Fairfield Historical Society: The Jersey City Reservoir and Pipeline

While Dr. Henry Coit and Stephen Francisco were busy perfecting “Certified Milk” at Fairfield Dairy, another famous Doctor and Engineer were busy perfecting “pure and wholesome” drinking water for Jersey City. All four were battling germs, disease, and bacteria with only six miles separating their independent efforts.

No need to rehash the awful waterborne disease conditions that plagued N.J. at the turn of the last century. Newark started piping water from the Pequannock River Watershed and Jersey City followed by piping water from the Rockaway River Watershed. The latter contracted construction of the Boonton Reservoir and 23 mile pipeline to a third party because the City was already above its debt limit. The Jersey City Water Supply Company (JCWSC) was organized by the successful bidder Patrick H. Flynn within two months (May 4, 1899).

The Rockaway River was more polluted than the Pequannock River with sewage, runoff, and contamination from Dover, Rockaway, and Boonton itself. In the contract with Jersey City, the JCWSC was required remove sources of pollution, secure water and land rights, and most importantly deliver water that was ‘pure and wholesome’. Essentially, if you eliminate sources of contamination the natural purification of a large reservoir should provide acceptable purity. However the contamination was twofold, sewage (avoidable and costly) and runoff (virtually unavoidable).

In May 1904 the water began flowing to Jersey City but the upriver contamination was only partially eliminated. Data indicated that on a few occasions per year
heavy rains could push river flow directly east to the reservoir outtake, causing unacceptable bacterial counts. (Figure 1). With a century of hindsight, this was a design error but it was only three times a year for a day or two. No big deal, right?

Figure 1. During infrequent very heavy rains the Rockaway River water flowed easterly to the outtake. Natural reservoir ‘purification’ was circumvented and high bacterial counts recorded.

Wrong. This became a big deal when Jersey City exercised its right to buy back the JCWSC for $7.6 million dollars per the 1899 contract ( $212 million in 2018 dollars ). The City was playing ‘hardball’ and documented a vast sewage removal initiative with a price tag of about $700,000 (Note: This roughly 10% would be
deducted from the previously agreed upon price, and could have been a price reduction strategy with no real obligation or commitment to implement the plan after the sale was finalized).

**FHS Reader: Please be patient, the best part is still ahead............PP**

One of the company’s employees, Dr. John L. Leal, was a physician, public health professional and water quality expert. Leal’s initial job with the JCWSC was to remove sources of contamination in the Rockaway River watershed above the reservoir. As litigation began with the City, Dr. Leal’s role grew dramatically.

![Dr John L. Leal](image)

Dr. Leal’s impeccable credentials as a Paterson Physician, former Health Officer in Paterson, and prominent member of several Water Works and Public Health Associations would prove invaluable. But none of these would compare to his bold risk taking ‘experiment’ with 200,000 human ‘guinea pigs’ at the other end of the pipeline.

The first phase of the litigation was not going well for the JCWSC. The Judge (Frederic W. Stevens) ruled that they contracted to provide ‘pure and wholesome’ water at all times. JCWSC was thereby obligated to fund upriver sewage projects at the great expense already mentioned. But Dr. Leal was already heavily involved with small scale chlorination studies and reliable supporting data. To his credit, and without ‘tipping his cards’, he requested that the Judge insert a clause into the final decree that allowed an ‘other plans or devices’ option if
provided (and proven to a appointed Special Master – William J. Magie ). It was amazing the Judge inserted the clause, but he then stipulated: “within 90 days”!

What gets done in 90 days? But unknown to practically everyone at the time, Dr. Leal and the JCWSC were already planning a full scale chlorination plant at the reservoir site.

Dr. Leal immediately mapped out this strategy with the JCWSC Attorney William H. Corbin: Construct a Plant, find an Engineer who could develop equipment to mix and meter poisonous ‘chloride of lime’ into 40 million gallons of daily water flow (never done before in the World), line up other top experts who needed to validate chlorination theories and identify ideal parts per million, also line up wastewater experts who would claim that runoff would still pollute the reservoir even if the $700 K was spent on sanitary sewage upriver. A very ‘tall order’ even if you had 90 weeks never mind only 90 days.

Developing prototype equipment was the biggest obstacle. Dr. Leal knew George W. Fuller as an accomplished NYC based Engineer who had already designed similar equipment at a Little Falls N.J. filtration works. How Dr. Leal convinced George Fuller to partner with him is lost in history. But I’m guessing the challenge of being first in the worthy endeavor of eradicating disease was highly motivating. The entire project implementation eventually totaled about $22,000 - so it wasn’t for the money. People, especially vulnerable children, were dying.
Dr. Leal attended a national conference two weeks later and familiarized several prestigious Colleagues with his plan and confidently asked them to perform the necessary studies and experiments. Dr. Leal was sure the City would also line up their own experts to refute the pro-JCWSC testimony. In the face of possible disapproval of many worldwide peers and likely condemnation by a largely ‘chemophobic’ public, he courageously moved forward with George Fuller at his side.

Phase two of the litigation began with Special Master Magie presiding over 40 days of expert testimony spread out over more than a years time. At one point during the questioning Dr. Leal indicated that the chlorination process was already initiated four months earlier, and bacterial counts were nearly eliminated! What a shocking revelation. In 1908, There were no laws, Board of Health regulations, or contract language that prevented chemical treatment of the public water supply. How brazen of him to not even advise the City?

But Dr. Leal explained that this was sound science and not experimentation. The proof was undeniable. Most importantly, the actual results probably swayed Special Master Magie who ruled:

“I do therefore find and report that this device is capable of rendering the water delivered to Jersey City, pure and wholesome, for the purposes for which it is intended, and is effective in removing from the water those dangerous germs which were deemed by the decree to possibly exist therein at certain times.”

Nearly a total victory for Dr. Leal and George Fuller. Only four years later, 53 percent of all people served by U.S. public water supply systems were consuming chlorinated water.
I started this essay with the intention of writing a Fairfield-centric piece about the JC Pipeline. Roscoe DeBaun covered his Family’s involvement (see below) in his wonderful “Green Book” as Mary Ann Romano DeMaio calls it :- ) :- ) :- )

A few years ago I found an article on the digging of the Hook Mountain Tunnel for the Pipeline. Very interesting and it details the drilling, blasting, muck removal, miner habits, etc. Maybe not for Everyone, but I found the 1900 era technology fascinating. Especially considering they were tunneling from both sides simultaneously. It reminded me of ‘dead reckoning’ at sea.

https://books.google.com/books?id=dcAPAAQAAIAAJ&pg=PA61&lpg=PA61&dq=hook+mountain+tunnel&source=bl&ots=i-Kult15qm&sig=NewY4IAe7_6drjrXeWDqKrmZXRI&hl=en&sa=X&ei=ETEaT6zJleng0QHBl9GwCw&sqi=2&ved=0CCQQ6AEwAQ#v=onepage&q=hook%20mountain%20tunnel&f=true

Hook Mountain Tunnel (Control + Click)
The pipeline from the Boonton Reservoir to Jersey City was put through Fairfield right after the turn of the century. It went across our farm right behind our barn. Father received $1700.00 for the right of way. He added $300.00 and paid off the mortgage.

The great steel pipe was six feet in diameter. The great trench was dug by teams of horses and scrapers. The thirty foot sections of pipe were lowered into the trench by hand operated derricks and the sections were riveted together with hand operated hammers. The riveters were the skilled mechanics. Then the teams with their scrapers were called upon to cover the pipe. The operation took a long time to complete.

Of course, we kids had a picnic watching the operations. Then one Sunday we got our bicycles into the pipeline where new sections were being added. We rode in the pipe underground to Hook Mountain, a distance of over two miles. The pipe was open there because a tunnel was being made through Hook Mountain. Sure it was great fun but if we had been ordered to do it, we would have thought that someone was trying to murder us.

When the pipeline was nearly finished and before it was filled with water, heavy rains came. It caused a long section of the empty pipe to float up out of the swampy ground in “Huckelberry Swamp.” That is the name we applied to the section northwest of Highway 46, between Hollywood Avenue and Horseneck Road. When the pipe was finally put down again, it was covered deeper than ever with dirt. Of course, when it is full of water it will have no tendency to float. Seems to me we had more excitement in those slow days than we do now.

