

SPRING 2019



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CONTENTS

On the Cover:

What's for dinner? Chicken

FEATURES**18****MEATING ITS MATCH**

How the 'Chicken of Tomorrow' staked its claim to the dinner table.

BY MARY K. ZAJAC

24**PURCHASING POWER**

Securing Louisiana from France put the nascent United States on the road to becoming a global force. BY EUGENE FINERMAN

28**UP, UP AND AWAY**

With the popularity of drones literally taking off around the world, here's a look back at how the ever-expanding technology came to be. BY JIM DUFFY

DEPARTMENTS**5**

The Dixon Driller

12

Picture This

13

Inventions

15

Gadgets & Gear

16

Health

33A Bite Out
Of History**34**

Traveler

36

Good Sports

38Cars That Made
History**40**

Profile

42

Homegrown Stories

BOSS

SPRING 2019

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WORKING TOGETHER

Part of our mission statement reads “Working together to delight our customers.” To us, “customers” are not only the great folks who buy our products, but also our internal customers—our co-workers—on whom we rely to help us do our jobs. I have the privilege of working with extraordinary people every day who bring this statement to life.

One such person who worked for Dixon for many years recently died at age 92. Walter was a truck driver/maintenance man who lived about 20 miles from work. On snow days, when only a few of us made it in because the roads were treacherous, he would catch a ride in to work with the state road crews. Perfect attendance is what he expected of himself. There was never a truck run he would not make, nor a maintenance job he would not tackle. Sounds like a great employee and one who many of us looked up to for the example he set. I should mention that Walter could not raise his arms above mid-chest. How he accomplished all he did was a mystery to me until I heard his philosophy: “If you think you can’t do something, you haven’t tried hard enough.”

Thanks Walter.

Photo: William Gray



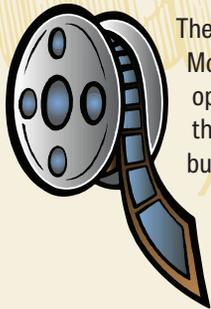
TRIVIAL MATTERS

DID YOU KNOW THAT...

The term "fore," used in golf, is likely borrowed from the military, which used the longer version "beware before" to warn of cannon fire originating behind friendly troops.

Every U.S. president has worn glasses at least some of the time.

The first two-sport mascot, Youppi, which means "Hooray" in French, served both the MLB Expos and the NHL Canadiens in Montreal.



The movie "Good Morning, Vietnam" opens with a view of the Thai parliament building.

The original King Kong was an 18-inch articulated metal skeleton covered with rubber and rabbit fur.

In "Toy Story 2," Andy has a calendar in his room that shows the characters from "A Bug's Life."

Buzz Lightyear and Mr. Incredible can be spotted in the dentist's waiting room in "Finding Nemo."

There is a Pizza Planet truck appearing in every Pixar movie.

Hollywood icon Clint Eastwood held jobs as a lumberjack, steel mill worker, aircraft factory worker, gas station attendant and swimming pool digger.



The oft-quoted words, "Me Tarzan, you Jane" are never actually spoken in the 1930's classic film "Tarzan, the Ape Man."

In "Terminator 2," Leslie Hamilton Gearren was a body double for her twin sister Linda Hamilton.

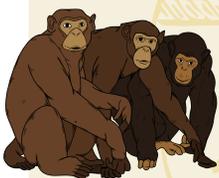
Until 1975, rules required that all Major League baseballs be covered in horsehide. As horsehide became more expensive, it became acceptable for balls to be covered in cowhide.

The "Blair Witch Project," originally shot on a budget of \$35,000, grossed more than \$140 million in three months.

(The Book of Extraordinary Facts)

ON THE LIGHTER SIDE

Knock, knock!
Who's there?
Figs!
Figs who?
Figs the doorbell, it's broken!



Did you hear about the chimpanzees who shared an Amazon account? They were Prime mates.

Drama (adj): a word boring people use to describe fun people.

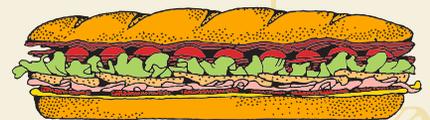
My girlfriend and I often laugh about how competitive we are. But I laugh more.

Why did the little boy feed his calculator to the family dog? He wanted a friend he could count on.

Epiphanot (n.): an idea that seems like an amazing insight to the conceiver but is in fact pointless, mundane, stupid or incorrect.

Unkeyboardinated (adj.): when you're unable to type without repeatedly making mistakes.

What do you call a month's worth of rain?
England.



The food at the sandwich shop I frequent is good, but any deviation from the norm throws off the staff. I once told a clerk that I wanted only half a sandwich. His reply: "What am I going to do with the other half?" A week later, when I told another clerk the same thing, she responded, "Do you want the top or the bottom?"

(rd.com)
Illustrations: Vector Stock

DATES IN HISTORY

1588 Thomas Hobbes, an English philosopher born April 5th, considered to be one of the founders of modern political philosophy, is best known for his 1651 book "Leviathan," which expounded on influential formulation of social contract theory.

1629 Christian Huygens, the Dutch scientist who invented the pendulum, was born on April 14th. Mathematician, astronomer, and physicist, Huygens founded the wave theory of light, discovered the true shape of the rings of Saturn, and made original contributions to the science of dynamics, the study of the action of forces on bodies.

1789 George Washington was inaugurated as the first president of the United States in Federal Hall, New York, on April 30th.

1838 On April 8th, the first regular transatlantic steamship service for passengers began its maiden voyage from Bristol to New York. The steamer, known as the *Great Western*, was designed by Isambard Brunel.

1916 Yehudi Menuhin was an American-born violinist and conductor who spent most of his performing career in Britain. Widely considered one of the greatest violinists of the 20th century, he was born April 22nd.

1961 On April 29th, Jim McKay was the host of a new American sports anthology program, "Wide World of Sports." The debut telecast featured national field and track events of the Penn and Drake Relays.

(Oxford Dictionary of Dates)

EASING THE HEAT

BY EMPLOYING ELECTRIC BUTTERFLY ACTUATORS, DIXON HELPED WELL-COMPLETION COMPANY FTS INTERNATIONAL IMPROVE PRODUCTION AND WORKER SAFETY ON ITS JOB SITES.



PRODUCT SPOTLIGHT



VENT-LOCK CAM AND GROOVE

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SIZES: 1" - 3"

FEATURES:

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- Does not interchange with standard cam and groove products; use only with Dixon Vent-Lock fittings
- Unique plastic orange tab covers allow for easy identification of Vent-Lock in the field: clearly contrasts non-interchanging standard cam and groove
- Ferrules, sleeves, bands and other reliable attachment options

THE SITUATION: The “hot zone” of a frack site near the well head can be a dangerous place. High-pressure slurry, used to extract oil or natural gas, can leak or burst, causing damage to equipment and/or injury.

THE PROBLEM: Standard butterfly valves that regulated pressure and flow had to be operated by hand, potentially compromising worker safety.

THE SOLUTION: Well-completion company FTS International worked with Dixon to provide electric butterfly actuators that could be operated remotely. “They honed in on our actuators as the go-to because they’re virtually maintenance-free,” says Tony Haston, an energy market specialist with Dixon. “They’re electric, so everything can be done very easily remotely.” As part of the upgrade, FTS also wanted to expand pipe sizes on rigs from 4 to 5 inches. Dixon was able to engineer a solution, accounting for increased

heat in the actuators due to the additional torque required to open and close the valves.

THE OUTCOME: By utilizing remotely controlled butterfly actuators, FTS was able to improve safety conditions on its frack sites. Additionally, the larger pipe size has allowed the company to increase production. Currently, FTS is upgrading its equipment with Dixon actuators throughout its North American worksites.

MATERIALS:

- 316 stainless steel
- Consult Dixon for availability of other materials

SPECIFICATIONS:

- 1”, 1½” and 2” rated to 250 PSI, 3” rated to 150 PSI, recommendation based on the use of mating Dixon L-style fittings at ambient temperature (70°F, 21°C) with standard Buna-N seal installed
- For use at elevated temperature or other unusual operating conditions, consult Dixon

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

◆ DIXON DIGITS ◆

63.2
MILLION

NUMBER OF PARTS DIXON

MANUFACTURES ANNUALLY USING

MORE THAN 360 MACHINES

ON-THE-JOB TRAINING

TO BOLSTER ITS WORKFORCE, DIXON TURNS TO A COMPETENCY-BASED APPRENTICESHIP PROGRAM, THE FIRST OF ITS KIND IN MARYLAND.



Apprentices, steering committee members and the on-the-job trainers for Dixon's competency-based, Maryland state recognized apprentice program.

It's a common story these days that many manufacturers find it difficult to recruit talent with the technical skills necessary for today's modern plant. Dixon is working toward a solution. By implementing its own CNC (Computer Numerical Control) machinist apprenticeship program, the company is now able to grow a highly trained workforce from within.

Since the 1980s, Dixon has offered an apprenticeship program to its employees. But beginning in 2015, the company began retooling the program from a traditional one, in which apprentices completed a regimented 8,000 hours of training over four years, to a self-paced version based on achieving different competencies as they progress.

In the new program, supported by the Maryland Manufacturing Extension Partnership, apprentices work their way through three levels

of hands-on skills, combined with 144 hours per year of online learning and other experiences. Graduates of the program emerge after approximately two years as certified CNC machinists fully trained to work on Dixon's cutting-edge equipment.

"A traditional apprenticeship program is kind of like going to college, coming out with your degree, but maybe not knowing what to do with it," says Chip Williams, assistant vice president of human resources at Dixon and a member of the steering committee that helped redesign the program. "The competency-based one is far more hands-on and when you complete it, you're a certified machinist who knows how to do the job."

There are surprisingly few apprenticeship programs available at manufacturing companies nationwide, and even fewer that are competency-based. When it launched in 2017,

Dixon's was the first in the state of Maryland. Maryland Department of Labor Secretary Kelly Schulz recognized the program last November at Dixon during National Apprentice Week.

Getting into the program is the first challenge for potential apprentices. Five applicants were selected when the company first offered the new program, based upon several tests of their knowledge and skill.

Mike Mench, 31, started with Dixon in 2010 as a welder. When the new apprenticeship program was announced, he immediately applied. "I had a background as a machinist, but I figured the apprenticeship would help me learn a lot more," says Mench. "And it has."

"WE ANALYZED EVERYTHING FROM START TO FINISH FOR QUALITY AND SAFETY. IT'S A TURNKEY MACHINIST IN A BOX."

—Don Seago, tooling department supervisor

The first year of the program—Level 1—involves basic "operator-level" skills such as starting a machine properly and changing cutting tools. "These are skills every shop operator is expected to do," says Eric Lemon, organizational development specialist and apprenticeship coordinator. Apprentices rotate among various machines in two of Dixon's Chestertown manufacturing divisions, until they possess basic knowledge of each.

After they achieve a specified degree of competency, they can move onto Level 2, which involves actually producing a finished product. Apprentices have to prove they can fully set up a CNC machine, take a piece of raw material and create a finished part to spec in a specified amount of time. Level 2 should take approximately four months to complete before apprentices move onto Level 3. That level entails more advanced skills, such as proving competency on several machines as well as troubleshooting error codes or material variances in a casting or pipe.

All told, the program takes roughly two years to complete. When the apprentices emerge, they'll be trained to

operate every machine in both Dixon's Boss and Specialty Products divisions.

"Basically, what we did in creating this program was to break down the process from starting the machine all the way to higher-level tasks and we standardized every step," says Don Seago, tooling department supervisor. "We analyzed everything from start to finish for quality and safety. It's a turnkey machinist in a box."

