

TITLE: N&L Show 7/23/16 – Peter Hemp, Master Plumber



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THE NEAL AND LARRY SHOW

**~ Dedicated to the Promotion of Self-Sufficiency in Architecture, Community
and the Individual ~**

*“Had I been more responsible I might have made something of myself as a junk bond trader,
long-haul trucker or perhaps a plumbing contractor.”*

~Brock Yates

*“Television is like the invention of indoor plumbing. It didn't change people's habits. It just
kept them inside the house.”*

~Alfred Hitchcock

THIS SHOW - SATURDAY – July 23, 2016 - 11:05 AM

Peter Hemp knows a LOT about plumbing! And, that's an understatement. He's even written three books on it. We talked with him July 12th, 2014 on the show, but there is more to discuss! Back in 1998, Pete wrote, "Plumbing a House", published by Taunton Press. Things in the plumbing world have changed and Peter has been working on updating his book to reflect these changes. PEX piping has become commonplace, replacing copper as the main material for water distribution systems, so Pete has added a chapter to his book on PEX. Energy and water conservation matter now more than ever, so Pete gets into that a bit. Ask Peter about plumber's putty and then ask Larry about silicon seal. You'll see that there can be more than one right answer to a plumbing situation. Anyway, bring your plumbing questions and we'll try to help.

NEXT SHOW - SATURDAY – July 30, 2016 - 11:05 AM

UNITY IN COMMUNITY

Many social commentators today are remarking about the loss of unity in our country, divisions between White, African-American, and Hispanic communities have never been greater. But even more worrying, is the division we are seeing in our country between the left and the right, Republicans and Democrats. With all of the contention, anger and division we're noticing in the country today, we thought it would be a great idea to do a show on how we can all come together in a spirit of unity, love and partnership here in our local Monterey Salinas community.

******* SHOW TIMES *******

Every Saturday at 11:05 AM - 1460 AM, 101.1 FM or 105.1 HD2

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News from the NEAL AND LARRY SHOW

Missouri Is Transforming Historic Route 66 Into A Solar Roadway

[Environment](#) · [News](#) · [Sci & Tech](#)



By [Amanda Froelich](#)

Posted on July 1, 2016

Solar Roadways will soon replace asphalt on Route 66 in Missouri as the intelligent panels generate revenue and benefit the environment.



Credit: Solar Roadways

For years, eco-entrepreneurs Scott and Julie Brusaw have been developing solar panels that can replace asphalt and generate energy as cars drive over them. Not until recently, however, did their brilliant innovation gain traction in the U.S.

Now, officials are planning to renovate historic Route 66 in Missouri by replacing the road with the solar panels. *Clean Technica* [reports](#) that the Solar Roadways will be installed on Route 66 as part of Missouri's [Road to Tomorrow](#) initiative. The ultimate aim of the initiative is to focus on improvements like incorporating renewable energy and smart highways.

Tom Blair, Missouri Department of Transportation (MoDOT) engineer who heads Road to Tomorrow, said:

"It gets Missouri and MoDOT prepared for 21st century innovations. We expect them to be in place, I'm hoping, by the end of this year, maybe before snow flies."

Blair hopes that renovating Route 66 results in other state officials improving their own roads with Solar Roadways. After all, the tempered-glass roads are [intelligently designed](#) and are capable of producing revenue.

He states:

"If [Solar Roadway's] version of the future is realistic, if we can make that happen, then roadways can begin paying for themselves."



In the case that this is the first time you've heard about [Solar Roadways](#), prepare to be impressed. According to the Idaho-based company, the energy-generating roads can be described as

“a modular system of specially-engineered solar panels that can be walked and driven upon. Our panels contain LED lights to create lines and signage without paint [and] contain heating elements to prevent snow and ice accumulation.”

A significant benefit of the panels is that the microprocessors in each panel make it possible for the panels to communicate with each other, a central control center, and even driving cars. And, if a panel is broken, it can easily be repaired because it is modular. That means less time sitting in construction zones.

