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ENTHUSIASTIC SUCCESS

Enthusiasm is the perfect complement to dedication when you are goal planning. Goals are critical to the success of any business, organization or family. Many people wish for success but never commit to the next step of developing a timeline and an action plan to guide their goals to completion. That is where dedication comes in. Being dedicated to a goal is never losing sight of its purpose as well as an unwavering commitment to always move forward.

In this issue of *BOSS* magazine, we highlight the late college basketball coach Jim Valvano, or Coach V, as he was affectionately called. Coach V added the extra ingredient of enthusiasm in setting goals throughout his life. Being dedicated is necessary, but if we can add enthusiasm to the mix, others will want to join us. A positive and enthusiastic leader is essential for a true team effort.

I have seen leaders with great job knowledge, work ethics and book smarts who never seem to rise above "OK" in their careers. People want to follow a leader who is self-confident and supports a can-do team environment every day. Let's pursue our goals with enthusiasm!



TRIVIAL MATTERS





DID YOU KNOW THAT...

Romans worshipped Cloacina, the goddess for Rome's sewer system, and Cardea, the goddess of thresholds and door hinges.

Ed Lowe invented kitty litter but never owned a cat.

The Andromeda Galaxy, which is about the same size as our Milky Way, may collide with us in around 3 billion years, forming one huge elliptical galaxy.

Investor, entrepreneur and philanthropist Warren Buffett began his illustrious career by collecting and selling lost golf balls.

Fish sometimes cough underwater.

Hostess bakers churn out 1,000 Twinkies per minute. The shelf life of a Twinkie is about 45 days.



The proud American motto E pluribus unum, Latin for "Out of many, one," was originally used by Roman poet Virgil to describe salad dressing.

Adult crocodiles can go an entire year without eating a single bite.

Sodium lauryl sulfate, toothpaste's foaming detergent, affects the taste buds on the tongue by suppressing their sensitivity to sweet tastes and enhancing their sensitivity to bitter and sour tastes, making orange juice taste yucky.

Harvard is the oldest university in America. Washington College in Chestertown, Md., is the 10th oldest.

To attract a female snowy owl, the male dances around swinging a dead lemming from his beak.

Medieval Christians especially enjoyed beaver tails on the days when it was forbidden to eat meat. Because beavers lived in water, they were classified as fish.

McDonald's McSpaghetti is a plate of spaghetti tossed with a sweet tomato sauce, chunks of hot dog and powdered cheese, served in the Philippines.

The Book of Bizarre Truths

The average dog runs about 19 miles per hour.

ON THE LIGHTER SIDE

I was in a couple's home trying to fix their internet connection. The husband called out to his wife in the other room for the computer password. "Start with a capital S, then 123," she shouted back. We tried S123 several times, but it didn't work. So we called the wife in. As she input the password, she muttered, "I really don't know what's so difficult about typing Start123."

Client: Please remove the unnecessary circle at the end of the sentence. Me: You mean ... the period? Client: I don't care what you designers call it; it is unsightly. Delete it.



Why does moisture destroy leather? When it's raining, cows don't go up to the farmhouse yelling, "Let us in! We're all wearing leather! We're going to ruin the whole outfit here!"

When I overheard one of my cashiers tell a customer, "We haven't had it for a while, and I doubt we'll be getting it soon," I quickly assured the customer that we would have whatever it was she wanted by next week. After she left, I turned to the cashier and told him, "Never tell the customer that we're out of anything. Tell them we'll have it next week. Now, what did she want?" The cashier replied, "Rain."

My flight was delayed in Houston. Since the gate was needed for another flight, our aircraft was backed away from the terminal, and we were directed to a new gate. We all found the new gate, only to discover a third gate had been designated for our plane. Finally, everyone got on board the right plane, and the flight attendant announced: "We apologize for the gate change. This flight is going to Washington, D.C. If your destination is not Washington, D.C., you should deplane at this

time." A moment later a red-faced pilot emerged from the cockpit, carrying his bags. "Sorry," he said, "wrong plane."

rd.com Illustrations: Shutterstock

IN THE FIELD

LBERT EINSTEIN is best known for his contributions to the scientific world. Here are five facts you may not know about one of the 20th century's most notable thinkers.

1. Einstein was slow to talk and supposedly didn't start speaking until at least age 3. The term "Einstein Syndrome" describes exceptionally bright people whose speech is delayed.

2. In 1919, in exchange for a divorce, Einstein promised to give his first wife the winnings from his anticipated Nobel Prize. Two years later, when Einstein won the prize, he gave her the money—about \$15,000 or the equivalent of \$200,000 today.

3. In 1930, Einstein co-patented a refrigerator that didn't require electricity, operating on compressed gases. It never became a commercial product, largely due to the discovery of Freon.

4. In 1952, Einstein was asked if he would accept the position of being the second president of Israel after Chaim Weizmann died. At age 73, Einstein declined the offer, stating he lacked the "natural aptitude and the experience to deal properly with people."

5. When Einstein died in April 1955, Princeton pathologist Thomas Harvey removed his brain during an autopsy and, without family permission, preserved pieces of it in two Mason jars. Today, you can see them at Philadelphia's Mutter Museum.

Illustration: Anne Schulte

OUT OF HARM'S WAY

BY DESIGNING A NEW VALVE CLOSURE SYSTEM USED IN TRANSPORTING BULK LIQUIDS, DIXON HELPED SOLVE A LONG-STANDING SAFETY PROBLEM.

THE SITUATION: As a hygienic equipment supplier, Dixon Sanitary Division primarily deals with equipment inside food and beverage processing plants. But when a customer presented us with an opportunity to solve a major safety issue with a hygienic valve used on dairy and food grade bulk transport trailers, our product engineers were excited to help.

PRODUCT SPOTLIGHT



OVERFILL PROTECTION RACK MONITOR

APPLICATIONS:

Installed on the gantry to control the loading process of petroleum fuels or other hazardous liquid into cargo tanks

FEATURES:

- Automatically switches between 2-wire or 5-wire type sensors
- Compatible with analog 2-wire thermistor type sensors



THE PROBLEM: Many food grade and dairy transport trailers use a plunger-style valve on the trailer to load and unload bulk liquids from the trailer. But traditional valve designs have a well-known safety hazard: the operator's fingers can be pinched between the handle of the valve and an adjoining component during operation.

THE SOLUTION: After significant time working with operators and drivers in the field and observing their interaction with the valve, Dixon engineers developed a closure system on the DX60 series valve that completely eliminates the dangerous pinch point. Plus, the new valve greatly improves seal durability and ease of cleaning.

THE OUTCOME: This new design means a safer work environment for all drivers and terminal operators who use this valve daily. As one user commented: "Every weakness of the current hygienic tanker valve available on the market has been addressed and eliminated by the Dixon DX60 series valve design ... including cleanability, sealing performance, functionality, durability and operational safety."

- Redundant relay outputs prevent single point failures
- Data management via RS485 port
- Wireless bypass key system
- Ground verification
- Reads trailer identification modules

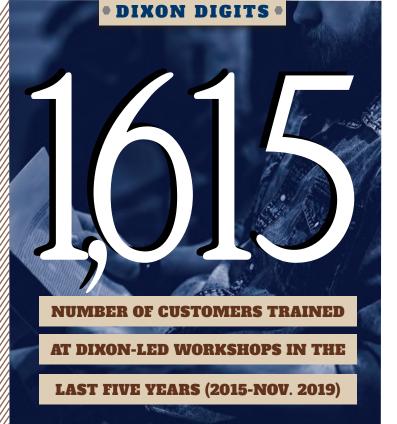
APPROVALS:

- Meets API RP1004 and EN13922
- Suitable for Class I, Division 1, Group CD and Class I, Zone 1, Group IIB

OPTIONS:

■ Junction boxes, Safe-T junction boxes, and rack cords are available

For more information, call Dixon at 877-963-4966, or visit dixonvalve.com.