Standardizing operating procedures was paramount to the program. Examining how tasks were done allowed members of the steering committee to produce exacting procedures for best practice results. Previously, on-the-job trainers (OJT) often would impart their own personal knowledge or experiences when it came to instructing employees how to perform a task.

"Back in the day, you would work with different people who would show you different ways of doing things," says Arlington Wilson, who has served as an OJT for 15 of his 21 years at the company. "Now everything is standardized and documented. It's way better because everybody is on the same page."

Apprentice Mench agrees. "Before if there was a problem, someone might say, 'Oh, I'll just show you how I do it real quick.' But now because we have the standards, it's a much more efficient and effective way of doing things."

Standardizing procedures also will allow Dixon to transfer knowledge to its other manufacturing facilities across the nation, as part of its learning management system, Dixon University. "The goal is that all of these components will be a living organism as part of Dixon University," says Lemon. "We'll eventually take all Level 1 skills and classwork and have them available to all of our manufacturing locations."

For now, the apprenticeship program, which will graduate its first cohort this year, is only open to current employees of the company, but Dixon hopes to use it to attract new employees as well as start a youth apprenticeship program for those in community schools near the company's headquarters.

"The fact that a high school student can graduate and get into this program and in two years be a journeyman making very good money with no debt is a very valuable option other than going to college," says Williams.

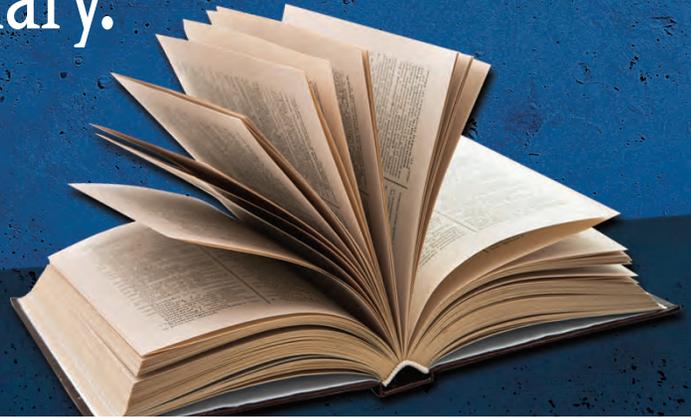
"Involving the community is an example of Dixon's commitment and investment in Chestertown and in Kent County, Md.," says Dan Lessard, assistant vice president of human resources, safety and training at Dixon.

For Mench, he hopes to finish the program in the coming months and plans on continuing his work as part of the Process Team at Dixon Specialty Products. He's appreciative of the new skills he's picked up as well as the company's willingness to invest in its employees.

"The program was a big investment in terms of time and resources," says Williams, "but we did it to build a future. This is what the future of manufacturing looks like for Dixon." —Joe Sugarman

“The only place success comes before work is in the dictionary.”

— Vidal Sassoon



FROM THE ARCHIVES



**COMPANY FOUNDER
HOWARD W. GOODALL
INSPECTING COUPLINGS AT
HOOVER DAM IN 1932**

To say that Hoover Dam was a massive undertaking when construction began in 1931 is an understatement. Few feats of engineering had ever compared—and few ever would. More than 5,200 men worked on the project, digging tunnels and laying mountains of concrete in an effort to harness the power of the mighty Colorado River. Dixon played an important role in the construction, supplying parts to help make the dam an enduring success.

RESPONSIBILITIES OF BEING THE BOSS

BY MICHAEL JOSEPHSON

As I speak to business groups around the country, I frequently hear senior executives utter modern clichés about wanting employees to “think outside the box.” And while I’m sure companies truly appreciate breakthrough ideas that increase profits, productivity or quality, the problem is that the culture in most organizations is quite inhospitable to those who challenge old ways of doing things, including practices that make no sense or are simply inefficient.

An often overlooked obligation of ethical management is to establish an atmosphere where employees

are truly expected and willing to accept responsibility for improving the quality of programs, products and procedures—even if it means challenging well-established policies or management decisions. Though

most managers think they’re open to ideas, some studies show that

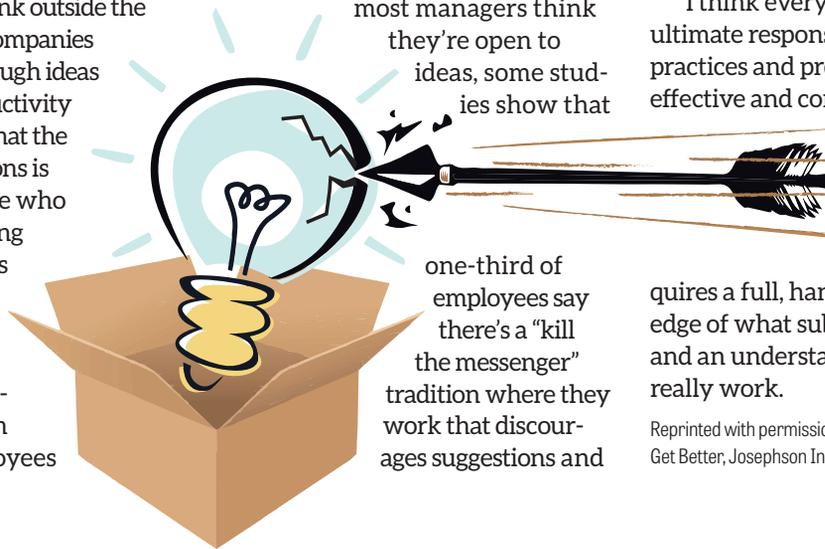
one-third of employees say there’s a “kill the messenger” tradition where they work that discourages suggestions and

promotes concealment of negative information. Whenever a manager asks, “Why didn’t someone tell me?” it’s time to find ways to more effectively send the message that mission-oriented employees who produce and demand quality are to be prized, not penalized.

I think every manager has the ultimate responsibility to assure that practices and procedures are efficient, effective and consistent with organizational values and goals.

This requires a full, hands-on detailed knowledge of what subordinates actually do and an understanding of how things really work.

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ICE AGE

FRANK HURLEY, "THE ENDURANCE,"
CIRCA-1915

Frank Hurley (1885-1962) never expected what was to come when he signed up to be the official photographer for explorer Ernest Shackleton's Imperial Trans-Antarctic Expedition of 1914. Their ship, *Endurance*, became beset in Antarctic ice throughout the winter of 1915, and eventually sank, stranding its 28-man complement. After months spent in makeshift camps, the party used lifeboats to reach uninhabited Elephant Island. Shackleton and five others then made an 800-mile open-boat journey to reach South Georgia, where rescue efforts were launched to save the remaining crew. Incredibly, no lives were lost. Throughout it all, Hurley documented as much as he could, preserving for posterity the ill-fated adventure through his stunning work.

To learn more about this incredible story, read "The Endurance: Shackleton's Legendary Antarctic Expedition."



HIGH AND DRY

DISCOVERED BY ACCIDENT, GORE-TEX REMAINS THE GO-TO FOR OUTDOOR ADVENTURERS THE WORLD OVER.

BY SARAH ACHENBACH

Bob Gore was staring down a tough task and a tight deadline. A colleague had promised a client that their company, W.L. Gore & Associates, could produce a new type of plumber's tape to seal pipe threads. Unfortunately for Gore, the head of the company's research division, that product didn't yet exist and he didn't know if he'd be able to invent it.

W.L. Gore & Associates, which had been founded by Gore's parents, Bill and Vieve Gore, in 1958, specialized in creating products made from polytetrafluoroethylene or PTFE, better known as Teflon. The material, created by a DuPont researcher in 1938, was in high demand in the 1960s for use in the nascent computer and space fields for coating and protecting wires. W.L. Gore & Associates' PTFE-coated cables had been used in the *Apollo 11* mission that landed on the moon and in IBM's pioneering mainframe computers—and industry and government were eager for more PTFE applications.

But in the wee hours of October 1969, alone in his research lab, Gore, then 32 years old, was failing miserably. Every time he tried to stretch the thin rods of PTFE he was experimenting with, they'd snap. "The more carefully I tried to stretch the material, the more easily it broke," he told an interviewer in 2015. "That seemed counterintuitive to me."

His frustration grew. After heating the rods in a small oven, he recalled thinking: "If you won't pull slowly, I'm going to give you a huge jerk!" He did, and the solid PTFE



By transforming ePTFE into a thin, porous membrane, Bill and Bob Gore were able to create a new material that was waterproof and breathable at the same time. *Photo: Manuel*

rod stretched a thousand times its original size.

His accident produced a tough but flexible material that was 70 percent air, yet it retained all of PTFE's desirable qualities. The company dubbed it expanded polytetrafluoroethylene or ePTFE.

Gore and his father, Bill, quickly recognized a world of possibilities for the new polymer. They developed a process to stretch ePTFE into a thin, porous membrane, line it with a urethane coating, and then bond it to a nylon or polyester fabric. The resulting fabric had pores that

AS THE STORY GOES, THE COMPANY'S STAFF TESTED THE MATERIAL BY USING A RUBBER BAND TO SECURE A FABRIC SAMPLE OVER A COFFEE CUP FILLED WITH BOILING WATER.

were small enough for air to pass through, but too small for droplets of water to penetrate, making it breathable, wind-resistant and waterproof—in other words, perfect for hikers, athletes and others who endured bad weather.



Bob Gore demonstrates how quickly stretching a rod of PTFE led to his accidental discovery.

They called the new material Gore-Tex.

But the material didn't catch on immediately. Big outdoor companies passed on Gore-Tex until a small Seattle-based gear manufacturer named Early Winters gave it a try in 1976. As the story goes, the company's staff tested the material by using a rubber band to secure a fabric sample over a coffee cup filled with boiling water. They could see steam passing through the Gore-Tex fabric, but when they turned the cup over, supposedly no liquid came out. Soon after, the company released the world's first tent and then a jacket made from Gore-Tex. Sales took off.

"The centuries-long search for a waterproof-yet-breathable lightweight fabric had ended in complete success!" opined *Field & Stream* in 1977.

Bob Gore went on to serve as the CEO of W.L. Gore & Associates from 1976 until 2000 and was inducted into the National Inventors Hall of Fame in 2006. Today, the material he discovered, ePTFE, forms the foundation of nearly every product the still-family-owned, global company produces, from guitar strings and medical implants to Glide dental floss, one of its 7,000-plus patents. But the company's best-known product remains Gore-Tex, the accidental invention that has helped adventurers brave the elements from their own backyards to the top of Mount Everest. ●

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AEROCART

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ROBOMOW

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WAKE-UP CALL

WHY SLEEP IS EVEN MORE IMPORTANT THAN YOU MIGHT HAVE GUESSED.

BY SIMONE ELLIN

Can't drag yourself out of bed for your early morning workout? Rest easy. That extra hour of sleep may do more for your health than jogging, stretching and pumping iron combined. Indeed, countless studies have found that getting the right amount and right quality of sleep has at least as much of an impact on our health and longevity as diet or exercise. Yet despite the data, one in three Americans is sleep-deprived with potentially devastating effects.

Poor sleep in adults is linked to medical problems such as obesity, diabetes, cardiovascular disease, high blood pressure, immune deficiency and Alzheimer's disease as well as psychiatric disorders, such as depression and anxiety. What's more, sleep deprivation causes stress, irritability,

anger management issues and memory deficits that may result in problems at work, in school and with relationships. Drowsiness is a contributor to automobile and workplace accidents and a 2016 Rand Corp. report found sleep deprivation among employees costs the U.S. economy up to \$411 billion annually and leads to more than 1.2 million lost working days a year.

