



The Right Connection®

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Moe Berg

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A born salesman

24 American West
Down on the ranch

30 Modern Olympics
Faster, higher, stronger

BOSS

FALL/WINTER 2016 ASIA/PACIFIC – SUMMER 2016

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THINKING BIG

“**Vision,**” as it relates to forward-thinking business practice, is defined as “the act or power of anticipating/perceiving that which will, or may, come true.”

In this issue of *BOSS*, you’ll find two excellent examples of men who had extraordinary vision. Ray Kroc, “The Man Behind McDonald’s,” never finished high school, but he did spend a lot of time thinking about things. His keen analysis and eagerness to think outside the box ultimately gave rise to the fast food industry.

Half a century earlier, Baron Pierre de Coubertin possessed the wisdom to look to the past to conceive an international athletic competition to unite the peoples of the world. Today, more than 200 nations participate in the modern Olympics.

If you look at today’s successful companies and organizations, you will find that they are all led—and staffed—by men and women of strong vision.

At Dixon, as at other successful companies, we encourage our employees to look beyond the task at hand and find better ways to serve the customer. On page 34, you’ll see the most recent product of their collective vision. Achieving this advancement required our team to look beyond what everyone else was doing.

You cannot be anything but impressed with the advance of technology that the world is experiencing.

Embrace it. Encourage it. Reward it.

Thanks for reading,

Dick Goodall

BOSS

FALL/WINTER 2016

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BOSS is produced three times a year by Dixon Valve & Coupling Company and Mid-Atlantic Custom Media. The acceptance of advertising does not constitute endorsement of the products or services by Dixon Valve & Coupling Company. The publisher reserves the right to reject any advertisement that is not in keeping with the standing or policies of Dixon Valve & Coupling Company. Copyright 2016, all rights reserved. Reproduction of any part of *BOSS* without written permission is prohibited.

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ON THE COVER

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Bridging the Gap Between the Is and the Ought

> **DURING A WORKSHOP** for high-level executives, it became clear that there was widespread dissatisfaction about the ethical state of their industry. The participants wanted everyone to live up to higher standards. That is, until we got down to specific situations where scrupulous truth-telling, promise-keeping and good-faith compliance would require changes that could negatively affect the bottom line or become competitive disadvantages.

It seems that everyone is for ethics in the abstract.

It's not uncommon to hear someone condemn situational ethics and moral

relativism one moment, only to defend some deceptive, misleading, or otherwise improper professional practice the next. Most people want to do their jobs with complete integrity but, despite popular rhetoric that good ethics is good business, many don't seem to believe it. Or they're just not willing to pay the cost.

Let's face it. Ethics can be quite constraining, especially in a business context. Consequently, lofty ideas about morality and virtue often give way to more pragmatic standards of decision making, involving factors such as what it takes to win, what our competitors are doing, and what we're likely to get away

with. "Do what's right" becomes "Do what works."

The hard thing is to live up to our moral aspirations when there is a wide gap between the "is"—what people are actually doing—and the "ought"—what people should be doing based on moral principles. People of character know that ethics is not about the way things are. It's about the way they ought to be.

Ethical standards are prescriptive, not descriptive. They tell us how we should behave. And they're not merely suggestions. They're ground rules.

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The Right Connection®

'The Brainiest Guy in Baseball'

Catcher-turned-spy Moe Berg was an eccentric enigma



Photo by National Baseball Hall of Fame Library/MLB.com (Photos via Getty Images)

Washington Senators Moe Berg in a catching position in 1932 at an unspecified location. Above: Goudey Gum Company Moe Berg baseball card.

> In 1934, when the traveling All-American baseball team headed to Japan, the lineup included legends like Babe Ruth, Lou Gehrig ... and a backup catcher named Moe Berg, whose lifetime average was a modest .243. Many wondered how he'd made the cut.

But while Berg was in Tokyo, he slipped away to the city's tallest building and took covert movies of the Tokyo harbor and munitions facilities. These would later be used to help plan U.S. bombing raids over Tokyo in 1942. "Whether or not this event marked the beginning of Berg's involvement in espionage, the Tokyo story forever labeled Berg as the most shadowy player in baseball history," notes NOVA online.

Indeed, the man who could speak 15 languages and came to be known as "the

brainiest guy in baseball," was an enigma to the end. But while the details of Berg's second career in espionage remain murky, much more is known about his first career as a professional baseball player.

Morris Berg was born to Russian-Jewish immigrants in a Manhattan tenement on March 2, 1902. The family moved to Newark, New Jersey, four years later, and it wasn't long before young Moe fell in love with America's greatest pastime. At 7, he joined a local baseball squad composed of Methodists. Already a bit eccentric, he took on the pseudonym "Runt Wolfe."

Moe's father Bernard, a pharmacist, couldn't understand his son's passion for baseball. Even after Moe transferred from New York University to Princeton

and found success as the team captain of the Princeton Tigers ball team (batting .611 against archrivals Harvard and Yale), Bernard still sent his son letters criticizing his participation in the sport.

Bernard, however, had to respect Moe's ability to balance baseball with serious study.

While commanding the shortstop position (he reportedly communicated plays in Latin), Moe also studied Latin, Sanskrit, French and other modern languages. He graduated magna cum laude from Princeton in 1923.

Berg faced a forked path after graduation. One option was Columbia Law School; the second was a professional baseball career. Not content to choose one over the other, he decided to simultaneously study law *and* play baseball.

Berg started his baseball career playing for the Brooklyn Dodgers on a \$5,000 annual contract (about \$70,000 today) before transferring to the Chicago White Sox in 1926. During his early years in the game, he kept up his studies, spending one winter at the Sorbonne in Paris and ultimately earning his law degree and passing the bar in 1930.

While with the White Sox, Berg switched from shortstop to catcher. A knee injury sustained soon after he made the shift would plague him for the rest of his baseball career, which ultimately spanned 15 seasons and included stints with the Cleveland Indians, Washington Senators and Boston Red Sox.

While he was never a star player, Berg was admired for his charm and

intellect, both on the field and off. In 1939, he dazzled audiences with his smarts when he appeared several times on the popular radio quiz show "Information Please." Baseball commissioner Kenesaw Mountain Landis was so impressed he reportedly told him, "Berg, in just 30 minutes, you did more for baseball than I've done the entire time I've been commissioner."

Berg eventually transitioned to coaching, spending two seasons with the Boston Red Sox. Then, in January 1942, just days before his father died, Berg severed his ties to baseball—and entered the shadowy world of espionage.

He first spent time in Latin America, where he assessed U.S. troops, before

joining the Office of Strategic Services (the precursor to the CIA) in August 1943. Assigned to the Balkans desk, he parachuted into Yugoslavia to evaluate resistance efforts there and then hopped around Europe, assessing the state of Nazi Germany's nuclear program.

One particular mission, in Switzerland, has entered into the annals of spy legend. Berg was tasked with attending a lecture of German nuclear physicist Werner Heisenberg in Zurich. He needed to determine whether Heisenberg, in his work on nuclear energy, was helping the Nazis create a nuclear bomb. If there was evidence of collaboration, the pistol-toting Berg was to shoot Heisenberg on the spot.

No dramatic assassination occurred. Berg concluded that Germany's progress in the nuclear field was overstated and not connected with Heisenberg's work in energy science. Berg and Heisenberg even became friends after the war's end.

Berg retired from the OSS in August 1945, and the postwar years did not treat him kindly. He struggled to hold down a job, mooched off his friends and family, and never married. The tell-all autobiography that would describe his wartime spying activities in detail was promised but never written.

Moe Berg died on May 29, 1972, at the age of 70.

While we do not know his burial place, we do have record of his final words: "How did the Mets do today?"

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Application:

- Transfer of fluids and solids with a safer disconnection

Sizes:

- 1" to 3"

Material:

- 316 stainless steel

Features:

- Venting system protects operator from being sprayed with hazardous or non-hazardous fluids or solids when disconnecting hose assemblies
- Does not interchange with standard cam and groove products use only with Dixon L-style fittings 

Specification:

- Rated to 250 PSI, based on the use of mating Dixon L-style fittings at ambient temperature (70°F) with standard Buna-N seal installed, for use at elevated temperatures or other unusual operating conditions, consult Dixon



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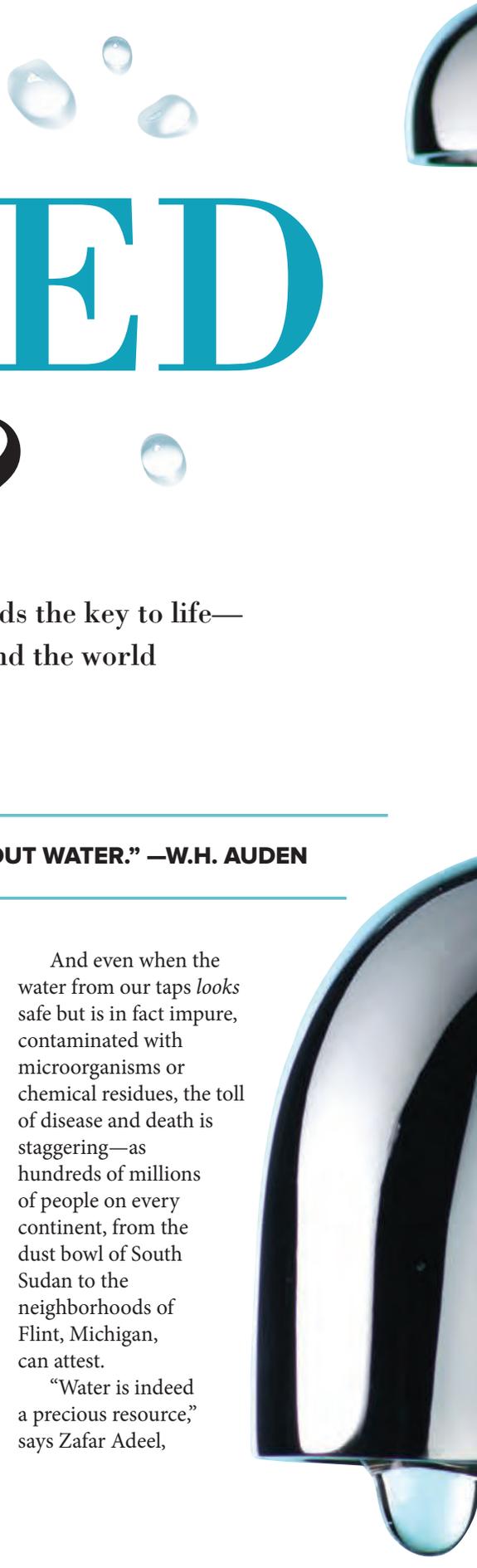
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The Right Connection®

All TAPPED Out?



