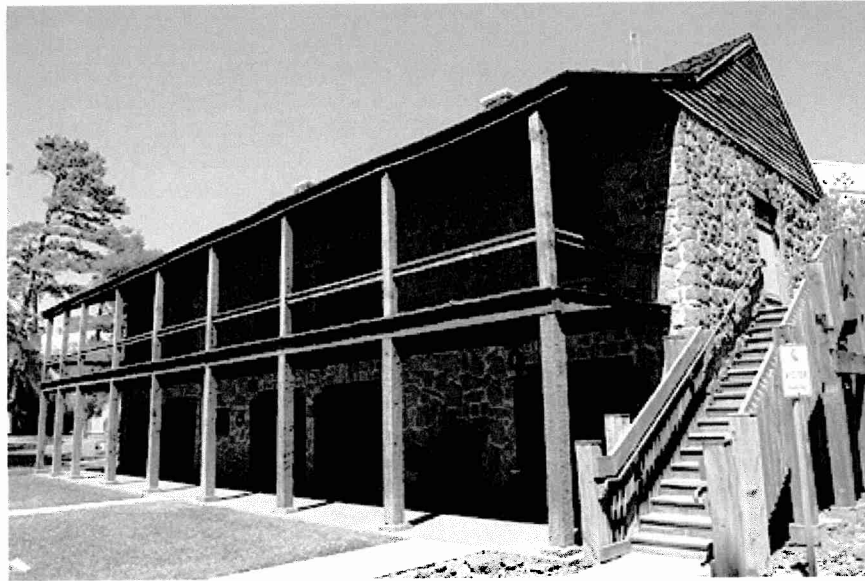


Jason Allen Hose  
Stone Fort Museum Project

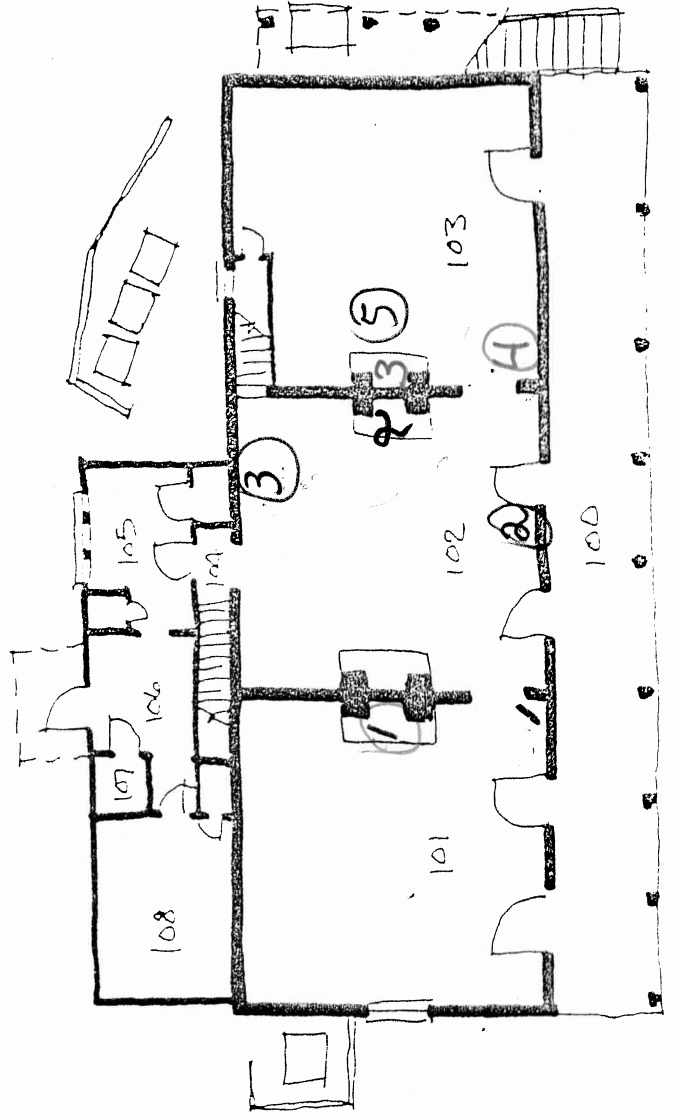
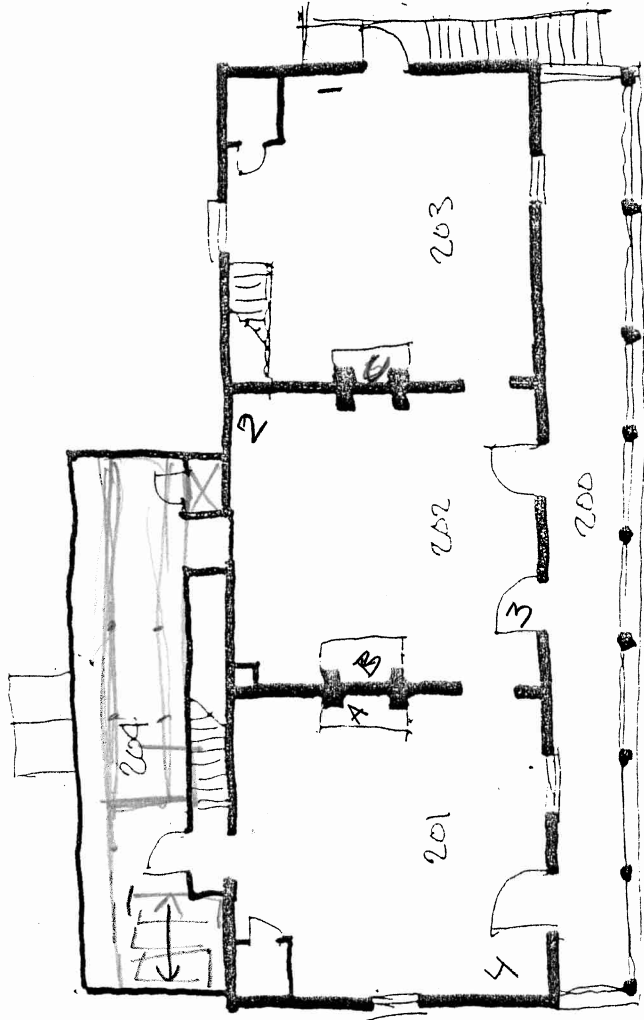


