

Benton Foundry Then and Now

In the casting process, a sand core is used to make the inside shape of a casting. The core is placed inside the mold. Then the iron is poured into the mold and flows around the core. The core keeps its shape long enough for the iron to solidify; then the residual heat breaks down the resin system and the core sand drains out of the inside of the casting, leaving a passageway behind. So every casting that has a passageway, has a core that produced that opening and the core can only be used one time. Thus, the efficiency of making cores has a significant impact on the efficiency of the organization. In 1975, Benton Foundry cores were produced using oil sand and the shell process.

Oil sand cores were produced by manually mixing oil, silica sand and wood flour. The prepared sand was packed by hand or blown into a core box. The core was vibrated out of the box and then baked in an oven. If the core had a more complex shape, then it was blown into an aluminum core dryer. A core

dryer is similar to a tin you might use to bake bread. This was a



Pepset ABC Machine - Circa 1980

manual and very time consuming process. The drying oven is still in operation today (45 years later). It is now used to dry the water-based coating that we apply to some of our cores. Some estimates have the core oven as being eighty years old. There were two of these ovens in 1975 to bake the oil cores for an hour, or so, to support the 20 tons of iron poured per day. The oil cores had poor strength and degraded quickly.

Shell cores are produced with a resin-coated sand. The sand is blown into a heated core box at around 350°F. After a number of seconds, the resin on the sand near the inner surface of the box melts the sand grains together. The box inverts and the uncured sand drains out, leaving the outer shell. Thus the cores are hollow, versus the solid cold box cores that we make today. This process requires a long set-up time and a long process time. The process is also energy intensive. The advantage of the shell process is that it produces a very strong core, which is advantageous for thin, intricate cores. Cycle times of 3-4 minutes is common.

Benton Foundry currently produces roughly 90% of our cores using a cold box process. In this process we coat the silica sand grains with a phenolic urethane resin and blow the mixed sand into a box. Then, a heated catalyst is blown into the box, which

solidifies the core. This process takes roughly 40 seconds per cycle and, typically, multiple cores are produced in a single cycle.

Benton Foundry currently uses roughly 5,000 tons of cores per year. We anticipate breaking ground on our new core room in the spring of 2021. The new core room will be able to produce up to 10,000 tons of core per year. The new system will also offer tighter process control and more flexibility with respect to different sand mixes and additives. The new core room will be a nicer work environment than the present. It will have more room, will be cleaner, climate controlled and more conducive to modern manufacturing methods.



See what was caught on trail cameras at the foundry.



Fuel Tank Exhumed

nstalled in the Summer of 1993, Benton Foundry's fuel tank was removed this past July to make room for the next major expansion work to the South end of the building. Despite many modifications to the laws governing fuel tanks over the years, no upgrades and very few repairs were ever needed to this tank or fuel island, which is in line with BF's habit of building things to last. This tank was in excellent condition upon removal. The tank was cut open and the sludge at the bottom of the tank was hit with bentonite and kitty litter, then cleaned out of the bottom into barrels to be properly disposed of. The tank will be cut-up for scrap and weighs about 17000 lbs. If a new tank is put in, it will probably be fiberglass and also underground based on the current state-of-the-art regulations from DEP. Several million gallons of fuel went through this tank. Fleet drivers will now fuel-up locally from Bear Fuel.



HBO Disarms Elmer Fudd

BO has disarmed both Elmer Fudd and Yosemite Sam. They did this in a new series of cartoons they developed with the classic Looney Toons cast of animated characters. It's running on HBO MAX. The executive producer of the new series, Peter Browngardt, told The New York Times: "We're not doing guns, but we can do cartoony violence - TNT, the Acme stuff. All of that was kind of grandfathered in."

So dynamite is grandfathered in for Fudd, but not guns? No doubt, Elmer Fudd will still deliver his unforgettable line: "Shhh, be vewy, vewy quiet. I'm hunting wabbits." Now though, he won't have his trusty, double-barrel shotgun.