Inhabitat [relays](#) that Solar Roadways were first funded through a research contract from the U.S. Department of Transportation. When *TrueActivist* first [reported about the game-changing panels](#), an IndieGoGo campaign had been set up, which ended up raising an addition \$2 million.

If all goes well with the section of Route 66 in Missouri, you could soon be driving on Solar Roadways in other states.

What are your thoughts? **Please comment below and share this news!**

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LINK: <http://www.trueactivist.com/missouri-is-transforming-historic-route-66-into-a-solar-roadway/>

Bill Gates And Other Billionaires Backing A Nuclear Renaissance



by [Tyler Durden](#)

Jul 7, 2016 1:11 PM

[Submitted by James Stafford via OilPrice.com.](#)

Let's for a second imagine a world without nuclear energy. That's a tough one but let's try. No nuclear bombs, of course, no Chernobyl and Fukushima, no worries about Iran and North Korea. ***A wonderful world, maybe?***

Probably not, because without nuclear energy we would have burned millions more tons of coal and billions more barrels of oil. This would have brought about climate change of such proportions that what we have today would have seemed negligible.

Nuclear energy and uranium, which feeds it, are controversial enough even without any actual accident happening. **Radioactivity is dangerous. Nobody is arguing against it.** When an accident does take place, the public backlash is understandably huge. What many opponents of uranium forget to mention, however, are the benefits of nuclear energy and the fact that the statistical probability of serious accidents is pretty low. **They focus on the "What if?" and neglect the other side of the coin. But let's try to see both sides of the issue.**

The positive side of nuclear energy definitely deserves more attention than it's currently getting. **Uranium-fueled power is obscenely greener than fossil fuels.** It's also cheaper and, perhaps surprisingly for many, it is actually [lower](#) in carbon emissions than solar and biomass. This means that the construction of a nuclear plant, including materials used and the work itself plus the operation of the plant over its lifecycle, produces fewer greenhouse gases than the construction and operation of a solar farm.

What's perhaps more important is that nuclear energy is much more easily scalable than other low or zero-carbon energy sources. And that isn't just some claim from the nuclear industry – that's something climate scientists and environmentalists are saying. Here's a [public appeal](#) by several such scientists, urging greater support for nuclear energy, noting that "While it may be theoretically possible to stabilize the climate without nuclear power, in the real world there is no credible path to climate stabilization that does not include a substantial role for nuclear power."

The uranium mining industry is certainly aware of these attitudes and it's also aware of a global trend: countries are building new nuclear plants and upgrading existing ones. Forget about Germany and its [plans to go nuclear-free](#) – plans that will cost it tens of billions, by the way. None other than Sweden--the poster child of renewable energy, the country that [vowed](#) to become the first fossil-free state in the world--is not only choosing to maintain its nuclear fleet; it is [updating them](#). China is building 20 new reactors, South Korea is

working on four; and even Japan is [restarting](#) some of the capacity shut down after the Fukushima disaster and building new reactors.

The growth of nuclear power around the world will cause demand for uranium to surge, and uranium prices are set to [double](#) over the next two years. “Reality is finally trumping negative sentiment,” says Paul D. Gray, CEO of uranium and lithium miner [Zadar Ventures Ltd.](#) **“And the reality is that we can’t wean ourselves off fossil fuels without nuclear power.”**

Uranium will be needed in prodigious volumes to power up new nuclear reactors, and much of it will come from the Athabasca Basin in Canada. This area, rich in high-grade uranium, is being targeted by both public giants like *Cameco* (TSX:COO) and *Areva* (EPA:AREVA) and smaller miners such as [Zadar Ventures](#), CanAlaska Uranium and Mega Uranium.

Yet what about those notorious safety risks? Nuclear energy may be green, but it is also more dangerous than, say, wind energy.

Again, nobody in nuclear power is contesting that. What they are doing instead is working on new, safer reactors. Welcome to the next generation—reactors that are much safer than their predecessors. But they will still need uranium.