Perhaps our most precious resource, water holds the key to life—
and is in dangerously short supply around the world

BY ALLEN ABEL

“THOUSANDS HAVE LIVED WITHOUT LOVE, NOT ONE WITHOUT WATER.” —W.H. AUDEN

IN the clouds above us, beneath the soil, in the seas and in our cells, water is elemental to life on Earth, the defining difference that separates our sloshy blue planet from our neighbors of rock and gas.

When there is too much water—think hurricanes Sandy and Katrina, the 2004 Pacific tsunami, or Typhoon Haiyan, raging across the Philippines in 2013, leaving more than 6,000 people dead—there is havoc, drowning, devastation and disaster.

When there is too little—for crops, for livestock, for babies, for families—there is drought, despair and death.

In 2015, some of the richest agricultural regions of North America—most damagingly and dramatically in

California—endured one of the longest and most severe droughts in recorded history, and scenes of dust and devastation riveted our attention.

But few in the developed world noticed when—at the same time—regions of India, including the state of Maharashtra, suffered an utter lack of rainfall that affected more than 330 million citizens; when a drought swept across South Africa, Mozambique, Malawi and Zimbabwe, wiping out 99 percent of the maize crop in some localities; when, in Venezuela, power generation was cut off when reservoirs became too dry to feed the turbines; and when, in Ethiopia, the worst drought in half a century once again raised the specter of starvation.

And even when the water from our taps *looks* safe but is in fact impure, contaminated with microorganisms or chemical residues, the toll of disease and death is staggering—as hundreds of millions of people on every continent, from the dust bowl of South Sudan to the neighborhoods of Flint, Michigan, can attest.

“Water is indeed a precious resource,” says Zafar Adeel,





©iStockphoto.com/Bartosz Hadywiak

Indian women collect water from a lake in Rajasthan.



director of the United Nations University Institute for Water, Environment and Health on the campus of McMaster University in Canada. “It permeates our lives much more than we commonly understand it.

“Our common interaction is washing and drinking, and even that we take for granted. While we enjoy our clean water, 660 million people don’t have that luxury, and close to 2 billion people are getting water from taps where the water is not safe. And beyond

household use, water permeates all of our economic sectors: obviously, agriculture and food production, but also energy generation and practically every industry has to utilize some volume of water.”

Early in 2016, the UN reported that three out of every four jobs on the planet—enfolded more than 1 billion workers—are dependent on a constant supply of water. “Sustainable development, human migration, conflict and natural disasters: Water cuts across these and many other major issues on

the global agenda,” wrote Secretary-General Ban Ki-moon.

Adeel, for one, is worried about the future. “Sub-Saharan Africa, the Middle East, central Asia, even parts of North America will get considerably drier if we continue business as usual and we have population growth to 9 billion by 2050. We could have a really, really bad situation.”

In Nigeria—one of Africa’s *richest* countries—25 percent of the country’s population of 170 million defecate outdoors. Two-thirds of citizens have no access to clean water for drinking and bathing. And 25,000 children die every year from diarrhea associated with contaminated water.

So the challenges for engineers, international organizations and governments are clear, and ancient: how to move rainwater and snowmelt from rivers and lakes to farms and homes in dependable, abundant quantities; how to render that water pure enough to drink; and how to organize human society so that there always will be enough uncontaminated water to reliably supply the needs of 7 or 8 or 9 billion people and more.



In Kano, Nigeria, local people fill buckets of water at a neighborhood well next to a drainage ditch filled with raw sewage. Some 660 million people around the world lack access to clean water.



Mary F. Calvert/ZUMAPRESS/Newscom

WATER AROUND THE WORLD

THE WATER CENTER OF THE GALLOGLY COLLEGE OF ENGINEERING AT THE UNIVERSITY OF OKLAHOMA HAS COMPILED AN ARRAY OF APPALLING STATISTICS:



The average American individual uses **100 to 176 gallons** of water at home each day. The average African family uses about **5 gallons per day**.



In Africa, **88 percent** of all diseases are caused by unsafe drinking water, inadequate sanitation and poor hygiene.



On average, a child dies **every 15 seconds** because of lack of safe water and adequate sanitation.



Approximately **one-sixth** of the world's population lacks access to safe water, while **2.6 billion people** lack access to improved sanitation.

“Water Map” © iStockphoto.com / trochka_T



akg-images/Newscom



Photography/Newscom

By 2000 B.C., the Minoan civilization on the island of Crete had developed a sophisticated system of long-distance aqueducts and clay-lined pipes, unearthed centuries later by English adventurer Arthur Evans.



Our common interaction is washing and drinking, and even that we take for granted. While we enjoy our clean water, **660 million people** don't have that luxury, and close to **2 billion people** are getting water from taps where the water is not safe.

Between Flood and Famine

For thousands of years, the mighty kingdoms, conquerors and empires of the Old and New Worlds sought to negotiate the safe middle space between flood and famine, between prosperity and starvation. Civilization itself was the parent of the invention of irrigation, with ditches, canals, dams and storage basins dating back at least 10,000 years.

By the year 2,000 B.C., the Minoan civilization on the Mediterranean island of Crete had developed a highly sophisticated system of long-distance aqueducts, clay-lined distribution pipes and sewage disposal channels. The contrivance was so advanced that, when English adventurer Arthur Evans unearthed what he called the Palace of Knossos in 1900, he noted with awe that the ground-floor latrine—including a wooden toilet seat—compared admirably with facilities then in use in London.

But there is a vast difference between delivering water to a palace or a municipality and providing water clean enough not to kill the citizens.

Even though depictions of water being poured into drinking vessels through sand and clay filters can be found in the tombs of the pharaohs, the link between impure water and outbreaks of disease—"germ theory"—

still was being disputed in learned circles well into the Victorian era. In the 1830s, London physician John Snow traced an epidemic of cholera to a single communal pump. But when politician Edwin Chadwick theorized that "the formation of all habits of cleanliness is obstructed by defective supplies of water," the *London Medical Gazette* ridiculed him and dismissed the idea that "the occurrence of any one case could be assigned to the use of the water."

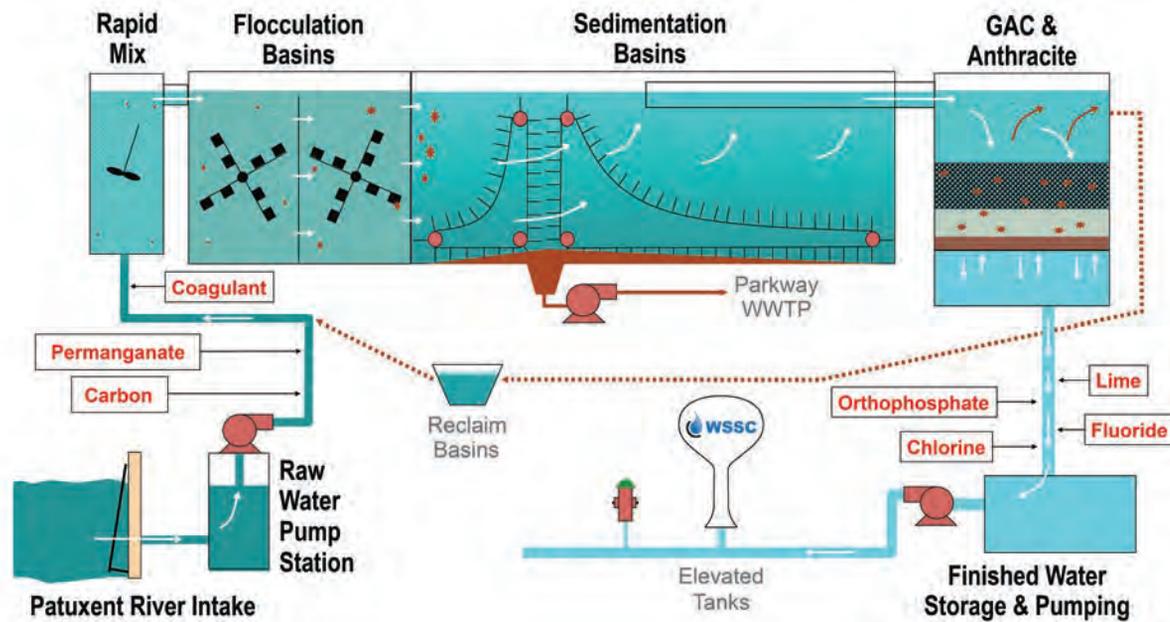
Nearly 60 years later, when the city of Pittsburgh, Pennsylvania, proposed to filter its drinking water through sand, the director of the Public Works Department thundered that "the city's water did not cause typhoid."