DIXON BAYCO'S NEW HQ



ixon Bayco has a new home. Last spring, the division, which produces industrial goods such as tank truck components, dry disconnects and terminal rack monitors. moved to a 40,000-square-foot facility in West Chester, Ohio. The move further expands Dixon's manufacturing operations in the United States via additional CNC (Computer Numerical Control) manufacturing capabilities. The new location also includes 2.500 square feet of clean room space for electronic assembly and testing; engineering test labs for pressure and flow testing; product design areas; and space reserved for training.

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MARGIE SMITH, PURCHASING, BOSS DIVISION

As an employee since 1984 and a buyer for Dixon's Boss Division since 2005, Margie Smith is tasked with acquiring the raw materials Dixon uses to make its products. She spends her days seeking out the highest quality bar, pipe and tubing. But Smith, who is 62 years old and stands 5 feet 2, is also a fifth-degree black belt and operates her own karate studio. Last summer, she took first place in her division at the national Isshinryu Hall of Fame Tournament in Gatlinburg, Tenn.

So what attracted you to martial arts?

I had a part-time job at a fitness center and I just started watching some classes that looked really interesting. The instructor noticed my interest and invited me to join a couple classes to see if I liked it. I just continued with it from that point on.

What do you like about it?

Not only do I like the physical fitness of martial arts and the healthy lifestyle, but I also like the self-discipline, which builds confidence and self-esteem. I like the self-defense part, knowing you can defend yourself and your loved ones from harm if you had to.

What lessons do you try to impart to your students?

My students range in age from 6 through 23. Karate begins with courtesy and respect and teaches great morals and values. When they enter the dojo [the training room], they know it's about courtesy and respect. The training they get is what they put into it.

Are there any lessons you've learned from karate that you use in the workplace?

Martial arts training is a way of life. Karate has helped me with concentration and focus and has given me a greater self-confidence as well as reduced stress.

What are some of the challenges at your job with Dixon?

I do a lot of quoting for materials. I'll do spot buying every day for materials we don't normally carry in stock if we need to produce a certain part. I'll also purchase large quantities with six-month blanket orders and lock in prices. It's always a challenge to shorten lead times and also get the best quality at the right price.

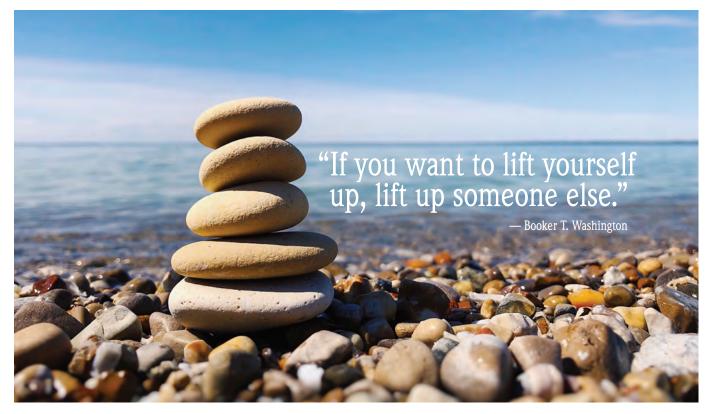
What are some of the changes you've seen since you started working at Dixon?

From my perspective, the biggest changes have been the increases in production lines—new products that we're manufacturing. That bumps up usage of the raw material. We have to purchase much larger quantities than when I started.

Getting back to your other job, do you break a lot of wooden boards?

Hah! No, that's not part of our program.





FROM THE ARCHIVES



URBAN ORIGINS

On March 21. 1916, armed with firsthand knowledge of the needs of the United States' growing mining, oil drilling, construction and railroad industries, HW Goodall founded Dixon Valve & Coupling Co. in Philadelphia. As the company grew, it moved several times to larger locations, eventually settling at this building at Hancock and Columbia avenues in 1929.

THE TRUE MEANING OF OUR LIVES

BY MICHAEL JOSEPHSON

I saw a cartoon of an old king checking in at the gates of heaven. The gatekeeper, with a large book in front of him, said, "Edward the Good, huh? Well, Eddie, we will be the judge of that." The point is that, in the end, generous self-appraisals won't matter. Our epitaphs will be written and eulogies delivered by the people who knew how we lived. The real meaning of our lives may be defined by how we are remembered.

When a Swedish newspaper printed Alfred Nobel's obituary by mistake, he had the rare opportunity to see how others saw him. It changed his life dramatically. Though the article was complimentary, describing Mr. Nobel as a brilliant chemist who made a great fortune as the inventor

of dynamite, he was horrified to be memorialized in such materialistic terms.

Determined to leave a more positive legacy, he bequeathed his considerable wealth to the establishment

of the Nobel Prizes to acknowledge great human achievements. Few of us can create something as momentous as the Nobel Prizes, but we all can live lives that earn a eulogy our children and parents would be proud of.

In the hurlyburly of evervdav living, it's hard to keep

perspective. Money, position, pride and power seem so important-until they're not. At the end of their lives, no one says, "I wish I spent more time at the office." It's a matter of priorities.

So if you want to know how to live your life, just think about what you want people to say about you after you die and live backward.



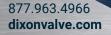
from You Don't Have to Be Sick to Get Better, Josephson Institute of Ethics. Illustration: Anne Schulte

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- Sizes: spiral hose 33' and 66'; fire jackets 50'; fiberglass sleeving - 100'; nylon sleeving - 100' and 300'; spring guard - 12", 14", 16", 18", 25'
- Additional hose protection products are available



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WINNING IMAGE

On Friday morning, Feb. 23, 1945, four days after U.S. Marines landed at Iwo Jima, photographer Joe Rosenthal heard that an American flag was being raised atop Mount Suribachi, at the southern tip of the island. While lugging his bulky Speed Graphic camera up the mountain, Rosenthal was told by another photographer coming down that the flag already had been raised. Rosenthal had missed his shot. Despite his disappointment, the photographer continued to the summit where he saw a small U.S. flag planted in the rock. He began preparing for a photo, but then, out of the corner of his eye, he saw six Marines raising a second, much larger flag. Rosenthal wheeled around, quickly set his camera, and captured the Pulitzer Prize-winning photograph, one of the most enduring images ever taken.

"Raising the Flag on Iwo Jima," by Joe Rosenthal. Flag raisers, from left to right: Ira Hayes, Harold Schultz, Michael Strank, Harold Keller, Harlon Block

BEEP, BEEP... DINNER IS READY!

THE MICROWAVE'S JOURNEY FROM WAR-TORN SKIES TO PEACETIME KITCHENS

BY BRENNEN JENSEN



90 percent of American kitchens boast a microwave. *Photo: Shutterstock*

While you're hungrily watching a bag of popcorn spin and swell in the microwave—enjoying those first heady whiffs of buttery goodness—you're probably not thinking about Spitfire fighter planes spewing machine gun fire as they wheel through dangerous skies during World War II's Battle of Britain. But your afternoon snack and that pivotal air war have something in common: the magnetron, which creates high-power electromagnetic pulses. This device powered breakthrough Allied radar systems for detecting and tracking enemy aircraft. And a version of this war-winning device sits within every modern microwave oven.

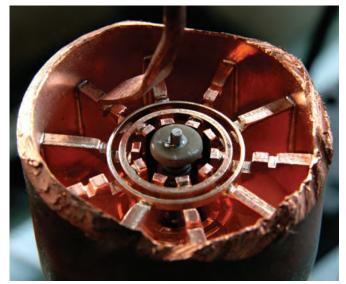
While the British created the first effective magnetron, it was self-taught American physicist and inventor Percy Spencer, working for the Raytheon Co., who discovered how to cheaply mass produce them in 1941, allowing for the widespread wartime use of effective radar.