From Roscoe W. DeBaun’s “Country Life in Fairfield, New Jersey 1887-1909”

If you still have an unquenchable thirst for more Jersey City Pipeline and Chlorination knowledge :- ) :- ), you could borrow ( inter-Library ) Michael J. McGuire’s “The Chlorine Revolution: Water Disinfection and the Fight to Save Lives” 2013 ( Morris County Library 628.1662 McG ).
Great read, 350 pages of Action packed Adventure :- ) :- )

Under full City control In the 1920’s a second six foot pipeline was laid next to the original. To their credit, they also addressed some upriver sewage issues by constructing a wastewater plant in 1928. Of course, the plant’s effluent was disinfected with ‘state of the art’ chlorine.

Dedicated to that gutsy visionary from Paterson: Dr. John Laing Leal (1858-1914)

            ............Paul Pollio    December 7, 2018
The first account of potent chemical use in Fairfield was mentioned by Roscoe DeBaun in his description of the ‘Hatters’ who labored over a 42” steaming lead kettle of a copper sulfate solution known as ‘blue vitriol’. Eight men worked all day around the kettle with their bare hands and brushed the hot blue solution onto felt gauze ‘hat bodies’ to shrink them down. This was hazardous enough, but compared to mercury solutions of the previous century, this exposure was far less lethal. ‘Mad as a Hatter’ was an old expression from the mid 1800’s that explained a hatter’s ‘erratic flamboyant behavior, excessive drooling, mood swings, and various other debilities’. First among the major studies of mercury poisoning in the American felt-hat industry was that made by New Jersey Dr. J. A. Freeman and reported in 1860. But mercury was not outlawed by the U.S Public Health Service until eighty years later in 1941.

The harmful effects of mercurous sulfate became obvious, but many other less harmful chemicals were introduced into Fairfield’s Agriculture and Industry as we grew and ‘modernized’ with emerging new chemical entities.

Remember my ‘greenhouse’ piece that told how we sterilized planting soil with electric heat coils ? Years later a more modern and convenient method was introduced : ( Highly Toxic ) Methyl Bromide soil gassing. This was not the doings of ignorant or careless Farmers, but rather the innovative use of chemicals advised by the leading university scholars and agricultural experts of the day. ( Notice only Farmers is capitalized :- )

We had many such technological advances ‘back in the day.’ Benzene, Creosote, DDT, chlordane, and various other pesticides. Now, at least, you need a N.J. Pesticide Applicator Certificate on Farms, Nurseries, Greenhouses, Orchards, etc.

Fairfield Industry was similarly unaware of the many chemical hazards in the workplace, and especially within their waste streams. I recall the ‘dump’ Curtiss-Wright had at the far eastern end of their employee parking lot off New Dutch Lane. It was a colorful array of sludge’s, debris, and factory waste bi products. Right next to the Deepavaal Brook!
The following illustrations help provide some historical context:

Remember the fun you had running through the mosquito fogging vapors on summer evenings? This was usually DDT with an occasional splash of chlordane added to a petroleum based aerosol. (Fairfield DPW’s Freddy Hyatt, ‘Red’ Esposito, and Lou Batta really meant no harm :-) :-) :-) (Google Images Photo)
Great advice (above) from Popular Science in 1963. (I must confess, we had an abandoned ‘rat hole’ on the farm that we often treated with waste motor oil and dirty petroleum solvents. I guess we made sure those rats weren’t coming back.)

About 1982 I was cleaning out my Aunt’s old garden shed and noticed a brand new/never used Ortho Lawn Sprayer she obtained from our Route 46 Road Stand 20 years before.

Packaged inside were suggestions for usage so I took them out to review. The best guidance was: if you were having a lawn party and wanted to rid the backyard of mosquitoes - spray the entire yard with Chlordane! What great state-of-the-art advice. Children could roll around in the smartly treated – mosquito free grass. Lovely.

These were a few of the things we were haplessly doing back then. Maybe you can recall some things even more frightening?

Another source of pollution was rusted out underground gasoline tanks. One way to find out that your tank was rusted thru was to unknowingly pump a couple of gallons of water into a farm vehicle. Yep, did that to my station wagon. Gas line froze up solid on Little Falls Road one bitterly cold night. Drained the tank – 2 gallons of water (surprised it ran so well for 15 miles!). Time to call the Sisco Brothers at Fairfield Maintenance. Take a wild guess on how many crates of vegetables you need to sell to pay for a new 2,000 gallon fuel storage tank?
Another instance of pollution I witnessed was a firm making industrial circuit boards near our farm. Streams of blue liquid were running into a ditch that fed into the Deepavaal. One call to the Passaic Valley Water Commission ended that nasty discharge that could have eventually found its way into our irrigation pond.

But as Fairfield sections transformed from Farmlands into ‘Light Industrial’ development the need for factory waste removal grew dramatically. It was about this time when one of the most famous books about the dangers of pesticides and related chemicals was first published. Entitled “Silent Spring”, it was written in 1963 by a courageous woman – Rachel Carson (interlibrary 363.7384 CAR). This book is often credited with launching the entire Environmental Movement. Not only was she fighting off the Chemical Companies who made these poisons, but she was also fighting off breast cancer at the same time. Tough Lady.

Her Biography “Rachel Carson : Witness for Nature” by Linda Lear is also available (interlibrary Biography Carson).

The U.S. EPA and NJ DEP were still 7 years in the future when the surges in serious chemical wastes emerged in suburban Fairfield and the surrounding areas. Newark, Kearny, Jersey City, and other industrialized NJ Cities were already greatly contaminated by large chemical, paint and petroleum companies. Of course Fairfield wanted to attract ‘clean’ industry, but even these smaller firms had residues and waste that could no longer be surface dumped at the property line. In the beginning, some toxic wastes were comingled with some sanitary sewage and some other liquid wastes.

Without testing, even trusted and reliable waste disposal firms were unaware of the exact components they were hauling away for their many customers. Conventional disposal of septic sludge was sun drying lagoons that eventually yielded a dry fill. This worked well before toxic wastes were added in later years.

Caldwell Trucking based in Fairfield was one such waste disposal company that utilized drying lagoons. I personally walked through their ‘lagoon’ field just north of where West Essex H.S. was being built at the time. I’m sure I got a much better look at it than the WEHS site selection committee!

Decades of hindsight and zillions of DEP/EPA regulations later Fairfield has a major toxic waste ‘Superfund’ site that – thank goodness - is now in the latter stages of remediation.

In the 1953 ‘Pogo Papers’ author Walt Kelly wrote the following words of Okefenokee Swamp wisdom:
“There is no need to sally forth, for it remains true that those things that make us human are, curiously enough, always close at hand. Resolve then, that on this very ground, with small flags waving, and tinny blasts on tiny trumpets, we shall meet the enemy, and not only may he be ours, he may be us.”

17 years later Walt Kelly “recycled” the ‘We have met the Enemy’ concept into various pictorials about pollution.

We all came a long way during those 17 years, whether you were a Farmer, a Waste Hauler, an Environmentalist, or a Comic Strip Author.

Dedicated to Rachel Carson, a true trailblazer in 1963 and forever a Global Legacy.

...............Paul Pollio     January 16, 2019
This recollection of Fairfield School Busing actually starts across the Passaic River in the Pine Brook section of Montville Township. In most respects, these two old communities were closer than Caldwell and Fairfield. That’s mostly because Pine Brook was similarly settled by the ‘Jersey Dutch’ with the Vreelands, Van Nesses, Van Duynes, Van Ripers, Van Worths, and Van Ordens (you can’t start a bus story without a lot of ‘Vans’ :-)

But the family that started the motorized transportation business in the valley was a Jewish Family, the Konners. Josef and Lena Konner emigrated to America in 1881 and settled in Newark. Mostly for Josef’s health reasons they sold their garment business and bought a farm in Pine Brook that eventually took in Boarders. Years later their family grew the business into a large Inn on the top of the Hook Mountain (sometimes called Third Watchung Mountain). They had a perfect view of Caldwell’s Monomonock Inn across the valley on Second Watchung Mountain.

The Sun Rise Mountain House attracted many guests who arrived in Caldwell by train (1891) or ‘electric’ Trolley (1898). The Konners and other Pine Brook Boarding Houses petitioned the Trolley line to extend service another three miles, but road widening and flooding were concerns west of Caldwell. Horse drawn coaches to Pine Brook remained the primary conveyance until 1912 when three Konner boys began transporting guests to and from the Trolley Lines with motor coaches. The transportation business was brisk with many other large boarding houses ‘in the country’ too. Solomon, Dwork, Grossman, Oshowwitz, Tannenbaum, and Blooms to name a few. (There’s a Catskills joke in there somewhere).