History 570 – Collections Management

Dr. Perky Beisel

February 24, 2010





Traps 1, 2, 3, 4  
 RA Cards 1, 2, 3

24 2<sup>ND</sup> FL ABC

TRAPS 2<sup>ND</sup> 1, 2, 3, 4

**STONE FORT MUSEUM**

**ENVIRONMENTAL MONITORING CHART**

DATE: <sup>set</sup> 01/27/10

checked 02/04/10  
RECORDED BY: Jason Allen Hose

Location	Foot Candles (FC)	Temp (F)	Data Source	RH (%)	Data Source	insect Traps	
						Type	Number
<b>GALLERIES</b> Rm 101-Educ	20 FC sofa	70.5 F	digital humidguide	40%	Humidit.#1 Indicator card	Trapper	0
Rm 102	42 FC arrowhead display case	71.2 F	digital humidguide	35%	#2 digital	Trapper just drst & LINT	0
Rm 103-Store		71.3 F	digital humidguide	34%	#3 digital	removed by staff member while cleaning	0
Rm 201				40%	#4 digit # 5	removed by Staff member while cleaning	0
Rm 202							
Rm 203							
<b>OFFICES</b> Rm 105 Rm 106 Rm 107 Rm 108							
<b>STORAGE</b> Rm 204							

# STONE FORT MUSEUM

## ENVIRONMENTAL MONITORING CHART

DATE: 2/17/10

RECORDED BY: Jason Aiken Hose

Location	Foot Candles (FC)	Temp (F)	Data Source	RH (%)	Data Source	insect Traps	
						Type	Number
<b>GALLERIES</b> Rm 101-Educ	19 FC sofa	71.8 F	digital humdiguide	25%	RH paper card	Trapper	0
Rm 102	40 FC array hood display case  20 FC dresses	72.4	digital humdiguide	25%	RH paper card	Trapper	0
Rm 103-Store		72.3 F	digital humdiguide	25%	RH paper	1 American Cockroach found in trapper, installed new trapper	
Rm 201							
Rm 202							
Rm 203							
<b>OFFICES</b> Rm 105 Rm 106 Rm 107 Rm 108							
<b>STORAGE</b> Rm 204							

Date Set 2/17/10

**STONE FORT MUSEUM**

**ENVIRONMENTAL MONITORING CHART**

no bugs

DATE: 2/19/2010

RECORDED BY: Jason Allen Hase

Location	Foot Candles (FC)	Temp (F)	Data Source	RH (%)	Data Source	insect Traps	
						Type	Number
<b>GALLERIES</b> Rm 101-Educ	15 FC sofa	71.7°F	digital	30%	KH	Trapper	0
				25%	digital		
Rm 102	60 FC ground display case	72.3°F	digital	20%	KH never	Trapper	0
	20 FC display		digital	20%	digital		0
Rm 103-Store		72.7°F	digital	20%	KH never	Trapper	0
				20%	digital		
Rm 201							
Rm 202							
Rm 203							
<b>OFFICES</b> Rm 105 Rm 106 Rm 107 Rm 108							
<b>STORAGE</b> Rm 204							



cold & rainy day / expecting sleet/snow

**STONE FORT MUSEUM**

**ENVIRONMENTAL MONITORING CHART**

DATE: 2/22/10

RECORDED BY: Jason Allen Rose

Location	Foot Candles (FC)	Temp (F)	Data Source	RH (%)	Data Source	insect Traps	
						Type	Number
<b>GALLERIES</b> Rm 101-Educ	15 FC Sofa	70.1°	digital	25% 28%	RH card digital	no	insects
Rm 102	20 FC Indian Arrowheads 15 FC costume	70.6°	digital	25% 25%	RH card digital	no	insects
Rm 103-Store		70.4	digital	25% 25%	RH card digital	no	insects
Rm 201							
Rm 202							
Rm 203							
<b>OFFICES</b> Rm 105 Rm 106 Rm 107 Rm 108							
<b>STORAGE</b> Rm 204							

Jason Allen Hose  
February 24, 2010

## Collections Management at the Stone Fort Museum

Bourcier, Paul, Ruby Rogers, and The Nomenclature Committee. *Nomenclature 3.0 for Museum Cataloging: Third Edition of Robert G. Chenhall's System for Classifying Man-Made Objects*. 3<sup>rd</sup> edition. American Association for State and Local History Series. Walnut Creek, CA: AltaMira Press, 2009.

Burcaw, G. Ellis. *Introduction to Museum Work*. 3<sup>rd</sup> ed. American Association of State and Local History Series. Walnut Creek, CA: AltaMira Press, 1997.

Child R.E. "Monitoring Insect Pests with Sticky Traps." *Conserve O Gram 3/7*. Washington, D.C.: National Park Service, 1998.

The Stone Fort Museum on the campus of Stephen F. Austin State University in Nacogdoches, Texas is housed in a replica stone structure of Don Antonio Y'Barbo's home that was built between 1788 and 1791. During the spring semester of 2010, graduate students from the SFASU History Department collaborated with the museum on selected projects that required research and documentation on objects in the collection. The purpose of this essay is to provide an overview of the work completed in context with the theories behind the best practices of collections management.