And he also discovered something else: While standing near a radar being tested in 1945 he noticed that a candy bar in his pocket started to melt. He then placed popcorn in the radar's path (which popped), and then an egg (which exploded!). The pulsing microwaves were causing food molecules—especially water molecules—to vibrate rapidly, rubbing against each other creating friction. And friction begets heat. A patent was filed before the year's end for a method of "cooking foodstuffs through the use of electromagnetic energy." The technology heated many foods much faster than conventional ovens. The miracle oven for the dawning of the Space Age had arrived!

Well, not quite yet. The first commercial Radarange, as

THESE WERE COSTLY, MASSIVE THINGS— WATER-COOLED AND WEIGHING SOME 700 POUNDS—TARGETED TO COMMERCIAL KITCHENS BUT FOUND FEW BUYERS.

microwave ovens were called in the early going, debuted in 1947. But the market was cold. These were costly, massive things—water-cooled and weighing some 700 pounds—targeted to commercial kitchens but found few buyers. Additional tinkering got them down to the size of a standard range by 1955, but the price tag—over \$12,000



A magnetron creates high-power electromagnetic pulses, like the ones used in microwave ovens or radar systems. *Photo: Pingu Is Sumerian*

in today's dollars—didn't warm them to Eisenhower-era housewives, despite the time savings they promised.

It wasn't until 1967, after the Amana Corp. (which Raytheon owned) debuted a lower-priced bona fide countertop microwave, that the devices began to trickle into homes. After Japanese makers began to turn them out in the 1970s, and prices dropped even more, the trickle grew into a torrent. Today, it's estimated that 90 percent of American kitchens sport a microwave—to say nothing of dorms, office break rooms and convenience stores. They outsell dishwashers. And your bag of microwave popcorn is now part of a \$100 billion global microwavable foods industry.

Despite their ubiquity, some microwave myths persist. No, these ovens do not cook food from the inside out. They heat food from the outside in, like regular ovens, but they do work most effectively on areas of food containing the most moisture. (Microwave beams also can bounce about unevenly in ovens creating hot and cold spots, which is why many ovens include turntables to rotate food.) There is also no evidence suggesting that "nuking" food creates a cancer hazard or that it reduces the nutritional content of food. But, hey, that's not to say that your microwavable pepperoni pizza hot pocket counts as health food.



well-regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

The Second Amendment may be a popular topic of debate today, but when it was ratified as part of the Bill of Rights in 1791, it wasn't particularly controversial. James Madison originally proposed the amendment as a way to empower state militias, the Colonial precursor to the National Guard. Early militias referred to groups of men who banded together to protect their communities, towns, colonies and eventually states, once the United States declared its independence from Great Britain in 1776.

Its addition to the Constitution was looked upon as a compromise between anti-Federalists (those who argued for states' rights) and Federalists (those who favored the Constitution as it was written). Having just fought a war against a tyrannical regime, U.S. citizens received some insurance from the amendment in case their own government started behaving too much like Britain's King George III. At the time, many believed the federal government should only raise armies with full-time, paid soldiers when facing foreign enemies. For domestic matters, the government should turn to part-time militias, or ordinary civilians using their own weapons.

But Americans have been arguing over the Second Amendment's meaning ever since. One side interprets it to protect "collective rights," those of the people to bear arms for the purposes of forming a "well-regulated Militia," while the other side views its meaning to include individual rights.

Until recently, the Supreme Court generally had treated the Second Amendment as a settled issue. But in 2008, with the District of Columbia v. Heller, the court ruled that a District of Columbia handgun ban violated the Second Amendment, opining that the amendment is an individual right, just like the "right[s] of the people" protected by the First and Fourth Amendments. Several other related rulings have followed, and other cases still are working their way through the lower courts. Their outcome, just like public opinion about the Second Amendment itself, remains up for debate.

Illustration: Shutterstock

PUTTING OUT THE FIRE HEARTBURN AFFECTS MILLIONS EVERY DAY. LEARN HOW TO STOP THE BURN—AND WHEN TO CONSULT YOUR DOCTOR.

BY SIMONE ELLIN

ho doesn't love a greasy slice of pizza, or a half-dozen spicy Buffalo wings? How about a juicy cheeseburger with onion rings? While these foods taste oh-so-good while going down, you may regret it when heartburn strikes afterward.

If indulging in your favorite foods gives you heartburn, join the club. More than 60 million Americans experience heartburn at least once a month and 15 million are plagued by daily heartburn, according to the American College of Gastroenterology.

A painful sensation of burning in one's chest and/or throat, heartburn is a symptom of acid reflux, a condition in which stomach acid flows backward from the stomach up the esophagus. Some acid reflux sufferers have difficulty swallowing and may also experience coughing, hoarseness, nausea and vomiting. When acid reflux becomes chronic, it's known as GERD (gastroesophageal reflux disease) and may require lifestyle changes and, in some cases, medical treatment.

TRIGGER FOODS

While heartburn often occurs after we over-indulge, it also can happen when we eat just small portions of certain "trigger foods." These might include spicy, fried and fatty foods; foods with tomato sauce like pizza and pasta; foods prepared with onion and garlic; citrus fruits and juices; carbonated drinks; and chocolate, coffee and alcohol.

But doctors have found that not everyone reacts the same way to the same foods and beverages. Though some of us know exactly what triggers our heartburn, for others, it's not so obvious.

One way to determine what triggers heartburn is by maintaining a journal that includes what you ate and when; whether you were under stress; what heartburn symptoms occurred; and even what you were wearing (tight clothing that hugs the abdomen can cause reflux).

You also can try an elimination diet by cutting out possible trigger foods for two weeks, then reintroduce one food at a time to determine your tolerance and severity of symptoms. If you're lucky, you'll find that your favorite foods and beverages aren't the main culprits.

Besides certain foods, there are other factors that contribute to increased risk of acid reflux. Stress, smoking, obesity, pregnancy and certain medications also can bring on the burn.



TREATMENT OPTIONS

While over-the-counter antacids such as Alka-Seltzer, Maalox, Tums or Rolaids neutralize stomach acids and may provide temporary relief, they won't cure chronic heartburn.

Other options for relief are H-2 receptor blockers like famotidine (Pepcid AC), cimetidine (Tagamet) and ranitidine (Zantac). These relieve heartburn by reducing the amount of acid in your stomach. Though relatively safe, H-2 receptor blockers may cause vitamin B-12 deficiency and an increased risk of bone fractures.

Proton pump inhibitors (PPIs) like esomeprazole (Nexium), pantoprazole (Protonix) and omeprazole (Prilosec) are available by prescription or over-

In addition to eliminating trigger foods, doctors recommend heartburn sufferers take the following steps:

- Maintain a healthy weight
- Quit smoking
- Avoid eating large meals and opt for smaller meals throughout the day
- Wear loose fitting clothes
- Don't eat before bedtime lying down after eating tends to increase heartburn
- Elevate your head in bed by four to six inches to prevent acid reflux at night
- Take a short walk after eating

the-counter. Because of their efficacy, they are extremely popular treatments for acid reflux and heartburn. Like H-2 receptor blockers, PPIs block the production of stomach acid and also can heal irritation of the esophagus. In recent years though, research has shown that the drugs pose risks for those who use them on a long-term basis, including bone fractures, infection, myocardial infarction, renal disease and dementia. Before starting a PPI regimen, you should notify your doctor.

SAFE NOT SORRY

Though heartburn does

not usually indicate a serious medical condition, in rare cases GERD can lead to esophagitis, an injury to the esophagus that may cause esophageal erosion and ulcers; and Barrett's esophagus, a condition in which long-term GERD changes the cells of the esophageal lining. Of those who develop Barrett's esophagus, approximately one in 300 will go on to be diagnosed with esophageal cancer each year. Therefore, it is recommended that patients at risk for Barrett's esophagus or esophageal cancer receive regular endoscopies to rule out these conditions.

If you have concerns about frequent heartburn, consult with your physician. Hopefully your heartburn can be managed without giving up pizza or onion rings.





