believe that products made in the U.S. are the highest quality.

"I didn't have millions to spend on advertising," David explains, "so I went to the library and found a listing of all the magazine editors that I thought might have the slightest interest.

I sent each one a letter, a sample, and a photo. As a result, the OrthoTote was written up in eight or ten magazines."

David Finkelstein is proud of his product. His goals for the future of the OrthoTote include developing special versions of the product for women's handbags and for backpacks, as well as getting into a contractual agreement with the post

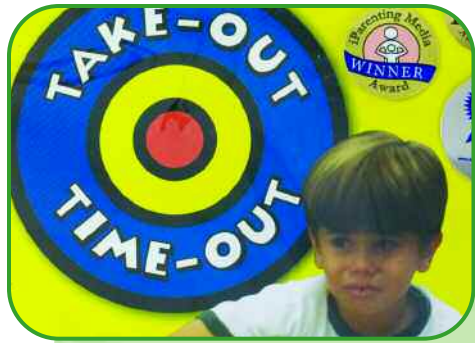
office to get an OrthoTote on their carriers' bags.

Looking back on the process, this grandfather of nine reflects, "The roadblocks along the way for an inventor are tremendous. The money, the work, the time it takes—it's all much more than I thought. It takes tremendous perseverance."

But it has also been tremendously fulfilling. For David, becoming an inventor has been the realization of a dream he didn't even know he had. In creating the OrthoTote, a product which he insists "won't change the world, only yours," David has indeed changed his own world.

No question that getting OrthoTote to market has been a haul, but luckily David's OrthoTote makes heavy tasks a little easier.





STAT BAR

PATENT: information not provided

PRODUCT PRICE: \$12.99

STATE: South Florida

INVENTOR'S AGE: 36

INVENTOR'S PROFESSION:
full-time mom

MONEY SPENT: \$120,000

MONEY MADE: has made some back,
but still in the red

WEB ADDRESS: take-out-time-out.com

"Once the product hits the market, you're building a reputation. It took a lot of time, but it's paying off."

Take-Out-Time-Out® Mat

Because Bad Behavior Happens Away from Home, Too

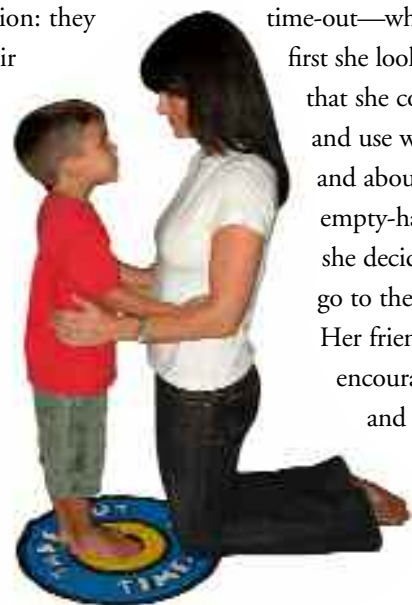
Being a mom is a full-time job, especially when you have two little ones. Lisa Bogart Carvajal knows parenting stress. This South Florida mother has two boys, now aged four and six. When her oldest hit the "terrible twos" and she had a baby in tow, Lisa had her hands full.

Lisa wanted to make sure she managed this stage of their lives without losing her mind—or losing control. After researching parenting books, she found that the "time-out" method was the most successful. You know the drill: Your kids do something bad and you give them a "time-out." Translation: they have to sit on a chair in their room for a few minutes as punishment for their crime.

But who stays home all day? And kids don't save their misbehavior for when they're at home. It didn't take long before Lisa realized that "time-outs" in public weren't

working. Her kids saw the weakness in the system, too. It was as if they were thinking, "Ha, ha. I can do whatever I want." It got really ugly.

Not wanting to be beaten by a two-year-old, Lisa decided that she needed to provide a place for them to sit during time-out—wherever they were. So first she looked for a fold-up chair that she could carry around and use when they were out and about. She came up empty-handed. That's when she decided she needed to go to the mat for a solution. Her friends agreed and encouraged her to design and patent the very item she was shopping for.



