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100 Years at the Wood River Refinery

BROUGHT TO YOU BY THE WOOD RIVER REFINERY HISTORY MUSEUM

INSIDE THIS ISSUE:

The Need for Steam

In August of 1917, refinery construction was still moving ahead but at a slow pace. The process units and supporting equipment such as the pump houses and tankage were now above ground level. At this stage of construction, the Boiler House was the most prominent structure on the skyline. The assembled boilers where brought in by rail then lifted into position.

The Boiler House was essential to the operation of the refinery and would be the first piece of equipment in use as steam was needed for all sorts of purposes such as cleaning out pipes, keeping lines warm, running pumps, and even frying a hamburger on a hot plate. Without the Boiler House, there would be no production and no warm lunch – a double whammy!

As construction progressed, steam would be needed to purge the new vessels and piping of undesirable contaminants and, when the crude oil arrived, to keep the piping warm and enhance the flow of the oil though the process in both summer and winter. Steam was also used to operate conveyers and steam donkeys. Steam was essential to every aspect of the operation of the refinery and still is today.

Boiler House Equipment Arriving by Rail

Boiler House Construction

Boilers in Position

Boiler Brickwork for the Fire Box

Boiler House

Scott Air Force Base Completed

As mentioned in the June newsletter, ground was broken in June of 1917 for a $10 million construction project near Belleville, IL to be known as Scott Field. In only a few months, 2,000 workers constructed about 60 buildings, laid a mile-long railroad spur, and leveled the ground for an air field.

The Field was officially completed in August 1917. The first flight occurred on September 2, 1917. Flying instruction began on September 11, 1917.

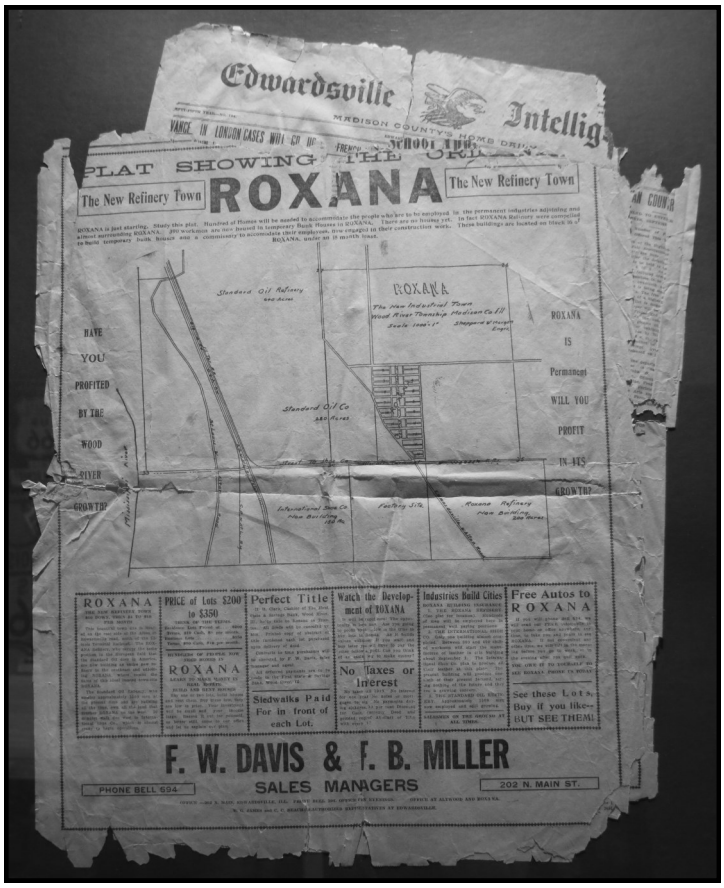
Scott officers designed and developed the first air ambulance by modifying airplanes to carry patients. On August 24, 1918, a Scott air ambulance transported its first patient after an aviator broke his leg.

"The New Refinery Town"

The original concept for the construction of a refinery in the middle of farmland included a rather unique idea. The refinery had acquired an additional parcel of land adjacent to the refinery to the north and constructed the workers' bunk houses and dining hall. The plan was to utilize the land north of the bunk houses for 50 homes that the new employees could purchase.

These homes would be of the most current design with the latest features. The Edwardsville Intelligencer published the layout plan of the new streets as well as information on the homes in late 1917. The selected area and the street layout could easily handle the planned 50 homes and many more.