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Left: Before establishing workplace precautions, injuries were commonplace in factories, particularly among the young. In 1908, Harry McShane, 16, had his left arm pulled off and right lea broken by the belt of a machine at an Ohio factory. Right: Doing work at elevations would be unthinkable without a safety harness today.



he grainy old photos that pop up now and again of American workplaces during the Industrial Revolution have a mind-boggling quality that's as much about what's missing from the frames as what's in view. Construction workers sit hundreds of feet in the air on a thin iron bar framing

a skyscraper-in-progress. Mustachioed miners hammer a roof support into upright position in a dust-drenched underground chamber. Steelworkers shovel fuel into the blinding light of a blast furnace.

Where are their goggles, masks, hard hats and safety harnesses? During the late 1800s and early 1900s, millions of American workers toiled in anything-goes job environments absent of rules and chock-full of hazards to life and limb. A century ago, industrial workers died on the job at a rate of 61 per 100,000 annually. Today, that rate is 3.5.

No magic bullet or lone miracle worker was involved in this dramatic success story; the progress came in fits and starts, pushed along during the course of many decades by a parade of various stakeholder groups, from scientists and engineers to journalists, regulators, labor activists, corporate executives and legislators.

By most historical accounts, this journey began in earnest just after the Civil War. In 1869, Massachusetts created a Bureau of Statistics of Labor, which soon began conducting surveys and gathering rudimentary statistics about workplace hazards. Shocked by the numbers that emerged, the state began sending out inspectors to check on the safety of fire-prone textile mills and other factories. Fourteen other



states had followed Massachusetts down this road by 1900. The federal Bureau of Labor was created in 1884.

At the dawn of the 20th century, the data demonstrating the breadth and depth of human suffering associated with workplace hazards was well on its way into the public consciousness. Labor union activists demanded action. Muckraking writers—Upton Sinclair is a famous example—stoked outrage in articles and books. Even Hollywood got into the act: In an iconic scene from the silent-movie era, comedian Harold Lloyd plays a repairman who ends up dangling over a cityscape while clinging to the arm of a clock atop a building. The name of that movie was *Safety Last!*

After states began passing compensation laws that raised the penalties for deaths and injuries in the workplace, businesses began taking a more aggressive approach to ensuring safety on the job. In the late 1800s, railroad executive George Westinghouse responded to outrage over rail yard injuries by developing safer braking systems and coupling devices—the results were so extraordinary that the federal government soon mandated use of the new technologies across the industry.



23,000 Number of workers who died on the job in 1913 (61 deaths per 100,000)

5,147 Number of workers who died on the job in 2017 (3.5 deaths per 100,000)

20.7% Percentage of those deaths in the construction industry

1 Rank of "falls" as the leading cause of death in the workplace

59.1 Estimated average hours worked per week in manufacturing in 1830

39.2 Estimated average hours worked per week in manufacturing in 2018

1911 Year workers' compensation laws were introduced, providing wage replacement and medical facilities for workers if injured on the job

362 Number of deaths in 1907's Monongah, W. Va., coal mine explosion, which led to the formation of the U.S. Bureau of Mines in 1910

1840 Year President Martin Van Buren issues an executive order limiting all federal employees engaged in manual work to a 10-hour day, six days a week

1940 Year Congress amends the Fair Labor Standards Act limiting the workweek to 40 hours for federal employees

146 Number of victims of the 1911 Triangle Shirtwaist Factory fire in Manhattan. The building's doors were locked to prevent unauthorized breaks, causing many to jump to their deaths. The American Society of Safety Professions was formed in its aftermath to monitor workplace safety issues.

\$10,000 Amount of the settlement (equivalent to \$146,000 today) paid by corporations to each of 70 "radium girls" who were exposed to the substance while painting the faces of luminescent clocks in the 1920s

1971 Year the Occupational Safety and Health Administration is established by Congress

DIXON'S SAFETY LEGACY

EZ BOSS-LOCK CAM & GROOVE

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S.T.A.M.P.E.D. When fabricating and specifying hose assemblies, ask the following questions:

Size Temperature Application Media Pressure Ends Dixon

In 1906, U.S. Steel began convening an annual meeting of executives whose jobs centered on safety issues. The broader steel industry followed that lead, forming a Cooperative Safety Congress to share strategies and

information. That congress eventually would morph into today's nonprofit National Safety Council, which has more than 50.000 member businesses.

Some early safety improvements were simple matters, such as making sure factories had secondary fire exits. Others involved wholesale overhauls to manufacturing processes, which is what happened in factories where boxes of matches were mass produced after it became clear that the rotted jaw lines and early deaths of

veteran workers were the result of exposure to a chemical white phosphorus. Meanwhile, academic researchers got into the act by examining safety issues from the angle of economic productivity, exploring for the first time questions about how much product and profit businesses lost when too many workers missed too much time. Studies on the relationship among fatigue, injuries and productivity led to calls for shorter workweeks. Other studies showed that improved lighting alone could reduce accidents by as much as 75 percent. The earliest versions of the safety gear that is missing in those old black-and-white pictures started coming onto the scene in this period as well (see sidebars).

A keystone moment in the history of workplace safety arrived in 1933 when Joseph Strauss, the engineer in charge of building the Golden Gate Bridge in San Francisco, decided to

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For complete information on Dixon safety products, guidelines and recommendations, see dixonvalve.com/safety.



turn that project into a model of best practices in the burgeoning field. The netting he had installed under that bridge caught 19 men who would otherwise have fallen to their deaths. Everyone on the job site had to wear hard hats. A network of safety lines helped workers keep their balance. Riveters wore early versions of respirators to keep them from breathing in lead-tainted fumes.

Eleven workers lost their lives in that project (all but one in a tragic incident in which the safety netting wasn't strong enough to hold a piece of scaffolding that came loose), but that number still marked a major improvement from other projects of the era. The numbers continued to show steady improvement for decades after the project entered the history books. If the workplace fatality rates at the time the Golden Gate Bridge was constructed had remained steady into the 1990s, an estimated 40,000 more workers would have died every year.

The current workplace safety regimen took shape starting in the 1970s with the passage of the federal Occupational Safety and Health Act, which led in turn to the creation of the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH). Today, the attention of those federal regulators. as well as business associations and labor unions. has shifted toward grappling with the challenges presented by an economy now full of service-sector jobs—the prevention of musculoskeletal disorders such as carpal tunnel syndrome, for instance. and the reduction of health risks associated with stress. Those are still occupational hazards, but arguably far more mundane than hanging from a skyscraper without a safety harness.

A MAN WITH A PLAN

IN THE AFTERMATH OF WORLD WAR II, GEORGE C. MARSHALL'S GENEROUS VISION BROUGHT EUROPEAN RECONSTRUCTION INTO PLAIN VIEW.

BY ADAM STONE

Portrait by Thomas E. Stephens (c. 1949)

t was a sunny, mild afternoon on June 5, 1947, when U.S. Secretary of State George C. Marshall stepped up to the lectern to deliver a speech as part of Harvard University's 296th Commencement exercises. Few in the audience expected anything earthshaking in his address. Marshall, who was receiving an honorary degree from the university, wasn't even the keynote speaker. (That honor went to retired five-star general, Omar N. Bradley.)

During his speech, Marshall, who as the U.S. Army Chief of Staff had helped mastermind the Allied victory in World War II, offered a vision of European economic reconstruction, a way to put our allies and former enemies back on their feet. A prosper-

ous Europe might also form a bulwark against the spread of communism.

"It is logical that the United States should do whatever it is able to do to assist in the return of normal economic health to the world, without which there can be no political stability and no assured peace," he told the graduating seniors. "Our policy is not directed against any country but against hunger, poverty, desperation and chaos."

Those who heard his brief speech that day-he talked for less than 11 minutes-likely didn't realize that what had just been said would reshape the post-war world.

U.S. would help to rehabilitate the economies of 16 countries-from Iceland to Turkey to Italy-over five years between 1947 and 1952.