Lisa worked on product development for eighteen months. After coming up with a mat design, she involved focus groups and tested different materials, sizes, and portability. With some materials, kids would slide the mat around. Not good. After all, time-out isn't sit-and-spin-around-on-the-floor time. Lisa's time-out mat could not be fun.

Lisa found what she was looking for in mouse pad material. The rubber bottom keeps it in place, and if it's left on the floor and someone steps on it, he or she won't slip and fall. The material folds easily and can be stuffed into a purse or bag. Also, it's waterproof, so if you're at the mall and the floor is dirty, or at the playground and the ground is wet—who cares! You've got a clean, dry spot for your child to sit. This material is incredibly durable. Lisa knows; she's been using the prototypes for three years. She washes them in the washing machine frequently and they still look brand new.

"The Take-Out-Time-Out (TOTO) has not only helped me when we're out, but it's helped me at home. I've been able to be consistent with the time-out spot because I'm able to move the spot. Now, if I'm cooking dinner and one of my boys shows unacceptable behavior, I just place the mat on the floor next to me in the kitchen. If I'm working on the computer, I place the mat next to me at my desk. I don't need to stop what I'm

doing. TOTO has simplified my life. My discipline method is consistent, and my kids' behavior has improved as a result. I keep one in my purse, one in my car, one upstairs, and another downstairs."

Lisa tried four different manufacturers to find a source that could make a good product quickly and efficiently. She wanted to keep it in the U.S. but it would have tripled her cost, so she's manufacturing the TOTO overseas. The amount she's invested almost makes her want to cry and, at six to eight hours a day, the mat business is a full-time job added to her already full-time mom job. "Ironically, though, without TOTO, I couldn't do it—it wouldn't work, or I'd be neglecting my parenting, which I don't want to do."

Lisa's sales background and entrepreneurial bloodline (her grandfather and father each started businesses) keep her going. She tested the TOTO with mom's groups when going through product development. She recognized this as a crucial step, saying, "Once the product hits the market, you're building a reputation. It took a lot of time, but it's paying off." Once she had the product, she focused on advertising and the press. Then, after getting the word out, she worked on distribution. Getting it into retail stores has taken some work because it's an entirely new product. So she's focusing on building



"Think about what you did."

the awareness. After that, she'll work on branding.

Over the years, competitors stole her idea and even lifted her website copy verbatim. Her husband, Joseph, warned her to be prepared, that others might imitate her idea. The best approach is to take every imitation as a compliment. Her job is to focus on keeping the lead. Lisa has also found that imitations help build awareness, educate consumers, and increase customer base—she's working hard to be sure it stays her customer base.

Lisa has put a great deal of time and money into her TOTO mats and she's not giving up. Lisa is in this for the long haul and there are no time-outs in sight.



STAT BAR

PATENT: US #6688027-B2
(Feb. 10, 2004)

PRODUCT PRICE: \$9.95

STATE: New York/Massachusetts

INVENTOR'S AGE: 45

INVENTOR'S PROFESSION: service
station manager, tow truck driver

MONEY SPENT: \$100,000

MONEY MADE: "may have made
about \$10,000 back"

WEB ADDRESS: marketlaunchers.com

Roadside Message Board™

Frustrated Inventor, Sign Here

As a manager of an Exxon service station and a tow truck driver for fifteen years in New York, Fred Fink saw his share of cars abandoned on the side of the road. (Fred says AAA estimates 25 million breakdowns a year in the U.S.) Fred has spent countless hours talking with police officers who stopped at his station, trying to find the owners of abandoned cars.

In today's go-go world, stranded motorists no longer wait for a tow truck. They use their cell phones to call a family member or friend to pick them up and get them where they need to go. Most figure they'll take care of the car later. But they can't take care of a car that's gone. Police ticket or tow abandoned cars—unless the driver has left a compelling message.

Seven years ago, Fred invented the Roadside Message Board as a handy, portable way for stranded drivers to get their message out—before it's too late. It's a license-plate-sized board that fits in the glove box, under a seat, or over a visor. Its two suction cups hold it to a car window or on the dashboard. It comes with ten prewritten messages

that can be displayed on the message board. It also comes with a dry erase marker so drivers can write their own message on the board. There's even an emergency flasher that can be clipped to the sign or worn as the carless motorist walks along the road.