The U.S. government recently announced an \$82-million funding program for next-generation nuclear reactor development. The UK is even more generous, [pledging](#) last year £250 million over five years for research and development in the nuclear energy field.

Private investors such as Bill Gates, D. E. Shaw, and Chinese billionaire Li Kashing have been pouring money in such research – and uranium mining – for years now.

The nuclear reactors of tomorrow will not only be [safer](#) than the ones we already have – which are themselves safer than many believe – they will be much more efficient.

Bill Gates’ TerraPower, for instance, has designed a [traveling wave reactor](#), which utilizes nuclear waste. Another design, by two MIT researchers, again uses waste, mixed into molten salt. In short, the nuclear reactors of the future will utilize not just regular uranium but will take care of the waste as well – **the same waste that raises so much concern among environmentalists and the general public.**

So it’s the Athabasca Basin that will be ground zero in the nuclear energy rebound.

[...]

Back in 2012, Bill Gates noted that *“When you have fission, you have a million times more energy than when you burn hydrocarbons. That’s a nice advantage to have.”*

Today, it’s getting increasingly clear that it’s more than “nice”. Nuclear power is unique among zero-carbon energy sources: its production is consistent as it doesn’t depend on sunlight or wind. This, coupled with affordability and safety – whatever environmental extremists say – makes nuclear energy an indispensable element of the global renewable energy mix for the future.

It also suggests uranium is more than likely to take the center stage it deserves as fossil fuels relinquish the spotlight.

The Athabasca basin will be in the undeniable spotlight sooner than you might think in what will be a boon for major Northern American operators as well as juniors, such as Zadar Ventures.

“It’s impossible to find another natural resource that is so fundamentally necessary to our future,” says [Zadar’s Gray](#). “This will be the year of the uranium rebound, and nuclear energy’s next-generation safeguards will **rewrite the global energy map once again.**”

Link: <http://www.zerohedge.com/news/2016-07-07/bill-gates-and-other-billionaires-backing-nuclear-renaissance>

Top 15 Innovative Plumbing Products of The Last 100 Years

Innovative Plumbing Products Highlight The Last 100 Years

It’s a bit overdue but Happy New Year from all of us at The Plumbing Info. News is finally beginning to trickle in that tells me there may be good times ahead for all of those plumbing contractors out there that have weathered the last 7 years and for those who’ve had the sand to establish a contracting firm during this mess.

Even though innovation may not be the first thing that comes to mind when you think of plumbing there have been some pretty significant advances in the plumbing world over the last 100 years. So we thought it would be pretty cool to take a look back at some of most significant products developed over the last 100 years.

Let’s be honest none of the following innovative plumbing products has the sexiness of the latest iPad or Android Wearable but I’d argue that if you didn’t have them life would kind of suck. These products have helped us as tradesmen and you the consumer quite a bit.

Our list is subjective to be sure so please leave some feedback as to any products you feel were missed. Leave your reasoning as to why you believe your plumbing innovation deserves mention. Being an armchair quarterback isn’t good enough. We picked the products in two ways; how significant was it to the plumber and the consumer and did it stand the test of time. In other words there are a few products on the list that have been around awhile but the design has changed very little. The development and engineering was so well done before the product was introduced that very little alteration has been done.

We’ll stop yapping and get to it.

Here are the Top 15 Plumbing Innovations of the Last 100 Years

15.) **PVD Life Finishes** – PVD finishes have been around for quite awhile however they weren’t used on plumbing