But by the turn of the 20th century, beginning in Jersey City, New Jersey, most American cities were adding germ-killing chlorine to their municipal water supplies, virtually eradicating cholera and typhoid, and saving the lives of millions.

The Purity Process

Flash forward to the 21st century. In the Maryland city of Laurel, the control tower of the Washington Suburban Sanitary Commission (WSSC) looms over Interstate 95. The real story here is underground, thousands of miles of

WATER FILTRATION PLANT PROCESS



Patuxent water filtration plant process diagram from the Washington Suburban Sanitary Commission

pipes and mains and tunnels that slurp up river water—three-quarters of it from the Potomac River as it glides past the nation’s capital—and purify it to serve the needs of 1.8 million people. They are spread across an area of 1,000 square miles with an average consumption rate of 163 million gallons a day. The WSSC is 97 years old and has never been cited for a purity violation.

“We’re one of those money-grubbing utilities that everybody complains about,” jokes senior engineer Karen Wright, a 34-year veteran of the WSSC’s daily battles against broken mains and the demands of thirsty new subdivisions. Wright says that the WSSC’s network of storage reservoirs is designed to withstand a severe “100-year” drought.

In Laurel, water from the Potomac and Patuxent rivers is treated in a four-step process:

1. Coagulation: the addition of a chemical, usually aluminum sulfate, to

river water to collect suspended particles, including viruses and bacteria

2. Flocculation: the slow churning of the water to encourage larger clumps of impurities to form

3. Sedimentation: storage in tanks and basins that allows the clumped impurities to settle to the bottom

4. Filtration: to remove any lingering contaminants

The end product is so inexpensive that one ratepayer dollar buys enough water to fill 1,624 20-ounce bottles. (Imagine the retail cost of that much water shipped from a French or Fijian spring.) And the WSSC’s computerized monitoring system is so precise that

Sedimentation basins and filters at the Washington Suburban Sanitary Commission in Maryland, one of the nation’s largest water utilities.





Four 30,000-gallon coagulant (polyaluminum chloride) storage tanks maintained by the Washington Suburban Sanitary Commission

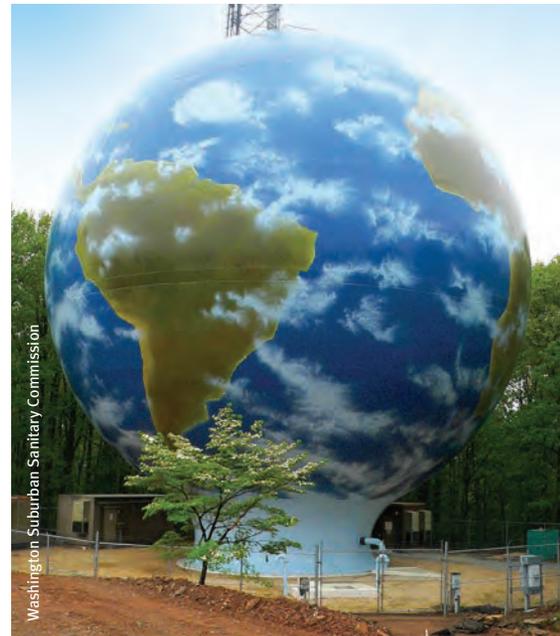
engineers can watch demand spike at 8 on a Sunday evening as thousands of schoolchildren are plunged, soiled and squirming, into the bath.

‘Grow More with Less’

Despite the unceasing thirst of a growing global population, only 30 percent of our water consumption goes to household use. The vast majority goes to irrigate crops and water livestock, even in regions where hardly any surface water exists at all.

In Israel, for example, drip irrigation got its start in the mid-1960s on the Kibbutz Hatzerim collective farm. “It was really out of necessity. We just didn’t have enough water, and we had very high salinity in the soil,” says Naty Barak, one of the pioneers in the invention and usage of the water-stingy drip irrigation technology that has helped to transform Israel and its Negev Desert into a fertile agricultural heartland.

“In Israel we talked about issues like food security and water



Water in a storage tank at the Washington Suburban Sanitary Commission, which provides water to more than 1.8 million residents in Prince George’s and Montgomery counties in Maryland.

scarcity from day one,” says Barak. “At that point, nobody in the world was listening to us. Today, they are.”

According to Tel Aviv-based Netafim, a global leader in drip and microirrigation technology, the volume of water that is used for irrigation each year around the world would fill America’s Lake Tahoe more than 600 times. Drip irrigation—in which water flows sparingly through long strips of tape or polytube piping along the ground or just under it—uses from 30 to 60 percent less water than flood, sprinkler or surface irrigation, a savings of 250 Lake Tahoes annually.

WATER HOUSEHOLD USE

(DAILY GALLONS PER CAPITA USED IN U.S.)

SHOWERS



20 gal.

CLOTHES WASHERS



15 gal.

TOILETS



18-24 gal.

DISHWASHERS



4-10 gal.

BATHS



36 gal.

HYGIENE



2.5 gal.

FOR DRINKING



1 gal.

Source: http://www.phila.gov/water/educationoutreach/Documents/Homewateruse_IG5.pdf;
From: <http://www.phila.gov/water/educationoutreach/publiceducation/Pages/default.aspx>



Growing “more with less”: Netafim’s surface drip irrigation system

Today, Barak is chief sustainability officer at Netafim. The firm’s motto—“Grow more with less”—is being emulated around the world; Netafim operates in 110 countries. Drip irrigation is one of the solutions that may enable humanity to maintain its growth curve—healthy and well-fed—toward the 22nd century, in wet years and in dry.

An example: “We have the most variable rainfall in the world,” notes Burn Ashburner, senior manager at the CANEGROWERS association in the state of Queensland, Australia. “It can vary from 300 millimeters (11.8 inches) to more than 3,000 (118 inches), which makes it very hard to plan irrigation. In the dry years, there’s not enough rainfall. In wet years, there’s too much.”

No major food crop sucks up more water than sugar cane. A bountiful harvest requires more than a meter of water each growing season. But even though some districts of Queensland average barely one-tenth that much rain, raw sugar is Australia’s third largest export, thanks to a combination of flood and drip irrigation—proof that engineering can defeat nature, given an economic imperative.

Well Intentions

That same calculation is driving a small but lifesaving revolution across Africa and Asia, where an Oklahoma nonprofit called Water4 is empowering teams of local residents to form themselves into for-profit utility companies, bringing pure water to some of the most remote and neglected settlements on Earth.

“In Africa, there are just *crazy* statistics,” says Dick Greenly, a well-drilling pump and water treatment equipment supplier based in Oklahoma City, who serves on the board of Water4. “The average water well costs from \$10,000 to \$20,000 to drill. It will last, on average, 11 months. Then, it will break and stay broken, on average four years, because there’s no system to fix it.

“One-third of all wells are broken at any one time: That’s 200,000 broken wells, \$2 billion dollars’ worth of infrastructure. When the well breaks, the people go back to drinking out of the stream, and they get deathly sick. The way humanitarian relief is doing it now, they’ll never catch up.”

The solution, Greenly and his team discovered, lay in the invention—by another Oklahoman, Steve Stewart, based on a sketch by Leonardo da Vinci—of a two-person auger that can reach pure water 120 feet below ground level. It is so simple that it can be repaired quickly, with money changing hands at every stage. Water4’s factories in Ghana and Ethiopia now produce 2,500 well-drilling assemblies each year.

“We partnered with World Vision and set it up as a business,” Greenly says. “In the developed world, we accept that you have to pay for water. The only place where people don’t have clean water is the developing world, where they *don’t* pay for it. So we are changing the methodology. We create a ‘microutility,’ and then everybody around that well makes money.

“A farmer can take out a loan from a microlending institution, he can hire one of our franchised drillers, and they drill a well so he can have clean water for his family and for irrigation,” says Greenly. “Then, instead of one poorly managed, dry crop of corn, he can have three crops a year of vegetables and fruit that he can sell in the local market,

Water-gobbling sugar cane crops thrive in Australia, thanks to a combination of flood and drip irrigation.





© iStockphoto.com/Elenathewise

BY THE NUMBERS

APPROXIMATE VALUES OF SEASONAL CROP WATER NEEDS
Crop water need (inch/total growing period)

<p>Alfalfa 31.5–63 in.</p> 	<p>Banana 47–86 in.</p> 	<p>Bean 12–20 in.</p> 	<p>Cabbage 14–20 in.</p> 	<p>Peanut 20–27.5 in.</p> 	
<p>Potato 20–27.5 in.</p> 	<p>Maize 20–31.5 in.</p> 	<p>Citrus 35.5–47 in.</p> 	<p>Barley/Oats/Wheat 18–25.5 in.</p> 	<p>Pea 14–20 in.</p> 	<p>Sorghum/Millet 18–25.5 in.</p>
<p>Soybean 18–27.5 in.</p> 	<p>Pepper 24–35.5 in.</p> 	<p>Cotton 27.5–51 in.</p> 	<p>Melon 16–24 in.</p> 	<p>Sugar Beet 22–29.5 in.</p> 	
<p>Sunflower 24–39 in.</p> 	<p>Rice (paddy) 18–27.5 in.</p> 	<p>Onion 14–22 in.</p> 	<p>Tomato 16–31.5 in.</p> 	<p>Sugar Cane 59–98 in.</p> 	

Source: United Nations

then use that money to pay the loan back. Now the farmer is highly motivated.