Still, Fudd is allowed according to HBO's politically correct rules, to use a giant scythe as a weapon. Fudd (and Bugs Bunny) can also blow each other up with dynamite! Those politically correct rules are sure funny and flippant things.



Elmer Fudd chases Bugs Bunny with the giant scythe in an HBO cartoon titled "Dynamite Dance." In a 1 1/2-minute clip Warner Bros. put on YouTube, Fudd can be seen chasing Bugs Bunny with the scythe, but Bugs, being the rascally rabbit that he is, soon jams a stick of dynamite in Fudd's mouth. Bugs then continues to blow up Fudd with dynamite to the lively beat of Amilcare Ponchielli's nineteenth-century melody "Dance of the Hours" as the cartoon goes on.





Game Banana

dling. Both would be instantly kicked off any gun range in America. Actually, in real life, both would quickly find themselves involuntarily institutionalized and would have their Second Amendment rights abrogated, altogether, under current law.

But that's reality, which is something these cartoons were never supposed to represent. Looney Tunes was supposed to be an over-the-top silly diversion no one took too seriously.

But that's the thing about political correctness today; it is not rational; it does not have a sense of humor; and, in all its contradictions, it abhors our constitutional right to keep and bear America's 1st Freedom January 2020 arms.

Yosemite Sam also reportedly won't have his trusty revolvers. That's a shame, as they were magical six-shooters that never ran out of ammunition - well, until some joke in the plot called for an empty chamber anyway.

In these new cartoons,

It should be said that neither Elmer Fudd nor Yosemite Sam ever practiced safe gun han-

Uncyclopedia

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Benton Air Force Station

Benton Air Force Station (1951-1975) - A Cold War Air Force Radar Station was first established in 1951 at Red Rock Mountain, near Ricketts Glen State Park in Sullivan County, Pennsylvania. This was named after the nearby town. The site was turned over to the FAA in 1975 and is now listed as Benton FAA Radar Site.

The station was manned by the 648th AC&W Squadron. The radar scanned skies in the United States from Massachusetts south to Virginia and east over the Atlantic Ocean. The radar operators worked around the clock and could scramble jets from Air Force bases in New York and New Jersey.

The station initially had both a Ground-Control Intercept (GCI) and an early warning mission. The early warning mission involved tracking and identifying all aircraft entering their airspace while the GCI mission involved guiding Air Force intercep-

tors to any identified enemy aircraft. Controllers at the station vectored fighter aircraft at the correct course and speed to intercept enemy aircraft using voice commands via ground-to-air radio.



USAF Personnel take antenna measurements during an evaluation visit to the CARSR FAA Radar at Benton, PA. *Photo from FortWiki*

Initial equipment included two CPS-6B V beam search/height-finder radars. Two FPS-6B height-finder radars were added in 1958 replacing one of the CPS-6Bs. This configuration established the requirements for the transition to the SAGE System operation, one long-range search radar, and two height-finders.

Benton Air Force station was deactivated in June 1975. The radar facilities remain and are operated by the Federal Aviation Administration and hand off planes from the New York City Airports to FAA towers in Cleveland, Detroit and Buffalo. The remaining buildings and barracks were converted to the Red Rocks Job Corps Center in 1978. This is part of the Job Corps, a program administered by the United States Department of Labor that offers free-of-charge education and vocational training to youth ages 16 to 24. *Information from FortWiki & Wikia.org*

Great Ways to Save

Money-Saving Tips

- **Sign up for texts:** Surprisingly, you often can get better discounts from a store's text message stream than from its emailed newsletter. You can unsubscribe once you've made purchases.
- **Confirm it's really a sale price:** If you aren't sure whether a price on Amazon is good, plug it into a free price tracker, such as the CamelCamelCamel website or the Pricepulse phone app, to see the item's cost over time.
- **Skip the router rental:** Your internet provider might be charging you a monthly fee for your equipment but you can buy your own modem and router and make up the cost in a year.
- Use microfiber: These towels, mops and dusters can be washed and reused hundreds of times a great savings over disposable products. They trap dust, liquids, oils and even bacteria, you can clean with water instead of harsh, expensive cleaning products.
- Link checking to investing: Consider an account like Charles Schwab's High Yield Investor Checking, which is automatically linked to a fee free Schwab brokerage account. Features such as no account minimums, no monthly fees and ATM fee refunds can save you hundreds of dollars a year.