Adults aren't the only ones who are suffering from sleep deprivation. Children and teenagers also are experiencing adverse consequences. A recent Harvard University study found that children ages 3 to 7 who slept less than the recommended amount experienced difficulties with paying attention, emotional regulation and peer relationships in middle childhood.

Among teenagers, sleep deprivation "is a growing public health issue," says Dr. Ellen Selkie, an

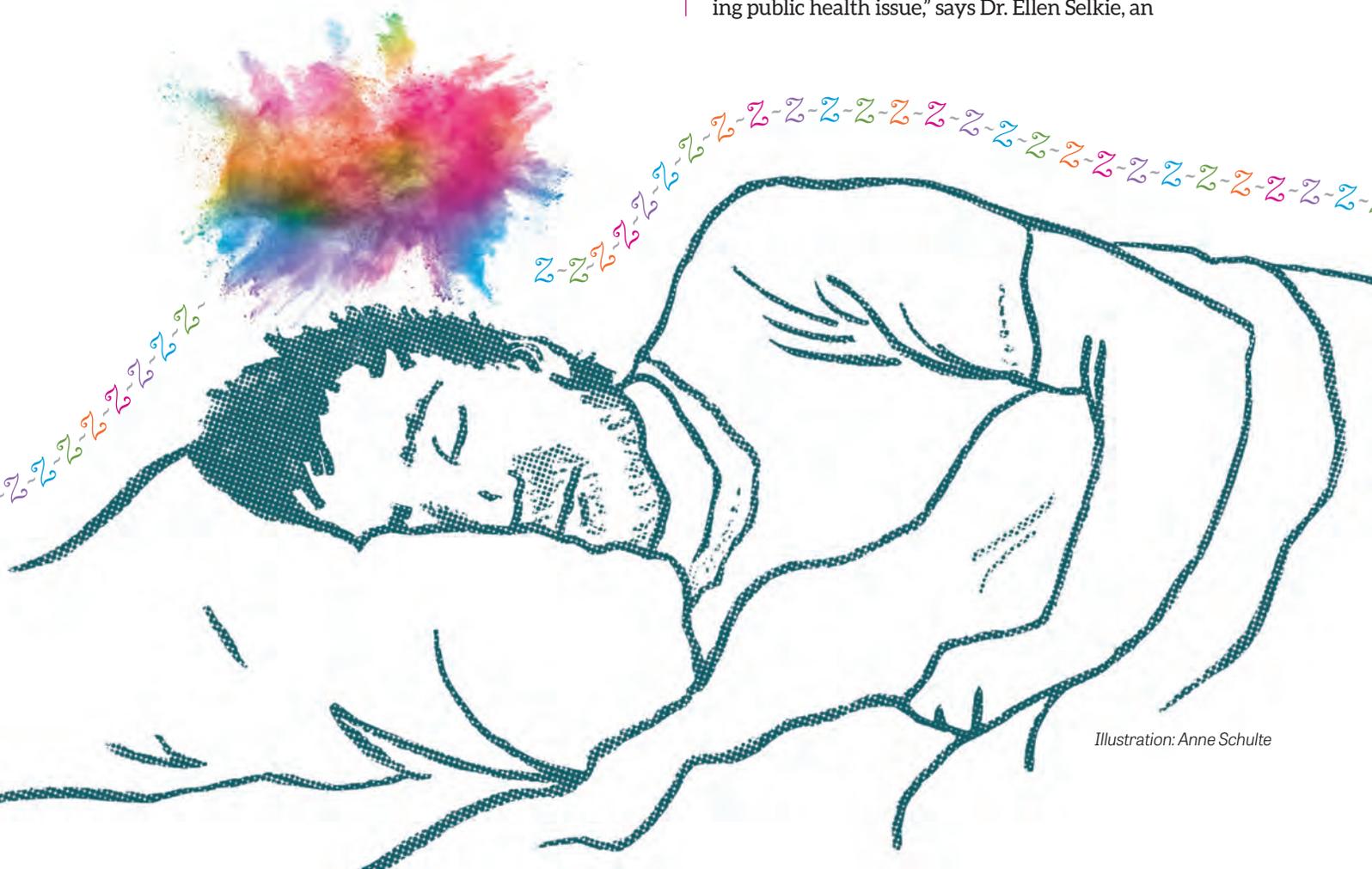


Illustration: Anne Schulte

adolescent physician at the University of Michigan. Poor sleep in teens affects school performance, mental acuity, weight gain and places them at increased risk of automobile accidents.

Given these sobering realities, why are Americans so reluctant to make sleep a priority?

One reason why is the 24/7 culture in which we now live. Smartphones and computers never sleep and that makes it difficult for human beings to do so. The fact that 71 percent of Americans sleep with their phones right next to them makes it nearly impossible to avoid late night social media interactions, work emails or the latest news headlines.

In addition, smartphones, laptops, tablets and television screens all stimulate the brain and confuse our circadian rhythms (internal clocks) because of the blue light they emit. When our brains see blue light, they misinterpret it as daylight, and trick us into thinking it's time to wake up. Even if we don't look at our smartphones, they may keep us awake with their vibrations and message alerts. The allure of the smartphone is particularly seductive to teenagers who may experience FOMO (fear of missing out) if they don't respond to every notification.

HOW MUCH SLEEP IS THE RIGHT AMOUNT?

According to the National Sleep Foundation, adults need between seven and nine hours of sleep; infants need as much as 17 hours a day; and children and teens need 10 to 14 hours depending on their age.

But getting enough sleep is only part of the battle. The quality of our sleep also is critical.

So how can you tell you're getting quality sleep? The most obvious clue is how you feel in the morning. If you wake up feeling refreshed, you're probably getting a good night's sleep. If you regularly sleep seven to nine hours a night and still feel tired, you may be one of the 60 percent of Americans who has difficulty falling or staying asleep and may need to modify your sleep regimen.

HEALTHY SLEEP PATTERNS

Healthy sleep alternates between non-rapid eye movement (NREM) and rapid eye movement (REM)

sleep. Sleep cycles last approximately 90 minutes, and most of us move through four to six cycles every night. Typically, we spend 75 percent of our time in NREM sleep and 25 percent in REM sleep.

Stages of sleep include:

NREM Stage 1: The period between wakefulness and sleep that occurs immediately after

we doze off. It lasts up to 10 minutes. It is easy to awaken someone in Stage 1.

NREM Stage 2: As sleep deepens, the brain waves and heart rate slows, muscles relax and body temperature drops. During Stage 2, we experience sudden brain waves known as sleep spindles. Though Stage 2 sleep is still relatively light, it is more difficult to rouse a sleeper in this stage.

NREM Stages 3 and 4: In recent years, Stages 3 and 4 have been combined. It is during these stages that we sleep most deeply. Our bodies produce human growth hormone, breathing slows and blood pressure drops. The

later stages of sleep are extremely important since that's when our bodies repair themselves. If you've ever had the beginnings of a cold, and your symptoms disappear after a good night of sleep, you've experienced Stage 3 and 4's reparative qualities.

REM: During REM sleep, the eyes dart back and forth, the brain is extremely active and the muscles are still. REM sleep is when we dream and, some scientists believe, when procedural memories such as riding a bicycle are consolidated and stored in our long-term memories.

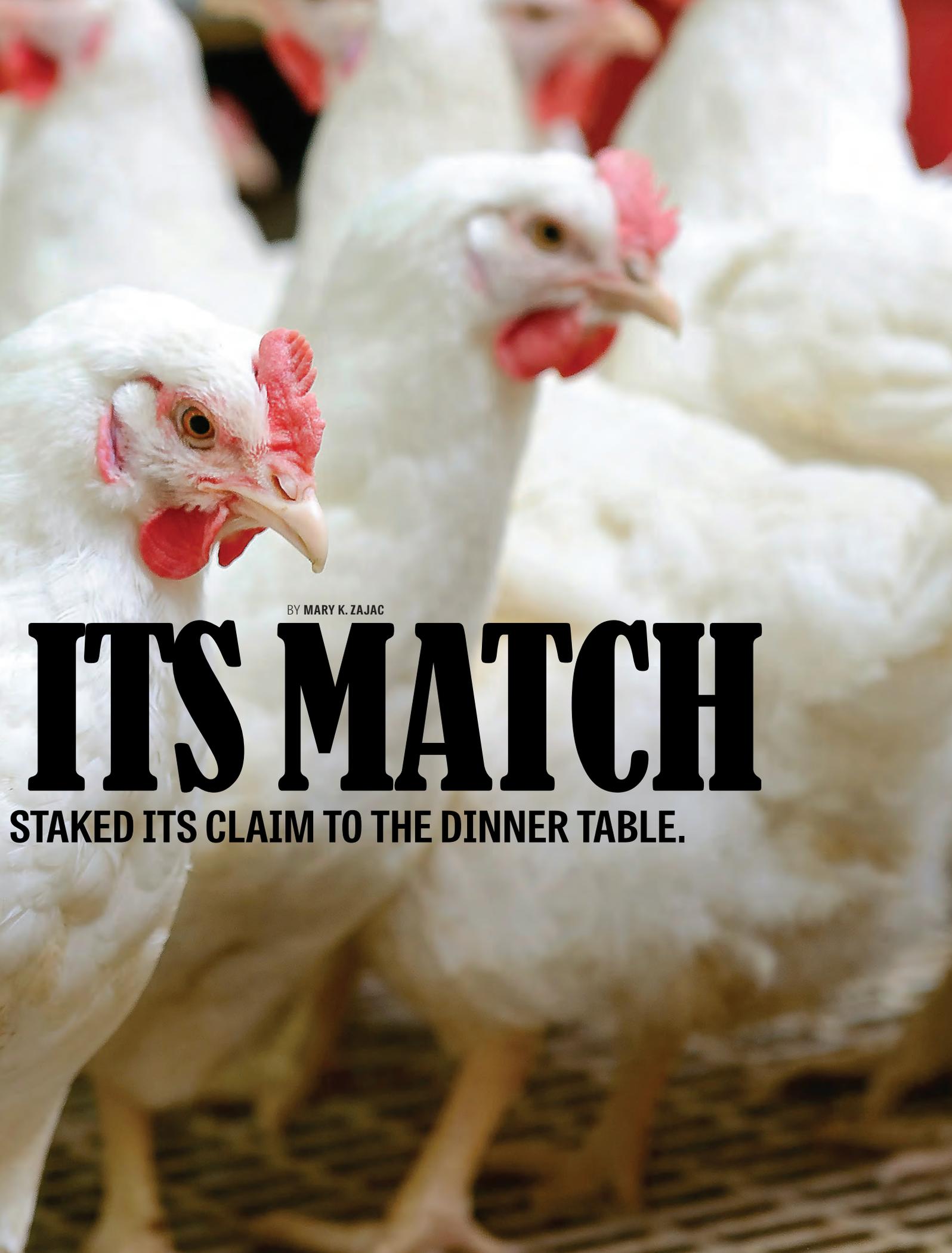
At one time or another, most of us have wished we could get away with less sleep. After all, we lead busy lives and have a great deal to accomplish. But don't be fooled into thinking that sleep is a waste of time. A lot of crucial activity takes place while you are getting your Z's. A good night's sleep helps to ensure that our waking hours are creative, satisfying and productive. ●





MEATING

HOW THE 'CHICKEN OF TOMORROW'



BY MARY K. ZAJAC

ITS MATCH

STAKED ITS CLAIM TO THE DINNER TABLE.