“We love technology that goes back 100 years,” Greenly says. “We take that technology, we make it simple, we make it human-powered and we make it so that people can understand how to fix it when it breaks. And that’s how you really make a dent in a major global problem.”

A Sustainable Future?

Greenly is not the only one who is optimistic that our thirsty, ailing planet may yet find a way to sustain itself on a diet of cleaner water and smarter use.

“I think it’s totally possible,” says Sarah Borger, senior coordinator for health programs at Food for the Hungry, a Phoenix, Arizona-based organization dedicated to community transformation and emergency response



Water4’s well drilling team at work in a local community nearby Babofi, Democratic Republic of Congo.

in more than 20 countries on four continents. “But we know that just going in and building a water point is not enough.

“We have to teach people to change their behavior and understand *why* water is important and *how* to use it—and we’ve been able to see incredible behavior change at the household level.

I remember talking to one woman in Burundi. She said, ‘My husband thought I was crazy because I’ve been washing my hands before I eat. But then he noticed that our kids are a lot less sick, and now my husband washes his hands too. He doesn’t think I’m crazy anymore.’”

BSV-Series 3A Sample Valves

Applications:

- Allows easy and safe sampling of liquids from closed systems such as vessels and pipelines
- These valves are located in the pharmaceutical, bio-pharmaceutical, biochemical, cosmetic, food, dairy and beverage markets.

Materials:

- In product contact: 1.4404/AISI316L stainless
- Non product contact: 1.4301/AISI304 stainless
- Product contact seals: PTFE Bellows

Features:

- Valve body made from solid bar
- No dead space
- Drainable
- Low spare part costs

Specifications:

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THE MAN BEHIND MCDONALD'S

Ray Kroc's vision helped give rise to the fast food industry

BY DAVID HOLZEL



THE SODA COUNTER AT

Walgreens in Chicago always did terrific business at lunchtime. Every stool was taken by a customer having a quick lunch or drinking a milkshake out of the drug store's heavy soda fountain glasses. Customers waited restlessly for their turn to sit down, and the line often snaked out to the street.

Watching this scene, sometime around 1930, paper cup salesman Ray Kroc saw that Walgreens was missing a business opportunity. And he saw an opportunity for himself.

Kroc, 28 years old, told the food service manager, a man named McNamara, that Walgreens could provide faster service and sell more milkshakes if it opened a carry-out window. "You're crazy," McNamara said. "Or you think I am."

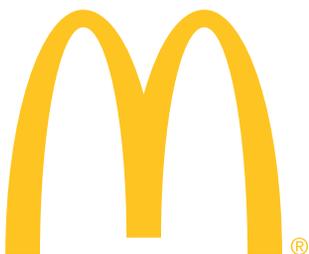
He couldn't let customers just walk out with Walgreens glasses, could he? No, said Kroc, who worked for the Lily-Tulip Cup Company. But McNamara could serve them in paper

cups. Kroc's paper cups. "I get the same 15 cents for a malted if it's drunk at the counter, so why the hell should I pay a cent and a half for your cups and earn less?" McNamara scoffed.

Undaunted, Kroc gave Walgreens free cups and set up a takeout counter as a trial. Sales volume soared. Soon, the long lines were replaced by happy, slurping customers paying back the cost of Kroc's cups and more: Paper cups didn't need to be washed. That was good for Walgreens and good for Kroc.

Kroc, who would go on to help pioneer the fast food industry beginning in the 1950s, demonstrated this characteristic over and over through his career. "In each case, Kroc made a practice of analyzing the customer's operation and suggesting changes that would improve them, and in the process increase his sale of cups," writes John F. Love in *McDonald's: Behind the Arches*.

And it wasn't just cups. Kroc made his most far-reaching business decision after he discovered a tiny hamburger



1955

Kroc opened his first restaurant in Des Plaines, Illinois. First-day sales are \$366.12.



1958

McDonald's sells its 100 millionth hamburger.



stand in San Bernardino, California, run by the McDonald brothers. By that time, Kroc's philosophy was set: Help his customers get rich so he could get rich too.

A BORN SALESMAN

"In one word, Kroc was a salesman," Love writes.

Indeed, Kroc seemed born to live by his wits and his gift of gab. He was born in Oak Park, Illinois, outside Chicago, in 1902. His mother, Rose, "was a loving soul" who "ran a neat, organized house," as Kroc described her in his autobiography, *Grinding It Out: The Making of McDonald's*.

His father, Louis, was a "Western Union man" who went to work at age 12 and was determined that his three children—Ray, Bob and Lorraine—would finish high school.

"I was the wrong kid for that," Kroc wrote. Although his siblings went on to get advanced degrees, books bored young Ray. "I liked action. But I spent a lot of time thinking about things. I'd imagine all kinds of situations and how I'd handle them."

He learned piano from his mother, who gave lessons. And he caught the jazz bug. With a friend, he opened a short-lived sheet music business. When the United States entered World War I, Kroc quit high school and joined up.

He was trained as an ambulance driver, although the war ended before he could be shipped overseas. Enlisted in the same company was the young Walt Disney, who "was always drawing pictures while the rest of us were



"McDonald's Sign" ©iStockphoto.com/Ingesche



1961

Hamburger University opens in the basement of the Elk Grove Village, Illinois, McDonald's restaurant. Since 1961, more than 80,000 restaurant managers, midmanagers and owner/operators have graduated from this facility.



McDonald's restaurant general manager Joseph Ellis dishes out fries in the Food Quality Lab at McDonald's University on April 14, 2015, in Oak Brook, Ill.

Antonio Perez/TNS/Newscom

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SOURCE: www.aboutmcdonalds.com; The McDonald's Logo and the Hamburger image are trademarks of the McDonald's Corporation



Left: Dick and Mac McDonald opened the first McDonald's in San Bernardino, California, in 1948. Right: Original crew members in front of first store in Des Plaines, Illinois.

chasing girls,” Kroc recalled. In the 1950s, Kroc reminded Disney of their wartime experiences in a letter in which he inquired whether “there may be an opportunity for a McDonald’s in your Disneyland Development.” But a collaboration never materialized.

At age 20, Kroc took to the streets of Chicago to peddle paper cups. Once, Kroc and his new wife, Ethel, escaped the bitter Chicago winter for Miami. There, Kroc made money by playing piano in a private club called the Silent Night, a glamorous nightspot that served illegal booze—the only kind that could be had during Prohibition. One night, the place was raided, and Kroc spent three hours in jail.

Back in Chicago, Kroc became a top salesman for the Lily-Tulip Cup Company. In 1939, he discovered an amazing machine: It made milkshakes. But instead of one spindle, this machine had five and could mix more shakes faster. Kroc realized that if soda fountains bought this product—called the Multimixer—they could

provide faster service, make more money and, in the process, use more of Ray Kroc’s cups.

Kroc’s bosses at Lily-Tulip turned down his proposal that they become the distributor for Multimixer. So Kroc decided to do it himself. At age 37, he became a Multimixer man.

Multimixer made Kroc well off. But after World War II, business started to drop. American car culture was exploding and the corner soda fountain was becoming a quaint relic, while in the suburbs, drive-ins and carhop shops boomed.

Kroc was fighting against bankruptcy when he received a phone call in 1954. A drive-in in California wanted to place an order for eight Multimixers. What kind of business needed to mix 40 milkshakes at a time?



©McDonald's Corporation

1962

McDonald's in Denver, Colorado, becomes the first restaurant with indoor seating.

1963

The 500th restaurant opens, in Toledo, Ohio; Ronald McDonald makes his debut; McDonald's net income exceeds \$1 million.



1964

The Filet-O-Fish sandwich is introduced.



The milk shake blender at the first McDonald's restaurant opened by founder Ray Kroc, which is now a museum run by the restaurant chain in Des Plaines, Illinois.



FOOD IN SECONDS

Kroc flew out to California to meet his customers, brothers Richard “Dick” and Maurice “Mac” McDonald, and to look over their small, octagonal hamburger stand in San Bernardino.

Kroc first sat in the parking lot and watched customers line up at the service windows and come away seconds later with bags of food. Curious, he began questioning them about what they liked.

“The hamburgers were pretty good, but what they really liked were the french fries,” notes historian H.W. Brands, whose book *The Masters of Enterprise: American Business History and the People Who Made It*, includes a chapter on Kroc.

One of those customers was a “strawberry blonde” in a “bright yellow convertible,” who was “demolishing a hamburger and a bag of fries,” as Kroc

recalled. “It was not her sex appeal but the obvious relish with which she devoured the hamburger that made my pulse begin to hammer with excitement.”

What was more, a third of those customers walked away with a milkshake, made with Kroc’s Multimixers.

Kroc met with the McDonald brothers and viewed their operation: A stripped-down menu with 15-cent hamburgers, quick service and high customer satisfaction. The building design even let customers watch the hamburgers being made, a big draw for kids—not a small thing, since families were an increasingly large part of the McDonald’s clientele.

“When I met the McDonald brothers, I was ready for an opportunity,” Kroc wrote. “By then

I had enough experience in food and beverage that I could tell a real idea from a counterfeit.”

If the McDonalds could replicate their success on a large scale, Kroc reasoned, he could sell a whole lot of Multimixers. Over time, he learned that the hamburger business was a lot bigger than the milkshake-maker business.