"Museums are concerned with objects. Objects are the starting point of a museum, of a museum field, and, properly of any activity of the museum. Objects justify museums."<sup>1</sup> The primary function of the objects at the Stone Fort Museum is to aid visitors in the interpretation of early Nacogdoches history with a special emphasis on the Spanish and Mexican periods. Stone Fort Museum director Carolyn Spears noted one challenge the museum is against is the lack of space for collections storage and study. Upon my initial arrival at the museum, I was astonished

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<sup>1</sup> Burcaw, *Introduction to Museum Work*, 56.



that the front education gallery doubled as makeshift collections study room. An additional two story structure was added to the rear of the building some years ago; however as we'll see described below, this has caused a manifestation of temperature and pest control issues.

Collections housed within museums, in theory must last in perpetuity for future generations to come. Artifacts must be protected from both man-made and natural disasters. Students at the Stone Fort Museum were given the task of collecting and monitoring data on temperature, relative humidity and the presence of insects. Ms. Spears explained that the museum has an integrated pest management control program; that minimizes the use of pesticides which could damage artifacts, and focuses on the removal of food sources that pests thrive on. Specially designed chemical free insect traps were set and monitored on a weekly basis by the students. According to the National Park Service, "Insect monitoring provides a long-term assessment on insect pests in collections. Monitoring should continue after any action to stop infestation has been carried out."<sup>2</sup> The insect traps at the Stone Fort Museum were checked on a weekly basis and over the course of a one month period remarkably only one American cockroach was collected! One recommendation that I have for the museum is the necessity to reinforce the weather stripping on the door of the education gallery. I observed a noticeable crack between the floor and the bottom lip of the door that was large enough for pests to gain access to the museum. It would seem that this type of repair would be of a small cost that could prevent future damage from occurring.

In addition to monitoring environmental levels of the museum, I gained insight into the process the museum takes to properly classify and document artifacts within the collection. The most widely accepted method of classification of museum objects relies upon the Robert G. Chenhall System for Classifying Man-Made Objects. "Nomenclature 3.0 provides an extensive

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<sup>2</sup> Child, "Monitoring Insect Pests with Sticky Traps." 3.

list of object terms based on the collections of many museums, and it relates each object term to others within a hierarchical taxonomy based on the object's functional context.”<sup>3</sup> When institutions use similar terminology to describe similar objects, artifacts become more useful in reaching the mission of an institution. Collections that lack documentation and standardized classification become inaccessible and do not serve the public to the greater good. The Chenhall system is now in its current third revision. The third revised edition contains new object categories and features a new “inverted word ordering” system. The accession records at the Stone Fort Museum; however are currently classified under the 1988 second edition. Ms. Spears, noted that while the third edition does contain newly expanded object terminology, the museum would have to literally write new accession records for every object since many of the primary and secondary descriptive terms for objects were added, modified or deleted. Currently, the museum lacks the resources and staff necessary to undertake the reclassification of all museum objects.

In conclusion, a common thread came into focus during my experience at the museum; and that is the concept of “collections accessibility”. Museums must carefully balance what is *best* for the collection; but also what is in the common *best* interest of the public at large. Objects can only tell their “story” when on display and combined with an appropriate narrative. Spending time hands on at the Stone Fort Museum, I learned how time consuming and tedious object provenance research is, but more importantly how this research helps give the “voice” to the artifact. As I move forward with further professional training, my intent is to learn additional techniques that will foster “balance” between the collection, institution and public at large that I wish to serve.

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<sup>3</sup> Bourcier et al, *Nomenclature 3.0 for Museum Cataloging: Third Edition of Robert G. Chenhall's System for Classifying Man-Made Objects*, xv.

Jason Allen Hose

February 24, 2010

### Laboratory Glassware from the Yuba Oil and Refining Company

In 1992, the Stone Fort Museum received a rather unusual gift of fourteen pieces of laboratory glassware. The donor, Ms. Martha Ruth Miller (b. 1923) indicated that her father Mr. Warren W. Grimm was the plant superintendent at the Yuba Oil and Refining Company. The refinery was located in Nacogdoches where the Nibco plant stands today.<sup>1</sup> Both Ms. Miller and museum staff were unsure of the purpose the equipment served in the refinery. During the spring of 2010, graduate students from the history department were given the opportunity to research objects within the Stone Fort Museum collection that lacked full identification. Subsequent review of historical documents and archival material revealed the significance of these objects and their use in one of the earliest known oil refineries in Texas. (Fig. 1) illustrates the earliest oil centers of Texas, including Oil Springs located fifteen miles southeast of Nacogdoches.

Although the history of oil in Texas, including the skimming of seeps for medicinal and other uses, goes back to the Indian and Spanish eras, production for commercial use did not begin until the fall of 1866. At that time Lyne Taliaferro Barret bored a well near Oil Spring in wooded Nacogdoches County and struck oil at 106 feet<sup>2</sup> (Figs. 2, 3, 4). The first generation of skilled oil field workers arrived in Nacogdoches by way of Pennsylvania shortly after the discovery at Oil Springs. At the Oil Springs site, crude oil literally bubbled to the surface of the earth. The refining process couldn't begin until heavy machinery from the east was brought in

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<sup>1</sup> Ericson, *"A History of Oil Springs: Texas' First Oil Field."* 9.

<sup>2</sup> Gard, *The First 100 Years of Texas Oil & Gas*, 1.

and constructed. (Figs. 5 and 6), illustrate the primitive nature of the site at Oil Springs and the wooden tripod rig structure that was used in the discovery.