In the final days of World War II, poultry executives were getting nervous. The chicken industry had it good during the war. One of the ways Americans displayed their patriotism was by eating chicken instead of beef or pork, which were rationed so troops abroad could be fed. Predictably, chicken production soared. But what would happen to the industry once the war ended?

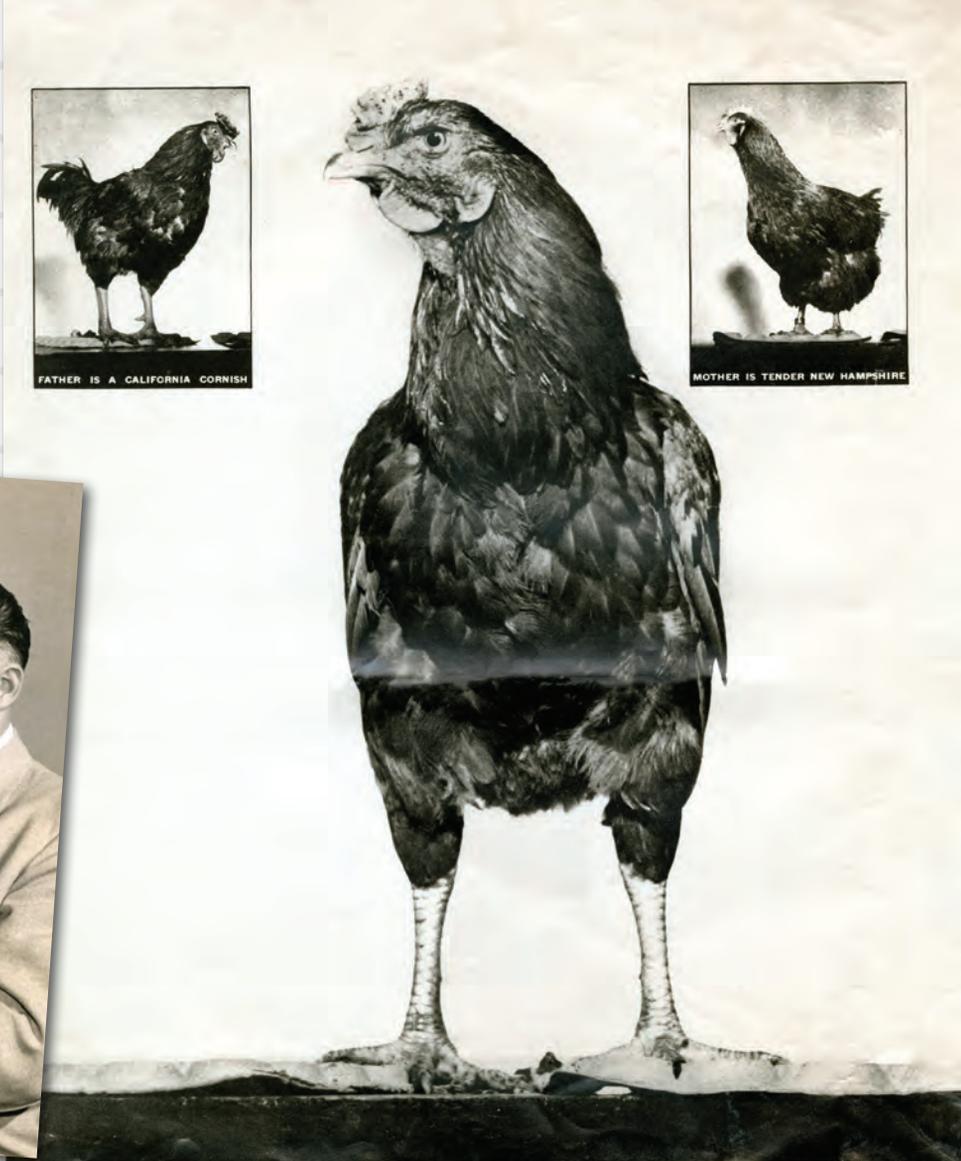
This was the very real concern of a group of poultry executives meeting

at an industry conference in Canada in 1945. Something had to be done, they worried. A 62-year-old poultry scientist from Iowa named Howard F. Pierce thought he knew what that something was: a brand new kind of chicken, one so plump, so meaty, that it would rival any steak or pork roast.

Prior to the 1950s, it took an effort to feed a hungry family on just one scrawny bird. Pierce, a faculty member at Iowa State Agricultural College at Ames before joining the A&P supermarket chain as poultry research director, suggested creating an entirely new variety. He called this new breed the “Chicken of Tomorrow.” He envi-

sioned a fleshy bird, “a chicken with breast meat so thick you can carve it into steaks,” *The Saturday Evening Post* later reported “with drumsticks that contain a minimum of bone buried in layers of juicy dark meat, all costing less instead of more.”

To the gathered assembly, Pierce pitched the idea of a national contest that would encourage farmers across the country to compete in the development of these new “superior chickens.” A massive public relations effort surrounding what he dubbed the “Chicken of Tomorrow” contest also would help excite the public about this revolutionary bird.



THE CHICKEN OF TOMORROW POSES WITH ITS PARENTS (TOP LEFT AND RIGHT). CALLED A CALIFORNIA-FRYER CROSS, IT IS GOOD FOR FRYING AT 4½ POUNDS

NEWEST CHICKEN
It has smaller bones, more meat

This proud cockerel, entitled the Chicken of Tomorrow, is the member of a new and remarkable breed of fowl. The country's top poultry experts selected its breed as the winner of a three-year contest sponsored by the A & P food stores to develop birds with lighter and smaller bones, fewer pin feathers, cleaner-looking skin, bigger breasts, plumper thighs and more succulent meat. Thousands of poultrymen tried to combine these characteristics in one chicken. It remained for a Californian named Vapntress to turn the trick with a bird (above) which has the additional virtue of flowering into a tender 4-pounder in the time it takes most breeds to grow to a scraggly 3 pounds.

From left: The first of three Chicken of Tomorrow contests was held in Easton, Md., in 1948, attracting 40 breeders from 25 states. **Middle:** Poultry industry executives were hopeful consumers would trade their steak dinners for a meatier bird. **Right:** The winning chicken, bred by a California farmer, crossed a male California Cornish with a female New Hampshire. Photos: John E. Weidlich Collection, USDA National Agricultural Library

The contest would be a win for poultry companies, farmers, supermarkets and consumers alike. With ample breast meat and the ability to mature quickly, the Chickens of Tomorrow would revolutionize the American dinner table and the way we purchase, eat and prepare the bird.

The story of the modern chicken, however, begins with the egg, rather than the bird.

The first of three national contests was held in 1948, but preparations started long before that. As early as 1946, farmers in 42 of the nation's 48 states submitted fertilized eggs to

regional contests where they were hatched under identical conditions. Ultimately, 40 breeders from 25 states (and a half dozen alternates) were selected to send 720 eggs each to Bradley's Hatchery, a hatching facility in Easton, Md.

A 1948 documentary film of the contest, narrated by famed broadcaster Lowell Thomas, shows shelf upon shelf of eggs placed into the incubating room by men wearing ties and sweaters and emphasizes the heavily controlled conditions under which the eggs were hatched. Everything about the chicks—their weight, health and general appearance—was

monitored and carefully noted. After 12 weeks and two days, the chickens were slaughtered and dressed. In a presentation area decorated with raw chickens nestled into crates stuffed with what looks like green Easter grass, the assembled experts at the Delaware Agricultural Experiment Station in Georgetown judged the birds in categories like "dressed carcass," "best skin texture" and "economy of production." To heighten the celebration, the Delmarva Broiler industry sponsored a parade and festival replete with the crowning of the Delmarva Chicken of Tomorrow Queen.

It was a farmer from California

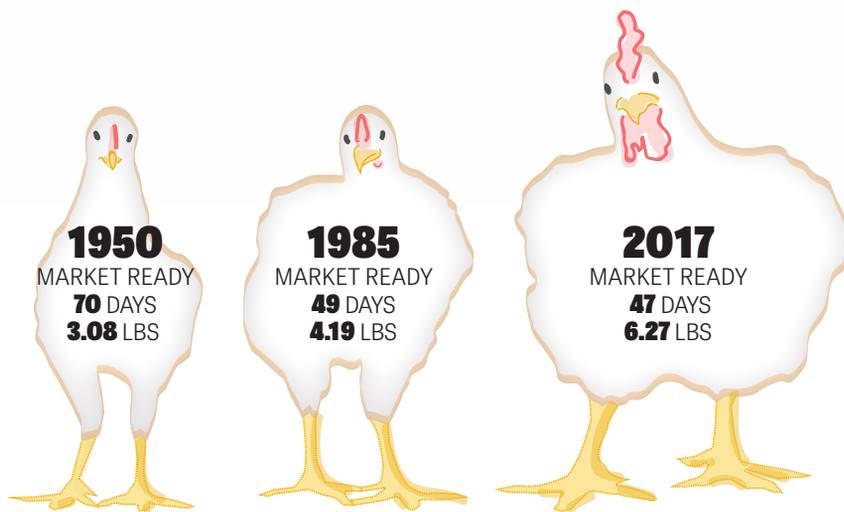
THE CHICKENS, WROTE ONE APPROVING REPORTER, “ARE SO TOP-HEAVY THAT THEY WALK LIKE A FAT MAN TRYING TO KICK A FIELD GOAL IN A TELEPHONE BOOTH.”



This page: Poultry executives ham it up in front of an exhibition at a Chicken of Tomorrow contest. *Photo: John E. Weidlich Collection, USDA National Agricultural Library*
Opposite: In order to keep up with consumer demand, growers breed chicks to achieve maximum weight in the shortest amount of time. *Photo: Shutterstock*

named Charles Vantress who walked away with the 1948 honors by crossing a male California Cornish with a female New Hampshire. The bird turned out to be a whopping 4 pounds, as opposed to the standard 2-pound broilers of the day.

The next contest, held in 1951, included even greater fanfare. Vantress' hybrid won again, this time in front of 10,000 spectators congregated in the University of Arkansas' Razorback Stadium, who



cheered and clapped along to the music of a marching band. Alben Barkley, the vice president of the United States, presented Vantress with a check for \$5,000. The press lapped it up, crowing that “the day of the slick-hipped

chick is over.” The chickens, wrote one approving reporter, “are so top-heavy that they walk like a fat man trying to kick a field goal in a telephone booth.”

The Chicken of Tomorrow

contests changed the industry forever. The era of the small barnyard flock picking and pecking their way across the barnyard was over. Farms that once kept 200 chickens in the early



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1950s grew to focus solely on chicken production, raising tens of thousands of birds that lived brief, six-week-long lives in cramped conditions, and fed on a diet of special feed laced with antibiotics. Large producers like Tyson and Perdue grew to capture the majority of the market as Americans' appetite for what became an inexpensive dinner grew.

In 1948, chicken cost 60 cents a pound; by 1968, the price had dropped to 39 cents. Chicken had become cheaper than beef or pork, and Americans ate double the amount of chicken than they had in 1948. By 2006, that number had increased to five times the original amount. Today, Americans eat

26 billion pounds of chicken every year.

With the increase in quantity, however, has come a decrease in diversity—and flavor. The many breeds of chicken raised all over the U.S. in the early 20th century—the Jersey Giant, the Wyandotte—have been lost to descendants of the Vantress bird and with them, the particular flavor that comes with individual breeds that consumed diverse feed, grass and insects. Compared to heirloom breeds, the modern-day chicken is “downright bland” and “essentially a blank slate,” opines *New York Times* food writer Mark Bittman.