The preprinted messages Fred chose are the most common ones he encountered as a tow truck driver. These phrases of desperation were often scribbled in crayon or lipstick on a napkin or on the back of a receipt. The messages read like titles from a series of roadside sleazy novels: Car Trouble, Battery Dead, Out of Gas, Flat Tire, Overheated, Went for Help, Please Do Not Tow, Please Do Not Ticket, Be Back in __ Minutes, and—in case someone is just looking to get rid of the car—For Sale.

Fred knew the secret to success would be promotion. To keep costs down, he had his product manufactured in China, spending \$15,000 for a mold and placing a large order of 10,000 units. The product arrived from China in pieces; then Fred hired companies that employ handicapped people to do the assembly work.

His first prototype was a flasher with a belt clip. Then he glued the flasher onto the board. But the handicapped workers weren't allowed to use glue because it might impair them. So he went back to his drawing board and came up with the solution. Fred modified the board to hold a clip-on light. That was just the ticket to keep his customers from getting a ticket.

At first, his family and friends were very excited, but didn't realize how much it would cost to proceed. Overall, he has spent \$100,000 in the last seven years. It

*Just about all
car calamities
are covered.*



took five years to receive the patent at a cost of \$10,000. (He was told it would cost \$5,000, but it got rejected the first time and had to be resubmitted.) The mold cost \$15,000. Liability insurance costs \$2,000 a year.

With the bills adding up, Fred recently decided this venture was experiencing its own emergency. "I'm lucky if I make 50 cents per piece," he said. After paying for the patent, making the mold, manufacturing the product, traveling to conventions, incorporating, and keeping liability insurance, there's not much left in profit for this idea man. So after selling 9,200 of the 10,000 units he had made, Fred closed his corporation because it took too much money to keep

the business running. If he wanted to promote the Roadside Message Board, he'd have to spend more money to travel and hire salespeople.

At this point, Fred is waiting for people to contact him. He thinks it would be a great giveaway for car insurance companies. And the board provides a space to promote a product, leave a message on a store window, or occupy kids in the car with a game of tic-tac-toe. He's looking to sell the remaining Roadside Message Boards. He has them on a website, MarketLaunchers.com for \$9.95. His dream is that a company will buy the mold and give him royalties. He's ready to walk away from it—much like the motorists he's tried to help.



Walk-O-Long™

A Step in the Right Direction

Inventors can be inspired by anything. Usually, a problem that begs for a solution gets an inventor thinking. For Jeff Zinger, necessity was truly the mother of invention. He had just undergone back surgery, but his 10-month-old daughter, Faith, didn't understand that. She wanted to pull herself up and walk. Faith really didn't care that her dad couldn't keep bending over to help her. What was Jeff going to do?

STAT BAR

PATENT: US #2006/0150921

PRODUCT PRICE: \$24.95

STATE: California

INVENTOR'S AGE: 40

INVENTOR'S PROFESSION: plumber

MONEY SPENT: \$150,000

MONEY MADE: "still in the red, maybe breaking even"

WEB ADDRESS: thewalkolong.com

He saw Faith's nanny use a towel to hold Faith and Jeff thought there has to be a better, safer way. The former plumber went to a fabric store and made the prototype for the Walk-O-Long. His first prototype was his last. It worked.

The Walk-O-Long is a spongy fabric tube that fits around a child's chest and under his/her arms. It allows a parent to stand up tall and still have a firm grasp on the child. In fact, Jeff says that he

used the prototype Walk-O-Long for thirty to sixty minutes at a time, and in about five days, Faith learned to walk. As people started to see Jeff and Faith using the Walk-O-Long at restaurants, Disneyland, shopping malls, and grocery stores, he would get questions about where they could buy one.

Ding! The lightbulb was on. Jeff realized that his Walk-O-Long might not only help his daughter walk; it



could also help this plumber with a back problem take the first steps toward a new career—and get him back working. So he started the process of filing the patent paperwork for the Walk-O-Long. His parents and his wife's parents were very supportive. Even though his brother and sisters and his wife's brother and sisters made fun of the idea, that didn't stop him.

Jeff spent the next year working on packaging and advertising. He thought



Taking a toddler for a walk

it was only appropriate that he use his daughter's face as a logo. After all, it was because of little Faith that the Walk-O-Long was invented.

