**Mighty Mites**

**The kingdom of heaven is like a mustard seed,
which a man took and sowed in his field.
It is the smallest of all seeds; but when it is grown,
it is larger than all of the herbs; and it becomes a tree,
so that the birds of the air come and rest in its branches. *(St, Matthew 13:30-31)***

**And Jesus said, “With what can we compare the kingdom of God, or what parable shall we use for it? It is like a grain of mustard seed, which, when sown upon the ground, is the smallest of all the seeds on earth; yet when it is sown it grows up and becomes the greatest of all shrubs, and puts forth large branches, so that the birds of the air can make nests in its shade.”**

***(St. Mark 4:30-32)***

**The smallest act in the most limited circumstances bears the seed of boundlessness, because one deed, and sometimes one word, suffices to change every constellation. *(Hannah Arendt)***

**Elephants love to eat trees; a herd can quickly ravage a small forest. Indeed, ecologists have long wondered what keeps elephants from converting the African landscape into pure savanna. The answer, a new study has found, is ants. Ants inhabit a specific tree species that's common in Africa: Acacia drepanolobium, also known as the whistling-thorn tree. When elephants start yanking limbs off these trees, the ants swarm into the animals' tender trunks and bite and sting -- in effect, defending the tree. University of Florida biologist Todd Palmer has shown that elephants actively avoid ant-infested branches; they likely detect the ants' presence by their acrid odor. The ants' impact is widespread. Satellite images have revealed that in clay soil, where ant-rich whistling thorn can grow, forest predominates, but in sand soil, trees are eaten and savanna prevails, says Palmer's colleague Jacob Goheen. "These little tiny ants are making a difference we can see from outer space." *(The Week magazine, September `24, 2010)***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**An arctic tern was found in Freemantle, Western Australia. It had flown halfway around the world – 12,000 miles – from a bird sanctuary on the White Sea coast in Russia. (The Diagram Group, in Funky, Freaky Facts, p. 41)**

**Arctic terns cover more than 22,000 miles every year in their seasonal round trips from the Arctic to the Antarctic; salmon make 2,000-mile journeys from the depths of the oceans to the creeks and rivers of their birth; and baby American and European eels traverse 4,000 miles from their birthplace deep in the Sargasso Sea in the Caribbean. *(Bartleby Nash, in Mother Nature’s Greatest Hits, p.51)***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Science has broken into the atom and revealed it to be charged with tremendous energy that may be released and be made to give the inhabitants of the earth powers beyond expression, when its law of expression is discovered. *(Charles Fillmore)*A factory in which 2,000 different machines are operating with twenty-five men on each machine would rightly be considered a complex structure. The smallest bacterium is that complex. In effect, there are 50,000 chemical reactions taking place in each bacterium. It would take nearly 2 million of a bacterium called the pleuropneumonia organism, side by side and touching, to stretch an inch. (Isaac Asimov's Book of Facts, p. 249)
The Mars Rover Spirit is powered by six small motors the size of C batteries. It has a top speed of 0.1 miles per hour. *(Noel Botham, in The Best Book of Useless Information Ever, p. 67)***

**The butterfly counts not months but moments, and has time enough. *(Rabindranath Tagore, poet)***

**Cockroaches can flatten themselves almost to the thinness of a piece of paper in order to slide into tiny cracks; they can be frozen for weeks and then thawed with no ill effect; and they can withstand 126 g’s of pressure with no problem (people get squished at 18 g’s). *(Uncle John’s Bathroom Reader: Extraordinary Book of Facts, p. 33)***

**A man can let his wife know he loves her by giving her a dozen long-stemmed roses; his small grandson can do the same with a fistful of dandelions. *(Dominic Procopio, in Reader’s Digest)***

**Certain kinds of European eels lay their eggs in the Sargasso Sea, on the edge of the Gulf of Mexico, thousands of miles from their home rivers. To reach the spawning grounds, they leave the European streams, using any kind of waterway they can find, or even traveling short distances by land when obstacles such as dams force them to do so. When they reach the ocean, they set out on a compass course for their destination 3,000 or 6,000 miles away. The adult eel does not return from the spawning ground but, carried by the Gulf Stream, the newly spawned larvae return to Europe, a journey of about three years’ duration. *(Isaac Asimov’s Book of Facts, p. 122)*
Using the electric chair could be overkill, since it only takes 15 watts of electricity going through a human body to stop the heart. Common light bulbs run on about 25 to 75 watts of electricity. So come on, let’s try to conserve energy! *(Joe Edelman & David Samson, in Useless Knowledge, p. 69)***

