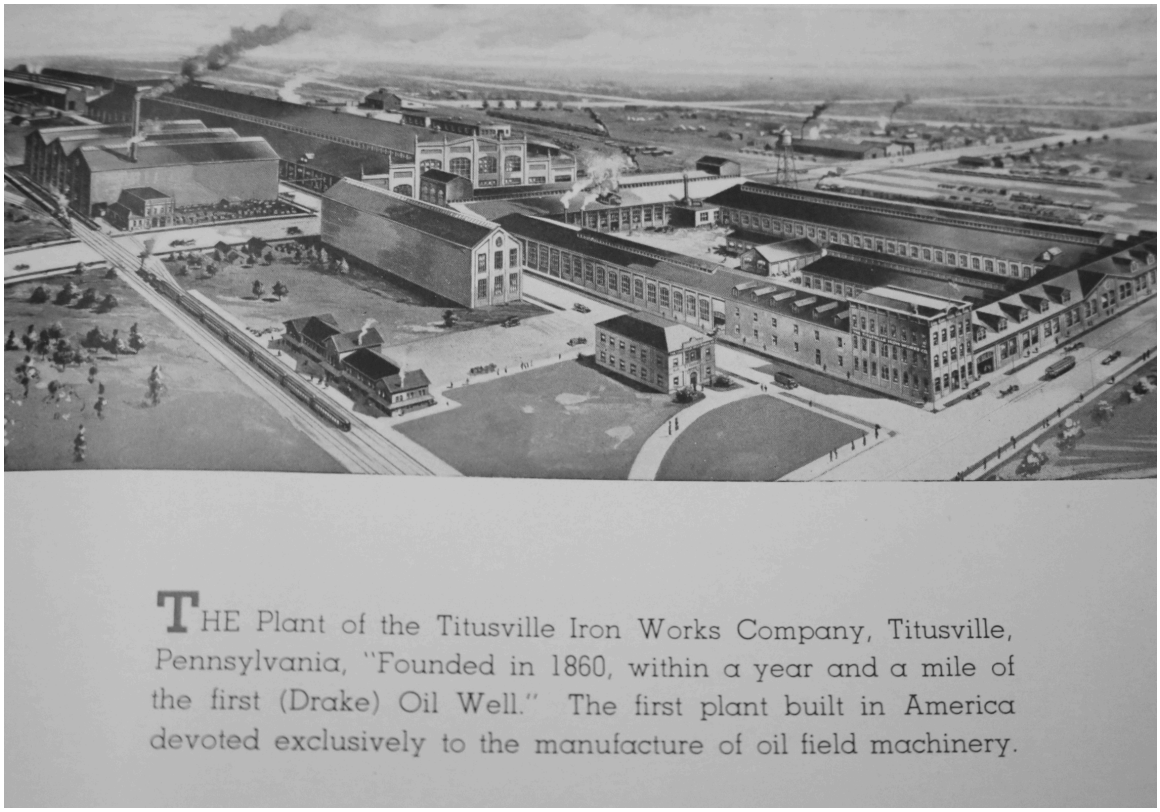


THE Plant of the Titusville Iron Works Company, Titusville, Pennsylvania, "Founded in 1860, within a year and a mile of the first (Drake) Oil Well." The first plant built in America devoted exclusively to the manufacture of oil field machinery.

Titusville Iron Works began life on South Franklin Street in **1860**, "a year and a mile from Drake's Oil Well". It was the first machine shop/foundry founded exclusively to service the oil industry.

"**Titusville Manufacturing**" was the name back then, and their products included steam engines and power boilers, saw mill machinery, plows and scrapers (for farms), iron tanks, stills, rig irons, well drilling tools and cast iron architectural columns. John Eaton, founder of Oil Well Supply Company, owned an interest in the firm at that time.

1889 the firm was renamed **Titusville Iron Company, Limited**; when it was purchased by local businessmen:
- John L. McKinney and James C. McKinney (Union Oil - South Penn - Pennzoil)
- Edward O. Emerson (co-founder of Sun Oil a.k.a Sunoco)
- John J. Carter (founder of Carter Oil which became Exxon)
- Barnard Abel (namesake of Abel Engines and held many patents for oil field equipment)
- John Fertig, Benjamin Kraffert , Daniel Colestock, Evalon C. Hoag.