Health

Techniques proven to help you reduce stress

Suggestions on how to relax during these anxiety-filled times. There are evidence-based relaxation techniques that you can practice to manage anxious feelings. Here are step-by-step instructions to try at home.

Deep breathing

Many times, when people are anxious, their breathing is shallow and irregular. This pattern can lead to an imbalance between carbon dioxide and oxygen, leading to stress on the heart and brain, which can contribute to such anxiety symptoms as increased heart rate or feeling light-headed. Here's how to practice deep breathing: Place yourself in a quiet environment, free of distractions.

Start in a seated position and place one hand on your chest, and the other on your stomach. The hand on your stomach should move out as you breathe. If the hand on your chest rises up, then you are not breathing deeply. (Think of pushing the breath out of your stomach.)

Take a deep breath in from your

nose or mouth for roughly four seconds and then gently breathe out for roughly four seconds. Focus on the motion of the air. Remember to push the breath out of the stomach. Continue this deep-breathing pattern for four minutes.

To master this skill, practice four times a day for one week.

Progressive muscle relaxation

In this technique, the muscles are intentionally tensed and relaxed, with a usual progression from head to toes or vice versa. The goal is to relax the body in a simple way that people can use as a skill when they get anxious. The technique teaches people how to notice the difference between the tension and relaxed states. Here's how to practice muscle relaxation (from toes to the head):

Find a comfortable place to sit or lie down that is free of disturbances.

Curl your toes as if you're trying to squeeze an object with

Breathe - Relax

seconds and relax for 10 to 15 seconds. Repeat the tension and relaxation cycle as many times as needed for this muscle group and each muscle group thereafter. Point the toes down as if stepping on a gas pedal to feel tension in the calves. Point the toes up to feel tension in the thighs. Tighten the muscles in the buttocks.

Bring your stomach in as if trying to push your belly button close to your spine.

Hold this tension for roughly five

seconds and then relax for 10 to 15

seconds. Then, tense again for five

Arch the back.

them.

Shrug the shoulders as if trying to touch the ears.

Extend the neck back. (People tend to carry a lot of tension in the neck and back so this may be repeated multiple times.)

Squeeze the hands as tight as you can.

Bring the lower arm as close to the upper arms as if curling the biceps

at the gym.

Clench the jaw.

Squeeze the eyes closed and purse the lips tight. Wrinkle the forehead as much as possible.

Imagery

This technique elicits mental images to evoke feelings of relaxation before a stressful event. First, close your eyes to block out any distractions. Then, think of a calming scene or recall pleasurable experiences in your mind. The more details to the scene, the better. To improve your ability to relax, think of the sounds, sensations, and smells that are portrayed in the scene.

Remember that consistency will make these techniques more effective.

Danielle Weitzer For The Inquirer



Congratulations - Employees of the Quarter



Congratulations to **Sherry Steele** (above), Benton Foundry's 1st shift Employee of the Quarter. Sherry has been a staple at Benton Foundry for the past 28 years. Each week she ensures that payroll is done promptly and accurately. In addition to payroll, she performs other duties that include life and health insurance, training and other personnel matters, along with assisting in answering the phones. Sherry's attention to detail makes her a great fit for these roles. She always is quick with a laugh and her sense of humor makes the days more pleasant for those of us who work with her. Sherry lives in Unityville with her husband, John and sons, Drew and Ryan. Sherry enjoys spending time with her family, especially Monday night dinners. She also enjoys activities in her community and at her church. Congratulations to **Ed Evans** (below), Benton Foundry's 2nd shift Employee of the Quarter. Ed has been employed at the Foundry since 1995. He works in our Molding Department as a machine operator and has also worked in the Melt Department. Ed, his wife, Kim and their family reside locally. Ed enjoys spending time with his family, camping, fishing and spending time outdoors when he isn't working.