The layout plan provided eight additional streets running east to west. Two new north to south streets would also be added with the existing Alton – St. Louis Road that bordered the west end of the numbered streets.


Edwardsville Intelligencer

PLAT SHOWING THE

The New Refinery Town ROXANA The New Refinery Town

ROXANA

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ROXANA IS Permanent WILL YOU PROFIT IN ITS GROWTH

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SALES MANAGERS

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1917 Edwardsville Intelligencer Article

Another north-south road known as Maple Street is believed to have already existed during this time as it provided a short cut into the east side of Wood River. The new Third Street would meet Maple Street as it joined the Alton-Edwardsville Road.

The northern east to west street was named Tydeman after the refinery's first manager. It is believed that this road previously existed under another name as it extends east past the new north-south roads and there were two farm houses located about ¼ mile past the new easternmost north-south road named Chaffer.

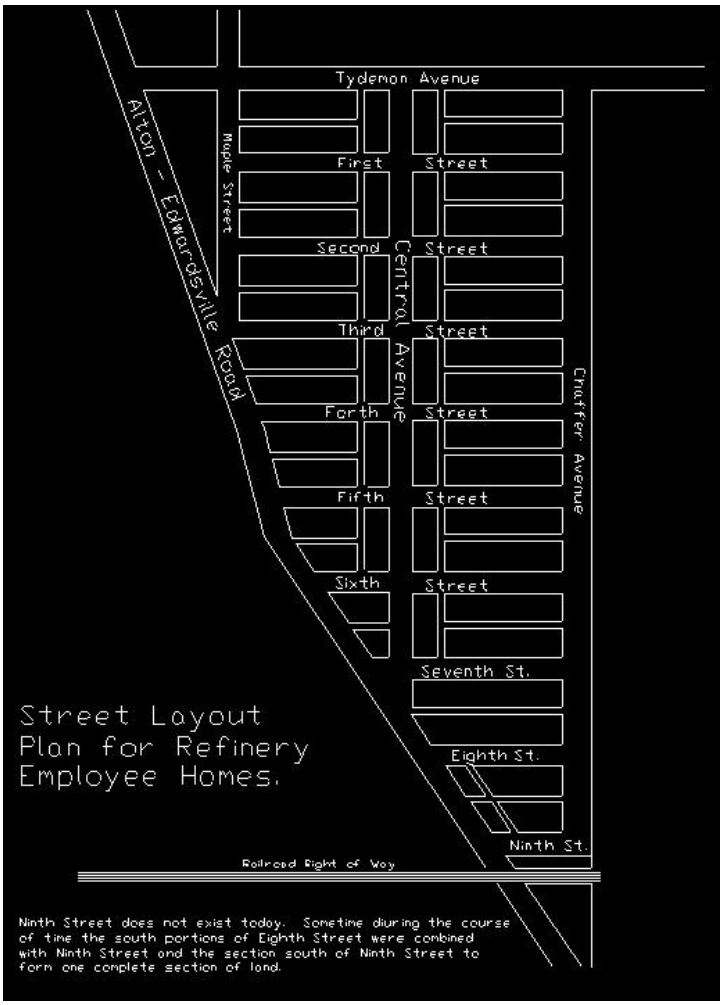
(continued on Page 4)

"The New Refinery Town" (cont.)

One of the new north-south streets would be known as Central Avenue and split the longer of the numbered streets in half. The remaining east-west streets would be numbered 1 through 8. These "roads" were nothing more than wide dirt paths.

The new homes that were constructed were known as the Hancock Houses as they were built by the Raymond O. Hancock & Co. The homes were scattered among the nine streets and built in a style known as a bungalow.

The bungalow style was generally a two-bedroom house longer in length than wide and usually characterized by a porch that was built across the front of the home. These homes would have basements and the most modern of conveniences such as indoor plumbing.



Many of these homes still exist today. However, most of the homes have had some form of modernization and may be a bit difficult to identify.

The Wood River Refinery History Museum has two photographs of these homes. One picture was taken during construction in late 1917 or 1918 and shows the homes located on the north side of Third Street near Maple Street.

The second picture was likely taken in the early 1920s and illustrates a line of completed homes on the south side of Tydeman near the corner of Chaffer Avenue.

