



# The Mulvaney Pipeline

## WATERLESS NIAGARA FALLS

Roughly six million cubic feet of water tumble down the Niagara Falls every minute. But for a couple of months in 1969 the falls were completely dry, and last year a Connecticut man found never-before-seen photos of the historic occasion.

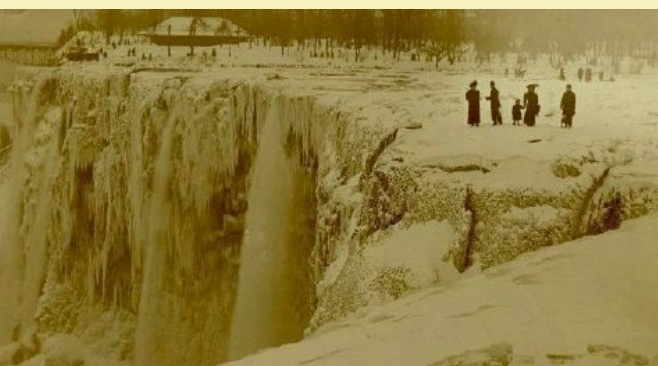
In 1965, the local Niagara Falls Gazette revealed that there was an abundance of loose rock at the base of the Niagara Falls. The rock fall had collected primarily during two large rockslides, one in 1931 and the other in 1954. This served as a warning, that if left un-removed, the debris may cause the falls to prevent flowing altogether. After a couple of years of indecision, the U.S. Army Corps of Engineers was given the task of diverting the falls, and on June 12, 1969, they completed a 27,800 ton rock dam that halted the flow of the Niagara Falls for the second time in 12,000 years.

Recently a man named Russ Glasson found a shoebox of 35mm slides that showed the Niagara Falls as it had rarely been seen before: completely dry. The photos were taken by his in-laws during the second half of 1969. In November of that year after removing a few of the loose rocks and shoring up the falls with mechanical bolts, the engineers destroyed their dam and re-watered the falls.

Only once before the American Falls were left dry. In March of 1848 an ice flow in the Niagara clogged the US branch of the river. Some amazed visitors and residents actually walked the dry river bed finding many artifacts from the war of 1812.

The photo at the right is one of the few photos taken during the 1848 ice block. Note the people strolling the river bed near the edge of the falls.

Visitors from all over the world still visit the falls since it remains the "Honeymoon Capital of the world"



## 30 Year Power Solution for Touch-Less Faucet Fixtures

A new KOHLER Hybrid energy system will undoubtedly change the conversation about water conservation. The combination of a water-saving faucet that's guaranteed to last 30 years is a win/win solution.

KOHLER Insight Technology for wall- and deck-mount faucets analyzes and logs feedback from its environment upon initial installation. If the bathroom space has low lighting, or highly reflective lighting, the sensor calibrates its factory default setting to accommodate its new home. As a result, the sensor is precisely tuned to its exact position, and

eliminates false actuations. Insight technology is available on several KOHLER faucet lines, with a factory-installed .5 gallon-per-minute aerator for maximum water conservation.

The new hybrid energy system features a unique layered-capacitor, that literally collects small electrical discharges from the battery. When the faucet is activated for use, power is drawn from the capacitor, not the battery. This allows the special long life battery to maintain its superior power storage.

The use of Insight Technology is what allows the battery to remain operable – literally maintenance-free – for 30 years or more. The Insight touchless technology uses an extremely low amount of power. Thus, this faucet does not fail or require maintenance even if it's not used regularly, or if the room's lighting is less than adequate – two common challenges in other long-lasting power solutions.

A 30-year operating-life is just the beginning of this system's environmental advantage. This power solution is completely mercury-free, and is built with no other chemicals or additives that are harmful to humans or the environment. In addition, when it's time to upgrade or remodel the bathroom space, Kohler will accept any used cells and properly recycle 100 percent of the contents.

Technology similar to the Hybrid energy system is used in applications such as hands-free meter reading, GPS vehicle tracking systems, airbag deployment components and emergency call systems. These applications require a reliable source of power over a prolonged period of time – the same facility managers and end-users require of their bathroom faucets.