But in order for Marshall's broad vision to become a reality, European leaders had to come together in a spirit of cooperation and coordination. The U.S. Congress also had to agree to fund the reconstruction, even in the face of resistance from some Americans who felt resources could be better used at home. A communist coup in Czechoslovakia in February 1948 lent urgency to the effort, and President Harry S. Truman was able to sign the Economic Cooperation Act into law on April 3, 1948. Few would ever refer to it by its official name; instead, it would simply be known as the Marshall Plan, after the man who envisioned it.

INFANTRY BATTLE THE INFANTRY JOURNAL INCORPORATED WASHINGTON, D. C.

In the late 1930s, Marshall oversaw production of this book, which is still used as a reference today.

Not all agreed with its intent. Some in Congress called the plan a "rat hole," a socialist enterprise that would only bolster the spread of communism at a time when money would be better spent on defense to keep the Reds in check. History proved them wrong.

From 1948 to 1952, Europe saw its fastest-ever period of growth, with industrial production and agricultural production rising substantially. Post-war poverty and starvation disappeared and Western Europe entered a time of unprecedented growth.

At the end of World War II, Europe was profoundly broken. Most major cities and industrial facilities had been badly damaged by sustained bombing. Millions were living

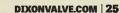
in refugee camps and hunger was rampant. Marshall's idea amounted to material aid for Europe. The plan would make available generous loans, gifts and American equipment to the tune of some \$13 billion-about \$88.5 billion in today's dollars. In this way the

'Ouiet self-confidence'

The man who devised this brilliant scheme for peace was, by profession, a warrior.

Born in 1880 in Uniontown, Pa., George Catlett Marshall entered the Virginia Military Institute in 1898. He made a poor start at VMI but soon developed the habit of rigid self-discipline. He finished his last year at the institute as first captain of the corps of cadets.

After graduation, Marshall rose through the military ranks, eventually becoming a





George Marshall military medal, awarded annually for selfless service to the United States

five-star general in 1944. On the day Germany invaded Poland in 1939, Franklin Delano Roosevelt made him U.S. Army Chief of Staff, a post he held until 1945. His was a daunting task: transforming a pre-war muddled military force of under 200,000 into a well-organized machine that topped 8 million at its peak. He ensured the military had both vital supplies and strategic direction, leading Winston Churchill to call him the "organizer of victory."

He did all this without flash or pizazz. "Men who served under him spoke of his quiet self-confidence, his lack of flamboyance, his talent for presenting his case to both soldiers and civilians, and his ability to make his subordinates want to do their best," writes historian Forrest C. Pogue.

He didn't like pessimists, or those who sought the limelight or officers who got mired in details and couldn't make decisions. And he never balked at speaking his mind.

In one famous encounter, Marshall rebuffed

Such encounters, rather than diminishing Marshall's clout, served throughout his career to win him a reputation as a plain-spoken confidant. All this placed him in a unique position when it came time to formulate a crucial post-war vision.

Virtues of peace

The Marshall Plan aimed to fire up the European economy and also to spark international trade, especially with the United States. U.S. companies stood to benefit greatly if Europe could grow wealthy enough to import American goods.

In practical terms, the plan paid for a new wharf in North Borneo to help that British colony export vitally needed rubber. It built railroads in France, provided \$50 million (\$661 million today) to combat tuberculosis and

helped more than 3,000 European workers make six-month visits to various U.S. industries to learn new techniques. The Ford Motor Co. in Britain got funds to replace machine tools needed to produce cars, trucks and trac-



tors for export, while the U.S.-based Otis Elevator Co. helped to modernize British factories.

Despite what skeptics had to say at first, American support in post-war Europe did serve

THE PLAN AIMED TO FIRE UP THE EUROPEAN ECONOMY AND ALSO TO SPARK INTERNATIONAL TRADE, ESPECIALLY WITH THE UNITED STATES.

a military suggestion from FDR, stating baldly: "I am sorry, Mr. President, but I don't agree with you at all." After the meeting, Treasury Secretary Henry Morgenthau Jr. offered Marshall his condolences on what would surely be his demise: "Well, it's been nice knowing you." But Marshall kept his job as Assistant Army Chief of Staff. In fact, Marshall had read the president correctly. FDR gave a startled look, but would eventually promote him to lead the military. to keep a lid on Soviet expansionist desires. While the term "Cold War" did not exist yet, it's clear in hindsight that Marshall's focus on rebuilding helped to give the West an upper hand in the early days of that emerging conflict. In fact, that conflict already was beginning to emerge: Russia and other communist bloc countries refused to participate in the Marshall Plan, in part because it would aid Germany.

It may seem surprising that such a plan

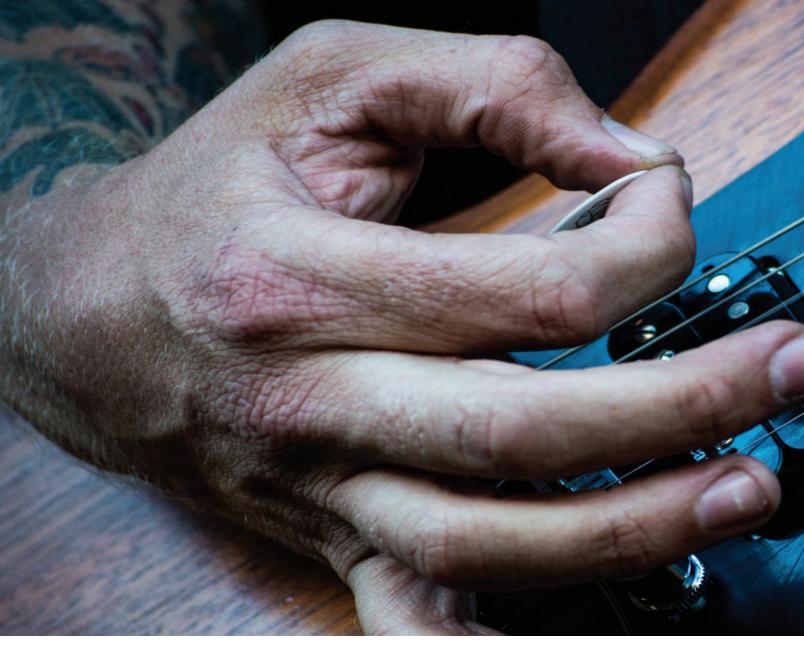


A young George Marshall, who served as a colonel in France in 1919.

sprang from the mind of a man who had made a career as a soldier. But Marshall also professed the virtues of peace—not just in the absence of war, but in the presence of shared prosperity. For his contributions to the world, Marshall was awarded the Nobel Peace Prize in 1953.

Today the George C. Marshall Foundation helps to preserve the legacy of this unique warrior and peacemaker. "His characteristics of honesty, integrity and selfless service stand as shining examples for those who study the past and for those generations to come," the foundation says. His concept of mutual aid established a model for post-war reconstruction and likely helped establish the basis for today's union of European states.

But what was it that made Marshall so uniquely qualified to unite the nation behind his vision of mutual aid? Historian David Abshire offers a hint: Marshall lacked the charisma and speaking abilities of his military peers, such as MacArthur and Patton, Abshire notes. He spoke in a flat tone of voice and wasn't much of a writer. His success came not from his eloquence, but from his authenticity. "Under close examination, the most stunning characteristic about Marshall is that he was not a leader of blind ambition who sought power and self-aggrandizement," Abshire writes. "To the contrary, he was an unparalleled servant-leader."





he first electric guitar was not invented to play rock 'n' roll. It wasn't born for a jazz riff or a country pick-and-grin, either. Instead, it was made to perform the lyrical melodies of ... Hawaiian music.