Kevah Konner was in the next generation of Konners and he formally started Kevah Konner Inc. in 1936. Eventually Kevah built up the business into a School Bus Contracting, Truck Sales, Heavy Truck Repair, and Coach Chartering Service.
‘Konners Garage’ Bus about 1918, stranded in icy waters on Bloomfield Avenue.
Kevah Konner Inc. was an International Harvester Dealer. If they acquired a school bus in their first year (1936) it would look like this nicely restored model (above). Link to an article about 1939 standardization of School Buses:

https://gizmodo.com/why-school-buses-are-yellow-1462814138

I wasn’t around for the first twenty years Kevah Konner was in the school bus business, but driving a bus was a good part time job for my Father (Peter Pollio) who needed to supplement his modest farm income. Having summers off was the big advantage, and keeping an eye on your oldest son was another :- ) :- )

Almost every kid in town knew bus driver “Pete”. They knew him as either a good guy or as a tyrant depending on their conduct and behavior.

The ‘good guy’ did cool things like knocking over pylons on newly painted street lines and speeding up over the Deepavaal ‘hump’ on Little Falls Road that launched the rear seat passengers to the roof. Both drew rousing cheers of gratitude. He could also be devilish by stepping on the brakes when a young lady (name withheld) was putting on lipstick (Oops, sorry). Such a crime was never reported because it’s likely the young lady wasn’t supposed to leave home for school with lipstick on in the first place.

This next part requires everyone to put on your ‘reality goggles’. Set them to 1958.

Pete didn’t have an evil twin, but he was definitely an ‘old school’ disciplinarian. That is, ‘old school’ by mid 20th century standards, not the 21st century ‘old school’ standards of today. If two boys fought on the bus, he’d pull over and throw them off to walk the rest of the way home. Try that today. The next day the Father of one of the fighters was waiting at the bus stop. Yeah, we thought Pete was going to get an earful. The Father told Pete “If he fights on the bus again, you have my permission to give him a good crack, then tell me about it and I’ll give
him a few more at home”. Sounds crazy, but that’s exactly what Pete would say if I were involved. *Word for word.*

If someone was *real* late to the bus stop Pete wouldn’t wait for them. Despite the student passengers screaming in unison “Wait Pete, He’s coming” he played deaf and drove away. Because you have the 1958 reality goggles on, you know that few Fairfield Families had two cars at the time. Getting junior to school could be a real hardship, but guess who was *never* late again. *No, not ever again.*

Another form of punishment was sitting troublesome students in the front seat. This was the humiliating equivalent of a dunce cap. Very effective then, probably some violation of implied student freedoms today.

Pete wasn’t the only ‘tough cookie’ in the jar, but he never lost his temper with students. If they wanted to ‘act up’ or ‘act out’ they got to walk home and explain to their parents how they got punished for ‘not doing nuthin’ ( clever use of a double negative ). Pete always had the support of the Parents and his Kevah Konner yard boss John Mowry. The Dominican Nuns at St. Aloysius wanted to give him a few pointers :-) :-) on the proper use of a 32” maple pointer / nightstick!

I once saw a Nun break one of these in half on somebody! Ouch!

John Mowry was the bus yard foreman for the West Essex Fleet. A ‘no nonsense’ guy who was affectionately known as ‘Uncle John’. ( His detractors un-affectionately called him ‘Steak Face’ because he had prominent facial jowls – you really needed to know that, huh? ). He always had a brisk step and never took one he didn’t need to. His bark had plenty of bite. With 40+ Drivers and a few assistants he had no time for pleasantries or any kind of nonsense. His was a job nobody else wanted. Tons of responsibility, 100+ rigid schedules, breakdowns, call outs, go/no go snow decisions, complaints, substitutes, accidents, yard flooding
etc. etc. His toughness made Pete seem like Gandhi, but the St. Al’s Dominicans were still the toughest :-) :-) 

(L) Your humble narrator boarding the bus on the first day of Kindergarten 1956. My Father ‘Pete’ Pollio was the Bus Driver. Also pictured (R).

In 1960 our Family expanded further into the School Bus Business. My Mother, Carolyn (Collerd) Pollio, began driving a school bus. We were now a ‘School Bus Family’ (SBF). Mom was the third woman driver at Konners, but the only one with five children and a sixth to arrive two years later.

No starting with vans or smaller ‘jitney’ buses. You took the long yellow bus, essentially a big truck, to Wayne Motor Vehicles for your road test.

Mom was up every day at 5 a.m. made us lunches and woke us up before she left just before 6 a.m. Other than winter, Dad usually delivered to the NYC Market (where the Twin Towers were later built) at 3:00 a.m. then went to the bus yard. One benefit of being a SBF was a 5:15 a.m. call from Uncle John on snow days. Yay - no school - get out the sleds! Others were notified by the fire siren signaling school closure. Dad would already be out snow plowing factory parking lots.

Once, school was open after a significant snow accumulated overnight. Mom was ticked, she thought the new School Superintendent from ‘The South’ didn’t know the difference between cotton and snow! But it was Uncle John who really influenced those final decisions. Plus he and his crew had to put tire chains on those 30-40 buses. Trust me, I’ve done it, that’s a nasty chore in the snow.
The tire chains were stored in a steel box under one of the rear seats. Some emergency flares were also stored in the chain box. Once I saw an older student tell a younger one that the flares were sticks of dynamite. (No doubt, Uncle John got blasted the next morning with a parents complaint :-)

1960-61 International Harvester School Bus sporting new high tech parabolic mirrors.

Uncle Pat Pollio drove also, but only if Uncle John was really desperate. ‘Really desperate’ meant all the mechanics and John himself were already filling in driverless routes. Pat preferred to tend to the farm, and as Fire Chief, be available if there was a fire call. Mowry knew that well and never called unless he had no other option.

* * * *

One of the huge disadvantages of being the Bus Drivers son were the daily reports the Nun’s at St. Al’s gave my Dad. This is where I learned how to read lips so I could prepare a reasonable defense before dinner when Dad held court. My buddies Chris McGrath, Doug Terlizzi, and Vinny Lapone didn’t have those darn daily reports. Not fair!
Uncle John strictly enforced his rules: Arrive to work early, inspect your bus inside and out, yard parking straight and tight, swept daily, windows all shut, gasoline never less than half full (women drivers pumped their own gas but that wasn’t a strict rule). If you screwed up, the ‘Steak Face’ was in your face.

* * * *

The Konners ran a ‘tight ship’ with well maintained equipment and good help. The same basics that made The Sun Rise Mountain House a Konner Family success story.

Kevah Konner Inc. was sold to Student Transportation of America in 2010

Sorry this was more autobiographical than I had hoped, but maybe it stirred up a few fond memories of our ‘formative’ years. And yeah, those Nun’s at St Al’s were extremely ‘formative’ :- )
RUTH ANN REMEMBERS

My parents sent me to St. Aloysius Grammar School located on Bloomfield Avenue, Caldwell from first through eighth grade. I believe I began the Fall of 1949 and graduated June 1957. There was an old wooden structure behind the church that was utilized as the School before that. My first grade teacher was Sr. Loretta Marie and her first grade class probably had at least sixty children. (No teacher assistants). St. Al’s did not have bus service for the Fairfield children but an accommodation was made with the Caldwell School System. The Fairfield Grammar School bus would collect us (St. Al’s) students and drop us off at the old school building (not Churchill School and no longer there).

The Grover Cleveland High School bus then would take us up to the high school and we would walk through Caldwell’s Bloomfield Ave to St. Al’s. I was lucky because the Wohkittel girls whose first names I do not recall, took a first grader under their wings and walked with me. We would stop at Fischer’s Bakery on the way and buy a cookie or treat. Looking at it today, this was the most circuitous route from point A to B.

For some reason, going home was easier. A bus would pick us up at St. Al’s and we were taken home to Fairfield. For the first couple of years before the new school was built there were no after school activities—so no late bus. I do recall at a later time, staying after school for Girl Scout meetings and basketball games after classes. My mother never drove a car and my father was working at Curtiss-Wright in the early years. I would wait for a ride or walk down Bloomfield Avenue to Lane Road in West Caldwell. Family friends lived there and I would knock on the door and join them for dinner. Those were the days of "it takes a village".

As I said even in later years there was no late bus. On rare occasions, I would walk all the way home to Passaic Avenue in Fairfield (4 miles). There were no sidewalks on Passaic Avenue which may have been one lane each way. Perhaps it was different times than today.

That was the era when any motorist would pick up a "walker" and give them a lift. Once, a gentleman did stop and ask where I was going. He offered me a ride. He was Judge Adrian Foley. He was kind and polite, and took me to my door. I was very fortunate.

Today you don’t leave the house doors unlocked, leave the car keys in the ignition overnight, or trust in the goodness of strangers.