Initial production and refining utilized antiquarian methodologies due to the lack of modern equipment and tooling, which limited quantity production. The year 1886, two decades after the boring of the first Texas oil well by Lyne Taliaferro Barret, brought new oil and natural gas activity in several parts of Texas. In Nacogdoches County, B.F. Hitchcock, with Edgar H. Farrar of New Orleans, formed the Petroleum Prospecting Company with a capital stock of \$100,000. After obtaining machinery from Pennsylvania and hiring five experienced men from that state, Hitchcock began prospecting near Oil Spring. At that time the Petroleum Prospecting Company had the first steel oil storage tanks in Texas and the state's first pipeline. Its equipment included an engine house with a stationary engine and a three-inch pipeline 14 ½ miles long, from its tanks at the spring to a 2,000 barrel steel tank on Aarons Hill at Nacogdoches.”<sup>3</sup> (Fig. 7).

There was a revival of interest at Oil Spring in 1918, following the completion of an 8 ½ barrel oil well, 1 ½ miles southeast of the spring, by A.C. Smith et al; and the Carolina Oil Company was organized that year with a capitalization of \$300,000 to carry on development there. This company completed the construction of a 150-barrel refinery at Nacogdoches in 1920 for the refining of lubricating oil from the Oil Spring area crude, and the following year the plant and the properties of the company were acquired by Mrs. P.K. Rideout, of the Yuba Oil Company of California. The plant at Nacogdoches, now shut down, has been a familiar sight for many years to travelers on Highway 35 in the southern portion of the city.<sup>4</sup> Mr. Delbert Teutsch,

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<sup>3</sup> Gard, *The First 100 Years of Texas Oil & Gas*, 7.

<sup>4</sup> Warner, *Texas Oil & Gas Since 1543*, 164.

fire chief and local historian of Nacogdoches assembled a collection of photographs of the Yuba Oil Refinery and Oil Springs, many of which were reproduced in the Nacogdoches Daily Sentinel newspaper. (Figs. 8-11). These photographs document a very primitive work site, long before occupational safety laws were in effect.

The oil was shipped to the refinery by tank car; was processed at a rate of about 100 barrels per day; and was shipped in wooden drums which were manufactured in the plant. The crude oil was ninety-five percent recoverable, with only five percent “bottoms” which were burned in the stills that refined the oil. In 1928 or 1929 the larger producers drifted away from the field, leaving only the independent operators who sold the oil to automobile owners and to the Nacogdoches and Southeastern Railroad which operated in the area for many years.<sup>5</sup>

As the superintendent of the refinery Mr. Grimm was responsible for quality control checks in the refining process. To perform these checks, the laboratory glassware was used to collect and distill samples of the crude oil to determine its chemical properties. Distillation is a physical process used to separate mixtures that contain at least one liquid. Distillation works because each substance in the mixture has its own unique boiling point. So, as a mixture is heated, the temperature of the mixture rises until it reaches the temperature of the lowest boiling substance in the mixture.<sup>6</sup>

In the nineteenth century the majority of laboratory glassware was manufactured in Germany. The glassware gifted to the Stone Fort Museum was manufactured by the Corning Glass Company in New York. A small percentage of Pyrex sales came from products that were not pitched towards housewives. For in 1915, Corning began to sell a complete line of flasks,

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<sup>5</sup> Ericson, *“A History of Oil Springs: Texas’ First Oil Field.”* 9.

<sup>6</sup> Chemical Heritage Foundation, *“Fractional Distillation.”* (accessed Feb 18, 2010)

beakers, apparatus, and test tubes forged from the new material.<sup>7</sup> In testimony before the House Ways and Means Committee, Eugene Sullivan noted that American laboratory glass (i.e., Pyrex) had achieved superiority to German glass. Because of its very low coefficient of expansion, Pyrex could be made with thicker walls without developing the strains under heat that German glass developed, and it was thus much less likely to break.<sup>8</sup> The extant examples in the Stone Fort Museum collection have withstood the test of time; only two out of fourteen pieces are cracked beyond repair, which is remarkable given the rugged nature of where the equipment was used. (Figs. 12-21) document the entirety of the gift to the museum.

Little is known about Mr. Warren Grimm, his obituary in the Nacogdoches Daily Sentinel revealed that he was born in 1890 in Beaver Falls, Pennsylvania and died May 12, 1941. Ms. Miller stated that her father moved to Nacogdoches from Pennsylvania after spending a brief time in Oklahoma. The obituary continues with, “. Mr. Grimm had made his home in Nacogdoches for the past 30 years, and for the last several years had been employed as a machinist for the Muckeroy Motor Co.”<sup>9</sup> At the time of the donation to the museum Ms. Miller was a resident of nearby Longview, Texas. The study of the gifted laboratory equipment has brought new light on the history of the oil refining in Nacogdoches County, and provides a new way for the objects to be understood.

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<sup>7</sup> Dyer and Gross, *The Generations of Corning: The Life and Times of a Global Corporation*, 102.

<sup>8</sup> Graham and Shuldiner, *Corning and the Craft of Innovation*, 59.

<sup>9</sup> Obituary of Warren Grimm, Daily Sentinel, May 15, 1941.