Brilliance ORB

faucets and fixtures until Delta introduced their Brilliance® anti tarnish finish in 1996. As a side note the Masco Corp. (home improvement and construction manufacturing giant) the parent company of Delta Faucet was the owner of Vapor-Tech the developer of the first PVD machines in the US. It's no wonder Delta used the technology first. It wasn't until a couple years later that the rest of the plumbing world followed suit, Moen with LifeShine, Kohler with Vibrant, Grohe with Starlight, Hansgrohe with Lifelong and Franke with SilkSteel. I want to give a shout out to my friend [Lars Christensen with Franke](#) for all of the good intel. Before 1996 plumbing finishes were done using old fashioned electroplating. Simply put, a thin layer of metal is plated on top of another using hydrolysis. The only problem with this is that over time all plating will begin to corrode or flake off. Because plumbing products live in a pretty rough environment with harsh cleaning products and heavy use no finishes were forever. PVD or Physical Vapor Deposition coating works a bit differently. A solid coating is vaporized usually by heat and it is deposited on the product being coated. It is highly adherent and the coating hardness, thickness is highly controlled. The coating material actually bonds with the metal being coated. The coating is so durable most major manufacturers cover the finish for the life of the product. I have a Moen Monticello Widespread faucet with a brushed nickel Life Shine in my house that was installed 13 years ago and it looks like the day it was installed, pretty innovative.



Delta's Brilliance Finish Samples

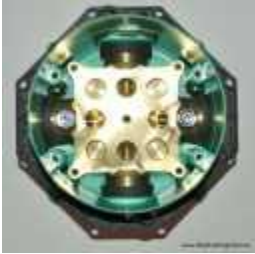
14.) **Quartz/Granite Composite Sinks** – Before composite sinks were introduced, enameled cast iron/steel, stainless steel and vitreous china were the only materials used for plumbing fixtures. The German company Schock



S C H O C K 

The Genesis of Quartz Composite Sinks

[introduced composite sinks almost 30 years ago and they blend quartz/granite](#) and a polymer to bind everything together. When they were first introduced they came in Black, White and a sandstone color but as they've grown in popularity so has the color chart. They are extremely heat resistant, sound deadening is awesome, they are almost indestructible and their finish lasts a lifetime. No matter how much you spend on stainless steel the finish will always become marred and scratched and enameled cast iron will eventually stain. Not so with granite composite. It's a wonder why these sinks haven't taken a bigger bite out of the market share. After 30 years 75% of all composite sinks are made with the method Schock invented.



Multiple Ports to accommodate different trims

13.) **Hansgrohe iBox Valve** – [We have written about the iBox pretty extensively](#) so we aren't going to add anything new. Here is the long and short of it, prior to the iBox valves introduction in 2001, when you installed a tub/shower valve depending on the level of finish and features you wanted you installed the appropriate valve and trim. Hansgrohe flipped the plumbing world on it's head by making a universal multiport rough-in box with different plug-in trim. If you wanted a basic pressure balanced, chrome plated tub/shower trim you bought and plugged it in, if you wanted a thermostatic volume control with a diverter to operate body sprays or a hand held shower all you have to do is buy the correct trim. The rough stays the same. There are many other awesome features packed into the iBox and you can read more about them here.



Gas Power Backup Sump Pump 1950s

12.) **Battery Operated Back-Up Sump Pumps** – Before battery back-up sump pumps if you didn't have some kind of back up power your basement flooded if the power failed. We remember the days when it rained heavily people would just start moving stuff out of the basement because they knew it was inevitable. It was a matter of