- Ruth Ann O’Connor

A comprehensive article on School Bus Vehicle History can be found here:

https://en.wikipedia.org/wiki/School_bus
Dedicated to ‘Uncle John’ Mowry. He was a tough boss, respectful of his women drivers and under that gruff exterior beat a heart of gold. Solid gold.

.............Paul Pollio January 26, 2019

1958 School Bus Disaster

A collision and plunge into Big Sandy River involving a school bus near Prestonsburg, Kentucky, February 28, 1958, resulted in the deaths of 26 students and the bus's driver. It was then the deadliest bus crash in U.S. history. 22 children were able to safely escape.
Fairfield Historical Society : James Caldwell Navy Rifle Range in Fairfield was the Nations Premier Rifle Training Range 1918-19

About five years ago I attended a presentation on the James Caldwell Navy Rifle Range (JCNRR) given by our FHS Friend and Colleague Beverly Crifasi. My biggest takeaway was the enormity of the JCNRR vs. my deeply formed impression of the current North Jersey Clay Target Club. As the son of an avid large game hunter, I should have known that .30-06 rifles require miles of combined range and after target ‘surface danger zone’. Thus, the JCNRR was fully one mile wide along Horseneck Road and three miles deep into the Great Piece Meadow. That’s 29% of Fairfield’s total square mileage and as large as the entire Borough of North Caldwell! So try to imagine a 1918 military base that fronted from Big Piece Road all the way to the Passaic River, then three miles north.

There is no question that the JCNRR was WW1’s top Rifle Range in 1918. It featured many large permanent structures, Ranges of 200, 500, and 1,000 yards, and had the Navy/USMC’s top Instructors when it opened in October of 1918. At this point, we had already suffered 50,000 American fatalities, and only five weeks later, the Armistice was signed ending the hostilities.

But the ‘state-of-the-art’ JCNRR remained open and became the site of the National Matches of 1919. This was virtually the National Fair of military and civilian marksmanship. Thousands of people from across the Country converged on Caldwell Township (Fairfield) to participate in the competition, learn disciplined marksmanship at government expense, or just watch the activities and displays. Ample provisions were made for spectators, and visitors were welcome.

In addition to the various rifle ranges, the campus also featured trap shooting, pistol ranges, and .22 caliber (small bore) ranges. This is where Winchester Designers first demonstrated their prototype for the Model 52 - .22 target, youth, and small game rifle eventually called the "King of the .22's". There was also a ‘Commercial Row’ where many other such dealers, manufacturers, and inventors sold their guns, ammunition, and accessories.

Tanks, aircraft, and artillery pieces were on display. There was also a “Inventions, Novelties, and Relics Building as well as a U.S. Ordnance Exhibit.

The USMC M 1903 was the standard rifle used at the JCNRR. German Manufacturer Mauser sued for patent infringement and eventually received royalties for every U.S. produced rifle!
The American version of the French 75mm Field Gun was on display at the JCNRR. It could be reloaded in one third of the time of an equivalent German Field Gun. It’s 11,000 meter (6.8 mile) range could hit targets from the Caldwell Township JCNRR all the way to the White Castle in Verona ::) ::)

The Red Cross, Knights of Columbus, and YMCA all had a substantial presence at the JCNRR.

There’s much more to the story of this tremendous Campus and “Shooting University”, but we’ll have to wait for our ‘Subject Expert Sharpshooter’ Beverly Crifasi to publish the complete history in the near future.
Two articles edited below detail more of the JCNRR activities. One published before the National Matches (June 14, 1919), and the second after the Matches in September. The latter extolling many good reasons for keeping the JCNRR active, even during peacetime. At the time, few imagined another ‘Great War’ only two decades in the future.

“National Rifle Matches of 1919”
(Adapted from) The Cambridge Sentinel, Volume XVI, Number 21, June 14, 1919

Thousands of expert marksmen will be guests of the United States Navy during August on the largest of the chain of rifle ranges constructed by the bluejackets during our war with Germany. Invited to be present were teams of the Army, Navy and Marine Corps as well as two delegations from every State and Territory—one representing the National Guard unit and one the civilian riflemen. Transportation and subsistence expenses of the service teams and the teams designated to represent the States have always been paid by the United States Government. Any other teams may attend by defraying their own expenses.
The Intent of the government this year is to welcome to Caldwell Township representatives of all branches of American marksmanship. Trick shooting, however, will not be allowed. As the association puts it, “the marksmanship to be featured is the deadly deliberate shooting of the kind which left Belleau Wood and the Chateau Thierry wheat field covered with Hun dead.” The gathering of riflemen will be known as the National Matches of 1919, and is the latest of a long series of marksmanship competitions instituted in 1903 and held annually whenever possible for the purpose of stimulating rifle practice as a national sport; developing riflemen having the attainments required of instructors in rifle shooting during the war, and of restoring the United States to her rightful and traditional place as the premier nation of marksmen.

The big matches will be held at Caldwell Township, N. J, ‘45 minutes from Broadway.’ According to details now being arranged by Lt. Colonel William "Bo" Harllee USMC who is executive officer of the matches, rifles will begin to ‘crack’ in competition as early as July 1, and the final ‘cease firing’ will not sound much before September.

During the first part of this period practice matches and minor competitions will be scheduled. These will be followed up by a period of Instruction in marksmanship for the civilian teams who will participate in the national matches. After the school of Instruction, a series of marksmanship competitions, which include some of the oldest and most historic of rifle contests, will be held by the National Rifle Association of America. These events will lead up to those American marksmanship classics which are called the National Matches.

The National Matches, therefore, will probably be held toward the middle or end of August. They consist of three competitions. The most Important is the National Team Match. In this event teams of 12 shooting members are pitted against one another. Each team, using the United States military rifle, fires 20 shots rapid fire at a target 200 yards away, 20 shots slow fire at a target 600 yards away and 20 shots slow fire at a target 1,000 yards away. To the victors in this competition are awarded four trophies which are highly prized among marksmen: One a prize to the service teams; a second to the National Guardsmen; a third to the civilian clubs, and a fourth to schools and colleges. The first trophy is known as the National trophy. It is a bronze plaque showing Mars holding in leash the “dogs of war.” The second trophy is known as the Hilton trophy. It is also a bronze bas-relief, hung about with “scalps” upon which are recorded the names of the teams that have won it since it was placed in competition in 1878.

The third is known as the Soldier of Marathon; it is a bronze statuette and is the oldest of the three.
The Soldier of Marathon Trophy has been in shooting competitions since 1875. The NRA presented it to the United States Government for competitions in the National Trophy Rifle Team Match in 1903. This oldest NBPRP trophy is a bronze figure of the runner, Pheidippides, who though exhausted and fallen to a reclining position, still holds high the torch he is carrying to announce the Greek victory at Marathon. (This “statuette” is deceptively large at approximately 36 inches tall).

The second of the National Match competitions is known as the National Individual Match wherein individuals instead of teams participate, following the same course of fire prescribed in the team competition.

The third competition is known as the National Pistol Match and the honor of being victorious in this event is as highly prized among hand-gun enthusiasts as is the victory in the National Individual Match among riflemen.

Program is Attractive.

The program of the National Rifle Association matches is no less attractive to marksmen. There is “The Wimbledon,” a match shot at targets 1,000 yards away, the winner of which holds for one year the Wimbledon cup, presented to American riflemen by the Princess Louise of England in 1878, and assumes the title of “long range champion.” There is the Leech Cup Match for the oldest trophy in competition at the present time—a massive silver tankard, a gift to the N. R. A, in 1874 by the captain of the Irish rifle team which that year visited this country to take part in the first international marksmanship contest. There is the President’s Match, to the winner of which goes an autographed letter of congratulation from the chief executive and the title “military champion.” and there is the Marine Corps Cup Match open to everybody, the winning of which is also an individual honor. The trophy in this competition was the gift of the commissioned officers of the Marine Corps. Until 1916 there participated in the
National Matches only the Army, the Navy, the Marine Corps and the National Guard. That year, however, congress authorized the participation of teams composed of members of civilian rifle clubs which are organized under the 'National Board for the Promotion of Rifle Practice' in the war department (NBPRP).

At the outbreak of (the Great War) with Germany (1914) there were in the United States more than 2,000 of these clubs with an aggregate Individual membership of about 100,000. During the war the membership of many of these clubs was decimated by volunteer enlistments and the draft, but since the armistice and the demobilization of the troops most of the clubs have become more active than ever before. The opening of the National Matches to civilian and riflemen has proved a wonderful impetus to rifle practice as a sport, and the effect of this policy, together with that of the government in fostering the organization of rifle clubs, were apparent in the records of American marksmanship made on the fields of France.

Two Teams From Each State.