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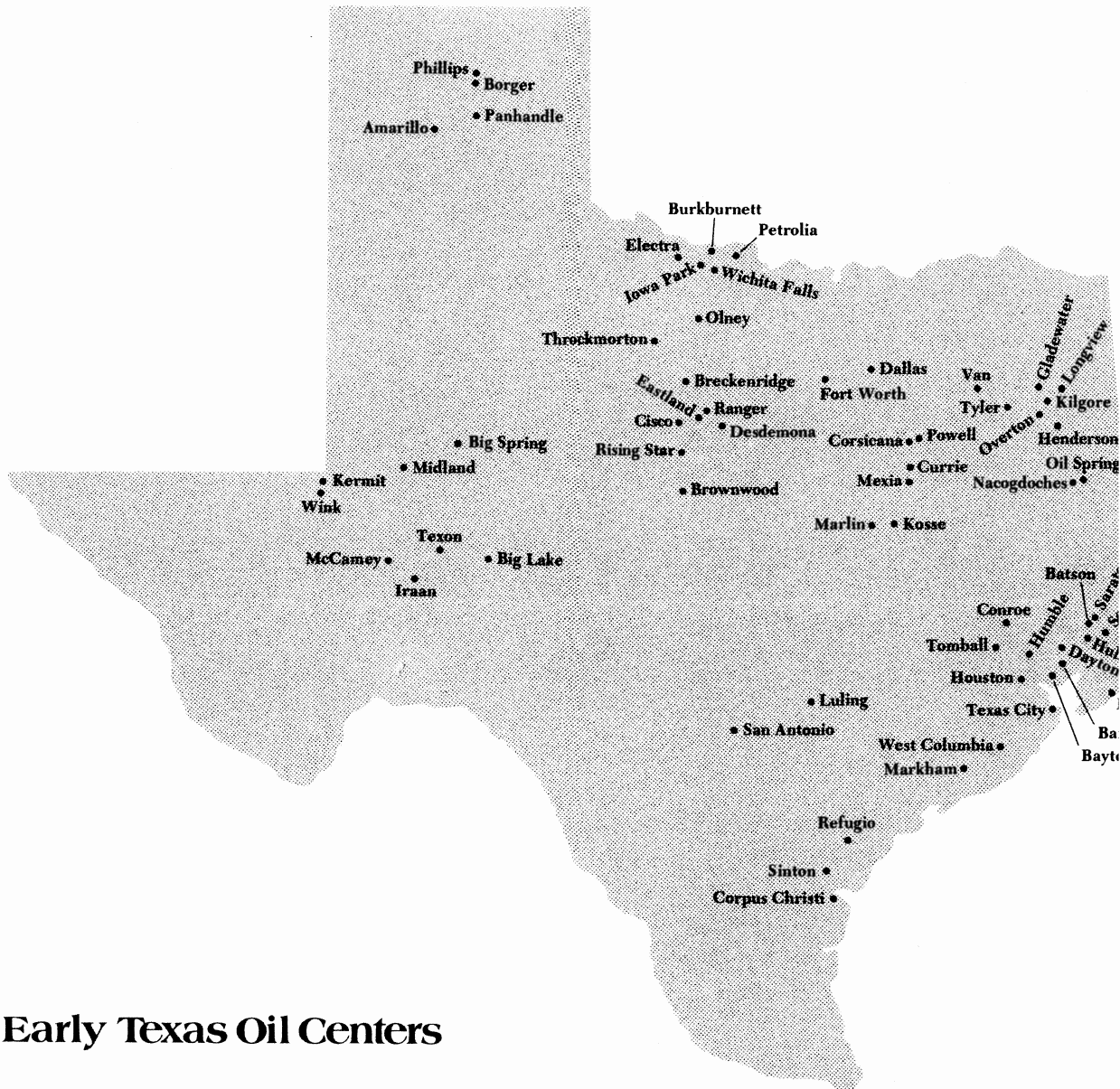
Graham, Margaret B.W. and Alec T. Shuldiner. *Corning and the Craft of Innovation.* New York: Oxford University Press, 2001.

Nacogdoches Daily Sentinel. “W.W. Grimm Rites Set on Wednesday.” May 15, 1941, sec. 1.

Teutsch Early Nacogdoches Documents. *Photographs of Oil Springs.* [A-218] Box 4, Folder 3. East Texas Research Center, Stephen F. Austin State University.

Warner, C.A. *Texas Oil and Gas Since 1543.* Houston: Gulf Publishing Company, 1939.





**Early Texas Oil Centers**

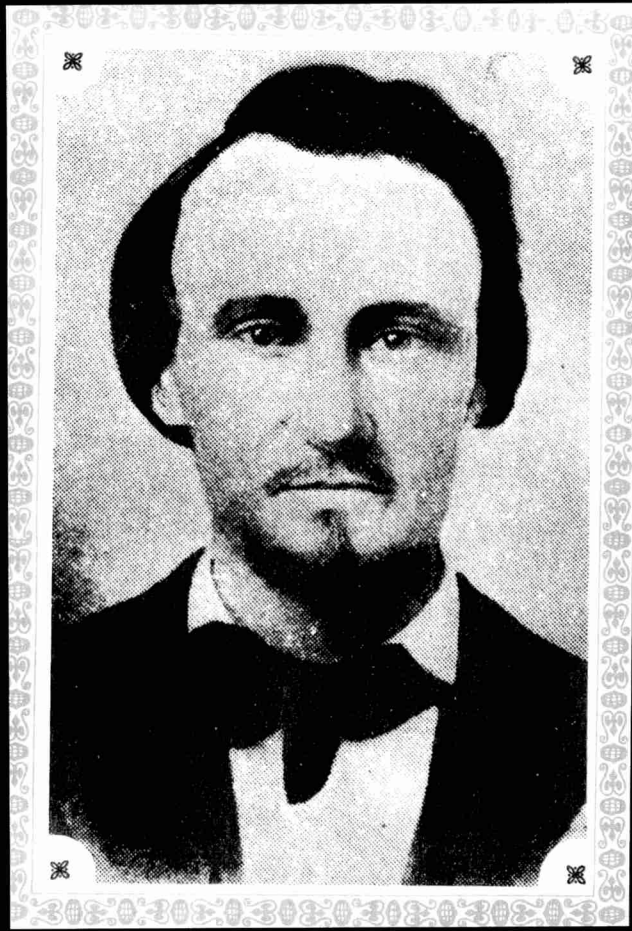


Fig. 2



( C 90 [c]A general view of Oil Spring )