If this is all a bit disheartening, take courage in current food trends that

favor local, sustainable and organic practices. Large poultry companies like Perdue have disavowed the use of antibiotics and, although statistics are elusive, the number of families—urban, suburban and rural—keeping chickens purports to be on the rise. According to *The Times*, the website mypeetchicken.com has shipped over 3,000 birds to addresses in New York City alone, and online sites like backyardchickens.com offer forums where bird owners can discuss everything from chicken aging to keeping roosters. If this trend continues, it may be that the Chicken of Tomorrow actually might be a lot more like the chicken of yesteryear. ●

PURCHASING POWER

SECURING LOUISIANA FROM FRANCE PUT THE
NASCENT UNITED STATES ON THE ROAD TO
BECOMING A GLOBAL FORCE.

BY EUGENE FINERMAN

66 **A**ll eyes, all hopes, are now fixed on you...for on the event of this mission depends the future destinies of this republic."

Thomas Jefferson was not prone to exaggeration. The U.S. president was hoping to avert a war with France, and he entrusted James Monroe to resolve a diplomatic crisis. French control of New Orleans was a threat to American commerce; the strategic port commanded the Mississippi's access to the sea. Hastening to Paris, Monroe was to negotiate the sale of New Orleans to the United States. If France refused, Monroe was to go to London and form a military alliance with Great Britain. By sale or conquest, America would have New Orleans.

In 1803, there were 17 stars on the American flag. The population had doubled in the 20 years since the Revolution to 5 million. A nation once bound between the Atlantic Ocean and the Appalachian Mountains now reached the eastern banks of the Mississippi River, which had become a major channel of commerce. Jefferson estimated that "the produce of three-eighths of our territory must pass to market" through New Orleans. He knew that port city was vital to the fledgling country's growth.

At the time, New Orleans as well as the vast territory stretching west from the Mississippi to the Rockies was under the Spanish flag. France had ceded the land to Spain in 1763 after losing the Seven Years War to Great Britain. But now



Hoisting American colors over what is now
New Orleans' Jackson Square, 1804

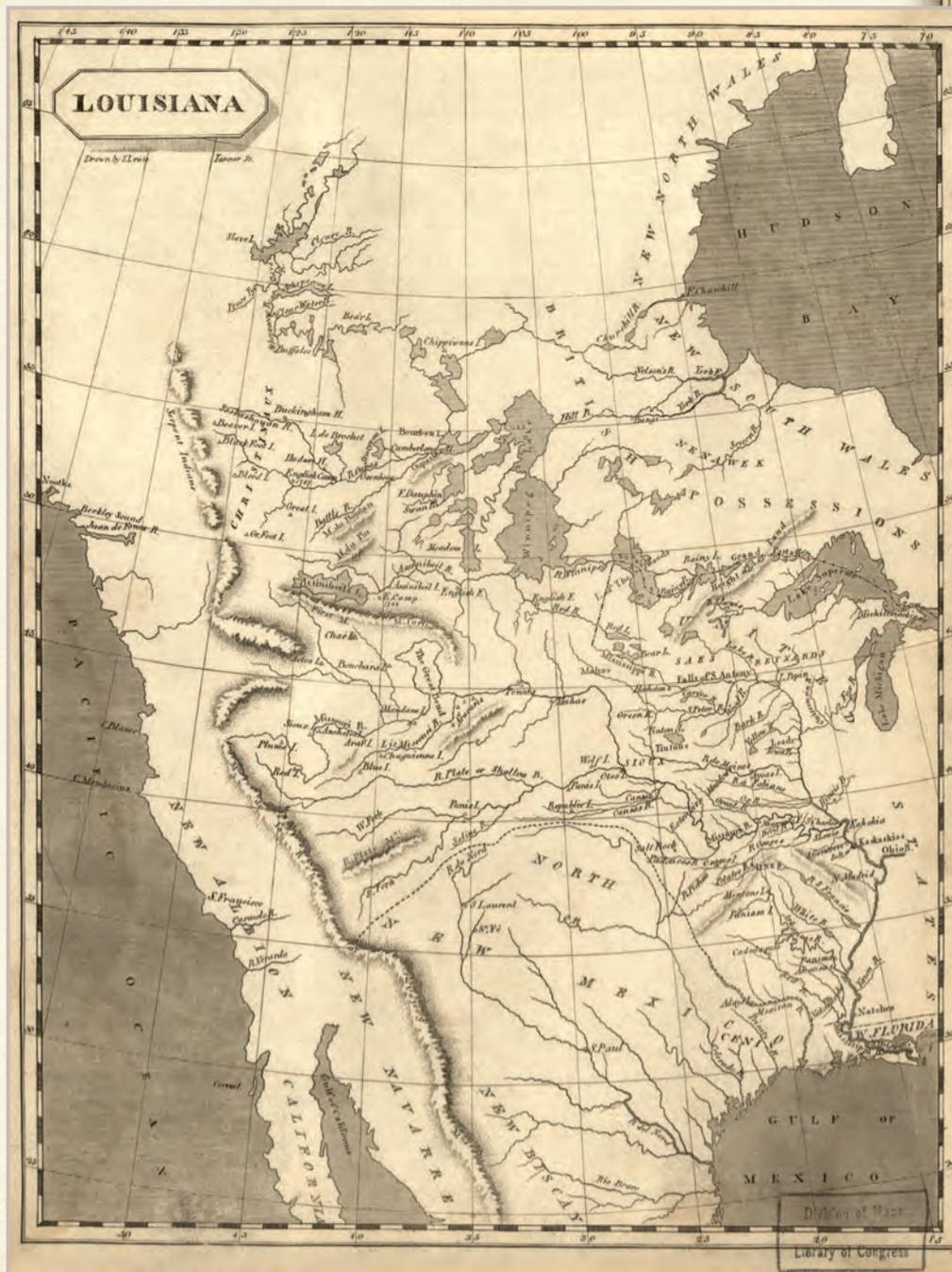
France and its calculating leader, Napoleon Bonaparte, wanted it back. Spain, fearing France's military might, dared not refuse. It could stall, however. The country didn't transfer the territory until 1803.

Jefferson feared a Louisiana "in the hands of France, the impetuosity and restlessness of her character." Of course, Jefferson was describing Napoleon. No one assumed that Napoleon's interest in North America was aesthetic or sentimental; Bonaparte and a new French empire in America made a very disturbing neighbor. Jefferson wrote to Robert Livingston, the U.S. minister to France, "Every eye in the U.S. is now fixed on this affair of Louisiana. Perhaps nothing since the Revolutionary War has produced more uneasy sensations through the body of the nation."

The American public seemed eager for war. Alexander Hamilton urged that the U.S. seize New Orleans "and then negotiate."

In Congress, there were cries for an army of 80,000 men against France. President Jefferson did not share the fervor. His fear of France included a very prudent regard for her might and Napoleon's military

genius. Such a war also would likely yoke America to an onerous alliance—England. That was a possibility but only a last resort.



No, Jefferson preferred to purchase New Orleans from France. In 1802, he instructed Livingston to begin the negotiations. Assisting the U.S. minister was the British financier Alexander Baring, whose

bank would finance the transaction. Jefferson's instructions were to offer \$9 million for New Orleans and pay up to \$10 million (about \$235 million today).

The initial French response seemed lethargic. Livingston reported, "There never was a government in which less could be done by negotiation than here." After a year's frustration and the approaching date of the formal transfer of the territory from Spain to France, an anxious Jefferson begged his friend, Monroe, the former governor of Virginia, to assist the negotiations in Paris. Monroe arrived there on April 12 and awaiting him was Napoleon's response. The impetuous Bonaparte had changed his mind about a French empire in North America. He now preferred to invade Britain.

But wars cost money. To raise that money, Napoleon offered to sell its entire empire in North America. More than just New Orleans, the area included 828,000

negotiator, François Barbé-Marbois, was prepared to end the talks. The Americans increased their bid to \$12 million. France would not accept less than \$15 million. After a few days of hesitation, the Americans agreed. The negotiations had lasted two weeks, and the treaty was signed in Paris on May 2, 1803.

With the signatures of Monroe, Livingston and Barbé-Marbois, the United States had doubled in size. Livingston, who also had signed the Declaration of Independence, exclaimed, "We have lived long but this is the noblest work of our lives. The United States take rank this day among the first powers of the world."

The price of \$15 million was an incredible bargain for 828,000 square miles of land, amounting to three cents an acre. However, that was not as negligible a sum as it might seem. It was twice the budget of the federal government that year. The money would have to be borrowed, from

THE PRICE OF \$15 MILLION WAS AN INCREDIBLE BARGAIN FOR 828,000 SQUARE MILES OF LAND, AMOUNTING TO THREE CENTS AN ACRE.

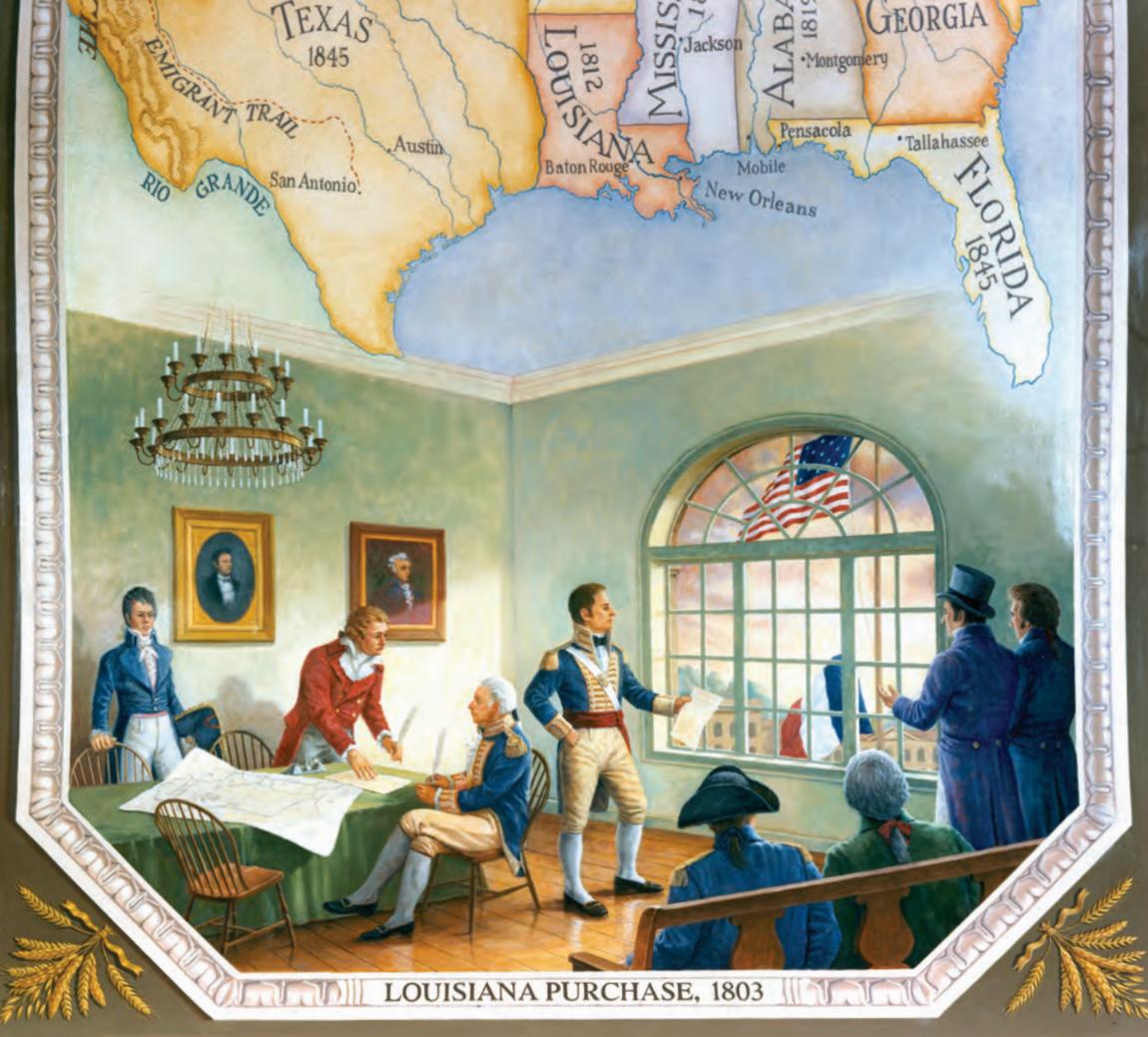
square miles in all—what would become the states of Louisiana, Missouri, Kansas, Arkansas, Oklahoma, Nebraska, North and South Dakota, Iowa and Minnesota. It also included parts of Montana, Wyoming and Colorado.