Under the laws controlling the government competitions, a National Guard team and a civilian team from each state are authorized to attend the matches. These teams are named by the Governor of the state, who may select the personnel of the teams through competition, according to geographical distribution, or arbitrarily. In addition to the two teams authorized, as many additional teams as desired may enter the competitions at their own expense.

The National Matches, since their inception and until 1918, have been held either upon a United States Army or a State rifle range. This year, however, the championships will be decided upon a United States Navy range. For the past ten years the navy has made every effort to develop its Bluejackets into good riflemen, on the theory that proficiency with small arms contributes in a large degree to proficiency in handling huge naval rifles, developing among the men physical control and coordination of mind and body—a principle which found enthusiastic supporters in Secretary (of the U.S. Navy) Daniels and Assistant Secretary Franklin D. Roosevelt. Therefore, when war was declared against Germany, the office of Gunnery Exercise of the Navy Department lost no time in enlarging the scope of its courses in marksmanship.

The development of this activity took the form of establishing a chain of rifle ranges—the principal stations being at Caldwell Township, N. J., the largest of the chain; Wakefield, Mass., Cape May, N. J., Peekskill N. Y., Great Lakes, near Chicago; Glenn Burnie, Md., Virginia Beach, Va., Mount Pleasant, S. C., and San Diego, Cal. On these ranges corps of trained Instructors not only saw to it that the seamen from the battleship fleets were trained in handling of arms, but took on the work of Instructing any Army recruits that were sent to them. In addition to this, and in connection with the range chain, Secretary Daniels threw open the facilities of the Navy shooting camps to citizens, urging all civilians to visit the ranges and learn to shoot. Recognizing the service which the Navy has performed in the cause of rifle practice toward bringing the United States again to its traditional place in the forefront of nations as marksmen.
The ‘National Board for the Promotion of Rifle Practice’ recommended that the Secretary of War accept an offer made by the Secretary of the Navy of one of the big Navy ranges for use during the National Matches in 1919. Approving this recommendation, the Secretary of War tendered the invitation to the Navy to conduct the competitions. When Secretary Daniels accepted for his department, he placed the conduct of the matches under the Director of Gunnery Exercises, U. S. Navy, and named Lt. Col. William C. Harllee, U. S. M. C., as executive officer. Colonel Harllee has long been identified with rifle practice in the Navy and among the Marines. He conceived the idea of a great chain of Navy rifle ranges and at the beginning of the war undertook the work of constructing the greatest single range system ever established, and had it in full operation soon after war was declared.

Scope of Program.

In undertaking to conduct the National Matches of 1919 at the invitation of the Secretary of War, the Navy planned to overlook nothing "toward making these competitions the greatest of their long line and toward gathering at Caldwell Township representatives of all the branches of American Marksmanship. The United States Army rifle of the same type which was used by the American Army and Marine Corps division in France will predominate in most of the events, but the high-power service weapon, capable of carrying a steel-jacketed bullet to an extreme range of more than three "miles will not be featured to the exclusion of other firearms except in the strictly government competitions.

To provide a program attractive to all Shooters at the National Matches it is planned to stage at Caldwell Township events in which the small-bore rifle will be fired at short ranges, as well as a few events to interest any of the Trap-shooting Fraternity who may drop in as transients or as visitors. The Caldwell Township range is within 20 miles of New York City and within accessible distance of a population of 10,000,000 (10% of the entire U.S. population in 1919). It was built entirely by the force of Bluejackets which operated it.

It is a model range in every respect. It was the last range built by the Navy and all the best features developed in the construction of other ranges were utilized there. It has unlimited capacity for targets. It can accommodate 100 teams for each stage of the match—twice as many as any other range, and has the largest and best equipment of buildings of any range in America’. It has electric lights and all modern conveniences, with splendid facilities not only for shooting but also for the accommodation and entertainment of the regular teams, transient participants and visitors.

Caldwell Township is reached at a cost of twenty-seven cents by the Hudson Tube from New York to Newark, and thence twelve miles by trolley to Caldwell. Rifles will be furnished at the firing points or visitors may bring their own rifles. An instructor (coach) will be provided at each firing point and when separate parties visit the range special Instructors will be assigned to them to give preliminary instruction.
The range is now open for all comers and groups or teams visiting the range for practice preliminary to participating in the matches will receive special instruction. Beginning about July first daily re-entry will be conducted under the auspices of the National Rifle Association and each day there will be awarded medals to the winning competitors and qualification medals to all who qualify in the National Rifle Association, Marksman, Sharpshooter and Expert Rifleman courses.

At no time, either before or during the matches, will there be any expense for range practice. Sleeping accommodations will be provided without charge (but sojourners must bring their own blankets), and meals will be furnished at the cost price of the navy ration (now 60 cents per day). A “Team” in the National Team Match consists of twelve (12) principals or firers, two or more alternates, one coach, and a team captain who may be, or may not be also a principal or firer. The rules of the match will provide for teams from Universities, Colleges and Schools, and it is earnestly hoped that a large number of Universities, Colleges, Military Schools and High Schools will be represented by Teams. A separate pistol range will be operated so that pistol shooters may be accommodated at any time. When the more important pistol matches are held, it will be necessary to have them on the larger rifle ranges in order to provide a sufficient number of targets.

(End of Pre-1919 Matches Article).

‘Old Caldwell Township’ resident Art Hathaway could not pose for this portrait without his favorite shotgun by his side. A trap shooting range was also part of the JCNRR Complex named for Revolutionary War Hero - Parson James Caldwell.
The monster shoot recently concluded at the Caldwell Township Rifle Range may properly be termed the climax of a phase of the work of our fighting fleet of which the general public knows but little. A work, however, that should be continued for the national good.

And of these ranges the biggest and most spectacular is that at Caldwell Township located within easy reach of 10,000,000 people. The National Defense Act of June 3, 1916 empowered the Secretary of War to establish and to maintain rifle ranges and Congress expressly declared that these establishments should be available not only to the Army, the National Guard, and the Navy, but likewise to all able bodied citizens capable of bearing arms.

The purpose of course was to teach the shooting of small arms, which in the last analysis, constitutes the fundamental strength of any fighting organization.

The Secretary of War made no responsive move to carry out that particular provision of the National Defense Act and the marksmanship of our men at the front might have proved deficient in many cases in the hours of greatest trial but for the initiative Lieutenant Colonel William C Harllee of the States Marine Corps. It was he who induced Josephus Daniels to take advantage of the chance offered the Navy and to utilize the funds granted creating a chain of rifle ranges at strategic points with instruction open to the military and to civilians as well.

In this wider field of activity Lieutenant Colonel Harllee called to his aid the experience gained in promoting rifle practice among the Marines. Over a period of nearly a decade he had zealously striven to make our sea soldiers a distinctive organization because of their marksmanship, and how well he succeeded was demonstrated at Chateau Thierry and elsewhere on the western battlefront. ( Harllee became known as 'the Father of Rifle Practice' in the Marine Corps ).

It was the ability of those web feet to stand unalarmed in the face of superior numbers and to deliberately pick off their foes at ranges up to 800 and 1,000 yards that dismayed the Teutons and won the unstinted admiration of their less expert European allies. It was the training previously given those men on the rifle range that made their splendid performances possible. They were not born with that skill, they acquired it by patient painstaking and intensive preparation. It is not the purpose of this article to tell how the Naval Reservists under the leadership of Lieutenant Colonel Harllee built the various rifle
ranges. Their climacteric efforts were centered in making the range at Caldwell Township the master one of the group and for the recent matches they rounded out the range so that it could boast its present magnificent array of 220 rifle targets and 50 pistol targets.

“Their climacteric efforts were centered in making the range at Caldwell Township the master one of the group”

The recent “shoot” has once more emphasized the aptitude of Americans in handling skillfully and effectively the prime weapon of the infantryman, and the world now knows that in the end, it is the foot soldier who decides the fate of battles. During the various contests that have been held at Caldwell Township in the late period of activities covering an interval of six or eight weeks the thousands of participants have not used up more than a few million of cartridges. We have a heritage from the World War of something like 5,000,000,000 rounds of this sort of ammunition and this stock will deteriorate and be useless if not expended in the course of a decade. It will be quite impossible to put these cartridges to good use in time of peace unless they be utilized lavishly in operating every rifle range today available and stimulating a desire in every able bodied citizen to learn how to shoot rapidly and surely.