Benton Foundry's Butterflies

he Benton Foundry Monarch butterfly sanctuary isonce again producing fat and happy babies.





The Dream Machine

he Dream Machine has been a part of Benton Foundry in some fashion for about 25 years, undergoing several evolutions along the way. Created from essentially spare parts, this machine gives us one last opportunity to scavenge usable iron from materials that would have otherwise been discarded. Using a magnetic pulley similar to that on the return sand belt along with a vibratory screening unit, recently redesigned, this machine reclaims small pieces of iron from things like sand



while sifting out iron that is too small to worry about. We have been averaging roughly five tons of iron each week diverted from the landfill back into our raw materials. While creating something from nothing is of course impossible, the Dream Machine comes pretty close! Rube Goldberg or MacGyver have nothing on our maintenance department's ingenuity.

The pile shown in the photograph below is a 14-ton pile of metal salvaged by the Dream Machine that is ready to be melted down with the rest of the feedstock. Over the course of an average year, this mostly invisible machine helps us keep 250 tons of



material out of the landfill. Not mention beto tween trucking costs. landfill costs and raw material costs, we save around \$100,000 annually.

This is yet another part of Benton's green initiative that includes metal recycling of copper and aluminum with a local scrap dealer. Our shredded paper is used for animal bedding and our scrap hardwood pallets are used for wood stove heating.

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Welcome

e would like to welcome Rob Smith to our sales team. Rob is a direct sales person and not a manufacturer's rep. Rob is familiar with the casting industry and previously spent 12 years at Elyria Foundry in their quality department. Rob and his wife, Dawn, have four



children: 15-year old son (Logan), 12-year son (Charlie) and 2-year old twin girls (Adeline & Aurora). He will be working from his home in Sheffield Lake, Ohio (near Cleveland). Rob is a huge Cleveland Browns fan. He will be covering Ohio, New York, New England, Southern Ontario and the Mid-Atlantic Regions. *Welcome Aboard Rob!*

Relocating

Brian Doty left for a long-planned move to Texas in order to be closer to family. Brian was a long -term employee who worked at the foundry for over 15 years. He was the type of employee you could set your



watch by – prompt, consistent and dependable. Brian was a hard worker always willing to help with any task he was asked to perform.

The Mocanaqua resident lived with his father, Lee Doty who previously worked at Benton Foundry and shared his many years of foundry experience. In addition to maintaining their house and property, the father/son team enjoyed fishing on the Susquehanna River and attending tractor pulls. They also enjoyed other local social events.

Brian is already missed by all who had the pleasure of working with him. We wish him and his family well in their new endeavors.

Good Job

Ana Ponce Contreras continues to excel in her QC and Auditor training.

Walt Lutcavage - good job balancing your normal duties with the thermal imaging and truck driving.

Cody Snyder, Stephen Mingey and Amanda Hartman are in the process of completing their supervisory training.

Congratulations to the following personnel for the 2nd Quarter 2020.

Luis Cruz Luquis - Highest Auto Grinding Up-Time Beth Litwhiler - Highest Core Operator Production Mirian Magorga - Highest Assembly Production Tom Foust - Lowest Auto Molding Scrap Rate

Congratulations to the **Pattern Shop** and **2nd Shift Core Room for their attention to safety.**

We also have numerous personnel involved in OSHA training.

Allied Mineral and our Maintenance Department worked together over several weeks to pour a new melt deck. Plus helping our crew with refractory and insulation installation.



Thanks to all involved.

Knoebels

Save the Date: August 14, 2021



Should You Use A Password Manager

DO YOU REUSE easy-to-crack passwords to avoid the frustration of forgetting them? Password manager services help you stay safer by creating new, complex passwords for each of your online accounts, storing the whole lot in a digital vault protected by strong encryption. Then, when you need to sign in, the password manager authenticates you and logs you in automatically.