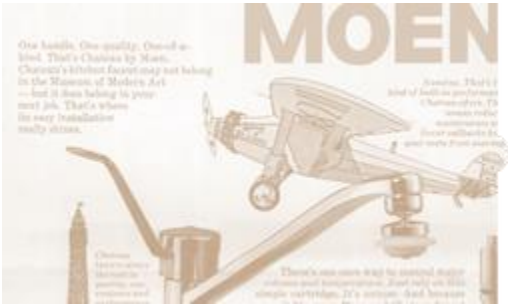
The New Zoeller 508

“when” not “if”. Up until recently battery backup pumps were re-purposed DC bilge pumps or an inverter to convert the power from the battery to AC current so it can power your current sump pump. Pinning down just who invented the first battery back is up for serious debate but Zoeller's Controls Product Manager Jeff Sloss tells us Trusty Warns was the first to make an actual battery back pump. However, he adds Zoeller made a back-up sump pump with a gas power motor to power the pump in the 1940's. Today Zoeller is the driving force behind improvements made in the residential back-up sump pump market. In May of 2014 Zoeller released a new backup DC pump that was designed from the ground up to be back-up sump pump. It is also the only backup pump manufactured right in the USA and in fact all Zoeller products sold through plumbing wholesale are made in Louisville Kentucky, a fact they are proud to let people know about. Jeff informed me that Zoeller has some products in the works that will change the way people look at backup sump pumps and ground water removal. So stay tuned. **Just as a side note, I swore I would let all of you know that this is not a current Zoeller Pump. It was used in the 1950s. Many thanks to Jeff for the very cool picture.

11.) **Variable Speed House Pumps** – Again we aren't going to go into great detail regarding house pumps but we will give you the basic run down. A house pump or booster pump takes incoming water and boosts the pressure to accommodate the plumbing needs of a residential or commercial building. Most plumbing fixtures and equipment have minimum water pressure requirements to ensure proper function. House pumps make sure these requirements are met. Before variable speed pumps were introduced delivery and flow was mechanically regulated with valves however this is pretty inefficient. Prior to 1990 using a VFD pump was ridiculously expensive and very rarely used in the plumbing field. Metropolitan Pump patented the Transferable VFD in July of 2001 but used the technology in the mid to late 1990s. A VFD pump regulates output electrically so if you need more output the pump works harder if less is needed the pump doesn't work as hard. If you combine this technology with alternating pumps you create a very efficient and long lasting water delivery environment. One of the [finest engineered pump manufacturers and assembly companies in the USA is Metropolitan Pump](#). Check them out if you need any assistance. I've got to give a shout out to my friend Brendan Bates with Metropolitan Pump for all of the information. Stay tuned for another piece on all of the innovative technology being churned out of Met Pump.



10.) **The Single Handle Faucet** – The funny thing is some of the simple things we take for granted are born from a true need for someone to think outside the box. Such was the case with the single handle faucet. Al Moen the founder



1950 Moen Single Handle Faucet

of Moen Inc. scalded his hands using a two-handle faucet so he set out to make a single handle faucet that would blend hot and cold water to avoid scalding in the future. This was especially useful for children. In 1939 Al Moen finalized his design for the single handle faucet and in 1947 Moen's first faucets rolled off the line and were sold for a whopping \$12 bucks each. There have been several upgrades to the single handle kitchen and lav faucet one of the most important being the introduction of the ceramic disc however, the concept has never changed and that is why it lands at number #10.

9.) **The Tankless Water Heater** – Believe it or not tankless water heating technology has been around over 100 years in fact Edwin Ruud was awarded the first patent in the US for a tankless water heater in 1889. The thing looked like a cast iron bomb. It had a cast iron shell with a copper heat exchanger. With the increasing demands for hot water in the US tank type water heaters proved to be a much more economical option. While no one claims the “we were the first modern tankless water heater manufacturer” there were quite a few manufacturers producing tankless models by the mid 1990s, Takagi, Rinnai, Noritz and Rheem were all early innovators and still continue to be leaders in the tankless water heating world. [The technology has had it's issues over the years but it is considered a mature technology](#) and as long as your contractor is knowledgeable about sizing, installing and maintenance you're safe to explore the options. Because of it's small footprint, on demand performance and potential energy savings it makes the list at #9.



Noritz Tankless

8.) **Ultra Premium Toilets** – Toto's Neorest line introduced the world to Ultra Premium toilets. Although INAX



Kohler Numi in the Dark

and Kohler have taken the concept to a different level it was Toto that introduced us to comforts like the integral bidet, warm air dryer, air filter/freshener, heated seats, fully automatic toilet seat/cover and nightlight. Kohler's Numi is the most technologically advanced toilet in the world adding features like ambient lighting, foot warmers, audio with a subwoofer and full color touch screen remote. [Some will think ultra premium toilets](#) don't deserve to be on a list of the most innovative plumbing product of the last 100 years. I obviously disagree. The reason being is that a tremendous amount of R&D went in to producing these beauties; the Kohler is rectangular because their development department determined that the most comfortable seats we sit on are square or rectangular. Some of this R&D flows down to products we can actually afford. Kohler now makes a much more affordable rectangular toilet, Toto manufactures the "Washlet" a stand alone toilet seat that incorporates many of the cool features featured on the Toto Neorest. I expect other features to trickle down to mainstream toilets as well.