There is a disposition which has already had expression on the part of the authorities in Washington to abandon many of the wartime rifle ranges quite forgetting that it is far easier to maintain a system once established than it is to call it into being again suddenly when urgency demands it. Lieutenant Colonel Harllee by his years of work and gradual upbringing perfected a course of instruction of peculiar value and there is more need now than ever to expand its application. Our national security in the years to come will be infinitely better and more cheaply safeguarded if every potential fighter be taught to feel at home in handling the soldier’s paramount shooting iron. The truth is the marksmanship of our men has stirred military circles abroad and it is authoritatively reported that the Germans are henceforth going in for target practice as they have not done in the past.

Over 30 feet of bullet drop at 1000 yards. Good Luck with that in 1919!
Plainly it is all the more necessary that we should keep up our own good work and make it virtually a form of national sport such as has prevailed for years among the Swiss with substantially five billion rounds of ammunition to draw upon. It will be practicable not only to operate all of our existing ranges but to build others so that no section of the country will be without its convenient means for turning out marksmen, sharpshooters and expert riflemen. At the fifteen ranges operating during our participation in the war there was instructed monthly an average of more than 30,000 men and each week there were fired quite 2,000,000 cartridges. Every round was expended under the direction of trained and competent instructors and the purpose of every student marksman was to acquire that proficiency which should make it possible for him to see to it that well nigh every bullet found a billet should he face the enemy on the battlefield.

After seven days of rain, Morristown’s Lake Pocahontas Dam gave way (top center) and inundated the JCNRR just before the National Matches (July 23, 1919). If floods were not enough, the hordes of mosquitoes could unsteady your aim.

Because of the painstaking system employed there was not a single participant injured during the firing of more than 40,000,000 rounds of ammunition on the several ranges. More rounds, so it is said, than the Navy has ever fired in times of peace and war in all of its previous history. Men that never before had held a loaded rifle in their hands qualified as marksmen in an astonishingly short while so skillfully were they taught and coached. The point to be driven home upon the nation now is the need of keeping up this schooling and of fostering in every possible way a countrywide interest in rifle shooting whether this be primarily a sporting movement or not, the ultimate gain will be the strengthening of our
military preparedness against the always possible questioning of our rights by some hostile power.

Further, a nation of marksmen is far less likely to invite attack or to be menaced by threats of war than one less qualified to take care of itself and to make its bullets score. In the days long gone, our people shot well because the gun was a continual provider of food or a safeguard against the treachery of the Indians and it was this skill that turned the tide in our favor during the years of the Revolution. But as has been said by one of the closest students of the art of the rifleman, proficiency is not a birthright but the product of painstaking efforts plus self control in which the mind the nerves and the muscles are wonderfully coordinated.

The consequence is a moral strengthening, greater capacity to meet promptly a difficult situation and the power of thinking quickly. In short, the trained rifleman is apt to be a better and a more valuable citizen all because of his schooling on the range.

It is the purpose of the National Rifle Association of America to revive the widest possible interest in marksmanship among all of our citizenry. To this end the intention is to keep active, if possible, every one of the ranges established during the last two and a half years. Similarly the Association is anxious to see used to their utmost the other ranges existing throughout the various States.

The master range located near Caldwell New Jersey should be the keystone of this whole system and this can only be done by making the Governments tenure of that wonderfully located tract a permanent one

Our ordnance engineers and American inventors have given us weapons of high power, long range and notable accuracy. But these material gifts would be of comparatively little avail as instruments of defense if they were not placed in the hands of those able through practice to handle them effectively. As Theodore Roosevelt said ‘Only the shots that hit count.’

(End of post 1919 Matches article).

Paul Pollio  November 11, 2019

Dedicated to accomplished local Historian and future JCNRR Author: Dr. Beverly Crifasi
The Hello Girls: America’s first women soldiers (2017)
By: Elizabeth Cobbs FPL 940.4 CO

"In World War I, telephones linked commanding generals with soldiers in muddy trenches. A woman in uniform connected almost every one of their calls, speeding the orders that won the war. Like other soldiers, the "Hello Girls" swore the Army oath and stayed for the duration. A few were graduates of elite colleges. Most were ordinary, enterprising young women motivated by patriotism and adventure, eager to test their mettle and save the world. A handful followed General Pershing to the gates of Verdun and the battlefields of Meuse-Argonne. When the switchboard operators sailed home a year later, the Army dismissed them without veterans' benefits or victory medals. The women commenced a sixty-year fight that a handful of survivors carried to triumph in 1979. This book shows how technological developments encouraged an unusual band to volunteer for military service at the precise moment that feminists back home championed a federal suffrage amendment. The same desire to participate fully in the life of their country animated both groups, and both struggled after 1920 to reap the rewards of victory.

World War I: The Definitive Visual History – From Sarajevo to Versailles (2014)
by R.G. Grant FPL 940.3 GRA (oversize)
“A vividly illustrated, in-depth account of the Great War. Written by historian R. G. Grant, charts the developments of the war from a global perspective. Using illustrated timelines, detailed maps, and personal accounts, readers will see the oft-studied war in a new light. Key episodes are set clearly in the wider context of the conflict, in-depth profiles look at the key generals and political leaders, and full-color photo galleries showcase the weapons, inventions, and new technologies that altered the course of history. A vivid portrait of the confrontation on land, sea, and sky.”

This writer and amateur historian was brought up on a very unique Fairfield Farm. Sure, everybody thinks that their experiences are very special, but the Farm I grew up with was much more diverse than you can typically imagine. Yes we grew vegetables for market but we had to do much more than that to earn our yearly living. The following is just a brief look into the Fall and Winter months on the ‘Pollio Farm’ (170 Fairfield Road).

Many late planted crops are obviously hardy and can thrive beyond the first frosts. Parsley, Parsley Root, Escarole, Cabbage, Leeks, Beets and Curley Endive to name a few (leafy greens and root vegetables are made sweeter by a light frost, so the later you harvest, the better the flavor).

Parsley-Root had to be hand dug with a digging fork (not fun)

But there’s other things to do in October, and the seasonal workers have already returned home to their Families in Puerto Rico. Huge wooden crates arrive from Holland with the specific bulbs we ordered for the following Easter. Tulips, Hyacinths, and Daffodils all needing to be planted in their pots for excavation in late winter. I say ‘excavation’ because these often need to be dug out with a pickaxe from the frozen ground (not fun). From there they go into the Greenhouses where skill and experience controls their blooming on time. This is often more difficult than you can imagine. For example, one year Mother Nature was so consistently sunny and hot everything bloomed two weeks too early. All
the proven techniques to slow the bloom could not prevent this disastrous outcome. It was like the 100 year flood in reverse.

Very late in October we also went into Central Pennsylvania to buy our Christmas Trees from Plantations high on the Appalachian mountain slopes that were too steep for corn cultivation. In the 1960’s the Scots Pine (Scotch Pine) from Pennsylvania was very popular. The Balsam Fir was the traditional tree that was typically harvested in Maine and Canada. Beautiful Douglas Firs were making their debut back then but were very expensive. You could also buy a Spruce Tree to save a dollar, but then your house would smell like a kitty litter box for three weeks or so.

We would buy the trees from the Planter for about a dollar each, then harvest them, take them down off the mountain, load flat bed trailers, transport to Fairfield 175 miles away, and sell many wholesale. Our partner was Warren Potter a heavy equipment Contractor with two high volume retail tree lots in Livingston. Together we marketed about 2,000 trees per season.

Most Christmas Trees need to be sheared into shape every summer. The Austrian Pine pictured on the right is a good example of the natural tree shape.

One year we approached a Planter who had a 50 acre Farm with 12,000 trees. These trees were at various stages of maturity. A Scots Pine grows to 7’ in about 7 years. He was hard pressed for cash and offered us the entire Tree Farm with house and barn for $12,000! The trees alone were worth that amount. The 50 acre Farm was essentially ‘free’. My Uncle Pasquale (Pat) and Partner Warren
were flabbergasted. They hustled home and both secured the needed cash. We were now in the Christmas Tree Plantation business. Our wholesale business quadrupled with prices our competition couldn’t touch.

Every tree looks perfect on the farm, and the fresh mountaintop air with the heavy pine fragrance was intoxicating. Our Friend and Partner Warren had all French Canadian heavy equipment operators who worked very hard with little supervision (Roger, Leo, Buzz, and Gus). Tell them the desired result and they made it happen. Give them an unrealistic desired result, and they would still make it happen! They were incredible, and their thick French accents and rowdy after-hour behaviors were constant entertainment for my younger Brother (Tom) and I. Without them, I doubt we could have met the challenges of a remote tree plantation.