But when you're putting all your eggs in one basket, that basket had better be secure. So CR's (Consumer Reports) Digital Lab performed its own in-depth testing of password managers, evaluating their security (how resistant they are to hacking) and their privacy practices (how much data the service itself collects, what it's used for, and who it's shared with). They also evaluate "usability," which includes how compatible each service is with platforms (Windows, Mac, etc.) and key features. The options - such as an automated password-change process - the better the score. All 10 services they tested did some things right: They used strong encryption while transmitting data, and either automatically performed security updates or made it easy for users to do so themselves. Though we found a clear winner - 1Password - you may want to consider highly rated cheaper options, such as those from Bitwarden. (Premium and free versions they tested used the same software and privacy policies, but premium offers extra features.)

Always set a strong master password, we advise, even if a service lets you set a weak one, such as "111111111." Doing so will help safeguard all your other passwords.

1Password, Keeper, Bitwarden, LastPass, Dashlane, Norton and McAfee were all tested and ranked in the order listed from the best. Again, some services offer both free and premium plans. They were tested based on Overall Score, Data Privacy, Data Security and Usability. *Consumer Reports July 2020*

Fishing Creek Sportsmen's Club

There is no downtime at the local trout nursery located just off Route 487 above Benton. Volunteers are active maintaining the bags of feed that are available for visitors to buy and feed the trout still patrolling the waters at Mill Race.

The feed provides the nourishment for the fish and also a source of income for the club. A visit always gives the kids in the family a delightful few minutes and guaranteed smiles.

The club is also getting ready for a new crop of trout that will arrive in the fall. Their job is to feed and nourish the fingerlings and get them into legal size and beyond for the 2021 trout season.

The year's volunteer and guest banquet was canceled due to COVID-19. However the annual **Volunteer of the Year Award** was still handed out. This year's recipient was **Rick Wilson**. Rick retired from Benton Foundry in 2016.

Mike Zenzel, Club President, praised Wilson for his work at the nursery as well as his work with membership records.

The club also remains very active in helping various organizations, as evidenced by the fact they donated \$250 to the Bloomsburg Fire Company to



repair their rescue boat that was damaged in a recent response on the Susquehanna River in Columbia County.

Tom Austin Press Enterprise



3rd Quarter 2020

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Birthdays

November

Mike Newhart Bob Olson, Jr. Gene Burkhart Aaron McHenry Chad Miller Patrick Packer Samantha Kemper Rob Feliciano Mary Freed Nick Shovelin Keith Leahy Mike McDonald Steve Fritz Ed Gill Terry Whitmire Pete Gowin Ed Lemelin

December Bill Simback Eugene Eckroth Billy Green

Billy Green Matt Pardoe David Buma, Jr. Maria Higgins Greg Woodside Nathan Shoemaker Jeff Garrison Donna Remley Joseph Tabor Mike Mitchell Paul Wakely



Happy Birthday!

Oxymoron

Stand Closer Apart

Trivia Question???

How many red stripes are there on

What is the diameter of the earth?

Answer will be in 4th Quarter 2020

7917.5 Miles

the American flag?

Answer from 2nd Quarter question:

January David Bonczek

Jason Karcher Mirian Magorga Rich Miscavage Alan Price Aric Strauch Mike Kimble Aaron Slavin Tim Miller James Wise Tom Little, Jr. Teo Grigas Lori McAndrew



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Refer a Potential Employee to Lou (Before They Come In) If Hired, After 6 Months of Employment You Get \$250.00

DID YOU KNOW THAT

THERE ARE MORE AIRPLANES IN THE OCEANS, THAN SUBMARINES IN THE SKY?

en.dopl3r.com

VOTE

"The Wisdom Well"

"An ounce of action is worth a ton of theory."

~Ralph Waldo Emerson



The Benton Foundry Newsletter is written for the purpose of keeping employees updated on the events surrounding the happenings at Benton Foundry. The intent is to inform and to a certain degree entertain. The foundry in no fashion wishes to demean or embarrass. If anyone has been offended by this publication, please accept our apology. We will be diligent in an attempt to avoid any situations. We hope you enjoy the newsletter and are happy to hear any recommendations to improve it.