**In Death Valley, California, the hottest, lowest spot in the United States, there’s a small pool of water in which a colony of tiny fish lives. They’re only 1 1/2 inches long and are called “pupfish.” How they’ve managed to survive for 10,000 years in the most hostile environment in the world for fish remains one of those tantalizing mysteries of nature that keep scientists on the prowl. *(Bernie Smith, in The Joy of Trivia, p. 99)
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**
The flea is the world’s champion high jumper. This mighty mite can accomplish a leap 80 times its own height and 150 times its length. If a man could do the same, he would be capable of leaping over a building 50 stories high and three football fields long. *(Timothy T. Fullerton, in Triviata)***

**Diseases spread by fleas have killed more people than all the wars ever fought combined. *(Harry Bright & Harlan Briscoe, in So, Now You Know, p. 154)***

***\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**Glass helps eradicate liver tumors. Glass microspheres one-third the thickness of a human hair carry radiation directly to the tumor after being injected through a catheter into the artery that supplies blood to the liver. *(William S. Ellis, in National Geographic)*

A nearly invisible gold film on the visors of the shuttle astronauts’ helmets protects them from the sun’s harmful rays. *(Joseph A. Harriss)*

 Emerson once said, “The creation of a thousand forests is in one acorn.” Our heart, which is no larger than a fist, pumps enough blood every day to fill an ordinary railroad tank car. The large is made up of the little. Little events and happenings are shaping our lives. Let us take care of little things. *(Rev. Paul S. Osumi)***

**The average hen lays three hundred eggs a year. *(Don Voorhees, in The Essential Book of Useless Information, p. 236)***

**Hot Wheels are 1/64th scale to their real-life counterparts and, when going downhill, can reach speeds of 300 mph. (David Hoffman, in Little-Known Facts about Well-Known Stuff, p. 79)**

**A housefly can transport germs as far as 15 miles away from the original source of contamination. *(David Louis)***

**One human hair can support more than six and a half pounds. *(Noel Botham, in The Ultimate Book of Useless Information, p. 73)***

***\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\****

**The ruby-throated hummingbird weighs less than some insects and can be completely enclosed in the palm of a human hand, yet every year these birds traverse more than 500 miles across the Gulf of Mexico to their wintering grounds in Central America. (Bartleby Nash)**

**In relation to overall size, a bird's pectoral muscles powering the wings are much larger and better developed than any similar muscle in a mammal. They anchor in part to a projecting ridge on the breastbone called the keel. Its keel helps the little ruby-throated hummingbird, wings beating 50 times a second, fly 500 miles across the Gulf of Mexico -- a prodigious 25-hour marathon feat for a bird weighing only an eighth of an ounce. (Allan C. Fisher, Jr., in Reader's Digest)

Some tiny hummingbirds are amazing travelers. The tiny Rufous Hummingbird is no bigger than your thumb. Yet every fall, this bird flies about 2,500 miles from Alaska to Central America. It flies over stormy oceans and steep coastal mountains. In the spring it returns to Alaska by the same route. (Hummingbirds, Zoobooks #2)**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Bell Laboratories scientists have created the thinnest slice of time ever. They have produced a burst of laser light that lasts for a mere 30 femto-seconds -- 30 millionths of a billionth of a second. Bell physicist Charles V. Shank says the new light pulses will be valuable in measuring electrons moving through solids and liquids. “In one second a pulse of light can travel almost to the moon,” he says, “but in 30 femto-seconds light would travel no farther than one-third the thickness of a human hair.” *(Ron S. Heinzel, in Los Angeles Times)*

Glass fiber-optic systems -- using lasers no larger than a grain of sand and glass fibers as thin as a human hair -- can transmit 32,000 times as much information as the equivalent amount of copper conductor. *(William S. Ellis, in National Geographic)***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Did I tell you a lightning bolt is five times hotter than the surface of the sun? *(Boyd's Curiosity Shop, p. 171)***