**Another Christmas Tree Plantation Story:**

I once thought I was the best 15 year old tractor operator east of the Mississippi. After loading about 100 trees onto a large 4 wheeled trailer on the mountaintop, I had to drive the tractor and trailer straight down the steepest \( \frac{3}{4} \) mile grade you can possibly imagine. The Farmhouse and barn looked like the tiny house and hotel pieces from the *Monopoly* board game. They weren’t far away, they were way far down. It was no big deal normally: low low gear and brakes usually worked fine. But it started to rain and the mostly clay roadway instantly turned into a slippery grease slide. The wagon weight was pushing the tractor down the mountain at about 20 MPH with no way to slow it down. It seemed like I was picking up speed every second and I was never more terrified in my life. It was like those old movies when someone cuts the brake lines of 007’s car going downhill through the Alps! Somehow, someway, I managed to keep the tractor and trailer upright on the roadway and rode it out. I think Jesus saved me because of what the Dominican Nuns did to me in eight years at Caldwell’s St. Aloysius School :- ) :- ) Lord, no matter how or why, I am still grateful for this small miracle and humbling experience.
We loaded the trees on flatbed trailers by throwing them up by hand (not fun, the higher the load, the longer the needed throw) and maximized the height for the long drive home. Actually we loaded them a little too high one time and brought home a collection of telephone and power lines from the Pennsylvania back roads! I guess a few folks lived like the Amish for a few days after that load went by.

Trees were a big part of the Christmas business, but we also hand made about 150 grave blankets and wreaths every year. Uncle Pat was the creative master of the grave blankets and it took a couple of seasons of apprenticeship for brother Tom and I to make them to his high standards. But selling trees retail at our Route 46 Roadstand was our primary duty. As youngsters, we earned good tips tying trees to the tops of cars and closing car trunks with sisal twine.

![Wreath](image)

Wreaths were made by crimping balsam greens onto a metal frame. Later pre-made wreaths were bought from Canada in bales.

We had a large sign “Scotch Pines - Any Tree $4.95”. This price was about $2.00 - $3.00 below Suler’s Roadstand who was then our primary competitor. They had nice trees too, but not so nice prices. Fairfield Home and Garden opened later in 1967 and soon got into the Christmas business in a big way.

### SUPER SALES MEN

About 6:00 pm Christmas Eve the sales season was done. Everything not sold would soon be destroyed. The only people still shopping for trees etc. were bargain hunters and procrastinators. So Uncle Pat told Tom and I ‘anything you sell – the money is yours’. What an incentive. Anyone who arrived left with a car full of Trees, wreaths, roping, etc. We were super salesmen, we kept lowering the prices until they said ‘yes’. We made a small fortune, and Uncle Pat knew it was all going into our savings accounts.
So the tulips are growing underground and the Christmas trees already flew in Pennsylvania, so what else is there for Farmers to do this time of year? Snow Plowing.

**SNOW PLOWING**

Virtually every Farmer has some sort of plow, grader blade, or ‘bucket loader’ to clear snow from their yard and roadways. We were no different and had a plow on our best tractor that was also fitted with heavy chains. For traction ballast we had the large rear tires filled with a concentrated calcium chloride/water solution. It was great for plowing snow but the driver was totally unprotected from the elements. (Tom and I learned this ‘man vs. nature’ thing at a very young age).

As the industrial section grew around us, the need for parking lot snow plowing grew quickly. It wasn’t long before we had about 15 good accounts on Spielman Road, Gloria Lane, Kulick Road and Plog Road. A second tractor with a grader blade was added, but we eventually bought a large refrigerated truck from Bordens Dairy and fitted it with a new plow. Now at least we had one plow with a heated cab.

Uncle Pat went to every Fairfield Township equipment auction, and bought trucks for very little cash. These trucks were not pretty, but they ran well and all had snow plows. We actually had ‘spare’ snow plow trucks. This was important because something always breaks in the middle of the night and there’s no time for repairs. Especially when fifteen Clients expect to see their lots cleared by 7:00 am.

I’m providing all this detail because reliability and your reputation is crucial in this business. Every time someone local bought a 4 wheel drive pickup truck with plow, they called on our industrial accounts and low balled our rates by about $5 per snow. With our 15+ years of dependability we only lost one account this way. Solbern Co. on Kulick Road.

By now we’re in 1978 and one of the greatest N.J. hurricane blizzards dumps 36” of snow on Fairfield in two days (Feb 5 and 6). The State shut down completely
and all vehicles were ordered off the roads. Even our big refrigerated truck with tons of ballast and full chains could only make a single pass through any lot. But Uncle Pat had an ace up his sleeve like no one else. He called his Friend Warren Potter who sent a huge CAT 944 earth mover down from his yard in Roxbury N.J.

This is what was needed to remove the 36” of snow in 1978. Our Accounts were the only ones plowed out the next morning. The ‘low ballers’ were nowhere to be found and not answering their phones.

The big CAT, piloted by one of those Canadians, ‘roughed out’ our lots and we cleaned up any remaining residue. The roads were still virtually impassable, but our parking lots were perfectly clear. At 7:00 am that morning we were having coffee and the phone rings. Guess who? It’s Bernie Eisenberg from Solbern the guy who was saving $ 5 per snow. Sorry Bernie – no can do.

Soon our farm laborers from Puerto Rico would be calling for us to ‘air mail’ them plane tickets to Newark. This signals the end of winter on the farm.

**SNOW WAY !**

Once a local Contractor acquaintance of ours stopped by during a snowfall and asked us if he could plow out one of our Kulick Road accounts for free. How crazy is that? We reluctantly agreed, as he assured us it was for a good reason. Later that day we saw the results of the ‘good reason’. Evidently his customer across the street was refusing to pay for previous snow plowing services. So he used all the snow from our clients lot to totally block the driveway of his non-paying client across the way. Ouch. I think we would have refused him if we knew his motive ahead of time. But it’s still funny in a way. Try that today and see what happens.

Dedicated to ‘Uncle Pat’ Pollio.............Paul Pollio November 29, 2018
Farm labor has always been a challenge since the days when large Families were able to handle all of the necessary farm chores and duties. Vegetable Farming was particularly labor intensive and many immigrants found their first jobs in America on our New Jersey farms. The German, Irish, Polish, Jewish, Russian, and Italians were just a few of the ethnic groups that originally met agricultural labor shortages. Many non-family high school aged children worked on farms also, but this was very demanding work often better served with fulltime field hands.

By the time I arrived on the farm scene in the early sixties, our farm was employing seasonal migrants from Puerto Rico. The Commonwealth of Puerto Rico encouraged migration off the island because of their changing economy and high unemployment there (30%+). Air travel was now more practical and New Jersey had a growing need for seasonal labor. The people of Puerto Rico were U.S. Citizens and could travel freely anywhere in the 50 States without fear of deportation. They were exempt from immigration quotas, refugee status, or temporary work Visas that Mexicans, Chinese, and others had to contend with. I’m speaking specifically about seasonal workers, not the great migration of those Puerto Rican Citizens seeking permanent family relocation in the more urban mainland communities. This was going on at the same time, but our workers returned to their Island homes and families every autumn.

We had a few bad hombres early on, but we maintained contact with particularly good workers. The best were usually farmers themselves who also worked previously on sugar, coffee, or tobacco plantations. These strong souls left their families for about 7-8 months to earn their annual income. By late winter, last season’s savings would be depleted and the annual cycle would begin again.
The ‘Great Urban Migration’ from Puerto Rico had begun, but Seasonal Migrants returned home after the growing season.

Our Farm required only 3-4 workers, but getting 3-4 good workers was the trick. Most Puerto Rican Farm and Cannery hands were processed through a ‘Camp’ supervised by the State in a South Jersey clearinghouse. Tell them how many laborers you needed and they soon arrived. A few pennies per each work hour were remitted back to the State to cover administration. But you seldom knew what kind of worker you were going to get, and more than a few were unfamiliar with farming altogether. Most desperately needed to send earnings to their families back home where poverty was all too common.

Again, the trick was to get great workers year after year. Just like any business, you want the most reliable and productive Employees. How late they’ll work into the Fall is also an important consideration.
We had our best workers contact us via airmail in the late winter. We would mail them Airplane tickets to Newark and pick them up there. This was not ‘illegal’ but they bypassed the ‘Camp’ process and the hourly fees. A few pennies per hour meant a lot to Everyone back in those days. We put those extra pennies in their pockets, not ours.

There they were, in their ‘Sunday’ clothes with last year’s favorite hat and one small suitcase. (I’m not being critical. I loved and respected these guys. But they were really easy to spot no matter how busy it was at the airport terminal).