## LOOKING BACK OVER THE PAST CENTURY

How many of the twentieth century amazing engineering achievements will you be using TODAY? An automobile? A computer? A telephone? Don't be surprised if all twenty of these amazing engineering wonders come to play in your life, each and every day.

- |                              |                      |                                |
|------------------------------|----------------------|--------------------------------|
| 1- Electrification           | 8- Computers         | 15- Household appliances       |
| 2- Automobile                | 9- Telephone         | 16- Health technologies        |
| 3- Airplane                  | 10- Refrigeration/AC | 17- Petrochemical Technologies |
| 4- Water supply/distribution | 11- Highways         | 18- Lasers and fiber optics    |
| 5- Electronics               | 12- Spacecraft       | 19- Nuclear technologies       |
| 6- TV and Radio              | 13- Internet         | 20- High performance materials |
| 7- Agriculture mechanization | 14- Imaging          |                                |



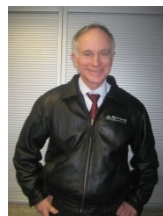
## What the Heck is it?

If you can name the item pictured, you may

## WIN A MULVANEY MECHANICAL Leather Jacket

If you e-mail your entry, you must write "NEWSLETTER CONTEST" in the subject line to avoid our SPAM filter. Please mail to [janette@mulvaneyinc.com](mailto:janette@mulvaneyinc.com)

Just like this one



If multiple correct answers are received, a winner will be selected at random.

## The answer to last quarter's quiz.



A 19<sup>th</sup> century black powder actuated wood splitting device used to split whole logs into rails for various applications such as fence posts and rails, support timbers and other rough lumber. This was a compact powerful tool for early frontiersmen. Bill Sapienza of Sapienza & Lessig Architects came closest with his guess of a powder actuated rock splitter.

## TECHNOLOGY IS CHANGING, ARE YOU?

Across America, businesses and consumers are looking for ways to save money and save energy. HVACR is a \$200 billion a year industry and the 2<sup>nd</sup> largest source of energy consumption in the United States.

Eighty percent of the buildings that we will be working in for the next twenty years are the ones that already exist today. The HVACR industry's future lies in retrofitting the current buildings with more energy efficient technologies.

Regulations are increasing efficiency requirements, resulting in more use of variable speed, multi-stage - i.e. more complex, equipment. More systems are getting connected to the Smart Grid and building managers are looking for remote access capabilities. This has resulted in the HVACR industry seeing increased pressure to make the transition from legacy 24Vac control wiring to equipment with serial communications. These "Smart" HVAC systems, such as the Climate Talk Alliance will take the complexity out of the installation and set up of HVAC systems and provide meaningful diagnostic information to help prevent and/or troubleshoot equipment issues. Educators and trainers must teach students / technicians how to competently install Smart HVAC Systems without turning them into IT experts. Gordon Holness, immediate past president of ASHRAE, has stated that the HVACR industry is undergoing significant changes and there are many more to come. In the future we will see far more modular and packaged systems rather than "central" systems all requiring more competence in our technicians for installation and maintenance.

## Plumbers, the most misunderstood trade

Throughout the plumbing business I've always felt that our trade is misunderstood. Quite a good percentage of the journeyman plumbers across the country are associated with some sort of licensing body that ensures they keep up with their trade. Most apprenticeship programs, are 4 year programs and sometimes 5. However, I can't help but to think, justified or not, that we get no respect I tell ya, no respect.

I get into the office, I take a call from a perspective customer and just like that I'm telling her that upon replacing a sink faucet that has a side spray, with a new faucet that has a pull-out spout that we'll just put a cock hole cover over the open hole. I've just managed to sound like an "adult" film director while describing a common plumbing repair.

How can we as plumbing professionals be to blame for our forefathers lack of hygiene or their belief that a belt or suspenders were accessories best left at home. Plumbers crack became synonymous with the plumber based upon some shred of truth, and was probably set in stone given all the bending a stooping plumbers do.

Little did you know that when the boss reminds his plumber to "wipe his joints" he actually means for his plumber to clean-up his soldered copper couplings and fittings or if you're looking to go back in time it's a way to describe making a lead pipe connection. Who could be more misrepresented? The boss is telling his worker to keep it neat and it comes out like.....well you know how it sounds.