7.) Sewer Camera Diagnostic Equipment – Many companies had tried to stick cameras in sewer lines before



The Original SeeSnake 1995

Ridgid introduced the SeeSnake to the plumbing professional in 1995-96. The results were mixed. There were two issues that had to be dealt with before sewer cameras hit the mainstream: cost and durability. Some of the early sewer cameras were upwards of \$35,000.00 and the durability of the camera head was always hit or miss. That all changed with the SeeSnake. Before the SeeSnake diagnosing sewer blockages and breaks was almost impossible. If the ground was sinking in an area or sewage was seeping through cracks in a basement wall or floor you knew there was a leak somewhere, however as a plumber you were literally flying blind. The crazy thing about the Ridgid camera is even today it remains the most durable camera on the market. Many companies manufacture sewer camera equipment but quite often it is plagued by the same 30-year-old durability issues.

6.) **PVC Pipe & Fittings** – Believe it or not PVC was first discovered in 1835 but no one



Charlotte PVC Pipe

knew what to do with it. Technology wasn't far enough along to be able to extrude or mold the plastic so it remained a bit of an oddity until the early 1900. In the 1920's some industrious company began to experiment with PVC because of how tough it was. It wasn't until the 1930's that a German company began to manufacture PVC piping for drinking water. The process was makeshift at best. In the 1950's new extrusion technology made manufacturing more cost effective and improved tolerances exponentially. In the 1960 the cast iron giant Charlotte saw a future with PVC in it and began preparing for a major expansion geared toward PVC manufacturing. In 1967 with the help of Frank and Roddey Dowd Charlotte opened their Plastics Division. This new division made PVC only for use drainage, waste and vent applications. The ease of install and extreme durability made widespread use of PVC a no brainer. Cast iron and copper still have their place in the plumbing world however projects continue to go to PVC whenever local codes allow for its' use.

5.) **Hybrid Heat Pump Water Heater** – [I've gone into depth regarding hybrid heat pump water heaters](#). Here is the long and short of it, Hybrid heaters have been around awhile however they are fairly new to the domestic hot water arena. Rheem introduced the first electric heat pump water heater in 2009. Hybrid water heaters work like a refrigerator in reverse it pulls heat from the air in the room amplifies it dumps it into the tank. Consider it a pre-heater. During periods of peak demand the heater works just like a conventional electric water heater. The elements fire up and you start burning through electricity like it's a contest. A hybrid heat pump water heater can be up to 3x more efficient than a standard electric water heater and can rival the most efficient gas water heaters

4.) **HET Toilets** – This is another subject I've written about extensively so I again I'll be brief. I feel as if HET toilets have been around since the early 90's because in 1992 US congress passed the Energy Policy Act that said "anyone



This is a good looking HET Toilet

who is manufacturing toilets must be using 1.6GPF to flush their toilets in the US by 1994”. There really weren’t any toilets during those dark flushing days that were worth a lick. The backlash was so huge that all the manufacturers went back to the drawing board and designed toilets that actually worked and worked really well. By 2000 the pain of having to use toilets that were ill designed were forgotten at least by the consumer. The HET/Duel flush toilet has been in design at all the major plumbing fixture manufacturers for quite some time. Some still use 1.6 GPF for flushing solids and .8 GPF for flushing liquids but the industry is beginning to standardize. 1.28GPF for solids and 1.0GPF for liquid waste. The good news is they work and they work well. None of the major manufacturers have skimped on the R&D to ensure their proper function. All HET toilets that use 20% less water than the current federal standard can be labeled “Watersense”. I believe this is a major step forward in making us more sustainable and I still marvel at the fact that companies are making toilets using 20% less water to flush and they function at or better than their 1.6GPF counterparts.

