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# Star of the Republic Museum

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## Notes

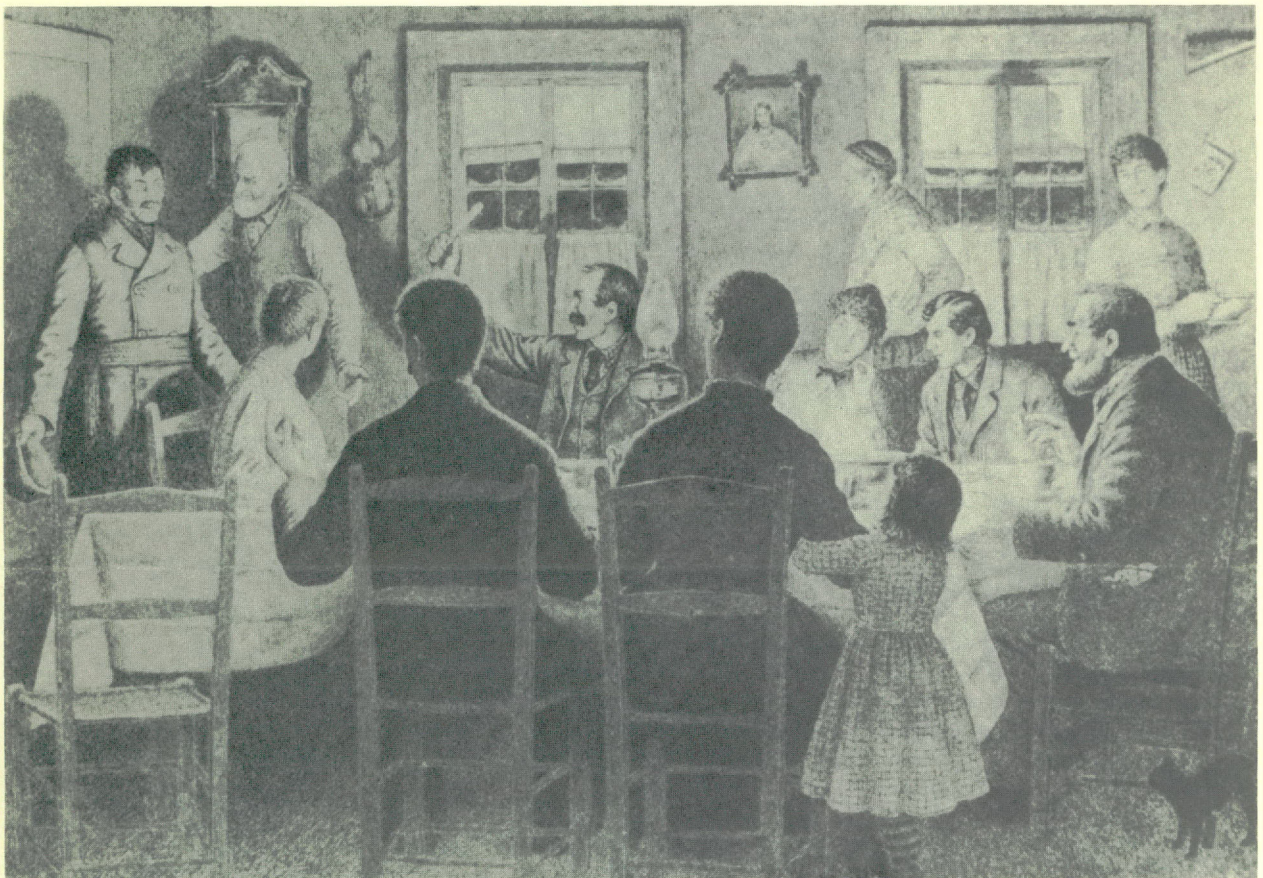
JUN 07 1991 *pe*

Vol. XV, No. IV

Summer 1991

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## “As miserable an apology for gas” Lighting Devices in Nineteenth Century Texas



*“The gas furnished now is about as miserable an apology for gas as anyone was ever afflicted with.”* The Houston Post, 1868



In the mid-nineteenth century, whale oil, lard oil, and burning fluid would all be replaced by what one scholar called “the single most important innovation in artificial lighting” - kerosene. In 1846, Abraham

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**One scholar called the kerosene lamp the “best oil-burning device the world has ever known.”**

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Gesner, a Canadian geologist, invented a process to obtain lamp fuel by distilling coal and called it kerosene. Because the light from a kerosene lamp was so much brighter, and the fuel itself cheaper and safer than previous fuels, kerosene was “rapidly and widely accepted.” Since kerosene was initially extracted from coal, it was often called “coal oil.”