In its first four months in stores, Jeff tells me he sold about 2,000 Walk-O-Longs. They sell for about \$25 each, so you do the math. Despite the sales, Jeff says he is still in the red.

Once the Walk-O-Long got placement in stores, a funny thing began to happen. Jeff found his product had more uses than he could have imagined. Parents could use it to help their children down a playground slide; it could help a child get used to being on ice skates; it could even help when caring for kids with special needs. Recently, Jeff has been in talks with child disability educators at the University of California, Irvine, Children's Hospital of Orange County, the Foundation for the Junior Blind of America, and many parents of children with cerebral palsy.

Who would have guessed that material wrapped around a foam tube could be so handy? I guess you just have to have a "little Faith."





STAT BAR

PATENT: information not provided

PRODUCT PRICE: unknown

STATE: New York

INVENTOR'S AGE: in his 70s

INVENTOR'S PROFESSION:
building maintenance supervisor

MONEY SPENT:
"thousands and thousands"

MONEY MADE: \$0

WEB ADDRESS: none

"I come up with three new inventions a month."

Umbrella Article Holder™

Ready for a Rainy Day?

In his 70s, Clarence Thomas (not the Supreme Court Justice) is a self-labeled "master" inventor. His sister calls him a "fanatic junk man." His patent office must call him a "regular" as he has 235 patents for all kinds of gadgets. That's right, 235 patents. Clarence says that people love them, but won't buy them. He was in the patent office with a germ catcher—"whatever you touch, it's covered with germs"—when I caught up with him.

"My attic, garage, and house are filled with these things. I'd like to sell at least one. I come up with three new inventions a month." The Umbrella Article Holder is one such idea that came to him on the way to his job as a building maintenance supervisor on Wall Street. He likes to read the newspaper while walking down the sidewalks of New York City. The weather isn't always sunny, so he often carries an umbrella along with the newspaper. He found it inconvenient to hold the paper with one hand and the umbrella with the other. So he decided to make something that would serve as an extra hand. Who hasn't wished for an extra hand from time to time?

The Umbrella Article Holder has a strap, similar to a blood pressure cuff, that fits around either leg and lets you insert an umbrella so it stands straight up. After he created that, he decided something else should be added, so he created a device for the handle of the umbrella. It's a square that covers half of your arm with a compartment to hold a coffee cup or a soda. Drinking his coffee, he decided to put a cigarette pack holder on it. And, of course, that led to needing a cigarette lighter near the pack, and for some reason a ballpoint pen. The pen might have led him to think of writing lists, because the next addition was a device that attaches to the arm square to hold a three-pound bag of groceries. And



It's not just for umbrellas.

if you're shopping for groceries, you might wear a coat—so he added a device that will hold a short coat, like a suit coat. And if you need a coat, it might be because it's raining, so you need an umbrella . . . you get the idea.

It took Clarence three tries to get the first version to work with a curved-handled umbrella, making it fit without throwing the user off balance. Then he had to make a different version to fit straight-handled umbrellas.

Clarence had a factory in New York City make seven prototypes. They came

out beautifully, but the cost was exorbitant—\$152 for each unit. "I'd have to sell it for over \$300. Who's going to buy it for \$300? Nobody. Unless I was a celebrity." Then he went to the Yankee Invention Expo in Connecticut and met someone who said he could make it in China for under two dollars. "I couldn't believe it. I thought he was playing a trick on me.

"I've lost over \$50,000 on the last ten of my inventions. An innovator in Wisconsin put one on the Internet for two years. He was going to sell the product, but didn't get a single call. I found out that it's not worth it and decided that instead of playing it that way, I'd try this guy and spend my money in China.

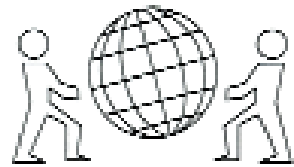
So I sent him one of the seven prototypes I had made. It took several months; I just got it a month ago . . . I had spent \$800 to have Made in America labels made—now I can't use those. I'll be fined if I do. I'll have to put the American labels aside and have the new manufacturer make a label that says Made in China."