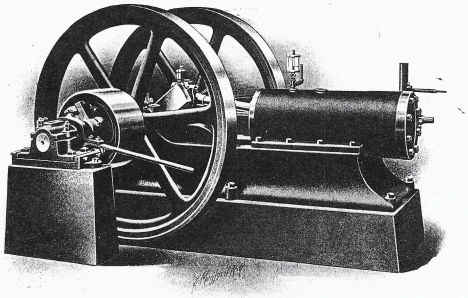
1895-1896 - Titusville Iron Company purchased the Thaddeus C. Joy Radiator Company The radiator department, which had its own iron foundry facility, was spun off and merged by the Iron Company shareholders / officials into the American Radiator Company, which later became part of **American Standard Company.**

1906 Titusville Evening Courier special edition described the Iron Company's facilities:

"The plant of the Titusville Iron Company covers several acres between the New York Central lines and the Pennsylvania railroad; the different departments are connected by convenient switches, giving ample shipping facilities."

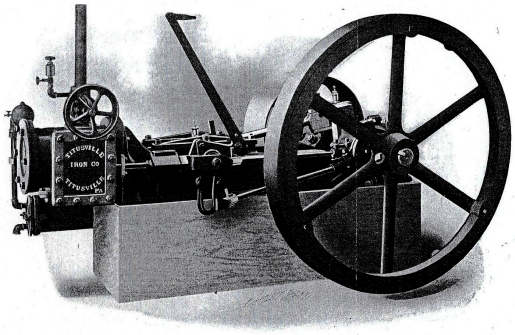
"The products of this company are varied and too much space would be required to give a detailed description or enumeration of the same. Prominent among these are the well known Acme steam drilling engine, the Olin gas engine, the Abel gas engine, the Abel combination pumping power for oil wells (a recent product which is gaining a well merited reputation), the Acme drilling boiler, horizontal tubular boilers, fire box boilers of different types and general steel plate work. Of the above products the Olin engine was one of the first successful gas engines placed on the market for use in the oil fields, and has maintained a reputation for economy, reliability and durability. Thousands are in use throughout the various oil fields of the United States and Canada."

THE TITUSVILLE IRON COMPANY, TITUSVILLE, PENN'A.



THE "OLIN" GAS ENGINE

The TITUSVILLE IRON COMPANY, Titusville, Pa.



ACME DRILLING ENGINE.

1915 - the firm changes its name to **Titusville Iron Works Company**.

1919 - John T. Dillon, Sr. purchased the Titusville Iron Works. He had originally founded the Titusville Forge Company, on East Spring Street (with financial assistance from Titusville Iron Company / Titusville Iron Works shareholders)

1920 - John Dillion and his family bought the Struthers Wells Company (founded in 1851); a Warren, PA manufacturer of power boilers, storage tanks, heat exchangers, tank cars, penstocks, water standpipes, turpentine and alcohol distillation equipment, oil field steam engines, sawmill and tannery machinery, nitrators (for high explosives plants) and heavy duty gas engines (some rated at 1300 H.P.).

1928 - the Dillion family combined the sales and management forces of the Titusville Iron Works, Titusville Forge and Struthers Wells. The firm's name became **Struthers Wells -Titusville Corporation.**

1932 - John T. Dillon, Jr. operates the company (his father died, 1934). Steam and gas engine manufacturing ended in Warren (and was transferred to Titusville) at this time.

1935 - Only 40% of the Iron Works' products were for oil field use. A line of heat exchangers (of all sizes), valves and strainers was added to the Titusville plant's output.

1939 - Manufacturing of defense - related items (gun barrels / tubes, shells, breech blocks, naval steering gears, anchor windlasses / winches / capstans, boilers for military bases / hospitals and United States Navy destroyers / minesweepers, high pressure valves for synthetic rubber and high octane gasoline plants, etc.) commenced for the World War II effort.

1942 - Name is shortened to **Struthers Wells Corporation**.

1940-1944 - The United States Government spent millions of dollars installing new machinery and erecting additional production (and office) buildings at the Iron Works and Forge Division plants. Notable defense - related products of the Titusville Iron Works included capstans / winches for the battleships North Carolina and Washington, anti - aircraft gun breech blocks for the battleship South Dakota, anti - tank gun barrels successfully used by the British 8th Army in

the Battle of El Alamein, high - speed machine cannon for B - 25 and P - 51 aircraft, and 8“ howitzer shells used by the U.S. Army in the Battle of the Bulge.