**Never doubt the power of a small group of committed people to change the world. That’s about the only way it has ever happened in the past. *(Margaret Mead, anthropologist) 521988***

**Communing with monarchs on a Mexican mountaintop: “I didn’t just see the butterflies – I felt them,” said Terri Colby in the Chicago Tribune. “A wing brushed my cheek, a pair landed on my shoulder, a few more on my hat.” I was standing on a forested mountaintop in Mexico, mesmerized by the thousands of monarchs that were swirling around me and darting between pockets of sunlight and shade. I could hear the sound of their wings, and it was “like a whisper on the breeze.” More than luck had brought me to the spot: Every fall, monarchs that are born in Canada and the northern U.S. fly 2,500 miles to the mountaintops of Mexico and remain there through March. At El Rosario, the largest butterfly reserve in the state of Michoacan, anyone – for now – can see what I saw. And it is “a singular experience” – “mystical, and almost spiritual.” *(The Week magazine, December 1, 2017)***

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Animal responsible for the most human deaths worldwide: the mosquito. (*Uncle John’s Bathroom Reader: Extraordinary Book of Facts, p. 84)***

**The hardiest of all the world’s insects is the mosquito. It has been found in the coldest regions of northern Canada and Siberia and can live quite comfortably at the North Pole. It is equally at home in equatorial jungles. *(David Louis, in More Fascinating Facts)***

***\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\****

**The world’s smallest electric motor weighs one half-millionth of a pound and is smaller than the head of a pin. Built by a Californian, William McLellan, the motor measures a sixty-fourth of an inch on all sides. It has thirteen parts and generates one-millionth of a horsepower. It can be seen in operation only through a microscope. McLellan built the motor using a toothpick, a microscope, and a watchmaker’s lathe. *(Isaac Asimov’s Book of Facts, p. 106)***

**Am told those great gates on the Panama Canal are opened and closed by a motor with only half the horsepower of a Volkswagen engine. (L. M. Boyd)**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Mustard seeds come in a little pod which, when opened, reveals thousands of individual seeds. They seem infinitesimally small. If one seed is isolated from the others, an almost impossible task, it appears as a tiny fleck, barely visible on the tip of a finger. Yet the potential for growth in each tiny seed in infinite. *(Mary Manin Morrissey, in Building Your Field of Dreams)*
What carries 30 million bits of storable information, weighs less than three pounds, provides hard copy, handles both text and graphics, allows random access, is available 24 hours a day, is completely portable and costs less than 30 cents a connect hour? A newspaper. *(Bits & Pieces)*
During a cell-biology lecture on evolution and genetics at Boston University, our professor noted that the amount of genetic material in a living creature has no direct relationship to the complexity of that organism. Pointing to an overhead transparency, he revealed that alligators and frogs have more genetic material than man does. “And you Republicans,” her concluded, “will be happy to learn that the newt has one of the highest concentrations of DNA in the world.” *(Tomer Davidov, in Reader’s Digest)*

Andrew Chraplyvy had planned on springing a big surprise on the engineers and scientists assembled at an optics conference last February. He and his colleagues at Lucent Technologies' Bell Laboratories and AT&T Research arrived ready to demonstrate a technology for transmitting 1 trillion bits of computer data per second--two and a half times faster than had ever been done before and enough to carry 12 million telephone conversations or 20 video signals over a single optical fiber. As it turned out, when it came to surprises Chraplyvy was also on the receiving end. Two other teams, one from Fujitsu and another from NTT Corporation, had also arrived ready to break the terabit barrier. Then in September, a fourth group, from NBC Corporation, outdid them all by sending a whopping 2.6 trillion bits. (Fenella Saunders, in Discover magazine)**

**In Switzerland, there is a town by the name of End der Welt. In English it means “end of the world.” It is surrounded by high mountains, and the road into it suddenly stops on the farther side of the town before an impassible rocky cliff. When one gets there, he feels he can go no further. But hidden away in that rocky cliff is a narrow path that leads up the mountain to the heights above. If one searches diligently, he can find that path and go on. *(Pastor Richard Gray)***