Although the territory had yet to become part of the United States, music from Hawaii was wildly popular in the early part of the 20th century. In the 1920s, the brothers George and Alton Beauchamp, Texas transplants to California who performed under the name Grasshopper and George, were finding some success playing Hawaiian slack-key guitar. But in the noisy Los Angeles clubs, they sometimes had trouble being heard. This problem was not isolated to Hawaiian music. In jazz clubs and honky-tonks, and in the music halls that grew larger to hold bigger crowds and multi-instrument bands, sound was becoming a real issue.

The modern six-string, "Spanish-style" guitar came to the fore in the early part of the 19th century. By the turn of the next century, the Hawaiian, or steel-stringed guitar—an instrument that was held on



GRANK TUP FROM THE 'PANCAKE' TO 'THE LOG' TO THE GIBSON LES PAUL, THE OUEST

TO AMPLIFY THE GUITAR HAS BEEN A LOUD—AND BUMPY—ROAD.

BY MARY K. ZAJAC

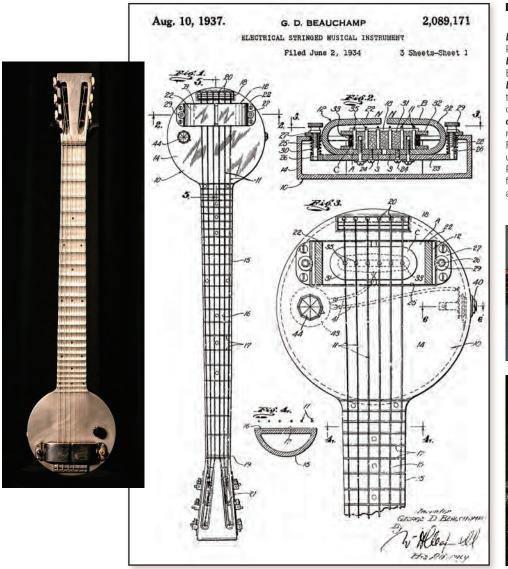
the lap and was played by running a bar over the frets—also had become popular. Both instruments have hollow bodies, so when a musician plucks the strings, the space in the body of the guitar encourages amplification of the vibrations that travel from the strings to the saddle, bridge and soundboard to produce sound.

Methods to increase the sound of both guitars already were underway, but on the whole, they weren't particularly successful. In 1890, for instance, George Breed, a U.S. naval officer, was granted a patent for an "apparatus for producing musical sounds by electricity." Breed's guitar produced vibrations in the instrument's wire strings using magnets and battery power and created sound by pressing the strings against the fret rather than strumming or plucking. It was cumbersome and not very user-friendly and was never produced on a commercial basis. Not quite 40 years later, the Stromberg-Voisinet company produced a guitar called the Electro, which made first use of the electromagnetic pickup. Sound quality, however, continued to be an issue, and, with few sales, production ceased.

In 1926, George Beauchamp posed the problem of the too-quiet guitar to

Slovak instrument maker John Dopyera. Dopyera's solution was the acoustic resonator guitar: an instrument with a hollow, aluminum body and three non-electric "amplifiers," or tricones, attached to the bridge. That's the hardware on the lower body of the guitar that holds the strings in place. The metal cones amplified the vibration of the strings, making the instrument's sound more prominent and "almost hornlike," according to Brad Tolinski and Alan di Perna, authors of *Play it Loud*, a history of the electric guitar.

With the backing of a wealthy cousin, Beauchamp co-founded the



Left: Beauchamp's Frying Pan guitar and its patent. Below: A Rickenbacker Electro guitar, circa 1938. Bottom: Les Paul does his thing at a New York City club in 2008. Right page, clockwise from left: Early models on display at the Fender guitar factory museum. The iconic Gibson Les Paul Standard. Detail shots from a 1959 Gibson reissue and Fender Stratocaster.





National String Instrument Corp. in

1928 to manufacture the resonator. He brought on Dopyera as factory superintendent and also hired a young machinist named Adolph Rickenbacker to produce the guitar bodies in his Los Angeles tooland-die shop. The resonator guitar found some success, especially among blues and bluegrass musicians, but when Dopyera and Beauchamp's partnership disintegrated, Beauchamp was forced out of the company. (Dopyera and several of his brothers created the Dobro Manufacturing Co.)

Beauchamp continued to experiment, however, and had the idea of taking a pickup from a phonograph and attaching it and a

single guitar string to a two-by-four to make a rudimentary instrument. The pickup, which contained an electromagnet and hair-thin copper wire, transformed the steel string's vibrations into

an electrical signal, which, in turn, amplified the sound. It was a crude prototype of the first electric guitar.

Beauchamp worked again with Rickenbacker to produce an electric

guitar with a round aluminum body and a long neck. Made to be played Hawaiian or lap-style, the first Frying Pan guitar (also known as the Panhandle and the Pancake) became available for sale in 1932. Eventually it would be marketed as the Rickenbacker Electro. In 1932, the Electro String Instrument Corp. manufactured 28 Frying Pans. By 1935, they produced 1,288.

Beauchamp wasn't able to patent his pickup until 1937, and by then, the competition had caught up. The Gibson Guitar Co., founded in 1902, introduced the ES-150, an "Electric Spanish guitar," in 1936. With its



pickup concealed beneath the guitar's arched top, it was a handsome instrument with a rich sound. Jazz musician Charlie Christian, the extraordinarily gifted guitarist for Benny Goodman's band, popularized the ES-150, and his influence prompted other jazz and blues musicians, like T-Bone Walker, to adopt the instrument.

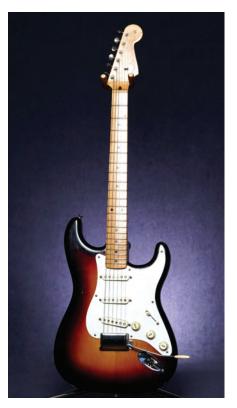
The electric guitar evolved once again in the 1940s when Les Paul, ace guitarist, inveterate tinkerer and "the Wizard of Waukesha," became dissatisfied with the excess resonance and feedback that occurred with hollow body electrics. Paul cut an Epiphone hollow-body guitar in half, and in the middle of this guitar sandwich, placed a solid wooden four-by-four to which he joined a neck, a bridge and a handmade pickup. He called it "The Log." The solid body minimized feedback and controlled resonance. Paul used "The Log" on several recordings, but he could never find the support to produce the model commercially. Ten years later, Gibson would approach Paul with a guitar prototype named after him that adopted several of Paul's innovations. The Gibson Les Paul debuted in 1952 at the cost of \$210 or the equivalent of roughly \$2,400 today.

Around the same time that Les Paul

was carving up guitars, Leo Fender was experimenting with his own design for a solid body guitar in the garage behind his radio shop. By 1950, he had come up with the Esquire, later known as the Broadcaster and then the Telecaster. The Telecaster was revolutionary. It was thin and lighter than other guitars. It boasted an adjustable bridge and pickups dedicated to individual strings. The "cutaway" on the side allowed better access to the higher frets on the neck, which was detachable. And most of all, the guitar was inexpensive and easy to produce. "The Telecaster is a proudly populist, working-class instrument,"

write Tolinski and di Perna. "It looked like something a working-class guy had put together in his basement woodshop. Which is basically what it was ..."

Selling for \$189.50 (about \$2,120 in today's dollars), Fender's Telecaster was the first mass-produced electric guitar. He then followed this innovation with the Stratocaster in 1954. The Stratocaster doubled the cutaway shape and contoured the back of the guitar, making it more comfortable to hold and play. The bridge was designed so that all six strings could be manipulated individually. It also had three pickups, allowing more control over sound and effects. It, too, became wildly popular. In 1955, for the first time, Fender racked up more than \$1 million (or \$9.5 million today) in sales. These days estimates put Fender's revenues at more than \$500 million annually. Revenue for the guitar



A 1958 Fender Stratocaster, sunburst finish. *Photo by Lubbad85*

industry as a whole stands at upward of \$5.6 billion, which includes sales of acoustic guitars.