Following World War II the operations of the Iron Works and Forge plants were thoroughly integrated into a connected unit. New products; including tangent benders and press brakes / broaching machines for automobile and appliance manufacturing companies, rotary oil / gas well drilling rigs (designed and marketed by the Oil Well Supply Division, United States Steel Corporation), high pressure mixers, stackless boilers, automatic flame plate cutting machines, autoclaves (of all sizes), heavy steam generators, welded railroad car tanks, oil refinery / chemical plant fractionating towers, radio transmission tower structural / mechanical components, ballistic missile silos and rocket fuel storage tanks; were added.

Local refineries which contained fractionating towers made by the Iron Works included Pennzoil, Wolf’s Head and Sonneborn / Amalie.

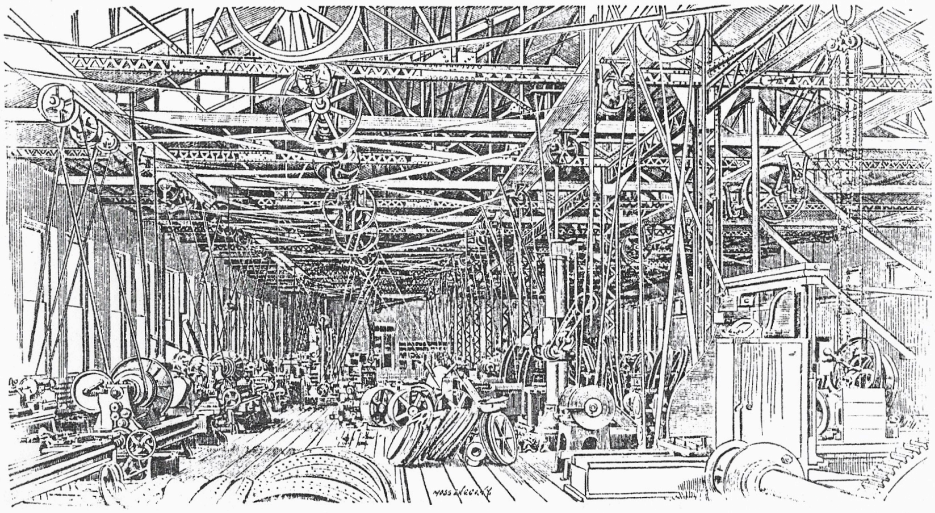
Titusville Iron Works heating boilers were shipped all over the United States.

1957 - Several Iron Works product lines were sold or eliminated over the next few years. Dillon family heirs sold the three plants to a New York City investment group. Ellwood Machine and Grand Valley Manufacturing are a few of the companies that continue some of the work that was done at Titusville Iron Works.

1963 - Struthers Wells Corporation, closed the Titusville Forge plant. Activities at the Iron Works gradually ended over the next eight years.

1964 - Noel Poux, Titusville industrialist, purchased and subdivided part of the old Iron Works facility, May, 1964.

2017 - **Titusville Iron Works, LLC** purchased the original machine shop building of the Titusville Iron Works, which was constructed in 1895 (this is also the same lot where the original Titusville Manufacturing was located). The dormers which were originally on the machine shop had been removed by the Poux's in the late 1960's, and the windows were replaced by glass block.



INTERIOR VIEW OF MACHINE SHOP FOR THE TITUSVILLE IRON CO., AT TITUSVILLE, PENN.

The Berlin Iron Bridge Company,
1894 CATALOGUE

MACHINE SHOP FOR THE TITUSVILLE IRON CO., AT TITUSVILLE, PENN.

THE illustration on the opposite page is taken from a photograph, and shows the interior of a Machine Shop designed and built by us for The Titusville Iron Co., at Titusville, Penn.

The building is 70 feet in width by 201 feet in length, divided into two spans, the central row of columns being arranged to carry shafting. The roof trusses are also designed to carry shafting, and are made unusually heavy so as to withstand the shock from stopping and starting the machinery, all or part at the same time.

The iron trusses are especially adapted for this class of shops on account of their firmness and rigidity, as they are much less liable to get out of line than ordinary wooden trusses, which shrink and swell with every change in humidity or temperature.

The building is a work in progress and is an ongoing restoration project which is performed by the team at Windfall Rod Shop.

Inside the building we have a quasi museum housing local history displays, with a focus on the Iron Works, and Titusville residents who founded oil and gas business such as Sunoco, Union 76/Unocal, Exxon, Citgo, Pennzoil, Penn Drake, etc. We also have an operating Titusville Iron Works Olin engine on display.

The Titusville Iron Works is available to rent as an event venue.

Links to articles we referenced:

http://www.oil150.com/essays/article?article_id=142

https://www.gasenginemagazine.com/company-history/history-of-the-titusville-iron-works