***\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\****

**The smallest of all plants are the microscopic phytoplankton, so minute that a million can fit into a single teaspoon of sea water. More importantly, these tiny plants produce most of the earth’s oxygen and much of its new plant material. *(Associated Press, in It’s A Fact, p. 198)***

**NASA researchers say the world phytoplankton population went up more than 4 percent from 1998 to 2003. Satellite data show a reverse in the decline of the tiny ocean plants, which play a key role in absorbing carbon dioxide and producing oxygen. *(Discover magazine)***

***\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\****

**An eighteenth-century German named Matthew Birchinger, known as “the little man of Nuremberg,” played four musical instruments including the bagpipes, was an expert calligrapher, and was the most famous stage magician of his day. He performed tricks with the cup and balls that have never been explained. Yet Birchinger had no hands, legs, or thighs, and was less than 29 inches tall. *(David Louis, in Fascinating Facts, p. 122)***

**Before you invest always read the prospectus. It’s required by laws designed to protect us. Buried somewhere therein under mountains of prose are all of the risks to which you’re exposed. Don’t know where to start? Let me give you a hint: the greater the hazard, the smaller the print. *(Henry F. Hill, in The Wall Street Journal)***

**The diameter of the rhinoviruses, which is calculated to the 25 millionth of an inch, is known. It's also been learned that the protective armor is so tough that the virus can survive temperatures of -200 degrees F., and that a force 100,000 times the force of gravity won't crush it. (Carol Eron)**

**Your single largest salivary gland will secrete enough fluid to fill approximately 125 bathtubs during the course of your lifetime. *(Valmarie Carson, in Tidbits of Tri-County)***

**We see no power in a drop of water. But let it get into a crack in the rock and be turned to ice, and it splits the rock; turned into steam it drives the pistons. *(Albert Schweitzer)***

**The giant sequoia will bear millions of seeds, but each seed is so small that it takes 3,000 of them to weigh one ounce. *(Isaac Asimov’s Book of Facts, p. 179)*
The smallest North American mammal, the shrew, is one of the most vicious. The short-tailed variety can attack animals twice its weight, poison them with a secretion from its salivary glands, and completely devour them--including the bones. Experiments have shown that the glands of a short-tailed shrew can contain enough poison to kill 200 mice. *(Isaac Asimov’s Book of Facts, p. 39)***

**The Spanish forces led by Francisco Pizarro, who conquered the Incas of South America in the 1530’s, numbered less than 200 men. The Inca Empire then had a population of over six million! *(James Meyers, in Mammoth Book of Trivia, p. 194)*
The value of an article or a speech can best be tested by its information, inspiration and durability. A hundred years ago a President of the U.S. walked out on Cemetery Hill, listened to at least two speeches, one by a great orator of the day which lasted nearly two hours, then gave a ten sentence talk of two hundred and seventy-two words which has outlasted and impressed more men than the two hour oration which held the greatest interest that day. *(Ralph E. Lyne)***

**The spider’s talent for spinning silk and making nets is one of the miracles of nature. With a tensile strength far greater than steel and second only to fused quartz, spider silk can be stretched a fifth of its length before it breaks. A strand that can be seen with the naked eye is usually a cable composed of several tiny threads. A single thread may be only a millionth of an inch thick. Some molecules are wider. *(Leicester Hemingway, in The Living World of Nature, p. 136)*

 A doctor may now ask a heart patient to swallow the stethoscope. There is one instrument that is only an inch long and, once inside the body, transmits the sounds of the patient’s heart to a microphone for the doctor to hear. *(Barbara Seuling, in You Can’t Sneeze With Your Eyes Open, p. 72)* A teardrop can kill a million germs. (L. M. Boyd)**

**Viruses travel light, change disguise often, pursue goals single-mindedly, and blend in to the point where it's hard to pick them off without damaging the general population. And they attack on many fronts. Viruses cause colds, flu, measles, hepatitis, polio, smallpox, yellow fever, herpes and AIDS. The virus may be 1/10,000 the size of its host. It is like a guppy dumped into a swimming pool . (Alan Sternberg, in Reader's Digest)**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***