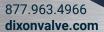
Did the early inventors of the electric guitar anticipate the musical revolution their instruments helped launch? Could they have known that the quest for more sound would result in new techniques and new innovations in performance? Or that 50-plus years on, it would be nearly impossible to separate certain musicians from certain brands. like Jimi Hendrix and Stratocaster: Roger McGuinn of the Byrds with his chiming Rickenbacker; or Peter Frampton and his Les Paul custom? Or, to quote a line from the movie Spinal Tap, did they just want to turn it up to 11? 🔘

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BY ANY OTHER NAME BEFORE THIS RECIPE WAS KNOWN AS LOBSTER NEWBERG,

IT WAS CALLED SOMETHING ELSE.

his rich dish, concocted with lobster meat swimming in a sauce of cream, egg yolks, butter and sherry wine, was ubiquitous on menus of upscale restaurants until healthier eating habits prevailed. Foodie mythology holds that the dish was first popularized at Delmonico's restaurant in New York in the 1870s. One version of the tale has sea captain Benjamin Wenberg returning from his travels with inspiration for the dish, which he shared with the restaurant's owner Charles Delmonico. Another version simply relates that one of the restaurant's chefs came up with the recipe, and since Wenberg ordered the dish whenever he was in town, Delmonico called it Lobster a la Wenberg. Both versions of the story end with Delmonico and Wenberg having a falling out of some sort, and the spiteful restaurateur forever changing the name of the dish from Wenberg to Newberg. Either way, its calorie count remained decadently high. —Joe Sugarman

When You Wish Upon A Star

WHETHER YOU'RE A FIRST-TIME VISITOR OR A MOUSE-EARED FANATIC, THE SECRET TO A SUCCESSFUL DISNEY WORLD VACATION IS IN THE PLANNING. HERE ARE EIGHT TIPS TO GET YOU STARTED.

BY SIMONE ELLIN



Use the My Disney Experience web portal My Disney Experience (MDE), a free digital planning tool, can be used to obtain your FastPasses+, check start and wait times for rides, shows and attractions, make restaurant reservations and much more. Be sure to download it before your visit.

Lodging at Disney World While off-property hotels can be less expensive, Disney resorts offer perks like free transportation to and from the airport, luggage drop-off, opportunities to visit the parks when they're closed to the public and (sometimes) free dining plans. Depending on when you stay, Disney "value" properties such as its All-Star Music resort start at \$112 per night. Disney Vacation Club (DVC) point rentals are another way to go. Located in some of the finest resorts, these time-share properties rent for significantly less than comparable rentals made through Disney World. To book a DVC rental, try an agent like David's Vacation Club Rentals (dvcrequest.com).

Good timing When it comes to Disney World, timing is (almost) everything. Opt for dates when the parks are least crowded and tickets and resorts are less expensive—typically January through early February; September through mid-November; and midweek versus weekends. "Crowd calendars" like the one at WDWPrepschool.com aim to predict park crowds. When at the parks, optimize your time by plotting routes wisely. Try working the park from the back to the front and counterclockwise to avoid the longest lines. Also, plan to ride blockbuster rides when others are watching the parades.



Get your Free FastPasses+ FastPasses+ allow you to skip the lines on three attractions per park per day and can literally save you hours of waiting. Those staying at a Disney resort property can make Fast-Pass+ reservations for rides, shows and attractions up to 60 days in advance while others can reserve up to 30 days in advance.

Eating at Disney World

Avoid long waits with hangry children by making reservations as early as possible. Those staying at Disney resorts can make dining reservations as much as 180 davs in advance. To save time at fast-food locations, order meals ahead of time with your MDE app and pick up your food without waiting in line. Save money, limit junk-food intake and avoid long lines by bringing a backpack with healthy snacks and your own water bottles.



Ticket discounts There's no getting around it: Disney World tickets are pricey. (Tickets start at \$115.) That said, one way to save is by purchasing Mid-Day Magic tickets when available. With these tickets, you can save approximately 25 percent by waiting until noon to come to the park. American Automobile Club (AAA) members can save a few dollars when they purchase tickets through AAA; and authorized ticket brokers such as Undercover Tourist, which buys tickets wholesale, also can provide significant discounts.



Book ahead for new

attractions As Disney World prepares to celebrate its 50th anniversary in 2021. visitors will see the opening of many new rides, shows and attractions. Pandora-The World of Avatar. Star Wars: Galaxy's Edge and Star Wars: Rise of the Resistance are among Disney's newest must-see attractions. So start your vacation planning now!

Consider using a travel agent In Disneyspeak, a travel agent is called an "Authorized Disney Vacation Planner." Using them to book and plan your trip is a great way to save time and stress, and since they earn their commission from Disney, it doesn't cost you anything! What's more, vacation planners stay on top of the latest discounts, so they may be able to save you money.



oto: Getty Images

KEEPING HOPE ALIVE THROUGH HIS STIRRING WORDS AND INTERNATIONAL CHARITY, BASKETBALL COACH JIM VALVANO CONTINUES TO INSPIRE LONG AFTER HIS DEATH.

BY SIMONE ELLIN

Ask any college basketball fan for one of their most memorable March Madness moments, and many will mention the 1983 men's championship game between North Carolina State and Houston.

North Carolina State was a sixth seed with 10 losses. The Houston Cougars were the No. 1 team in the country, with a 31-2 record, 26-game winning streak and a lineup that included future NBA superstars Akeem Olajuwon and Clyde Drexler. But sometimes miracles do happen. In the last three seconds of the game, the teams were tied 52-52. From 35 feet away, N.C. State guard Dereck Whittenburg launched a desperation heave that fell short of the basket, only to be grabbed in midair by Lorenzo Charles, who dunked it home for the victory.

As the awestruck crowd erupted, TV cameras captured the indelible image of ecstatic Wolfpack coach Jim Valvano sprinting around the court in search of someone to hug. Ten years later, Valvano would be dead. The beloved "Coach V" succumbed to bone cancer at 47, just a year after he was diagnosed.

Yet, in his relatively short life, Valvano accomplished all the goals he set for himself: to play high school and college basketball; to become an assistant, then a head coach; to win a game at Madison Square Garden; and to observe the time-honored tradition of cutting down the basketball net after a national championship win. Valvano was born in Queens, N.Y., on March 10, 1946. Raised in a tight-knit Italian-American family, Valvano, the second of three sons, was a talented athlete and sports enthusiast. At Seaford High School on Long Island, Valvano played basketball, football and baseball and was also student body president. He was a point guard at Rutgers University, where he majored in English and won Senior Athlete of the Year.

After marrying his college sweetheart, Pamela Cohen, in 1967, Valvano led basketball teams at Johns Hopkins and Bucknell universities and Iona College before moving with his wife and three daughters to Raleigh, N.C., to coach the Wolfpack. After winning the championship in 1983, he left coaching three years later to become a commentator and sports analyst at ABC/ESPN.

Wherever he went, Valvano was



Motto for Valvano's foundation, taken from his 1993 ESPY speech, which is available to watch on YouTube.

known for his warmth, positivity, determination and sense of humor.

Inspiring as a coach, Valvano continued to serve as an inspiration to athletes, fans and colleagues after his terminal diagnosis. A month before his death in 1993, Valvano was honored

NEW AND IMPROVED

with the Arthur Ashe Award for Courage at ESPN's first ESPY Awards ceremony. Accepting the award, Valvano gave one of the more memorable speeches in sports history.

After thanking ESPN for the honor, a visibly ill Valvano gave viewers his prescription for life: "To me, there are three things we all should do every day. ... No. 1 is laugh. ... No. 2 is think. ... No. 3 is you should have your emotions moved to tears, could be happiness or joy. But think about it. If you laugh, you think and you cry, that's a full day." At the end of his speech,

Valvano announced the founding of the V Foundation for Cancer Research, which has since awarded \$225 million in cancer research grants across the country. Its adopted motto, which was part of Valvano's ESPY speech, reflects both the determination of the 1983 N.C. State team as well as its scrappy coach: "Don't Give Up... Don't Ever Give Up."