Monroe and Livingston were amazed. The offer was unbelievable. The Americans had no authority to negotiate such a treaty, but the opportunity was irresistible.

But there still was the matter of the price. France asked for \$22.5 million in gold. America offered \$8 million. France's

Baring's bank. At an interest rate of 6 percent, the loan would not be fully repaid until 1823.

The treaty arrived in Washington in early July, and President Jefferson publicly proclaimed it on Independence Day. Politics swayed the response. Hamilton did approve of the purchase but hated to admit it: "On the whole, we think it may with candor be said, that whether the possession at this time of any territory west of the river Mississippi will be advantageous, is at best extremely problematical. ...



LOUISIANA PURCHASE, 1803

In this interpretive painting, Congress officially approves the purchase of lands from France.

Provided therefore we have not purchased it too dear, there is all the reason for exultation which the friends of the administration display, and which all Americans may be allowed to feel."

Congress debated the treaty. The purchase was unprecedented, and there was some question if Jefferson had exceeded his authority. The Federalists thought so, but they were the minority party in the Eighth Congress. As the Democrats interpreted the Constitution, the president did have the power to negotiate treaties. The Senate finally approved the purchase that October; the vote was a reassuring 24 to 7 in favor. At a ceremony in New Orleans on Dec. 20, France's territory was formally transferred to the United States.

Jefferson himself was amazed by this "fugitive occurrence." What was in this vast

new domain? To explore the newly acquired territory, the president commissioned Meriwether Lewis and William Clark to undertake a "corps of discovery." Their two-year expedition embarked from a former French settlement named St. Louis.

The Louisiana Purchase had doubled the boundaries of the United States. The nation now nearly spanned the continent—something that would be achieved in another 40 years, after westward expansion increased.

Napoleon foresaw the purchase as the making of a great power. Of course, he also gave himself credit for it. "By this increase in territory the power of the United States will be consolidated forever, and I have just given England a seafaring rival which, sooner or later, will humble her forever." ●



AWAY

AND

UP

UP,

Historians are going to look back one day and wonder why the business world was so slow on the uptake back in 2006. The Federal Aviation Administration began accepting applications that year for the commercial use of drones, and the response was ... crickets.

Applications trickled in early on at the rate of just two or three a year. The complexity of that first set of FAA rules slowed things up to a degree, but so, too, did a dearth of ideas for how to use a technology that by that point was quite well established. The military had been using drones to blow up bad guys since the war in Afghanistan began back in 2001.

What at last shook up the business world was some news from the home front. In 2013, Amazon announced that it was planning for a future in which drones made deliveries to customers. A 2013 company video about that project went viral, and CEO Jeff Bezos soon landed on *60 Minutes*.

"I know this looks like science fiction," he said. "It's not."

The floodgates opened after that. Today, more than 100,000 people have "remote pilot" certification from the FAA. Unmanned aerial vehicles (UAVs or drones) are at work dusting crops, fighting forest fires, filming movies, inspecting oil pipelines and delivering medications to remote Third World locales. *Business Insider* is predicting growth rates for the commercial drone sector at

WITH THE POPULARITY OF DRONES LITERALLY TAKING OFF AROUND THE WORLD, HERE'S A LOOK BACK AT HOW THE EVER-EXPANDING TECHNOLOGY CAME TO BE

BY JIM DUFFY

20 percent-plus annually in the coming years, enough to pump 100,000 new jobs into the U.S. economy by 2025.

Here is one more telling measure of where things stand: The number of traditional airplanes in use around the world today totals about 320,000, while the number of drones purchased in recent years by individuals, companies and governments is 4.5 million.

Some revolutionary ideas take shape along straight lines that begin with flashes of miraculous insight. That is not what happened with unmanned aerial vehicles.

The first-ever UAV flight dates to 1848, when the Austrian army

launched balloons loaded with explosives toward the besieged city of Venice. Most of those bombs exploded too high up to do any damage. A few blew off-course and landed, embarrassingly, on the Austrians' own troops. Balloon bombs didn't exactly catch on in the years that followed.

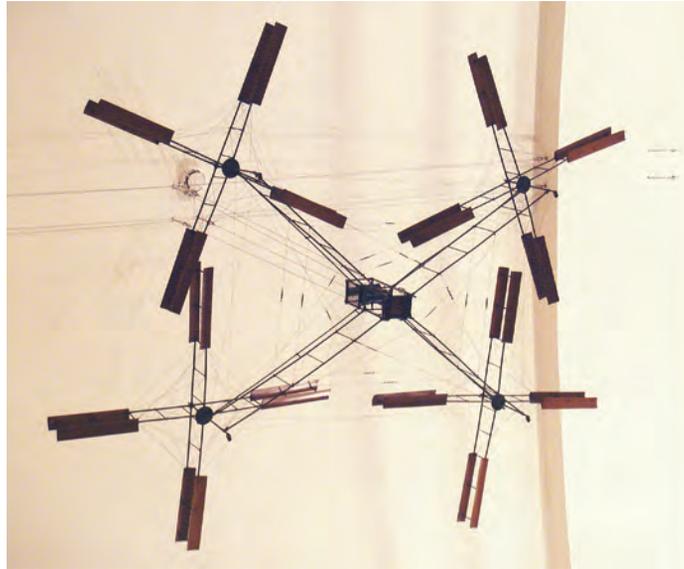
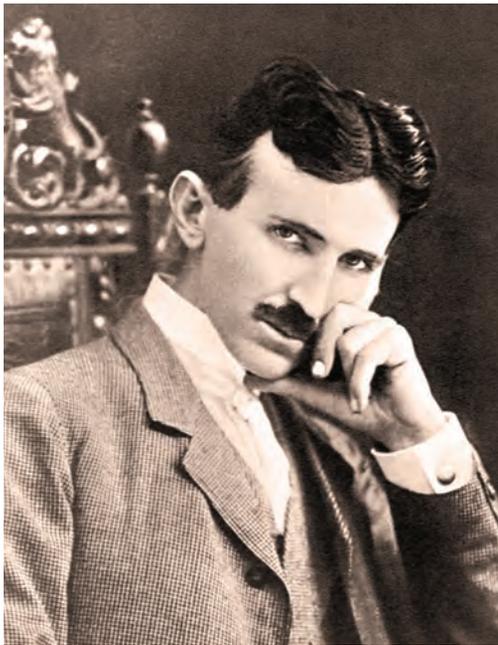
The story of UAVs is full of such two-steps-forward-one-step-back moments. The famous inventor Nikola Tesla had a colorful role to play in this story in 1898, when he wowed crowds at a New York City trade show by demonstrating the first-ever system of remote navigation, using radio waves to run

a model boat through a pool of water.

In a playful moment, Tesla tried to trick his mystified audience into believing that his display was a miracle of mental telepathy. He shouted out to the boat, "What is the cube root of 64?" A light on the vessel flashed four times.

Afterward, Tesla tried to sell his invention to the U.S. military as the seed from which to grow a missile-delivery system, but the





This page: Early attempts at drone technology included Nikola Tesla's remote-controlled boat and Louis Charles Breguet's "gyroplane."
Opposite: Israel launched swarms of unmanned Northrop Chukars, like this one, toward the Golan Heights in 1973.

THE DEVICES DEVELOPED IN VARIOUS COUNTRIES THROUGH THOSE YEARS HAD A STRING OF COLORFUL NAMES—THE KETTERING BUG, THE LARYNX, THE FAIREY QUEEN AND THE DH.82 QUEEN BEE.

leaders in his day couldn't fathom yet that this invention might become something more than a parlor trick. "The world moves slowly," Tesla once said, "and new truths are difficult to see."

The first UAV that bears genuine resemblance to modern-day drones showed up in France in 1907, when a team of would-be inventors led by the electrical engineer Louis Charles Breguet tested a flying machine dubbed the "gyroplane." A complicated contraption with 32 rotating blades set like so many circus plates spinning at various heights and distances around a power plant housed in a central chassis, this gyroplane was designed to rise straight up from the ground without

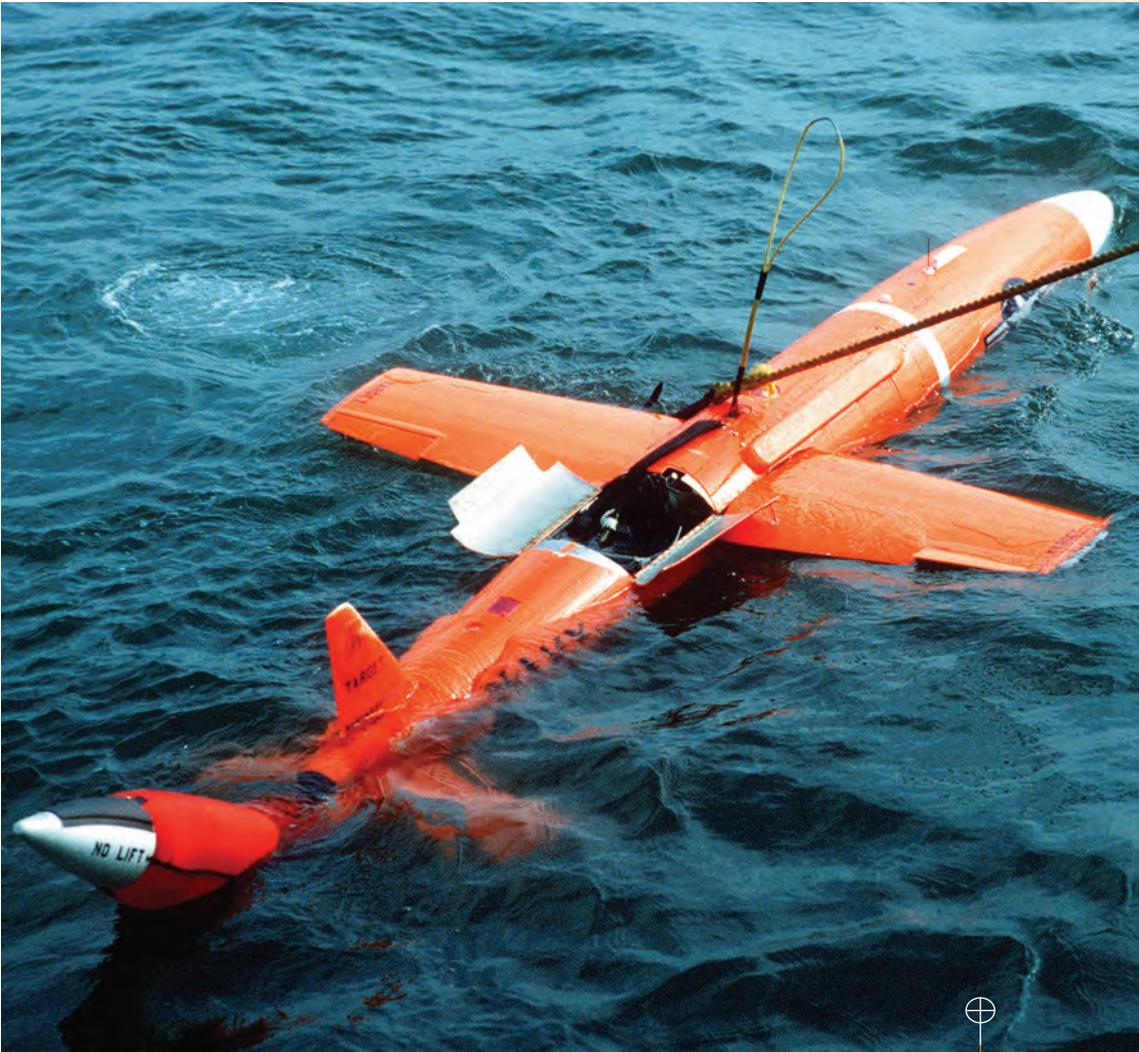
the runways, ramps or cliffs that other pioneering aviators were using to get airborne in those days.