Kroc worked out a franchising deal with the brothers; in 1961, he bought them out for \$2.7 million (\$21.4 million today). Kroc’s McDonald’s strove for standardization and consistency—so a bag of fries a customer bought in California would be the same as one he bought in Iowa.

And in expanding the company, Kroc turned the franchise business model on its head. Rather than view the franchisee as a short-term cash cow, as

1967

McDonald’s goes international, opening restaurants in Canada and Puerto Rico.

1968

The Big Mac is introduced.



1971

The Egg McMuffin sandwich is test-marketed in the U.S. as McDonald’s first breakfast menu item.

1973

The Quarter Pounder debuts.



The first McDonald's Drive-Thru established in Sierra Vista, Arizona

was the common practice, “his idea was to provide the franchisees with enough services to be successful,” said Don Conley, McDonald’s first franchising vice president. Kroc’s slogan: “In business for yourself but not by yourself.”

Wrote Love: “Franchisees were his customers, too, and if they failed, he failed.”

As a result, McDonald’s became wildly successful, and Kroc’s franchisees became rich long before he did. Many of

the chain’s most famous menu items—including the Big Mac, Egg McMuffin and Filet-O-Fish—were created by franchisees.

Kroc eventually became very rich. He died in 1984. By then, McDonald’s had become synonymous with the United States. “Even more than Coca-Cola, McDonald’s has become the symbol of American globalization,” Brands says.

All from an insight in a drugstore that people in a hurry don’t like to wait. ◀

1975 ▲

McDonald’s opens its first drive-through in Sierra Vista, Arizona; the Egg McMuffin is added to the national menu.

1979 ▲

Happy Meals debut.



1983 ▲

McDonald’s is located in 32 countries around the world; Chicken McNuggets are introduced in all domestic restaurants.

1984 ▲

Ray Kroc dies on Jan. 14.

SOURCE: www.aboutmcdonalds.com; “Happy Meal” ©iStockphoto.com/ABDESIGN

Grease Whip Hose Assemblies and Couplings

Application:

- For use with hand grease guns

Materials:

- Grease whip assemblies and fittings: brass
- Zerk and couplers: zinc plated steel

Features:

- Grease whip assemblies: one-piece crimp fitting, solid base
- Fittings: one-piece crimp fitting, solid or chamfered based
- Couplers: full flow or ball check with shut off valve
- Zerk: permanent installation by threaded connection; prevents loss of grease and prohibits dirt from entering fittings

Specifications:

- Grease whip assemblies: 1/8-27 male NPT thread, working pressure 3000 PSI
- GWH Fittings: 1/8-27 Male or Female NPT, working PSI 3000
- Couplers: 1/8-27 Female NPT, working PSI 3000
- Zerk: 1/8-27 NPT and 1/4-28 tapered threads, working PSI 3000

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- Grease whip: meets SAE100R1-AT

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Did you know that...

TRIVIA

What American novel was the first to sell more than 1 million copies?

Uncle Tom's Cabin, or, *Life Among the Lowly*, by Harriet Beecher Stowe

Who was baseball's first Rookie of the Year? Brooklyn Dodger great Jackie Robinson

How did Napoleon Bonaparte finance his invasion of Russia in 1812? With counterfeit money

What TV sitcom family lived at 1313 Mockingbird Lane? The Munsters

What was Henry Ford's first mass-produced car? The Model N, which sold for \$500 in 1906

In what country is the most remote weather station in the world located? Canada; its Eureka weather station is 600 miles from the North Pole

Which continent is the only one to have no glaciers? Australia

What is the food traditionally served at Wimbledon each year? Strawberries and cream

The singing duo of Caesar and Cleo only achieved fame under another name. What was it? Sonny and Cher

How fast does lightning travel? 90,000 miles a second—almost half the speed of light (186,000 miles a second)

(Excerpted from 5087 *Trivia Questions & Answers*)

ON THE LIGHTER SIDE

A woman walks into the kitchen and finds her husband tying a pair of toothpicks to each pea in a bag of frozen peas with tiny strips of gauze. "What do you think you're doing?" she asks. He looks up from his work and says, "What does it look like I'm doing? I'm making splint pea soup." A few days later she finds him in the kitchen again, this time stabbing potatoes repeatedly with a pencil. "Now what do you think you're doing?" she asks.

"What else?" he answered. "I'm making potato leak soup."

A schoolteacher was arrested at the airport for trying to go through security with a slide rule and a calculator. He was charged with carrying weapons of math instruction.

Recently, a Frenchman in Paris nearly got away with stealing several paintings from the Louvre.

However, after planning the crime and getting in and out and past security, he was captured only two blocks away when his van ran out of gas. When asked how he could mastermind such a crime and then make such an obvious error, he replied, "I had no Monet to buy Degas to make the Van Gogh."

(Excerpted from *Pretty Good Joke Book*)

Dates in History

1512: On November 1, the ceiling of the Sistine Chapel in Rome, one of Italian artist Michelangelo's finest works, was exhibited to the public for the first time. Michelangelo had been called to Rome in 1508 to begin painting the ceiling—the chief consecrated space in the Vatican.

1721: On November 2, Peter I was proclaimed Emperor of all Russia.

1869: On November 17, the Suez Canal was formally opened, after more than 10 years of construction.

1944: On November 7, President Franklin Delano Roosevelt was elected to an unprecedented fourth term, defeating Thomas Dewey. Roosevelt died less than a year later, on April 12, 1945.

1947: On November 2, the Hughes Flying Boat—the largest aircraft ever built—was piloted by designer Howard Hughes on its first and only flight. Although it was constructed mainly of birch, the use of spruce (along with its white-gray color) would later earn the aircraft the nickname "Spruce Goose." It had a wingspan of 320 feet and was powered by eight giant propeller engines. Today, the Spruce Goose is housed at the Evergreen Aviation Museum in McMinnville, Oregon.

1978: On November 19, the biggest mass suicide in history occurred as the Reverend Jim Jones led more than 900 followers to their deaths at Jonestown, Guyana.

www.historyplace.com

Down on the

RANCH

From cattle wrangling to campfires, guest ranches in the American West offer a taste of life on the old frontier

BY JOAN KATHERINE CRAMER

Up with the sun, riding your horse through a Colorado meadow, a Texas chaparral or a rocky Wyoming mountain pass glittering in the morning light, stopping for a mouthwatering breakfast cooked over a fire—it's the quintessential dude ranch experience. And every year, thousands of people from around the world travel to remote parts of the American West, from Wyoming to Texas to California, to

savor that taste of life on the old frontier.

"It's an incomparable window into the Old West," says Ian Singer, president and CEO of duderanches.com, an association of more than 100 "guest ranches," as they're also known, from Canada to Texas. "The ranches are, for the most part, in spectacularly beautiful places, just about as far as you can get from the chaos of urban and

suburban life," says Singer. "And the values and traditions of the frontier—hard work, good food, healthy and family-oriented activities—are practiced in these places to this day."

Singer is a former New Yorker and high-tech executive who moved to Scottsdale, Arizona, and fell in love with the dude ranch experience. "I was doing business all over the world, but along the way, I was visiting guest ranches,

Western Pleasure Guest Ranch, Sandpoint, Idaho



Courtesy of The Dude Ranchers' Association

Paradise Guest Ranch rodeo race, Buffalo, Wyoming

and, slowly but surely, my life changed,” he says.

The first dude ranches—and “dude” was a word coined to describe any visitor who wasn’t a seasoned cowboy—were established in the 1880s, when, thanks to the railroads, people were writing and talking about traveling through the American West, and icons like Teddy Roosevelt were helping to popularize its attractions.

In the beginning, ranchers extended their famous Western hospitality for free. But even their guests could see that this largesse was becoming a financial burden. So guests started offering—despite the fact that proud ranchers deemed it a breach of the frontier code—to pay for room and board. The first recorded paying guest,

according to the 90-year-old Dude Ranchers’ Association, was Bert Rumsey of Buffalo, New York, who insisted on reimbursing his hosts for an extended stay at the fabled Eaton brothers’ Custer Trail Ranch in North Dakota.

Paying guests helped—and still help—keep ranches going through the economic vicissitudes of running a cattle operation. One terrible winter, the Eaton brothers lost nearly all of their herd of 1,500 cattle, and most of their place burned down, but they survived to establish one of the biggest guest ranches of the era, thanks to the dudes and their devotion.

In those days, visiting a dude ranch meant roughing it, often sleeping on bunks or on the floor in a bedroll, and it usually meant helping out with the

chores. But today, there is a wide array of possible dude ranch experiences. On many ranches, you can still work alongside the horse and cattle wranglers. But others are more like luxurious spas, with elegant accommodations, world-class chefs, and a selection of activities that range from horseback riding and fly fishing to massage therapy and yoga.