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FORD F-SERIES TRUCKS HAVE BEEN HAULING GEAR—AND SETTING SALES RECORDS—FOR GENERATIONS.

Ford's iconic F-150 debuted in 1975. Photo: courtesy of Skyway Classics





THAT MADE HISTO

he Ford Motor Co. has rolled out some truly iconic cars in its 116-year history, from the 15 million Model T's—the humble Tin Lizzies—that essentially birthed the modern auto age, to the more than 10 million Mustangs that have sprinted out of the gate since the pony car's splashy 1964 debut. But Ford's best-selling vehicle isn't either of those—or even a car for that matter. It's the F-series of pickup trucks, with well over 40 million sold, and particularly the ever-popular F-150 model. If all the F-series trucks sold since 1977 alone were parked end-to-end they'd circle the globe nearly four times.

FIS

And to think that Ford's first "pickup" in 1917 (that term didn't exist yet) came without a key piece of equipment: a truck bed. And the super-successful F-150 rolled out in 1975—not as a result of a brilliant marketing decision, but as a means to dodge new vehicle emissions standards. Still, the proof is in the pudding: Ford is for trucks. Indeed, the company is now phasing out the production of all passenger cars in North America, save the Mustang.

Though Ford released what it called a "delivery car" in 1905, few of the boxy contraptions, with a freight capacity of around 600 pounds, were made. The company's 1917 Model TT was really its first vehicle with a chassis lengthened and strengthened specifically for hauling. Indeed, it had an impressive 1-ton carrying capacity, which its 20-horsepower engine achieved through granny gearing that limited it to a top speed of 15 miles per hour. And, oh yeah, the actual truck bed was sold separately. It's not clear who first coined the term pickup, but by 1925 Ford ads touted that its Model T Runabout came equipped with an "all-steel pick-up body" (no more trips to the parts department to buy a bed) and the modern pickup truck was born. (Chevrolet didn't offer something comparable until 1931.)

The initial generation of F-series



The 1948 Ford F1. Photo: Sicnag

pickups debuted in 1948 as the company's first all-new line of vehicles in the postwar era. By 1974, the line included F-100, F-250 and F-350 models in ascending order from light-duty to heavy. But then federal emissions regulations arrived the following year. Ford engineered the F-100 to be compliant but also cobbled together a version beefed up just enough to move it into a weight class exempt from the need for catalytic converters and unleaded fuel. They named it the F-150, part of the sixth generation of F-series trucks. Turns out, this regulation beater's capabilities hit a consumer sweet spot, and by 1977 Ford had the best-selling pickups in the country. And by 1982, the F-line pickups were the best-selling vehicles, car or truck. They still are.

Now in its 13th generation, F-150 sales keep coming: More than 900,000 left showrooms in 2018, about one every 30 seconds. And a truck born out of a need to skirt emissions controls may soon produce no emissions at all, as Ford is planning both hybrid and all-electric versions of the F-150, perhaps as soon as 2021. Meanwhile, current F-150s offer 10 times the speed and more than 20 times the power of the humble Model TT of yore.

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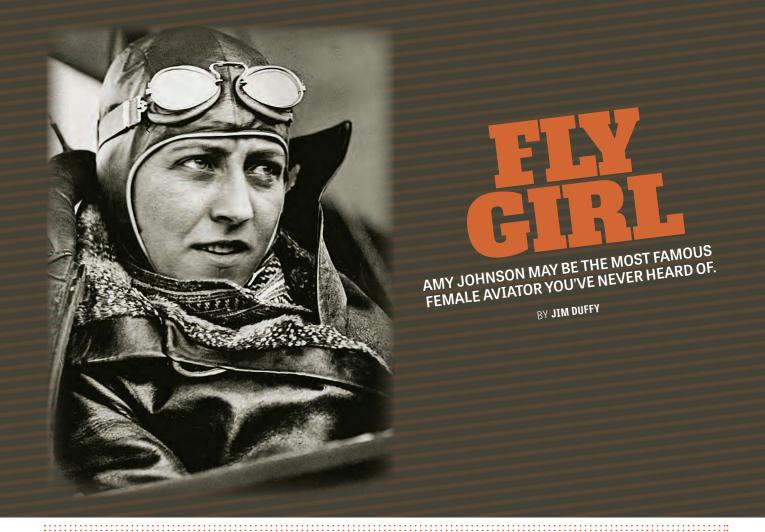


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owadays, the name Amelia Earhart looms far above all others in the ranks of pioneering aviatrixes (female aviators) in the 1920s and '30s. But in her own time, Earhart shared that spotlight on a near-equal basis with Amy Johnson, a British woman whose exploits were just as impressive—and, arguably, even more so.

Case in point: In 1930, Johnson became the first woman to fly solo from England to Australia, a trip that covered 11,000 miles over 20 days. By comparison, Earhart's famed solo flight across the Atlantic, which didn't happen until two years later, lasted less than 20 hours and covered 2,000 miles.

Johnson, who earned her pilot's license just two years before her historic flight, quickly became a global celebrity. A song by Jack Hylton's orchestra, "Amy Wonderful Amy," became a huge hit. Journalist Charles Dixon turned out a popular quickie biography, Amy Johnson, Lone Girl Flyer.

More records fell in the years that followed. In 1931, Johnson and a male co-pilot became the first flyers to make it from London to Moscow in one day. Soon after, they set a speed record for flying between London and Tokyo. Around this same time, Johnson met Earhart, and the two spent time together in the celebratory aftermath of Earhart's solo flight across the Atlantic.

Shortly after her wedding to pilot Jim Mollison, Johnson set another speed record flying from London to Cape Town, South Africa—the previous holder of that record was none other than her new husband. The couple set several records while flying together until their marriage crashed in a 1938 divorce. Despite

her fame, Johnson had trouble in the years that followed landing steady work as a commercial pilot.

The onset of World War II changed that. With Britain in all-hands-on-deck mode, Johnson became a staff pilot with the Air Transport Auxiliary, shuttling equip-



Amy Johnson welcomed after her flight from England to Australia in 1930.

of the rescue ships claimed Johnson had been shot down by friendly fire after failing to respond to hails with a proper security code. This, too, has never been confirmed.

The legend of Amy Johnson is still going strong, albeit not on the level of Earhart. Ten more songs have

ment and soldiers around Britain and beyond. Tragedy struck on Jan. 5, 1941, when her plane went off-course in bad weather and crashed in the Thames Estuary. Her body never turned up. She was just 37 years old.

Much like the death of Earhart, Johnson's demise has been the source of endless mystery and speculation through the years. Some rescue workers reported spotting a second person in the water, but official records had Johnson flying solo. Rumors surfaced about a top-secret espionage mission, but nothing like that has been proven. More recently, a man aboard one been written about Johnson over the years. A statue stands in her hometown near Herne Bay. Her name adorns schools, streets, a housing development and more. She has been the subject of several more biographies, a play titled "The Typist Who Flew to Australia" and a 1942 film, "They Flew Alone." Perhaps the most imaginative tribute came in a story in Doctor Who magazine in which that time-traveling hero and his companion Clara scooped the pioneering aviatrix out of the sea and took her off to the planet Cornucopia, where Johnson presumably lived happily ever after.



NAF

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HOUSTON? NO PROBLEM

From the *Mercury, Gemini, Apollo* and space shuttle programs to the International Space Station and Orion multi-purpose crew vehicle (pictured), the Johnson Space Center has been at the forefront of America's human spaceflight programs for nearly 60 years. Established in 1961 on more than 1,600 acres southeast of downtown Houston as the Manned Spacecraft Center, the \$1.5 billion center was renamed in 1973 to honor the late president and Texas native Lyndon B. Johnson. Almost 15,000 peopleincluding more than 100 astronauts—have jobs tied to the center, making the greater Houston area an aerospace hub, while earning the metropolis the nickname "Space City."

Photo: Courtesy of NASA



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