Fig. 5



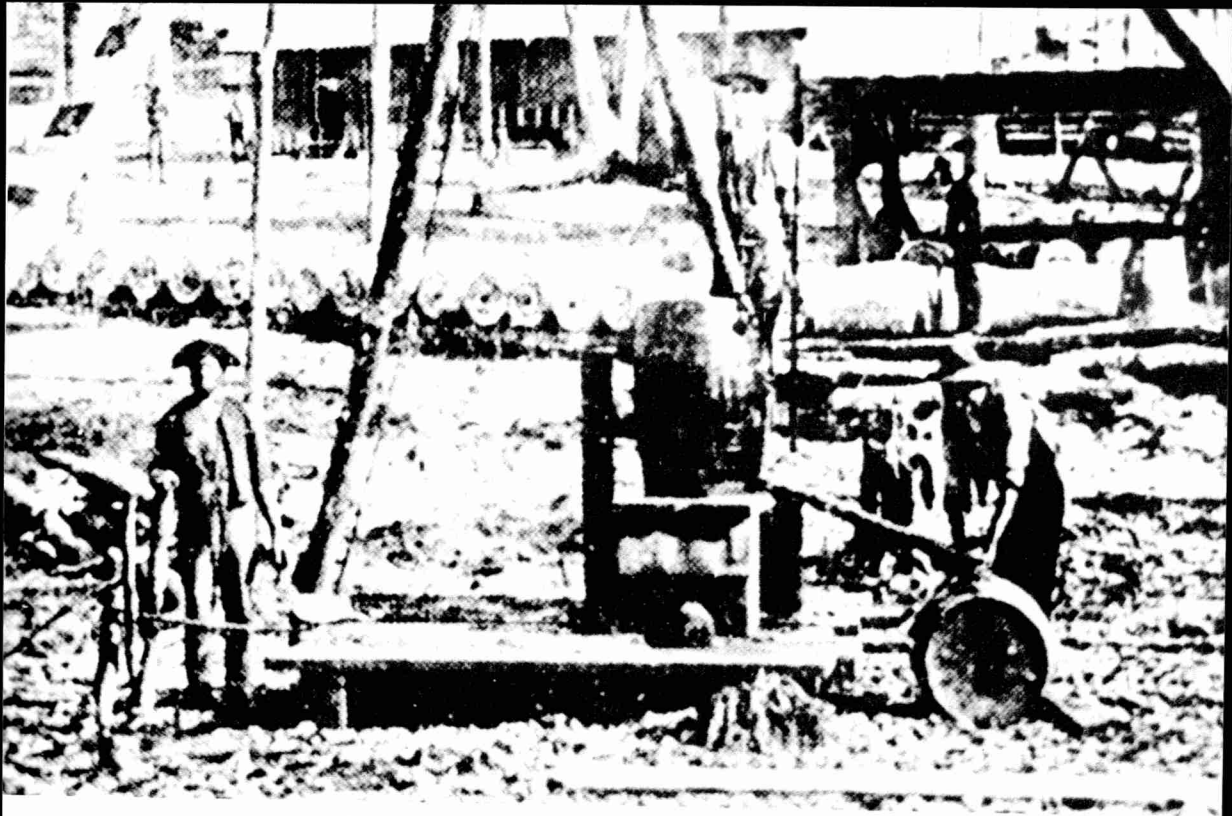


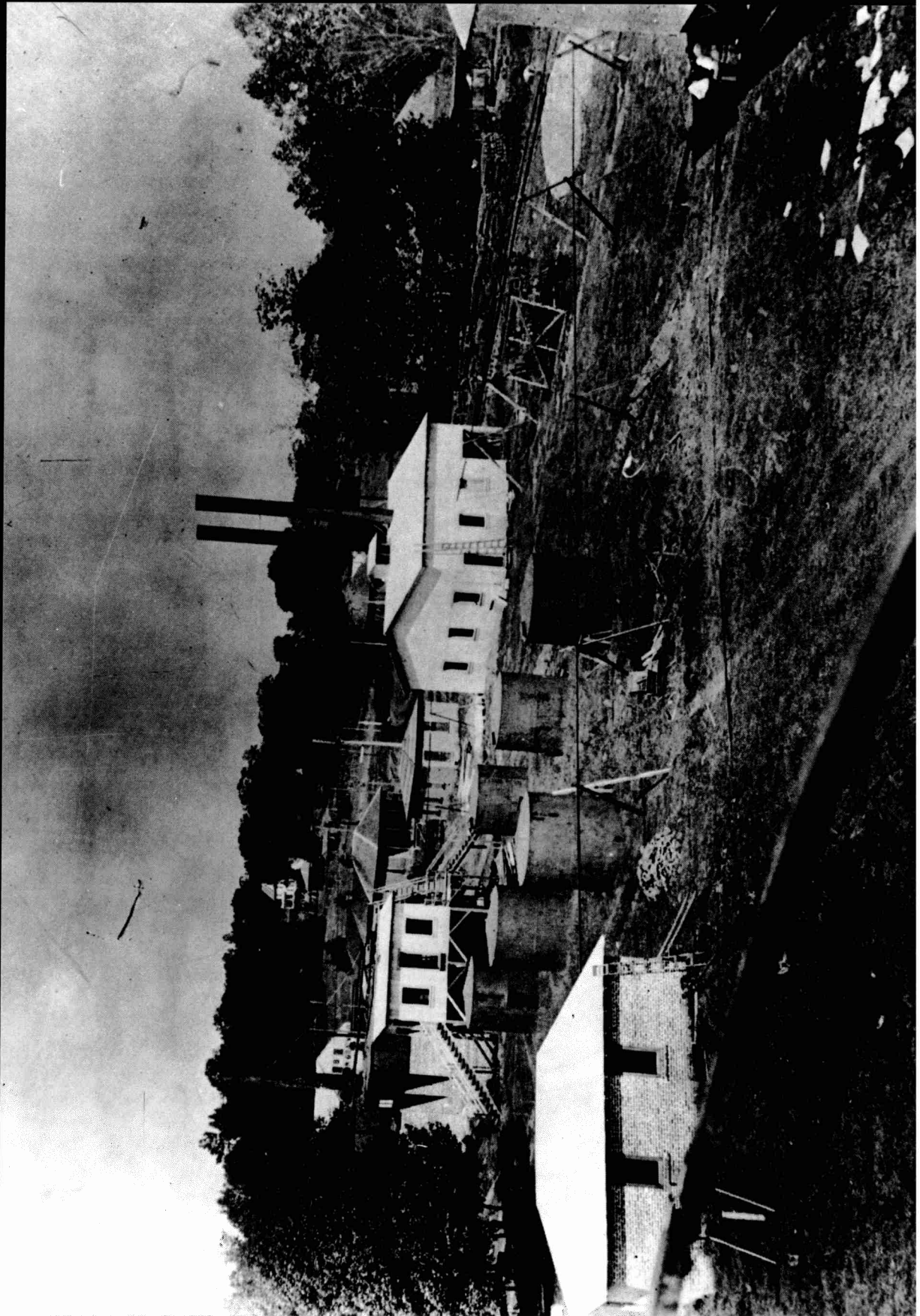
Fig. 6

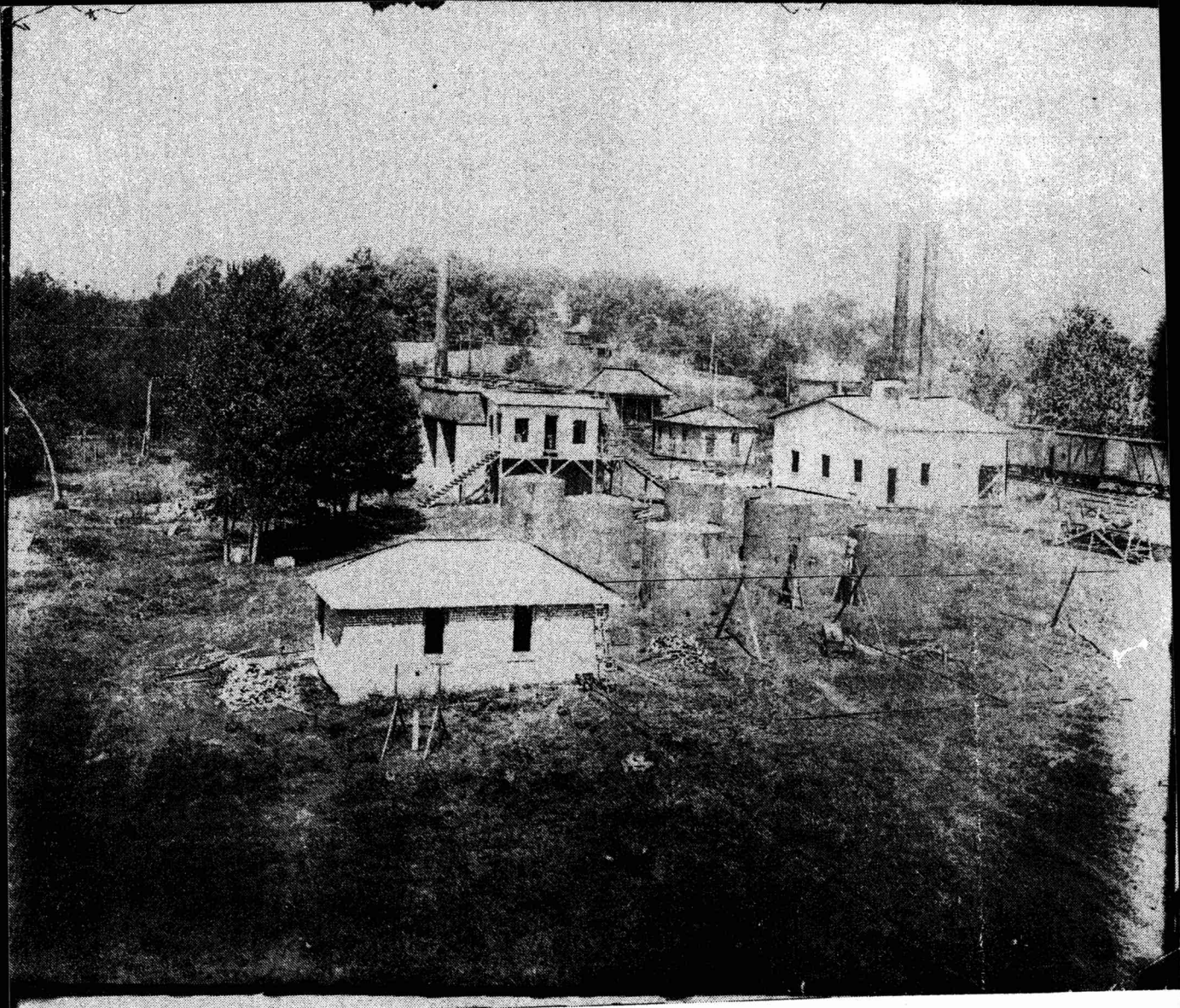
A tripod rig used in the Oil Springs field, twelve miles east of Nacogdoches. With a rig like this, Lyne T. Barret drilled Texas' first producing well in 1866. He struck oil at 106 feet, and the well flowed ten barrels a day. *Chief Delbert Teutsch, Nacogdoches.*



Fig. 7

The Petroleum Prospecting Company built these two 1,000-barrel iron storage tanks at Oil Springs, the first in the state. *Chief Delbert Teutsch, Nacogdoches.*





**OIL**—Early in this century, almost fifty years after Tol Barret drilled the first producing oil well west of the Mississippi, a refinery known as the Yuba Oil Company was operated in Nacogdoches by the late E. D. (Bill) Donoho, father of Douglas Donoho Sr. of Appleby. These pictures of the refinery, which was located on South Fredonia where NIBCO now

is, are being carefully preserved by Douglas Donoho, who says that the apparently “aerial” view of the complex was made from one of four wooden tanks at each corner of the refinery. The older Mr. Donoho had a job at Oil Springs, where Mr. Barret drilled his well in 1866, before running the refinery in Nacogdoches.