In 1859 at Titusville, Pennsylvania, Edwin L. Drake discovered that oil could be drilled from a well, and kerosene truly “came of age.” As an immediate result of his success, that same year, lamp manufac-

turers sold “1,800,000 lamps to burn kerosene” and by the end of 1862, “there were between four and five million kerosene lamps” in the country. Although kerosene was now produced from crude oil, people continued to use the earlier term, coal oil, when referring to the lighting fuel.

Thousands of lighting devices were converted to kerosene by replacing the old burner with flat-wick burners and adding a rotary device to adjust the wick height. By 1866, “28 million gallons of kerosene or ‘coal oil’ were being distilled a year.” For the first half of the nineteenth century, it is likely that many Texans were unable to afford the various lighting devices (Argand and solar lamps) and fuels they required (whale oil and burning fluids), and so they probably went directly from using candles to kerosene.

One scholar called the kerosene lamp the “... best oil-burning device the world has ever known,” and from the 1860’s well into the twentieth century, kerosene represented the dominant lighting technology. Lula Kathryn Jones recalled her childhood in Red River County during the late nine-

teenth century: “We did all of our studying for school or reading by a coal oil (kerosene) lamp. But we had to keep that lamp globe clean, so we could have good lights.” Kerosene lamps required constant maintenance, and Gilbert Jordan described the “task” as a young boy living in the Texas hill country at the turn of the century. “About once a week all the coal-oil lamps and lanterns had to be filled, the wicks cut straight on top, and the lamp chimneys cleaned.” In urban areas, those who could

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**“We did all of our studying for school or reading by a coal oil lamp. But we had to keep that lamp globe clean, so we could have good lights.”**

**Lula Kathryn Jones**

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afford it replaced kerosene with gaslight and ultimately electricity; yet, in rural



“Chile-con-came.” San Antonio, Bexar, 1887-1889. Courtesy Institute of Texas Cultures.



America, including Texas, many families used kerosene until the introduction of rural electrification in the 1930's.

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**Gas lighting is "totally inadmissible within doors. Its harsh and unsteady light offends. No one having both brains and eyes will use it."**  
**Edgar Allen Poe**

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Using gas as an illuminant began in Europe, and London had gas street lights as early as 1807. In America, the first gas street lighting system was authorized in 1816 at Baltimore. The light from a single coal-gas burner provided a "light equal to 15 to 17 candlepower." Initially, gas lighting was confined to streets, factories and public buildings, as opposed to homes. In 1840, the writer Edgar Allen Poe complained that gas lighting was "totally inadmissible within doors. Its harsh and unsteady light offends. No one having both brains and eyes will use it."

In 1856, the first Texas gaslight company was chartered at Galveston, converting coal imported from England into gas. Dr. W.C. Kelley described the lighting in his Galveston childhood home: "It was piped for gas, ceiling chandeliers with wall brackets for entry halls standard. The gas was used only for lighting. It burned open flame tips with a yellow fan-shaped light. Wax tapers at the end of a three foot gadget were lighted with a sulphur match and served to ignite the gas. Lighting the house at dark was a rite always attractive to the younger generation."

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**"The pedestrian avoids falling into the irrigation ditches of the early Spanish settlers by the light afforded by 19th century gas." San Antonio**

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For most of the nineteenth century, gas lighting came from "manufactured gas" as opposed to natural gas, using a variety of materials. While coal was used in Galveston

and San Antonio, in Houston gas lighting was produced from a combination of oyster shells and coal. It was apparently not particularly effective or efficient, prompting an editorial comment in the *Post*: "the gas furnished now is about as miserable an apology for gas as anyone was ever afflicted with."

As early as 1869, Jefferson, Texas had a gaslight system fueled by heating pine knots. The pine knots were heated in oblong iron containers called retorts, "which were about seven feet long and tapered off at one end like a jug. The gas passed out of the retorts into pipes. The weight of a

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**"Pure Coal Oil gives at the same cost:**

**7 times as much light as Burning Fluid**

**6 times as much light as Sperm Oil**

**5 times as much light as Lard Oil**

**3 times as much light as Whale Oil**

**3 times as much light as Candles**

**2 times as much light as Rapeseed Oil**

**2 times as much light as Rosin Oil"**

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drum-like apparatus, raised during the day and lowered gradually at night, forced the gas through the pipes until it reached the [lamp post] globes."