Clarence is now ready to mass-manufacture his Umbrella Article Holder. "At my age, I can't keep playing around. I must get things moving or my ideas won't get out. My wife

wouldn't know what to do with these inventions if I died. I'm getting frustrated. I've spent money for a number of years, and had no return. I just want to sell one of my inventions before I leave this world. Get paid and move on. That's what I'm wishing for."

Clarence believes in his Umbrella Article Holder. After all, it gives users a free hand. You've got to hand it to this inventor; he is the real article.





STAT BAR

PATENT: US #6729511

PRODUCT PRICE: \$59.99 for Light Duty, \$300.00 for Heavy Duty

STATE: Washington

INVENTOR'S AGE: 29

INVENTOR'S PROFESSION: business owner

MONEY SPENT: not saying

MONEY MADE: not saying

WEB ADDRESS: shoulderdolly.com

"I needed investors, so I moved to where people with money live—Aspen, Colorado."

Shoulder Dolly®

Hello, Dolly

They tell us we should all lift with our legs, not our backs. Thomas Dent III found a way to lift with his brains.

This 29-year-old entrepreneur financed his college education, two degrees in economics and sociology, by moving appliances. While on the job, he decided there had to be a way to make carrying heavy appliances a little less backbreaking.

Thomas experimented with straps going under the appliance to allow two movers to lift it while in an upright position. "This way, the larger shoulder and leg muscles lift the weight, decreasing strain on the lower back, hands, biceps, and forearms. Moving large objects becomes easier and safer. Plus, the hands are freed up to guide the appliance rather than hold it."

The strap system worked. Thomas named it the Shoulder Dolly and used it

at his job to lighten the load, making heavy appliances much more mover-friendly. His system even allows a 100-pound woman to lift a full-sized refrigerator. OK, put down the refrigerator. We get the idea.

When it was time for grad school, Thomas put his straps away to pursue a master's degree in international economics down under. "I only lasted five months in Australia. I just couldn't get this idea about developing the Shoulder Dolly out of my head. My dad thought I was crazy to come back to the U.S. and chase what he thought was a get-rich-quick idea. But I had to. And once he understood what I was doing with it, he became very supportive."

At age 23 and carrying \$40,000 in student loans, the inventor of the Shoulder



Dolly was strapped for cash. "I needed investors, so I moved to where people with money live—Aspen, Colorado. I even slept in a tent the first summer I was there, before I could get established."

Once again Thomas got a job doing what he knows best—moving appliances. He started to work for a high-end appliance retailer Contract Appliance Center in Glenwood Springs, about forty miles from Aspen. Naturally, he used his Shoulder Dolly prototype on every haul. Not only did the shop owners, Tom and JoAn Knipping, love the Shoulder Dolly, they became backers of Thomas and his invention. David Cook, editor of the *Aspen News*, also got interested and so did Craig Wilkening, an account executive with an appliance manufacturer. In 2001, they formed TDT Moving Systems, Inc. to launch Shoulder Dolly.

"I put in a lot of effort applying for a provisional patent. I did the description and drawings, and wrote it up as perfectly as I could. Once I got these investors interested, I hired a patent lawyer to apply for a utility patent." That was the first hurdle Thomas has had to shoulder.

Next, he started participating in hardware trade shows—dozens of them—across the U.S. and Canada. People were impressed with his Heavy Duty Shoulder Dolly, but priced at \$300 each, he couldn't sell a large quantity of them. "No matter how marvelous and efficient



Portable TV?

they are, I had few repeat sales. Because the Shoulder Dolly is so strong and durable, they don't wear out."

Thomas realized he needed a Shoulder Dolly designed for a wider range of consumers at a lower price point. "In effect, I made a knockoff of my own product. I call it Light Duty." This lighter-weight product is manufactured in China and sells for \$59.99 through hardware retailers in North America.

The biggest and best exposure happened when Light Duty debuted on QVC shopping network. Thomas now plans to create and air infomercials, starting in small-city markets. He'll test-market them before spending larger sums to run infomercials in larger metropolitan markets.

Early marketing, publicity, catalog, and website exposure have resulted in

selling 20,000 units of Light Duty since it was introduced in 2003. "We have fifty distributors for the Light Duty version in just two-and-a-half years, plus it's sold through Northern Tool and Harbor Light catalogs."