It was now very early March and the greenhouses and ‘cold frames’ had to be readied for thousands of flats of ‘bedding’ plants. The worker’s house had to be spruced up too because it was used for Christmas supplies storage in the winter. One year we gave the ‘boys’ a few gallons of light green paint for the interior of their house. They painted everything except the window glass, light bulbs, and large picture of Jesus. Bed frames, sink, range, and gas stove all painted light green. Even the frame of Jesus’ picture. At the time, we thought this was pretty funny.

The living quarters were strictly monitored for compliance with State Laws. A tough ‘no nonsense’ Inspector audited the farm at least once a year. Violations brought them back for follow up inspections, but we never needed one. There was a lot of non-compliance statewide, but decent ‘above average’ quarters was another way to encourage good workers to return to us year after year. We even provided a hot water heater and flush toilets that were not State requirements. (Talk about taking things for granted today – huh?).

Once, one of our workers witnessed his first snow fall. Pretty funny, he was dancing all around like Fred Astaire minus the umbrella. I’m sure they were similarly entertained by some of our social and cultural antics too.

Prior to their arrival we had to plant ‘seed flats’ in our glass greenhouse (#1) that was equipped with a well, boiler, soil sterilizer box and heated benches. The soil sterilizer box was wired with heating coils to kill anything in the soil mix. This is very important because you had to be 100% sure all the tiny seedlings didn’t have
weeds mixed in. Nothing worse that transplanting a weed, but our guys also had keen eyes for the occasional intruder.

Uncle Pat was the maestro of coordinating all the timing of the various stages involved. Few people understand how really challenging this can be. You need to hit the market at the right time, the right product mix, and healthy ‘hardened’ plants. You miss the window, and you miss a lot of the income.

One seed flat is transplanted into dozens of 24 or 36 count market flats. Every inch of all four greenhouses were filled with flower and vegetable plants. We also had about a dozen perennial plant varieties that were growing in the main fields. Pansies are biennials (two year life span). Ever wonder why they don’t come back a second year? (Because their first year was in the growers field planted the previous summer).

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**El gran accidente**

A heavy snow made one of the greenhouses where Alciño and Modesto were transplanting airtight. They also increased the heat inside with a ‘salamander’ kerosene space heater. The carbon monoxide eventually knocked them unconscious, and Modesto’s head landed on the hot part of the heater. My Father found them and dragged them to fresh air. (Another hour and they likely would have died). Moe’s head was badly burned so we called the West Essex First Aid Squad. When the Ambulance arrived, they drove over an icy berm at the edge of the road and their gasoline tank was ripped right off! No kidding, the gas tank was lying in the driveway. It took a while for Ambulance #2 to arrive, but all ended well for Moe. He returned home to heal and ultimately settled for a huge insurance settlement of $9,000. Yes, he returned to us the following season.
The Guys were very busy mixing soil, filling flats, and transplanting seedlings. They worked steadily and diligently, but their dexterity was not the best. I say this because in later years we employed a local woman that could out produce our men by about 30%! Dexterity matters, and this woman (Dot Thatcher) was awesome to watch.

Uncle Pat was always improving his knowledge by attending evening classes offered by Essex and Bergen Counties, as well as visits from the Rutgers Extension Service Agents. These were great services and helped Farmers with the latest technology, techniques, and safe pesticide application. So few Farmers took advantage of these free services, even before the rapid decline of Essex County Commercial Farming and Horticulture.

The Guys worked hard all summer on harvesting vegetables and sometimes an acquaintance of ours, Earl ‘Army’ Armstrong from Pier Lane, would sit on a basket where they were working to chat with them. (If I did this I would get yelled at for ‘slowing them down’, but there were different rules for adults back then). With legs crossed, thick framed eyeglasses, bowler hat and cigar, ‘Army’ would talk about his adventures in Mexico. They called him the “Mexican Guy” because Puerto Ricans were not generally fond of Mexicans (and vice versa). But ‘Army’ was not aware of this apparently and revisited the subject often. We always appreciated the politeness and patience of our workers.

Friday evening was the weekly shopping adventure. The Guys showered up and put on their best duds and I was their chauffer. We went to ‘Two Guys’ in Totowa every week. Can you guess why Two Guys? Because they had everything you could possibly want in one place: Groceries, clothing, liquor, and even guitar strings. Their shopping cart was stacked to its limit. Chicken, Rice, and lard was 70% of the cart’s contents. This was their favorite meal and you could always hear the sizzle from very far away.

They drank very little beer and only a few cans each on Saturday night. We would not tolerate any more than that. Yes, we had some rules.
We had many crops that grew well into November, and Uncle Pat offered them an incentive to stay until then. UP would pay their airfare home if they stayed to a specified date. But after September they had earned what they needed and were anxious to rejoin their Families. After 7-8 months, who could blame them, right? (Sometimes they even had children that they had not seen yet).

But they knew UP would be unhappy, so they plotted their escape without his knowledge. One morning, someone would be seen at the street waiting for a taxi dressed in their best clothes, suitcase in hand, and new hat. UP was annoyed, but there’s nothing you can really do about it. All would be forgiven when the airmail letter arrived the next February.

Some Farmers employed ‘Russian Women’ for their cultivation and field work. Many lived in Singac, and they were always held in very high regard. In extremely hot weather they would still wear long heavy dresses, scarves and aprons. They claimed it was cooler to wear heavy clothes and even sweaters too, but this seemed ‘counter intuitive’ as we say today. I assume it was because of their dresses, but they never squatted or kneeled as our workers did. They always bent over at their waist to do all of their work. My back aches just thinking about doing this hour after hour, day after day.

Everyday the Schmitt’s picked up their Russian Women in Singac for greenhouse and field work.
We always had an open invitation to visit our Workers in their Puerto Rico country homes. So one year Uncle Pat and Aunt Marie added such a social call to a planned vacation to the island. Uncle Pat was not at all surprised by the surroundings, but Aunt Marie was shocked at the general living conditions there. I mean really shocked. I guess we all need a little ‘perspective’ now and then.

The minimum wage for migrant agricultural workers was always lower than the standard minimum wage. This changed in 1965-66 and the differential was eventually eliminated. Then, the minimum wage grew dramatically in the late 1960’s. This was a significant setback to New Jersey Farmers and California produce was now arriving via refrigerated rail cars into the New York Market.

Just like us, the Esposito’s, Francavilla’s , Lebeda’s, Wohkittel’s, and Burghardt’s hung in there as long as they could, but the outcome was already inevitable for more than a decade.

**Dedicated to those Puerto Rican and Russian Women field workers who labored so hard for their Family’s well being.**

I hope you liked reading about something a little different. Let’s see what off beat subject I can dream up next ! Any suggestions ?

Have a great holiday season Everyone, ..................Paul Pollio    December 19, 2018
Fairfield Historical Society Folklore Quiz: Causes of Death

Six of the following seven causes of death are true based upon the notes Adelia Van Ness Collerd (1903–1984) recorded over the years. Of course death is not a funny matter, and Grandma Collerd would certainly not approve of this quiz, but it’s only a lead in to a story you probably never heard before.

So forgive the unintended irreverence, and guess which of the following was NOT actually a cause of death:

1.) Consumption of the bowels
2.) Kerosene lamp accident
3.) Drowned in Morris Canal
4.) Had fatal heart attack when Mother-in-law entered the home
5.) Gassed in hotel room overnight
6.) Gun went off when placing it in his duck hunting boat
7.) Struck by lightning while working in the cemetery

Make your guess than see the answers below:
1.) Consumption of the bowels – Sounds horrible but TRUE (Google it)

2.) Kerosene lamp accident – Sounds even more horrible but TRUE

3.) Drowned in Morris Canal - TRUE

4.) Had fatal heart attack when Mother-in-law entered the home –
   Probably just a coincidence (Grand Uncle Jean Morrison) but TRUE

5.) Gassed in hotel room overnight – Investigators guessed the poor guy blew out a gas fired lamp thinking that it was a kerosene lamp. - TRUE

6.) Gun went off when placing it in his duck hunting boat. - TRUE

7.) Struck by lightning while working in the cemetery – FALSE! Here’s what really happened. Adelia’s husband Morris Collerd (my Grandfather) was Fairfield Reformed Church Sexton for many years (1924 – 1958). Over this time Morris recalled three lightning strikes to the Churches steeple. Three, that’s once every 11 years!

The second was about 1940 while Morris was working in the cemetery. Morris went up into the belfry to make sure that there were no burning embers and inspect the damage. To his surprise, and the Churches good fortune, he discovered a ‘burning rag on a stick’. Had he not been working there that day, the beautiful 136 year old edifice could have been completely destroyed. Thank God, right?

Hope you found this Fairfield Folklore story somewhat entertaining.
( Sorry Grandma, ‘you know who’ made me do it! )

...............Paul Pollio  October 8, 2018