A city's gaslight system was often viewed as a reflection of the community's progress and commercial viability. In 1881, the city directory for San Antonio bragged, "Our streets are lighted at night and the pedestrian avoids falling into the irrigation ditches of the early Spanish settlers by the light afforded by 19th century gas."

In Texas, gaslight was sometimes erratic, and in Austin, it apparently became a

source of controversy and even humor. In June of 1875, the *Austin Democratic Statesman* reported: "Lights out - At the Old Folks' Concert. On Tuesday night, from some cause, the gas flow suddenly stopped

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**As early as 1869, Jefferson had a gaslight system fueled by heating pine knots.**

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and all was darkness. A wag in the gallery, comprehending the entire situation, at once, called out at the top of his voice, 'Hands to your mouths.' The girls and modest widows intend getting up an indignation meeting, with the purpose of driving the wag from the city for thus directing attention to the 'pleasantest' thing in love's vocabulary - a kiss in the dark."

In 1879, the "Wizard of Menlo Park," Thomas Edison, invented the incandescent light bulb. He had tested over six thousand different materials, including fishing lines, leather, macaroni, onion skins, and even his assistant's hair, to find a filament that would not burn out when sealed in a vacuum. His first successful lightbulb used a filament made of carbonized thread and burned for two days. Edison's genius was that, in addition to the bulb, he designed an entire system - "dynamos, meters, underground cables, switches" - to deliver electricity to homes, offices and factories.

Texas became "electric" on December 15, 1882, when the Houston Electric Light and Power Company tested its newly installed lights. According to the *Post* newspaper: "Last night there were 50 electric lights burning in the city, and a beautiful light they made. The electric light in the Houston Daily Post office was turned on at dusk and flooded the office with a perfect burst of white light. The light is soft, steady, and diffusive."

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**"Last night there were 50 electric lights burning in the city, and a beautiful light they made."**

**The Houston Post, 1882**

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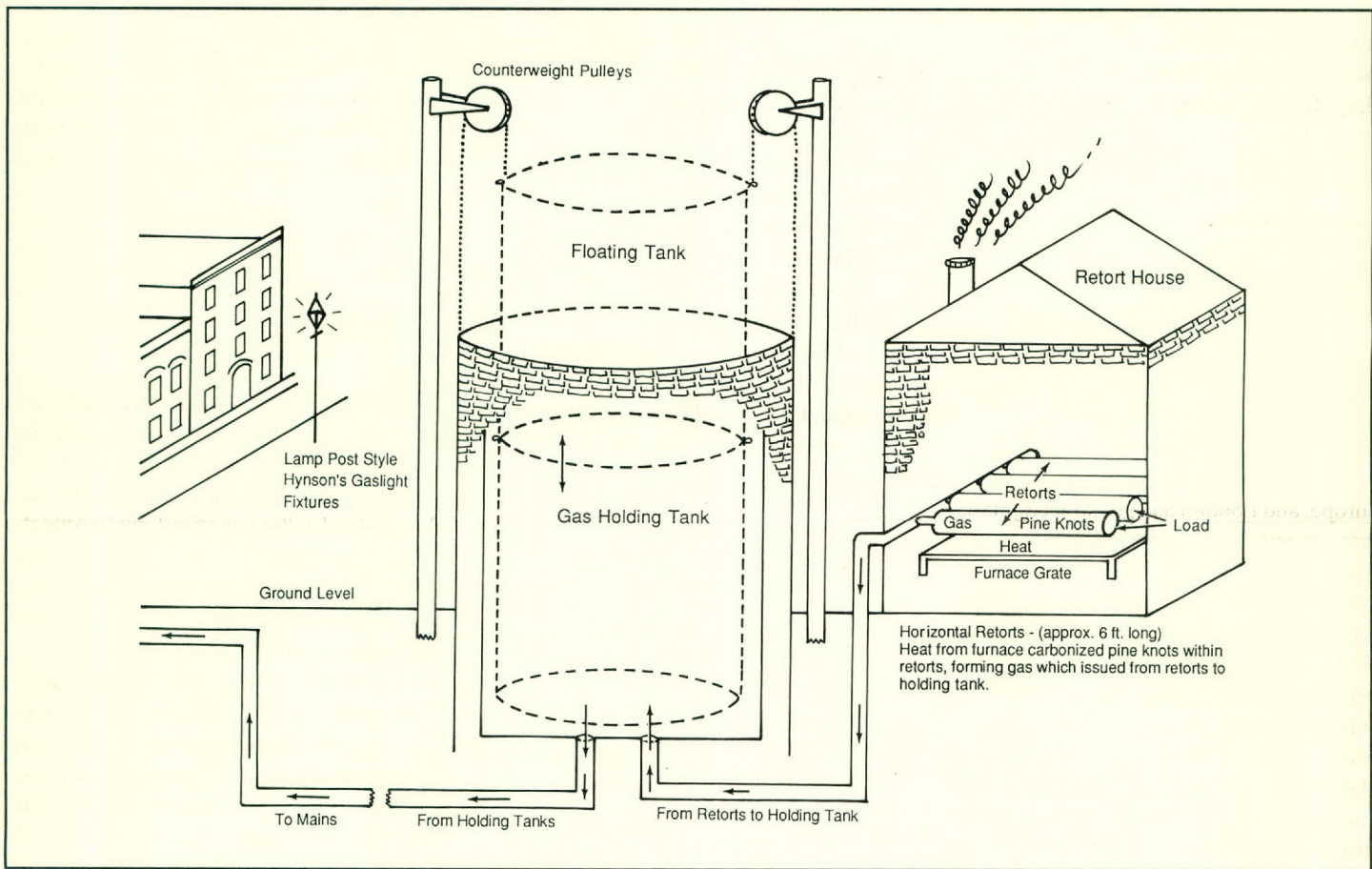