3.) Low Flow Plumbing Products – This sort of piggybacks off of the previous plumbing innovation but I feel like it’s different because these products deliver potable water to the consumer. The consumer is a notoriously finicky lot. They want to help the environment but not at the expense of their comforts. The shower is one such comfort and



Symmons Rain #4-163 1.5GPM Showerhead

aplace where the plumbing manufacturers have placed significant research dollars. It was not uncommon to have a Speakman Anystream® cranking out 5 GPM or more. Can you imagine how ornery people get when us plumbers have to install showerheads cutting the GPM in half to 2.5GPM? Well I’m here to tell you that now the magic GPM number is even lower with water conservation growing. Companies like Symmons, Hansgrohe, Delta, Moen, Kohler and Sloan have made it their mission to decrease the amount of water delivered but make it feel like you are using more water. They do it in myriad ways, infusing each drop of water with air, cranking up the pressure and playing with water patterns are just few. Suffice to say they have all done a great job

delivering a good showering experience with less water. Some do it better than others and I've written quite a bit about the [subject of Eco shower heads](#). Showerheads aren't the only products to go under the knife, kitchen and lavatory faucets have seen similar changes as well. Regardless we are doing more with less to be sure and our beloved manufactures should be applauded for their efforts.



Back in the day Symmons

2.) **The Mixing Valve** (Pressure Balanced and Temperature Balanced) – When a product is designed and engineered over 80 years ago and the general function remains the same it deserves an atta boy. I am glad the product and the company that pioneered it are still going strong. Paul Symmons had an idea to create a shower valve able to deliver a safe showering experience. With the fluctuations in water delivery back in the early 1900's it wasn't uncommon to have water pressure change dramatically because of water demands in other areas of a building or service. These fluctuations caused severe fluctuations in water temperature, which lead to scalding or thermal shock. In 1938 Paul Symmons started his own company Symmons Industries to put his ideas to the assembly line and the valve has changed very little since. Symmons has had a storied history even making part for torpedoes during WWII. The company has expanded quite a bit and rebranded itself by offering lines of premium kitchen and bath products.



Symmons Reimagined

Drum roll please.....and the #1 innovative plumbing product of the last 100 years is.....

1.) **The Sloan Flush-o-Meter** – I'm going a bit beyond the 100 year mark here but for good reason. William Elvis Sloan gave us a product in 1906 that really revolutionized water delivery to a plumbing fixture. That product was so



Sloan pay homage to their old style flush valve

innovative that it's been copied by almost every other flush-o-meter manufacturer on the planet and the design is almost identical. The flush-o-meter had a rather rocky start, only selling 6 in 1906 and 150 in 1908 but the market continued to expand and so did Sloan. However, in the 1930's Sloan took a massive hit with sales totally only 20% of what they were in 1929. I love Sloan's development philosophy; build new technology on existing products. Sloan can literally make or may even have in stock parts to repair a flush valve from 1910 and all of their products are built upon that backbone. When new products are being developed they immediately think "what do we do currently or in the past that we can take advantage of" This does two things, #1 is lowers development costs and #2) It's built upon products they already know work. They remove an entire layer of product testing from the mix. Sloan has made and still makes so many things well I am certainly proud to have their product as The Plumbing Info's #1 innovative plumbing product of the last 100 years.

We hope you enjoyed the piece and learned a bit along the way. I'm sure I missed a couple on here. Please feel free to add your own.

LINK:

<http://www.theplumbinginfo.com/top-15-innovative-plumbing-products-last-100-years/>

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LET US KNOW...

...if there is any news you would like us to include in our next public service announcement.

...and remember, why have someone else do it for you, when you can DO IT YOURSELF...

**Neal (Kruse) and Larry (Weingarten)**

## **THE NEAL AND LARRY SHOW**

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