“Of course we’ve changed to keep up with the times,” says Colleen Hodson, executive director of the Dude Ranchers’ Association, established in 1926 in Cody, Wyoming, and still going strong with more than 100 members. “But

“The ranches are, for the most part, in spectacularly beautiful places, just about as far as you can get from the chaos of urban and suburban life,” says Ian Singer, president and CEO of duderanches.com



“Horseshoe” ©iStockphoto.com/DNY59



Courtesy of Tanque Verde Ranch

Tanque Verde Ranch, Tucson, Arizona



Courtesy of The Dude Ranchers' Association

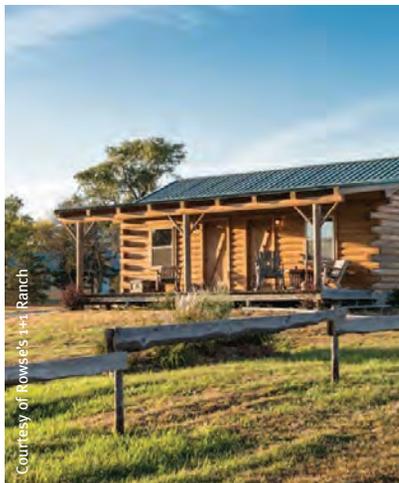
Lost Creek Ranch, Moose, Wyoming

How to Choose the Perfect Ranch

HERE ARE SOME THINGS TO THINK ABOUT WHEN YOU'RE PLANNING YOUR DUDE RANCH VACATION:

- **Where do you want to ride**—desert, meadows, mountains or prairie?
- **How easy is it to get to the ranch?** Many will pick you up at regional airports.
- **Do you want to work rounding up cattle and other livestock, or do you want more of a resort vacation?**
- **When do you want to go?** Southern ranches offer warm-weather riding during the winter, northern during the summer.
- **How many guests does the ranch accommodate?** A ranch that hosts eight at a time may be very different from a ranch that hosts 80.

From left: Rowse's 1+1 Ranch, Burwell, Nebraska; Western Pleasure Guest Ranch Wrangler Cabin in winter, Sandpoint, Idaho; Rainbow Trout Ranch, Antonito, Colorado



Courtesy of Rowse's 1+1 Ranch



Courtesy of Western Pleasure Guest Ranch



Courtesy of The Dude Ranchers' Association



Focus Ranch, Slater, Wyoming

though we may offer more upscale amenities, this is still a very personal experience. You're staying on a ranch that is probably owned by a family and has probably been in that family for three or four generations. And there may be, on the average, 45 other guests, as opposed to 4,000 guests on a cruise, for instance."

You don't even have to know how to ride a horse to have fun on a dude ranch, Hodson says. Many ranches offer guided hiking, mountain biking, lectures by naturalists and astronomers, and an array of family-friendly activities—from cookouts to square dances and singalongs.

Still, says Singer, the dude ranch is ultimately about horses. "A lot of people want to be around them," he says. "It's therapeutic, it's healing. They are

magical animals." And many ranchers are devoted to horse rescue—on some ranches, you can even watch wild horses being "gentled," or trained so that they can be ridden and adopted or even integrated into the "dude string," the sweetly accommodating horses assigned to guests.

"This is a great family vacation," says Hodson. "I can't tell you how many



Rock climbing at White Stallion Ranch, Tucson, Arizona

people I've met who say, 'Wow, I haven't talked to my child this much in years.'"

Among its members, the Dude Ranchers' Association has an 80 percent repeat rate, Hodson says, meaning that 80 percent of ranch guests return for another visit. "I know a ranch where a group of the same 75 people has been returning every summer for the past 25 years. They met on the ranch, and





"Horseshoe" ©iStockphoto.com/DNY59

It's About the Horses

At some ranches, you can observe the magic of a wild horse being gentled by an experienced wrangler.

At the White Stallion Ranch in Tucson, Arizona, guests have been able to watch J.P. Dyal, at right, work with Chance, a wild mustang pony who'd spent nearly half of his six-year life in a Bureau of Land Management holding facility, where overcrowding is the norm. Dyal bonded with Chance by sleeping in his corral, and their relationship is documented in a video at duderanches.com/the-journey-of-jp-chance-a-special-mustang/.

Duderanches.com has created the Mustang Adoption/Training Program to rescue, protect and find homes for wild horses.



Courtesy of White Stallion Ranch and Andrei Spocia

J.P. Dyal with Chance, right, and Tom Tom, his mounted shooting horse at the White Stallion Ranch

now they vacation together; their kids have grown up together. If you went on a cruise, a month later, your kids likely wouldn't be able to name anyone you met. But five years after a stay on a dude ranch, I guarantee that your kid will be able to name their horse and their wrangler."

Both the Dude Ranchers' Association and duderanches.com are selective in their membership. "Our

ranchers have to meet pretty strict criteria, which means they practice horse and people safety, serve three meals a day, and abide by certain rules," says Stevenson.

Hodson says the Dude Ranchers' Association was founded to preserve the unique identity of the dude ranch vacation—"real Western hospitality that the dude ranch pioneers considered a part of the code of the West." When

"I started hanging out with the ranchers and fell in love. They are truly the salt of the earth. They are honest; they're upfront. They represent a lot of what's missing in our society today."

—Colleen Hodson, executive director of the Dude Ranchers' Association

Western Pleasure Guest Ranch, Sandpoint, Idaho



Copyright 2015, Teikri Riders, photography courtesy of Western Pleasure Guest Ranch



C Lazy U Ranch, Granby, Colorado



"Hay" ©iStockphoto.com/Alasdair Thomson

she started working for the association 15 years ago, she was just there to answer the phone a few days a week.

"But, like everyone involved in this, I started hanging out with the ranchers and fell in love. They are truly the salt of the earth. They are honest; they're

upfront. They represent a lot of what's missing in our society today. They've lived it, their forefathers lived it and they really just want to make people happy, which is why people get hooked and keep coming back." ●

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Entrée du Stade Panathenaïque



A crowd gathers in front of and inside the Pan-Athenian stadium at the 1896 Olympic Games in Athens.

'FASTER, HIGHER, STRONGER'

The creation of the modern Olympics

"The Olympic Games are the quadrennial celebration of the springtime of humanity."

—Baron Pierre de Coubertin

BY EUGENE FINERMAN

On April 6, 1896, athletes from four continents assembled in an ancient stadium. They stood before the royal family of Greece, the international press and 60,000 spectators. Commanding the Athenian skyline was the Acropolis, the inspirational reminder of Greek civilization and the proud traditions that these athletes were there to revive: the Olympic Games. For Baron Pierre de Coubertin, the advocate and organizer of the modern Olympics, these games were not just a tribute to history but a guide to the future. He foresaw the Olympics as joyous and ennobling, a heroic alternative to the corrupting materialism and threatening ideology of the world.

Indeed, that had been the purpose of the original Olympics. Ancient Greece was a land of rivalries, with city-states vying with one another. Yet, once every four years, the Greeks would suspend their wars to celebrate their civilization and its highest ideals. Athletes throughout Greece would convene at Olympia, a sanctuary dedicated to Zeus. The games were open to all Greek males. Here, for no prize but the glory, they would compete. The first recorded game was in 776 B.C., a festival lasting a day and the competition limited to running. Over time, the Olympics were expanded to include wrestling, boxing, jumping, the



Baron Pierre de Coubertin

javelin, the discus, horse races and chariot races. Each athlete competed as an individual; there were no teams or even uniforms. All participants were nude. The only distinction was victory. A winning athlete would receive a crown of laurel leaves.

Once the games were over and the athletes had time to return home, the sacred truce ended and the Greeks resumed their mutually destructive wars. A weakened Greece would be

conquered by the Macedonians, and then the Romans, but both esteemed Greek culture. The Olympic Games continued, celebrated until the end of the fourth century A.D. But then the Roman Empire became Christian and condemned the pagan festival at Olympia. Nude athletics were certainly forbidden. For the next 15 centuries, the Olympian ideals were lost among history's footnotes. Athletics served only as military training, and sports were an aristocrat's amusement.

But Pierre de Coubertin (1863–1937) was an aristocrat and a scholar. His conservative temperament abhorred the unrest and upheaval of modernity. Industry darkened the skies and the soul. In his France and all of Europe, social classes were pitted against each other, tenuously bound only by their hatred of other countries. Unlike many aristocrats, however, Coubertin did not long for the previous century. The baron found his inspiration in classical Greece, and he saw there an athletic chivalry that the world had lost. The Olympian ideal—the exaltation of amateur sports—had once united people. It could again. Coubertin intended to revive the Olympics, and so he became an educator.

His first campaign was to introduce physical education in French schools. Coubertin could speak of ancient



Greek water-carrier Spyridon Louis became a national hero after winning the marathon at the 1896 Olympics in Athens.

Greece as well as more modern examples. In England, the best schools had long included sports in their curricula. One game was even named for its school: rugby. Coubertin also warned the French public that Germany was already well on its way with physical education. If and when there was another war, he argued, France needed its youth to be just as fit. As the leading advocate for physical education, Coubertin came to be regarded as the spokesman for amateur athletics throughout France. In 1888, the 25-year-old Coubertin organized the *Comité pour la Propagation des Exercices Physiques*, combining the regional athletic clubs into one national association. Two years later, his group had expanded to include all amateur sports in France. The federation adopted the motto *Citius, Altius, Fortius*; the Latin phrase means

Ice Breaker

The Winter Olympic Games made their debut several decades after the Summer Games. Launched in 1924 in Chamonix, France, the first Winter Olympics included five sports: bobsleigh, curling, ice hockey, Nordic skiing and skating.

The Olympics of 1896 had 285 athletes representing 13 nations. As a tribute to Greece, a new competition was introduced: the marathon.

“Faster, Higher, Stronger.” That would become the Olympic motto.

In 1892, at the annual meeting of the federation, Coubertin proposed the revival of the Olympics, inviting all nations to participate. The idea was applauded but ignored. His proposal seemed a daunting undertaking; these French clubs were not prepared for the effort and expense. Coubertin realized that the international games would require international support. In studying the educational systems of other countries, Coubertin had made many friends, particularly in Britain and the United States. When he next proposed the revival of the Olympics, it would be to an international audience and with a number of allies.