Their gyroplane did get off the ground, in fact, climbing to an elevation of ... two feet. Even that paltry outcome, however, demonstrated that rotor-powered vertical takeoffs and landings by smaller aircraft were a possibility, even if the technology to make the continuous rotor readjustments needed for flight stability would have to wait until the arrival of microcomputers. In the meantime, helicopters would move onto center stage—they gained that airborne stability by way of heavy rear rotors that necessitated a bulky, bubble-shaped structure.

The one-two punch of all-consuming world wars in the first half of the 20th century moved most experimentation with unmanned aerial vehicles into the military sector. The devices developed in various countries through those years had a string of colorful names—the Kettering Bug, the Larynx, the Fairey Queen and the DH.82 Queen Bee. Like the gyroplane, each tacked on another baby step or two of progress.

Allied and Axis powers alike invested in UAVs during World War II. The Germans got the biggest bang for those bucks, launching some 10,000 V-1 pilotless "buzz" bombs into London. The Japanese even tried that old Austrian trick of balloon bombs, but

MAJOR MOMENTS IN DRONE HISTORY



1848 Austrians use bomb-filled balloons against Venice.

1898 Nikola Tesla demonstrates a remote-controlled boat in a New York City pond.

1907 French electrical engineer Louis Charles Breguet tests his “gyroplane.” It rises 2 feet off the ground.

1917 The U.S.’s Ruston Proctor Aerial Target becomes the first pilotless winged aircraft in history. Despite its promise as a “flying bomb,” it’s never used in combat.

1943 Created for use by the German military during World War II, the “Fritz X” becomes the first remote-controlled weapon actually put into operational use. Its 2,300-pound payload is used to sink ships during combat.

1960s Breakthroughs in transistor technology mean that, for the first time, miniaturized radio-controlled components are available to customers at a reasonable cost. Model airplane

kits are sold by the millions.

1973 Israeli military launch swarms of unmanned Northrop Chukars during the Yom Kippur War, depleting Syrian air defenses of ammunition.

1994 First flight of the Predator drone, which becomes a major surveillance and combat tool—equipped with Hellfire missiles—for the U.S. in Afghanistan, the Balkans, and other conflicts.

2006 FAA begins accepting applications for commercial drones.

2013 Amazon announces it will experiment with packages delivered by drones.

2018 Worldwide market for commercial drones tops \$6.8 billion and is anticipated to reach \$36.9 billion by 2022.

once again it didn’t work out.

In the U.S. military, unmanned aerial vehicles didn’t really move out of the lab and into day-to-day fieldwork until serving as surveillance tools during the Cold War and in Vietnam. Drones finally played a notable combat role in the Middle East, when Israel launched a swarm of unmanned Northrop Chukars toward the Golan Heights early in the Yom Kippur War of 1973. This brilliant feat drew a barrage of anti-aircraft fire, depleting Syrian air defenses to the point where they were unable to handle the more traditional bombing runs that followed.

Finally, at the dawn of the 21st century, UAVs became offensive weap-

ons in their own right. The Predator drone came into prominence during the first years of the wars in Afghanistan and Iraq. By 2010, the U.S. Air Force had more than 5,000 UAVs in service, more than double its number of traditional planes.

On the civilian front, things moved much more slowly. Radio-controlled model airplanes became popular with hobbyists starting in the 1930s, but the notion that UAVs might one day become an economic force on the order of planes, trains and automobiles didn’t really take hold until recently.

In fact, the FAA prohibited the commercial use of drones all the way up to 2006. Hobbyists were allowed to fly

their toys, but only under 400 feet and within eye contact of the operator.

Today, the big delivery plans that Amazon announced back in 2013 seem like small potatoes. Several companies are racing to develop airborne taxicabs—a Chinese company, EHANG, already has built a prototype quadcopter capable of carrying passengers. A British firm, Samad Aerospace, recently showcased a mini-prototype of its proposed vertical takeoff drone, which in final form is supposed to take 10 passengers on journeys of up to 1,000 miles.

Still, significant obstacles stand in the way of a *Jetsons*-like future where low-flying taxis and delivery drones fill the air above our heads. Such a world would need a new and enormously complex (and expensive) air traffic control system to keep these



Chinese company EHANG has built a prototype quadcopter capable of carrying passengers.

vehicles clear of buildings, airplanes and each other. The FAA has been working in partnership with NASA to develop such a system, but it's unclear at this point when it might enter a testing phase.

Security issues will be of paramount importance, too. Already, drones have been used to ferry

illicit drugs across national borders and over prison walls. The FBI has seen cases where drones tracked the movements of security personnel at ports and other sensitive facilities. The threat of terrorist attack is another obvious danger. Finding the right balance between those security risks and the privacy rights of drone operators is likely to be a hot topic in the years ahead.

Expert predictions about how long it might take to overcome such daunting obstacles are all over the map, from a few short years to several long decades. At this point, the only thing we know for certain is that Nikola Tesla's old adage about how "the world moves slowly" no longer applies in the world of drones. The future of unmanned aerial vehicles is coming on, fast and furious. ●

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The Right Connection®

SNACK TIME

HOW A MEXICAN RESTAURANT WORKER INVENTED ONE OF AMERICA'S FAVORITE APPETIZERS.

For those of us who love snacking on tortilla chips smothered in cheese, it's a good thing Ignacio "Nacho" Anaya had a lively nickname. Otherwise, we'd be calling the snack he invented in 1943 something far less fun. As the story goes, Anaya worked as a maître d' at the Victory Club restaurant in Piedras Negras, a small Mexican border town near Texas' Fort Duncan military base. One evening, a group of U.S. military wives were looking to eat dinner at one of the area's restaurants, which had all closed for the night. Feeling sorry for

them, Anaya went back into the kitchen to prepare whatever was available. Frying some tortillas, he cut them up and covered them with shredded cheese and sliced jalapeños before putting the entire concoction in the broiler. When the appreciative women asked what the dish was called, Anaya replied: "Nacho's Especiales" or Nacho's Special. The rest is history—a gooey one at that. —*Joe Sugarman*



Photo: Shutterstock



NATIONAL PARKS BY

BY JOE SUGARMAN

MAJESTIC AND SERENE, AMERICA'S NATIONAL PARKS HAVE INSPIRED VISITORS FOR MORE THAN 100 YEARS.

As writer Wallace Stegner once put it, "National parks are the best idea we ever had." If the number of visitors is any indication, the public wholeheartedly agrees. Last year, the parks' 84 million acres recorded more than 330 million visits. The park system now comprises 418 areas in 50 states, the District of Columbia, American Samoa, Guam, Puerto Rico, Saipan and the Virgin Islands. Here are some more numbers to help inspire a visit.

102

Number of acres that comprise the Philadelphia home of Revolutionary War military engineer Thaddeus Kosciuszko, the smallest national park site.

44

Number of years after Yellowstone's founding that Congress, believing there needed to be an autonomous body to oversee the parks, created the National Park Service.

MARCH 1, 1872

The date Congress establishes Yellowstone National Park, the nation's first, "as a public park or pleasuring-ground for the benefit and enjoyment of the people."

60

Inches of rain that falls annually on Florida's Everglades National Park. (Seattle, by comparison receives a bit more than half that amount.)

13.2 MILLION

Number of acres that comprise Alaska's Wrangell-St. Elias National Park, the largest in the park system.

2,425

Height in feet of Yosemite National Park's Yosemite Falls, the tallest waterfall in the United States.

THE NUMBERS

Yellowstone at night Photo: Shutterstock

134

Temperature in Fahrenheit recorded in Death Valley National Park on July 10, 1913, the all-time hottest temperature ever measured on Earth.

11,388,893

Number of visitors in 2018 to Great Smoky Mountains National Park, the most visited.

1884

Year in which Theodore Roosevelt's wife and mother both passed away on the same day, one from disease, the other after childbirth. Roosevelt sought comfort in North Dakota's badlands where he once hunted bison. The area was later named Theodore Roosevelt National Park.

1930

Year in which Mount Rushmore was "officially" named after Charles Rushmore, a New York attorney who visited the Black Hills in 1884 on business. When he asked his local guide what the granite outcropping was named, the guide responded: "Never had a name, but from now on we'll call it Rushmore." And locals did until the Park Service formally recognized it more than 45 years later.

7

Number of times Roy Sullivan claimed to have been struck by lightning while serving as a park ranger in Virginia's Shenandoah National Park between 1942 and 1977.

11,177

Number of visitors in 2018 to Alaska's Gates of the Arctic National Park, the least visited.

1 MILLION-PLUS

Number of Brazilian free-tailed bats that inhabit the caves at New Mexico's Carlsbad Caverns National Park during spring and fall migrations.



Photo: Alamy

HOMES WITH HEART

FORMER NFL PLAYER WARRICK DUNN'S MOTTO OF 'FAMILY FIRST' RUNS DEEP.

BY ELIZABETH HEUBECK

When former NFL running back Warrick Dunn was a kid, his mother would cram him and his five younger siblings into her car and drive around new neighborhoods in Baton Rouge, La., to ogle homes under construction. During the holidays, they'd ooh and aah at houses decked out with lights. Today, Dunn, 44, has helped scores of single parents attain the dream—homeownership—that remained out of reach for his own single mother, Betty Smothers, whose life was cut tragically short.

In 1993, Dunn's mother, a police officer, was shot and killed during a

bank robbery while working a second job as a security guard. Dunn, just 18 years old at the time and on the cusp of a promising football scholarship, could have descended into despair. But he didn't.

"My instincts kicked in," Dunn later told *Sports Illustrated*.

Dunn, the oldest child of his household, learned quickly how to be a role model. "It was family first," says Dunn, who, after his mother's death, worked to keep his siblings together when he himself was just a teenager. His formative experiences and natural predisposition to giving back helped

shape Dunn into the generous philanthropist he is today. Along the way, his "family first" motto provided a road map for serving strangers whose plight he understands all too well.

Dunn's successful football career also put him in a strong position to give back. After becoming Florida State University's three-time, first-team All-Atlantic Coast Conference performer, Dunn graduated with a bachelor's degree in information systems in 1997. That same year, he was drafted by the Tampa Bay Buccaneers and named NFL Rookie of the Year. It was a big year for Dunn in another

way, too.