Diagram of Jefferson Gaslight Company Plant, circa 1870's. Courtesy Jefferson Historical Foundation.

In Texas, electricity was a “novelty and few people trusted it enough to have those ‘dangerous’ lights inside their buildings. They preferred kerosene lamps.” Still, electric lights did provide Texans the opportunity for some “sportsmanship” and

**In Texas, electricity was a “novelty and few people trusted it enough to have those ‘dangerous’ lights inside their buildings. They preferred kerosene lamps.”**

amusement. One Texan recalled that in the late nineteenth century, the cowboys were paid once a month, and would ride their horses into Uvalde: “They’d go sit around the courthouse square and wait for dark. Electricity had just come to Uvalde and they had a string of lights around the square. When the lights came on the cowboys would

all get on their horses and ride them around the square, shooting at those lights until they shot all of them out. Then they would get off their horses, go into the saloons, and spend the rest of their money getting drunk.”

It is important to remember that during the nineteenth century, innovations in lighting devices and fuels did not automatically supersede or replace existing technology. On a frontier like Texas, during the first half of the nineteenth century, betty lamps and Argand whale-oil lamps, candles and solar lard-oil lamps, were often in use simultaneously. In the late nineteenth century, while Texans in urban communities had access to gaslight and electricity, in most rural areas people lived by the light of a kerosene lamp.

This issue of the *Notes* represents Part II of a two part essay highlighting the Museum's newest exhibition, “**This Feeble Circle of Light**,” which opened on March 2, 1991. The exhibit examines the development of nineteenth century lighting devices, and illustrates the remarkable variety of these artifacts available in Texas. With an emphasis on social history, the exhibition explores the impact of lighting on family life in Texas, from candles and kerosene to gaslights and electricity.

This new exhibit features a fascinating collection of unique, curious and beautiful lighting devices. Highlights from “**This Feeble Circle of Light**” include a set of girandoles, or candleholders (which are quite elaborate with gilded figures, marble bases, and crystal prisms), a great variety of candlesticks, handblown whale oil lamps, lard oil and camphene burners, kerosene lamps (from a street light to a baby chick incubator), and even a replica of Thomas Edison’s first light bulb. The exhibit will be on display through October of 1991.



# Pioneer Day Camps

Ever thrown an "atlatl," "gone a milking," or seen black powder shooting? Once again, the Star of the Republic Museum and Washington-on-the-Brazos State Historical Park invite area youngsters to spend a very special Saturday at Pioneer Day Camp. The children will step back into time and discover the way people lived before electricity, cars, and television.