TDT Moving Systems is now headquartered in Vancouver, Washington, where Thomas and his girlfriend Brenda Castine, who works full-time in the business, moved to be closer to his family. The growing company now seeks investors to go international. "We do have distributors in other countries and are looking to file patents in many of them." It looks like Thomas Dent III has found the Shoulder Dolly to be not only an uplifting and moving experience, but also a weighty career.



STAT BAR

PATENT: pending

PRODUCT PRICE: \$900 for automatic version, \$300 for manual version

STATE: Massachusetts

INVENTOR'S AGE: 71

INVENTOR'S PROFESSION: product designer

MONEY SPENT: \$20,000

MONEY MADE: \$0

WEB ADDRESS: easydown.com

"A panicky person with no training should be able to use it safely."

EasyDown™

Easy Down, for Those Hard Up for a Way Out

Did you know that fire departments' ladders can only go up to six floors—and only from a side street—and only if the fire trucks get there in time?

After the tragedy of 9/11, it's no surprise that a colleague of Herb Loeffler's, Ivars Avots, recognized the need for a means of escape from tall buildings if the normal exits, such as stairs and elevators, aren't available. Looking through newspaper articles about tragedies, however, he discovered that the need for an escape route isn't a rare occurrence. People get trapped not only in 100-story buildings, but also in eight-story buildings. Ivars had a vague idea for a solution, but didn't have the technical background to make it work. He needed an engineer's brain and an inventor's heart to take this leap with him. He found that in co-worker Herb Loeffler.

Both men worked for a Boston-based industrial research company before the company closed its doors. Herb, an MIT graduate in mechanical engineering who

also has a degree in industrial design, now a 71-year-old, semiretired product designer, became the brains of the operation. The project was funded by the idea man and another colleague of the Boston firm.

Concluding that a market exists for an individual "descender" device that required only minimal skill to operate, they worked off a rappelling model that mountain climbers use. But while mountain climbers are trained to manage the speed of descent, the average person isn't. Another issue: rope is heavy. One thousand feet of rope is strong enough to hold the weight of a single person, but weighs more than a person can lift. A thousand feet of cable has the same strength as 100 feet of rope. So they went with cable.

The next step was deciding what to put the cable on. Mountain climbers throw their ropes over the side of the cliff and use a device to slide down. That's not practical for this use. Herb explains, "The cable needed to be on a reel with speed control—something that could sense the speed and apply the right amount of friction so the thing couldn't run away with you. A panicky person with no training should be able to use it safely."

As a product designer, Herb kept it simple. For the automatic model, he used a centrifugal clutch, as in snow blowers and chainsaws, to provide the speed control necessary. When the user goes faster, the clutch puts on the break harder. For the manual model, Herb added a handbrake for starting and stopping. A knob releases the cable. As you crank in one direction, it lowers you down; if you stop cranking, it stops



moving. You aren't actually cranking your own weight; you're just releasing a clutch. Because you can crank only so fast, the handbrake provides speed control. The crank also allows you to get used to how the harness feels while dangling out of the window before letting go of the brake. Then you can go down gently. Easy does it. Hence the product name—EasyDown.

Just the thought of having to use a product like this one has me shaking. But I guess if I were trapped, I would learn to love my EasyDown.

The manual model comes in at a third of the cost and half of the weight of Herb's automatic model. "The manual model is the device of choice from five to ten floors. Any higher and you'd want the automatic model. No one would want to crank that far in an emergency. And with its lower price, the manual model is where the market would go. But our biggest concern is that people don't want to think about safety."

It's a serious concern—after all, we humans don't like to think about our own deaths, much less prepare for them. But even if individuals don't want to contemplate mortality, companies do. Herb sees a potential market with companies that sell safety equipment to firefighters or miners, for example.

Easy does it with EasyDown



The team applied for a patent two years ago and have had some action on it. They haven't gone into production, but a partially completed design proves they can manufacture them at a moderate cost. To make it cost-effective, they envision producing 5,000 units. At 100,000 units, the price would be cut in half.

The fact that we might ever need an escape product can be depressing. But the probability that it might save our life, well, that's the upside to EasyDown.