While a rookie with the Buccaneers, Dunn launched Home for the Holidays (HFTH) as a tribute to his mother. The program helps single parents become first-time homeowners primarily by paying the down payment on a home. Program recipients are carefully selected with input from HFTH partner Habitat for Humanity. The new homeowners pay the mortgage on their homes, interest free, at a rate lower than it would cost to rent. Affiliate partners furnish and equip homes according to the occupants' preferences, for free. To date, HFTH has assisted more than 150 families move into homes of their own.

In 2002, during the height of his 12-year NFL career, Dunn officially started the nonprofit Warrick Dunn



Warrick Dunn with a family who benefited from his Home for the Holidays program. Photo: Shutterstock

Charities, allowing him to expand HFTH by providing support in key areas relevant to his clients and their loved ones, including: financial literacy and new homeowner know-how, nutrition and wellness, and post-secondary education scholarships. More recently, Dunn had the good fortune

to see his generosity come full circle.

In 2006, current Houston Texans quarterback Deshaun Watson was just 11 years old when his seven-member family, headed by his single mother, became the 61st recipient of a HFTH house. Someone snapped a picture of Dunn with the young Watson in his new home. Years later, Watson was recruited to play football at Clemson, where he also built houses for Habitat for Humanity. As

a rookie for the Texans in 2017, Watson gave his first NFL check to three cafeteria workers who'd lost their homes in Hurricane Harvey.

"I'll never be able to thank him enough," Watson says of Dunn. Some might argue that, through his actions, he already has. ●

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THE CORVETTE TAKES OFF

ASTRONAUTS HELPED LAUNCH CHEVROLET'S PIONEERING SPORTS CAR.

White lightning: The '53
Corvette Photo: iStock

BY ELIZABETH HEUBECK



No one had ever seen a car quite like it.

It was 1953 and General Motors was unveiling its brand new sportscar in the middle of a ballroom at Manhattan's swanky Waldorf Astoria. Dubbed "Corvette" after the speedy ships used by the U.S. Navy in World War II, the car was low-slung and curvy with a "polo white" exterior and "sportsman red" interior. The two-seat convertible boasted whitewall tires, two-spinner hubcaps and taillights resembling rocket ships.

Instead of being made from steel as most cars were at the time, it had a light, all-fiberglass body—the first one to be mass-produced in America. Selling for a base price of \$3,498 (\$32,914 today), buyers could choose from just two additional options: a heater for \$91 and an AM radio for an additional \$145.15.

The car may have stolen the show at the GM event, but limited options were just one of the inaugural Corvette's downsides. Despite its pedigree, the

1953 Corvette seemed to be built more for cruising than speed. Its underwhelming six-cylinder engine produced only 150 horsepower. Nevertheless, Chevrolet quickly sold out the 300 hand-built Corvettes as they came off the assembly line in Flint, Mich., that year.

After the '53 model, subsequent Corvettes picked up speed. By 1955, the Corvette offered a powerful V-8 option and a three-speed transmission, revving up the car's reputation among the public—and with U.S. astronauts. Alan Shepard started the trend by showing up to NASA training in his '57 'vette, the first of 10 he would own during his lifetime. Legend holds that he and fellow astronaut Virgil "Gus" Grissom would often race their cars against one another.

Later in the decade, Indianapolis



The car's six-cylinder "Blue Flame" engine Photo: Kowloonese

500 winner and GM dealer Jim Rathmann, whose dealership was close to the space center in Cape Canaveral, Fla., saw astronauts as the perfect pitchmen for the cars. He offered them "special" \$1 lease terms and more than a handful took him up on the bargain. All of the Mercury 7 astronauts drove Corvettes except for John Glenn. (He chose a Chevy station wagon instead.) In 1969, Apollo 12 astronauts Dick

Gordon, Pete Conrad and Alan Bean each ordered custom 390-hp 427 Stingray coupes. "In the 1960s, astronauts were the American heroes that every child idolized and every adult respected," Corvette historian Jerry Burton told GM in a 2011 interview. "That so many of them drove Corvettes really helped establish the Corvette as America's sports car."

Fast forward 66 years and Corvettes' reputation—and their speed—continue to grow. The 2019 Chevrolet Corvette ZR1, for instance, has been clocked at 212 mph. That souped up 'vette will cost you upward of \$100,000. But that's nothing compared to the '53 model. If you had purchased one of those original 300 hand-built beauties for \$3,500 in 1953, you could likely sell it for close to \$245,000 today. An extremely wise—and fun—investment. ●

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TRAIL BLAZER

OVERCOMING ABUSE, EMMA 'GRANDMA'
GATEWOOD BECAME A FORCE OF NATURE.

BY SIMONE ELLIN

Emma Gatewood
traveled with just a
hand-sewn sack.
*Photo: Courtesy of
the Appalachian Trail
Conservancy*

Think 60 or 70 is too old to learn a new language? Write a great novel? Learn to play an instrument? Or even hike the Appalachian Trail? Think again.

In 1955, Emma "Grandma" Gatewood, then 67, a mother of 11 and a grandmother of 23, became the first woman to hike the entire 2,100-mile-length of the Appalachian Trail. And she didn't stop there. Gatewood hiked the trail twice more, completing her final journey from Georgia to Maine at age 75, making her the first person of either gender to hike the trail more than once.

Born Emma Rowena Caldwell on Oct. 25, 1887, on a farm in Gallia County, Ohio, the future Emma Gatewood was one of 15 children. At age 19, Gatewood married Perry Clayton Gatewood, a teacher turned farmer who physically abused her for the next 30 years. The abuse was so severe that Gate-

wood only narrowly escaped being killed on many occasions.

Throughout her miserable marriage, nature was a refuge for Gatewood. In the woods, she felt safe, peaceful and temporarily liberated from the violence inflicted upon her by her husband.

It was only after a particularly savage beating in which her husband cracked her rib and smashed her teeth that the mayor of the town where the family lived in West Virginia helped Gatewood get a divorce, which was granted in 1941. For the first time in her life, Gatewood was free to live as she pleased.

The idea to hike the Appalachian Trail came to Gatewood in 1949, after she read a *National Geographic* article about the trail, which mentioned that no woman had ever hiked it alone. She was determined to become the first. Though she only had an eighth-

grade education, Gatewood knew about botany and wildlife. A lifetime of grueling farm tasks had endowed in Gatewood the physical and mental perseverance she would need to complete the hike. In preparation, Gatewood walked 10 miles a day to strengthen her legs. When the time felt right, she told her family she was going for a walk and hit the trail.

Gatewood eschewed hiking equipment such as tents, compasses or boots. Instead she traveled light, with just a small hand-sewn sack that held a shower curtain to protect her from the rain, a Swiss Army knife, a few first-aid supplies, a notebook and pen. She wore canvas sneakers, replacing them seven times over the course of her hike. Gatewood subsisted on Vienna sausages, and snacks like raisins and nuts.

Once the media got wind of Gatewood's historic trek, she gained celebrity status in the hiking community



A pair of Gatewood's sneakers worn during her hike.

and beyond. She was on TV, in *Sports Illustrated*, and her story was told in newspapers across the country. Yet it is only in recent years that the world learned how truly extraordinary Gatewood was.

A Grandma Gatewood renaissance of sorts commenced in 2014, after the publication of "Grandma Gatewood's

Walk: The Inspiring Story of the Woman Who Saved the Appalachian Trail." Penned by Ben Montgomery, a Pulitzer Prize-winning journalist and Gatewood's great-great nephew, the book chronicled Gatewood's early life and revealed the hardships she endured during her marriage.

Today, Gatewood is remembered not only as an accomplished outdoorswoman, but also for her resiliency and bravery in the face of domestic abuse. In addition, she serves as a powerful role model for older adults who aren't ready to give up on their dreams. ●

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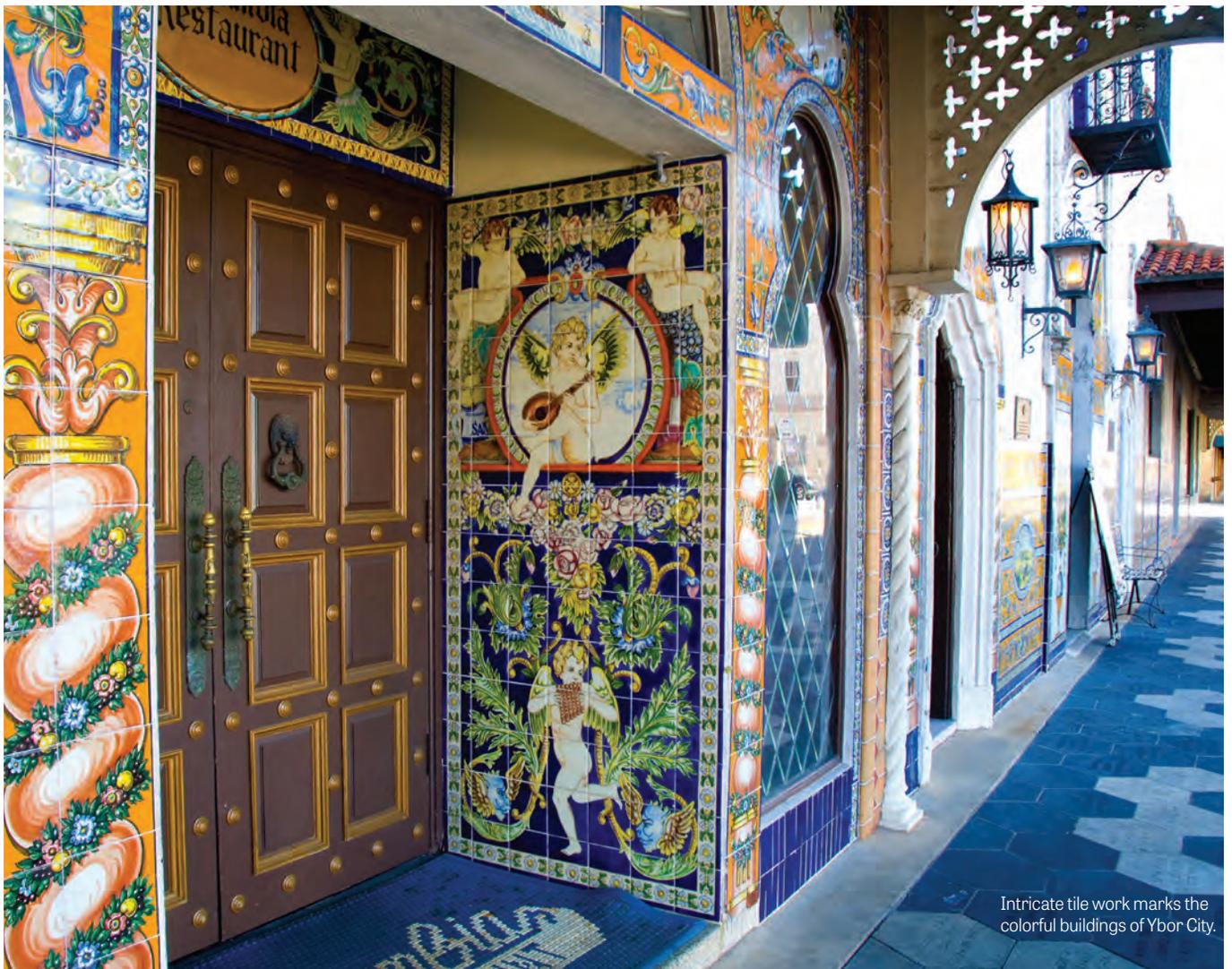
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