Under the auspices of the French athletic federation, Coubertin invited an international athletic congress to Paris in June 1894. Once again, he proposed a revival of the Olympics. This time, however, Coubertin was overwhelmed by the positive response. He suggested the Olympics be held in

1900. The Greek delegation offered to host the games in 1896. Who had a better claim to the Olympics? Coubertin had to agree. The actual site of these games would be Athens. Although historically inaccurate, the Greek capital could accommodate the transportation and construction required for the games. The original site of Olympia was too remote for modern needs.

While Greece dealt with the logistics, the newly formed International Olympic Committee organized the games. The ancient games had been limited to Greek males. The revived games had a different criterion: amateurs from any country with a recognized athletic association. At the time, this limited the invitations to Europe, the United States and a few countries in South America. The French athletic federation objected to German participation; Coubertin stressed the international perspective of the games and sent a personal invitation to Kaiser Wilhelm II. There was some question as to whom to contact in America.

Spyridon Louis leads the parade at the closing ceremonies of the 1896 Olympics.





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Women golfers compete, above, and an archer takes aim, right, at the Olympic Games in Paris in 1900.

The committee decided the most likely addresses for gentlemen athletes would be Harvard College and Princeton University. As for the various competitions, the committee tried to adhere to the original Greek games. Track and field, swimming, weight lifting, fencing, gymnastics and shooting all had ancient antecedents. Bicycling might be compared to chariot racing; however, tennis and lawn tennis were definite novelties.

The Olympics of 1896 had 285 athletes representing 13 nations. As a tribute to Greece, a new competition was introduced: the marathon. A 26-mile race, it followed the historic

Track and field athletes from Princeton University represented the United States at the 1896 Olympic Games in Athens.



© 1896 / Comité International Olympique (CIO) / MEYER, Albert

route taken by the runner Pheidippides, who ran the distance from Marathon to Athens with news of the Greek triumph over the Persian invaders. Fittingly, the winner of this marathon in 1896 was a Greek—Spyridon Louis. He ran the 26-mile distance in two hours, 58 minutes and 50 seconds.

The success of the Athens Olympics ensured the revival of the games. In 1900, Paris was the host to 997 athletes representing 20 nations. Archery, rowing, golf and equestrian competitions were added to the games. So were women; they competed in tennis and golf. The Stockholm Olympics of 1912 had 2,400 athletes from 28 countries. Among the participating nations were Japan and Egypt. The Olympics had become truly international.

Berlin was the designated site of the 1916 Olympics, but there would be no sacred truce that year. The games were superseded by a far more ghastly competition. Indeed, 138 former Olympic athletes would wind up being killed in World War I. However, the horrors made the Olympian ideals all the more appreciated. The Olympics would resume in 1920. The site for the games was chosen as an affirmation of the future: Antwerp in war-ravaged Belgium.

A Record for the Ages?

When Leonidas of Rhodes won 12 individual Olympic events over four Olympic Games (the last three events in 152 B.C., in races of about 200 and 400 meters, and a shield-carrying race), the 36-year-old probably assumed this was a record that would stand for the ages.

And it did—for 2,168 years. Until the Rio Games last summer, when swimming phenom Michael Phelps shattered it by winning his 13th individual gold medal, in the 200-meter individual medley.

Phelps, 31, finished the 2016 Games—and his Olympic career—with an astounding 28 Olympic medals, including 23 golds.

Since then, the Olympics have been suspended by another World War, victimized by terrorism and have fallen prey to politics. Yet the games go on, sought and honored. Today, more than 200 nations participate. The Olympics still represent all that Baron de Coubertin hoped: “The important thing in the Olympic Games is not to win, but to take part; the important thing in Life is not triumph, but the struggle; the essential thing is not to have conquered but to have fought well. To spread these principles is to build up a strong and more valiant and, above all, more scrupulous and more generous humanity.”



**THE
ARMS
RACE
IS
OVER.**

Dixon Introduces EZLink™ Armless Cam & Groove

> **DIXON'S EZLink** is an innovative product design that features an armless positive locking system. Simply push to connect the EZLink coupler to any standard cam & groove adapter to achieve an ultra-reliable connection. In addition, the product's low profile allows for easy connection and disconnection in tight applications and operating conditions.

The EZLink's innovative engineering is in stark contrast to conventional cam & groove products. EZLink is easier to connect, and the new design also requires less maintenance since there are no cam lever arms that tend to break and need replacing.

"EZLink represents a major leap forward in cam & groove technology, and it comes as a direct result of Dixon listening to tank truck operators and the challenges they face in the field,"

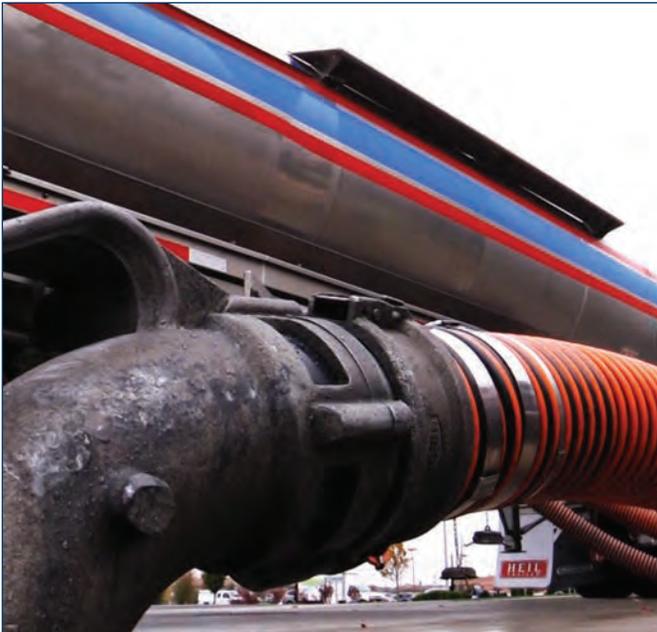
says Brian Zottarelli, vice president and general manager of Dixon's Cam & Groove Division. "We're excited to now offer products that will simplify and improve the transfer and unloading of fuels and other liquids."

At present, Dixon's EZLink product line includes 2-inch, 3-inch and 4-inch type C couplers and dust caps.

Constructed of A356 aluminum bodies, type 316 stainless steel coupler tabs and springs, along with a Buna-N

Environmental chamber with multiple plane movements for verification of EZLink gaskets in extreme temperature applications





Fuel delivery at retail gas station



gasket, EZLink dramatically improves the ability to transfer or unload gasoline or diesel fuels from tank trucks to storage facilities.

EZLink is also ideal for transferring water and other solutions that are

compatible with aluminum and Buna-N rubber materials within a gasket temperature range of 5°F to 180°F (-15°C to 82°C). The EZLink product is not intended for use in compressed gas service such as steam or air.

Other operational and safety features of the EZLink product line include coupler push tabs that can be locked with safety pins and/or a zip tie.

For more information about the new EZLink Armless Cam & Groove product line from Dixon, visit dixonvalve.com/ezlink, call 800-355-1991 or e-mail your request to sales@dixonvalve.com.



Additional locking options for increased security

Dixon is a leading manufacturer and supplier of hose fittings, fluid control products and accessories. Dixon serves a broad range of industries—including the agricultural, chemical, construction, fire prevention and suppression, food and beverage, industrial, mining, petrochemical and pharmaceutical segments—by offering the industry's most comprehensive product line available from a single source.

Established in 1916, this year Dixon is celebrating a century of *Uncommon Excellence™* in supporting its customers and making industry run better.



"Smart watch illustration" ©Stockphoto.com/ET-ARTWORKS



> WEARABLE TECHNOLOGY

is everywhere you look today, with health and fitness devices driving the boom. Many smartphone makers offer applications on their devices that monitor your steps, heart rate and more. But if you're looking for a second in command that offers even more features, consider an activity tracker.

The top brands come in multiple styles, colors and price ranges, and all connect with mobile apps where you can download and store your stats. Most trackers come set with a goal of 10,000 steps per day, or about 5 miles, a number the American Heart Association has recommended as a way to decrease the risk of heart disease and lower your risk of diabetes. Enjoy life's little victories by challenging (and surpassing) your buddies to see who can trek the farthest. As a bonus, the newer trackers often go beyond physical distance, recording your sleep, calories and heart rate.

Wear It Out!

Strap on the latest technology to monitor blood pressure, sleep better—and more

Gymwatch takes it a step further. When strapped to your arm or leg, this tracker monitors your form and speed while you are lifting weights, making sure you're building muscle and executing your reps correctly. It even provides live, spoken feedback. The accompanying smartphone app records your progress, allowing you to see your gains over time.

But one thing activity trackers don't monitor is your blood pressure. You've probably only had this measured at your doctor's office or the local drugstore, with one of those inflatable cuffs strapped to your upper arm. If you're at increased risk for conditions like hypertension, it might be worth investing in Omron's Project Zero device. The company, which makes commercial blood pressure monitors, will release its watch that measures blood pressure, in addition to physical activity and sleep, later in 2016, and it will cost about \$200.

If you're opposed to sporting extra gear but still want the technological luxuries

smart devices offer, consider Smartshoes. Instead of putting on your usual training footwear, strap on a pair of Digitsole's *Back to the Future*-looking sneakers, which can warm your feet, track your activity, monitor calories burned, tighten automatically, and even track shoe wear and tear. There is, of course, an app to view all your stats.

