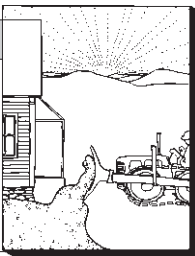


# Tall Tub Tales

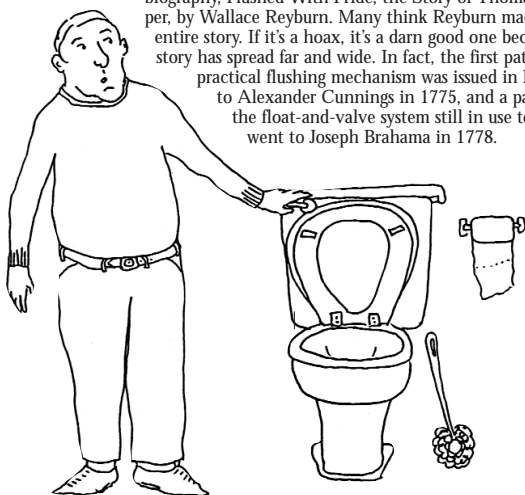
by John D. Wagner



**THE DEBATE RAGES ON.** Plumbing aficionados around the world still argue whether there really was a Thomas Crapper. Did he live from 1837 to 1910, and did he invent the toilet, as claimed, in 1882? Or is he a hoax? The story goes that a British engineer by the name of Thomas Crapper was knighted for inventing the Crapper Valveless Water Waste Preventer in 1882. The device, a flush toilet, helped to preserve London's water supply by replacing freely running toilet drains. Supposedly, the British valveless toilets, with Crapper's name on the bowls, were noticed by the U.S. soldiers in WWI. After that, "crapper" for "toilet" passed into American use.

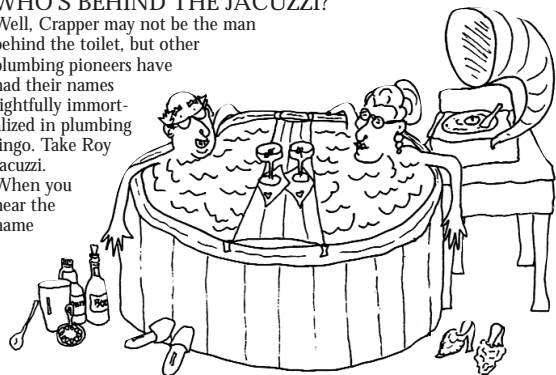
A call to the British Information Service in New York, N.Y., revealed that there was such a man, but that he was not knighted. The only reference the Brits could dig up was a ten-year-old newspaper clipping that announced Crapper had been nominated posthumously for a Greater London Council plaque. But there is little evidence that he invented the toilet. So why the hubbub?

Part of Crapper's fame can be attributed to his 1969 biography, *Flushed With Pride, the Story of Thomas Crapper*, by Wallace Reyburn. Many think Reyburn made up the entire story. If it's a hoax, it's a darn good one because this story has spread far and wide. In fact, the first patent for a practical flushing mechanism was issued in London to Alexander Cummings in 1775, and a patent for the float-and-valve system still in use today went to Joseph Bramah in 1778.



## WHO'S BEHIND THE JACUZZI?

Well, Crapper may not be the man behind the toilet, but other plumbing pioneers have had their names rightfully immortalized in plumbing lingo. Take Roy Jacuzzi. When you hear the name



Jacuzzi, you may think of California hot tubs and redwood decks, but the tub was named after its inventor, who hailed from the San Francisco Bay area.

Jacuzzi started in the business as a teenager, working in his family's irrigation equipment business. Anticipating the U.S. fitness trend to come, he experimented with joining one of his father's products, a portable hydrotherapy device, to a fiberglass tub to create a novel home spa.

By the time Jacuzzi was in college, he had already developed his first whirlpool bath design, which was boxy in shape, but effective in sending soothing streams of air and water surging through the tub. Now, 20 years later, "Jacuzzis" are a standard accoutrement in upscale homes and come in an endless variety of shapes and sizes.

Jacuzzi, who has 40 patents to his name, sold only 300 tubs in the first year they were offered, but now—with 10 other manufacturers offering similar products—the industry has grown to yearly sales of \$200 million.

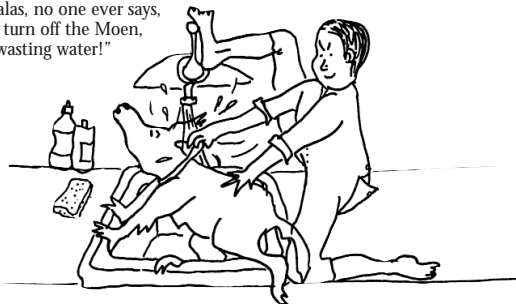


**PLEASE ADJUST THE MOEN.** And then there's the single-lever faucet. You may never have wondered who invented it, but undoubtedly you've appreciated its convenience.

As the story goes, in 1937, Al Moen, a young engineering student at the University of Washington, scalded his hands while using a conventional two-handle faucet. He was convinced that a single-handle mixing device would solve the problem, yet none existed. So, he worked up some drawings. After he'd developed a few prototypes, WWII came along, and Moen's invention was put on hold.

When the war ended—and after some refinement and sales work—Moen persuaded Ravenna Metal Products to finance and produce his design. In 1947, they sold their first faucet for \$12. Since then, they've sold 50 million more. In fact, a group of leading designers has designated the Moen faucet as "one of the 100 best-designed mass-produced products of modern times." Beside the faucet, Moen went on to patent 70 other inventions.

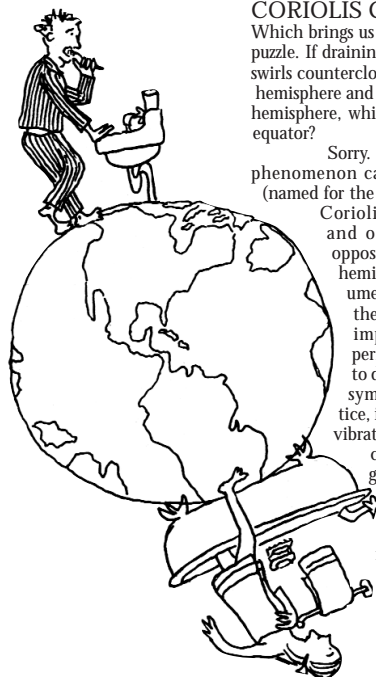
But, alas, no one ever says, "Please turn off the Moen, you're wasting water!"



## CORIOLIS CONUNDRUM.

Which brings us to our last plumbing puzzle. If draining water in a sink or toilet swirls counterclockwise in the northern hemisphere and clockwise in the southern hemisphere, which way does it go on the equator?

Sorry. Trick question. There is a phenomenon called the Coriolis effect (named for the French engineer Gaspard Coriolis), which makes storms and ocean currents swirl in opposite directions in the two hemispheres. But for small volumes of water like a sinkful, the Coriolis effect has little impact unless the water is perfectly still before it starts to drain and sits in a perfectly symmetrical tank. In practice, it is random effects such as vibrations and the shape of the container—not the geographic location—which determine the direction the water swirls. Now that's the truth, but if a rooster lays an egg on a rooftop. . . ■



John D. Wagner is features editor for *The Journal of Light Construction*.

Drawings by Cary Twitchell