*Come along and  
spend a very  
special Saturday  
this summer!*

Mr. Neal Stilley and Mr. Ray Olachia will provide the older participants with unique programs on Texas Indians. Children will learn about everything from what Indians ate, to how they hunted. They will also have the opportunity to throw a spear, hurl an atlatl, and shoot a bow and arrow. Mr. Jay "Three-Bites" Wilson, decked out in buckskins, will enthrall the younger children with demonstrations of black powder shooting and various aspects to pioneer life.

Ms. Roseanna Sweat will demonstrate traditional pottery making with a potter's wheel, and provide each child with the opportunity to make their own pottery. Mrs. Eleanor Nance will teach the children to make cornhusk dolls and horses. At the Anson Jones home, Ms. Reba Corley will demonstrate pioneer cooking over an open fire. As an extra treat, children will have a chance to milk a goat. In addition to these programs, throughout the day, the participants will have the opportunity to participate in numerous pioneer activities, including traditional music games, food preparation (grinding corn), carding and spinning cotton, "marbling," and playing with folk toys.

The cost of the full-day camp is \$20.00, which includes refreshments and numerous take-home crafts. The children will provide their own lunch. Camp dates are as follows: June 15, (6-8 years old); June 29 (9-11 years old); July 13 (6-8 years old); July 27, (9-11 years old). The day's activities will begin at 9:00 a.m. and conclude at 4:00 p.m. Last year the pioneer camp won an award from the Texas Historical Commission for "Outstanding Educational Programing." **Space is limited, so please contact the Museum immediately to register your child for a truly unique educational experience.**



P.O. Box 317 Washington, Texas 77880

Notes

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Star of the Republic Museum

We are pleased to announce the publication of *Notes on the Republic*, a compilation of nineteen issues from the *Notes*. A recent recipient of a "Certificate of Commendation" from the American Association for State and Local History, the *Notes* have been completely updated and revised for this anthology. With topics ranging from bathing and bathrooms to eating, drinking, and even death, *Notes on the Republic* examines the social history of the Texas Republic (1836-1846), providing new perspectives on a subject many Texans presume they already know.

Designed by David Holman at Wind River Press, Austin, this limited edition publication is soft-bound with a color cover, 143 pages in length, and contains 41 deluxe halftone photos. *Notes on the Republic* can be purchased through the Museum for \$17.95 (including postage and handling). Please make your check payable to the Star of the Republic Museum.

Over the last year, the following individuals have donated or loaned artifacts to the Star of the Republic Museum:

- Ms. Pearl Brockman, Houston
- Mrs. Charles L. Bybee, Houston
- Mr. Paul E. Dodson, Niceville, Fla.
- Mr. Bruno S. Grozycki, Brenham
- Mr. Richard K. Hall, Broken Arrow, Okla.
- Mr. Johnny Hargrove, Mexia
- Mr. and Mrs. Harvin Moore, Chappell Hill
- Mr. and Mrs. James Nentwig, Bellville
- Mr. Gerald Purcell, Navasota
- Mr. and Mrs. John B. Schaer, Chappell Hill
- Mrs. John W. Shaddix, San Angelo

We wish to express our sincere appreciation to these individuals for their generosity and willingness to preserve and share our cultural heritage.

A CALL FOR VOLUNTEERS

Last year over 16,000 people, primarily children, visited the Museum in organized tours. During the summer, a record 156 children participated in the Museum's Pioneer Day Camps. We could really use assistance at the pioneer camps, helping little hands with the various activities. Previous knowledge of any particular craft is not necessary. If you are available for any of the camp dates, and think that you might enjoy joining children in experiencing pioneer life during the Republic period, please call the Curator of Education at 409-878-2461. Camp can be a fun and educational experience for adults too!

Front page illustration from *Food for the Settler*, by Bobbie Kalman. Crabtree Publishing, 1982.

**EXHIBIT SCHEDULE**  
**"This Feeble Circle of Light"**  
**March 2, 1991 - October, 1991**

**MUSEUM SCHEDULE**  
**OPEN DAILY**  
**10:00 a.m. - 5:00 p.m.**

*Administered by Blinn College, Brenham, Texas*

- Director . . . . . Houston McGaugh
- Curator of Exhibits . . . . . Sherry B. Humphreys
- Curator of Education . . . . . Ellen N. Murry
- Administrative Assistant . . . . . Gayle L. Piper
- Editor . . . . . Ellen N. Murry

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