Let's say you've purchased one of these fitness trackers, and you're out on a run with it. You trip and take a spill, and your knee starts to throb. What can a smart gadget do to alleviate



Courtesy of Gymwatch



AN APP FOR EPILEPSY

The next generation of wearable health technology lies in addressing more complex conditions. In late 2015, researchers at Johns Hopkins in Baltimore introduced EpiWatch, a free Apple Watch app that records data before, during and after epileptic seizures. Users are tested on their awareness during seizures and can compare their symptoms to others with similar seizures. On a grander scale, the info will be used to populate a study that will help researchers better understand epilepsy, potentially leading to better treatments for those suffering from the neurological disorder.

EpiWatch graphic courtesy of Johns Hopkins Medicine

your pain? If you have LumiWave's pain relief device, you can ease your aches quickly using the power of infrared light. Instead of popping an ibuprofen, wrap the FDA-approved accessory around the area you want to treat, select your temperature mode (106 or 108 degrees Fahrenheit), then relax for 20 to 30 minutes while it goes to work.

Whether or not you work out, wearable tech devices can improve your everyday life. Take the Lumo Lift, for example. This 2-inch monitor can be clipped onto a piece of clothing just below your collarbone and track your posture. It gently vibrates when you slouch, reminding you to readjust.

Even old-fashioned hearing aids have gotten a modern-day

upgrade. While analog aids essentially make sounds louder, digital hearing aids parse sound waves and customize them to your needs, amplifying speech and reducing extraneous noise. They've shrunk in size too—you can now buy hearing aids that are about the size of a dime. Different models address various levels of hearing loss, so it's not one size fits all.

And when it's time to hit the hay but your brain won't shut off for the night, try a pair of glasses that alter circadian rhythm and improve mood. The specs beam a blue-green light under your eyes at an angle mimicking that of natural light, helping you beat the winter blues and reset your body clock.



If you travel often or suffer from sleep problems, this may be the device for you.

There's even a tech-savvy way to try before you buy—Lumoid lets you test out gear, including fitness trackers, at home for a small fee so you can test-drive a few models before choosing the best one to fit your needs. ➤

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The Right Connection®

Fun Food Firsts

Our most whimsical treats have some surprising origins

> COTTON CANDY. DOUGHNUTS. POPSICLES. These are the foods of celebration and of childhood. Mention them and vivid memories flood the senses: The rich aroma of a freshly fried, sugary doughnut on a crisp fall morning. Vanilla-scented spun sugar magically melting on your tongue. The delicious ache of a brain freeze brought on by an ice pop on a stick.

These fun foods have more in common than just nostalgia. All have compelling stories about how they were invented.

'FAIRY FLOSS'

Cotton candy is mostly sugar, with a little flavor and color—which might be why it's so surprising that it was invented by a dentist. The fair food has its roots in spun sugar, which bakers made from melted sugar they separated with forks into strands and then used to decorate pastry.

In 1897, dentist William Morrison and candymaker John Wharton of Nashville, Tennessee, received a patent on an electric spinning machine. It took crystallized sugar that was poured onto a heated, spinning plate and pushed it through tiny holes so that it could land in a catch bowl and be wound into a puff of cotton candy, according to *Gourmet* magazine.

They sold what they called “fairy floss” for the first time at the 1904 World's Fair for 25 cents a box, half the price of admission. It was an instant hit—they sold 68,655 boxes.

'DOUGHNUT DOLLIES'

Dough fried in oil has existed in many cultures for centuries. One theory holds that Dutch settlers brought the first doughnuts to Manhattan (then still

New Amsterdam). They were known as *olykoeks*, or “oilcakes.”

A more colorful backstory is attached to the first ring-shaped doughnuts. In the mid-19th century, as the story goes, a woman named Elizabeth Gregory, who was mother to a New England ship captain, made deep-fried dough using lemon rind and the nutmeg and cinnamon that her son brought home from his voyages. She put nuts in the center of the dough where it might not cook through and called her creation “doughnuts.”

Her son Hansen later claimed he was the person who put the hole in the doughnut when, unhappy with the greasy, twisted doughnuts on his ship, he punched a hole in the dough with a pepperbox—a technique he later taught his mom.

Doughnuts began their climb in popularity in 1938, when the Salvation Army declared the first Friday in June to be National Doughnut Day. The goal? To honor their volunteers—or “Doughnut Dollies”—who had carried doughnuts to homesick troops in the trenches during World War I.

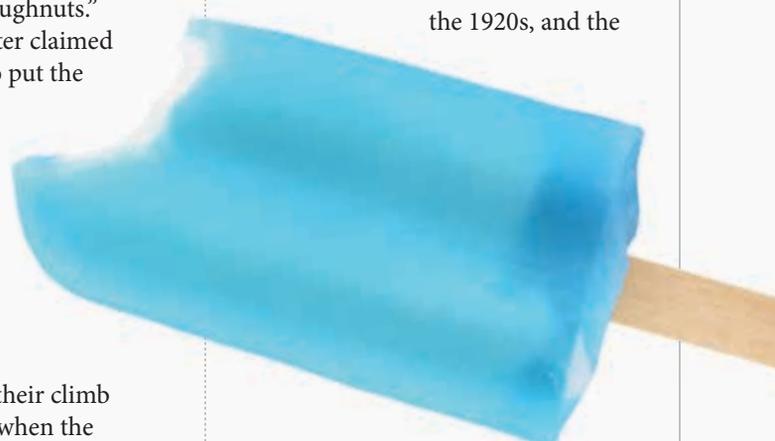
THE 'EPSICLE'

In 1905, an 11-year-old named Frank Epperson of Oakland, California, accidentally left a glass of soda powder and water with a mixing stick in it out on his porch on a cold night. It froze—and the frozen pop on a stick was born, according to Epperson's 1983 *New York Times* obituary.

He called his creation an “Epsicle,” before later changing its name to Popsicle. Epperson sold his patent for the “frozen drink on a stick” in the 1920s, and the

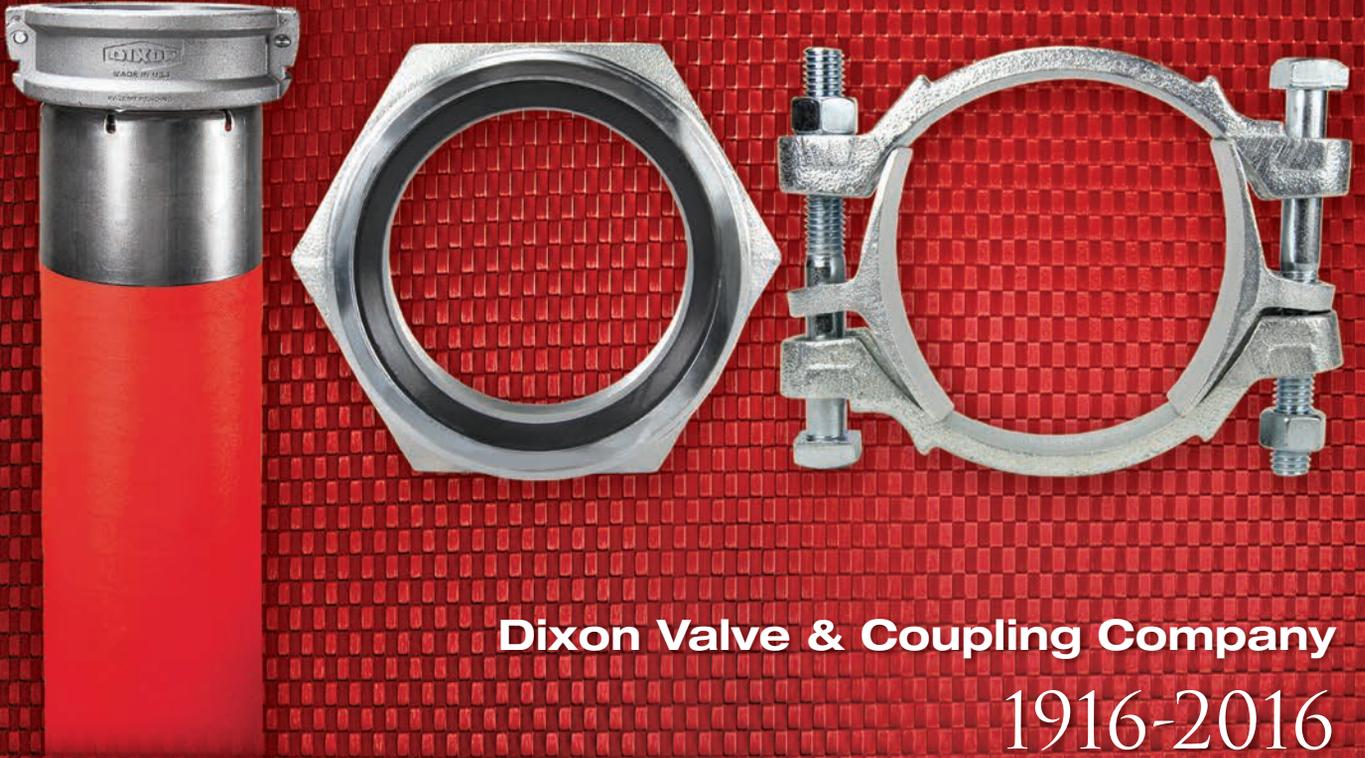
treat's popularity grew.

During the Great Depression, the company introduced a two-stick version of the Popsicle so that people could save money by sharing. It cost 5 cents. Today, more than 2 billion Popsicles are sold every year, and the most popular flavor is cherry. ◀



“Donut” ©iStockphoto.com/gangliu10; “Cotton Candy” ©iStockphoto.com/Karen Mower; “Popsicle” ©iStockphoto.com/subjug

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