Houses along the northern side of 3rd near Maple

Houses along Tydemann

July Trivia Questions

Q. How many gallons are in one barrel of crude oil?

A. 42 gallons

Drawing Winner: Scott Leitschuh

The origin of the 42-gallon measurement for a barrel of crude oil was adopted in August of 1866 when a handful of America's independent oil producers meeting in Titusville, PA agreed that 42 gallons would constitute a barrel of oil.

However, the story really started with England's King Richard III (1483-1485) when he defined the wine puncheon (a large cask) as holding 84 gallons and a tierce (small cask) as holding 42 gallons.

These watertight containers were crafted by "tight" coopers. Their guild, the Worshipful Company of Coopers, regulated the construction. Lesser skilled craftsmen made casks, barrels, and pails for dry goods.

By about 1700 in the colony of Pennsylvania, the 42-gallon watertight tierce was used as a standard container for shipping everything including eel, salmon, herring, molasses, soap, butter, wine, and whale oil. The 42-gallon barrels would eventually become the favorite 19th century container.

In 1859 back at Titusville, PA, Edwin L. Drake's first commercial oil well struck oil. The petroleum boom that followed put a high demand on wooden tierces, whiskey barrels, casks, and other barrels of all sizes. In other words, if the container didn't leak, it had oil in it!

The "smaller" tierce containers were easy for one man to handle, and the container could be easily stacked. It was estimated that a tierce container when filled with crude oil would weigh about 300 pounds.

Within a year of Drake's discovery, oil barrels were commonly considered to hold 42 gallons according to "The Oil Foundations of Pennsylvania" as recorded in the 1860 edition of *Littell's Living Age.* The 42-gallon standard was officially adopted in 1872 by the Petroleum Producers Association and by the U.S. Geological Survey and the U.S. Bureau of Mines in 1882.

As a side note, the abbreviation for a barrel of crude oil is officially "bbl." For a time, the "bbl" was attributed to the Standard Oil Company's blue-colored shipping barrels. It seems that John D. Rockefeller's desire for efficiency and growth resulted in Standard Oil purchasing tracts of oak timber, hauling the timber to Cleveland on Standard Oil wagons, and building barrels in its own cooperage.

Standard Oil's cost per barrel dropped from $3.00 to less than $1.50 per barrel. An early practice of painting these barrels blue resulted in the myth that "bbl" stood for Standard's Blue Barrels.

In the 1904 publication "History of Standard Oil Company," the writer points out that the abbreviation "bbl" had been in use before the 1859 birth of the petroleum industry. Shipping manifests from the early 19th century reveal that quantities of honey, rum, whale oil, and other consumables were shipped by the "bbl" – well before John D. Rockefeller and Standard Oil's blue barrels.

In today's oil industry, the "bbl" signifies 42 gallons as the standard unit of measure for petroleum oil.

Q. In 1910, what percentage of homes in the United States had bathtubs?

A. 14%

Drawing Winner: Judd Govero

In 1910 the number of homes with bathtubs was about 14% and about 10% had telephones. Also, 95% of child births were in the home, not in hospitals, and only 6% of Americans graduated from high school.

According to the Monthly Labor Review dated March 1990, there were 20.3 million households in 1910. There were 92.8 million households in 1989. (A household is defined as any separate living unit occupying one or more persons).

Generally, it wasn't until the 1920s that significant household changes would begin to appear. Much can be accredited to Henry Ford when he doubled the hourly wage in 1915 with the development of the assembly line. Other industries were "forced" to follow Ford's lead by providing additional spendable funds to the average working family.

Drawing winners should contact Megan Allen to claim their prize.

Comments or Suggestions?
Contact:

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Things to Note

- **100th Anniversary Events—as we continue to celebrate our 100th anniversary, we wanted to remind you about our schedule of events. This fall we will be celebrating our anniversary with the community. As the newsletters have been pointing out, we are currently in the anniversary period of the refinery construction, which had a lot to do with help from the community. So we're focusing on our immediate fenceline neighbors this fall and thanking them for allowing us to operate in their backyard. We are already busily planning events for 2018 that will be focused on our employees, retirees, and their families. Stay tuned!**
- **Have you ever wondered how we put these newsletters together? The Wood River Refinery History Museum has a wealth of archives, documents, pictures, and memorabilia that we can pull from to study subjects and compose the 100th anniversary newsletters. If you run across any material that could be of historical significance (either now or something that may be considered historical in the future), please consider donating it to the museum. The museum is open on Wednesdays and Thursdays from 10:00 a.m.—4:00 p.m. and would welcome both visitors and donations.**