Fig. 9



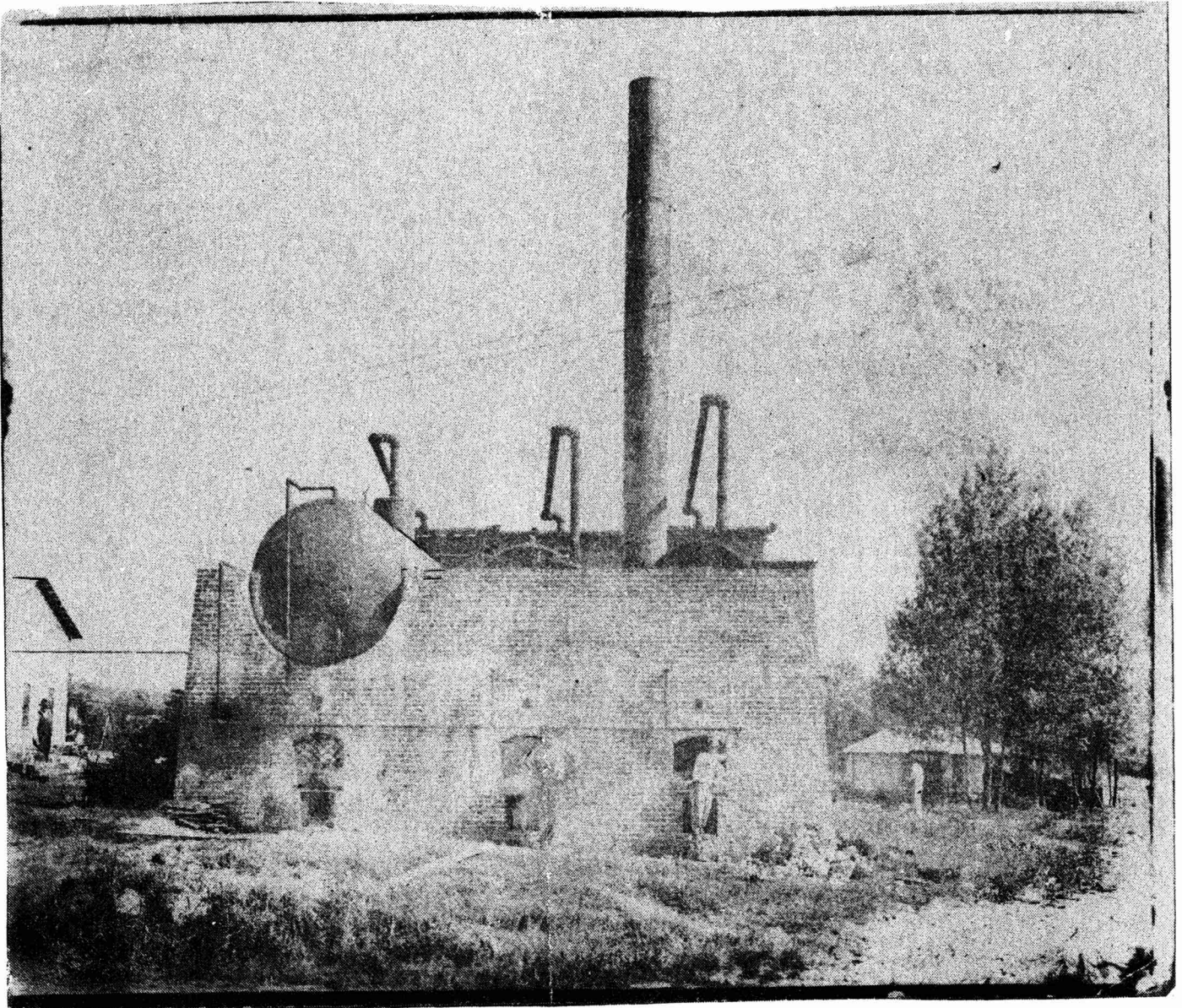
1861, 4, 1900



**EARLY OIL TANK**—This “tower” tank was one of four which were a part of the Yuba Oil Company Refinery in Nacogdoches in the early 1900s. The accompanying picture of the refinery buildings was taken from the top of this tank.

Fig. 10

OCT. 11, 1981



**EARLY REFINERY** — One structure in the Yuba Oil Refinery is shown here, from the family picture collection of Douglas Donoho Sr. who lives in Appleby. His father, E.D. (Bill) Donoho, ran the installation, having earlier worked at Oil Springs where oil had been produced off and on since Tol Barret's discovery well in 1866. The refinery was located on South Fredonia where NIBCO of Texas now is. There are men standing in the middle and right doorways of the structure, but even in the picture they are too dim to be other than just shadows. The Barret well was the first drilled west of the Mississippi, and Texas also had the first refinery, a precursor of the Yuba installation. The earlier refinery was located at Oil Springs, but later the oil was piped into Nacogdoches for processing.

Fig. 11



Fig. 13

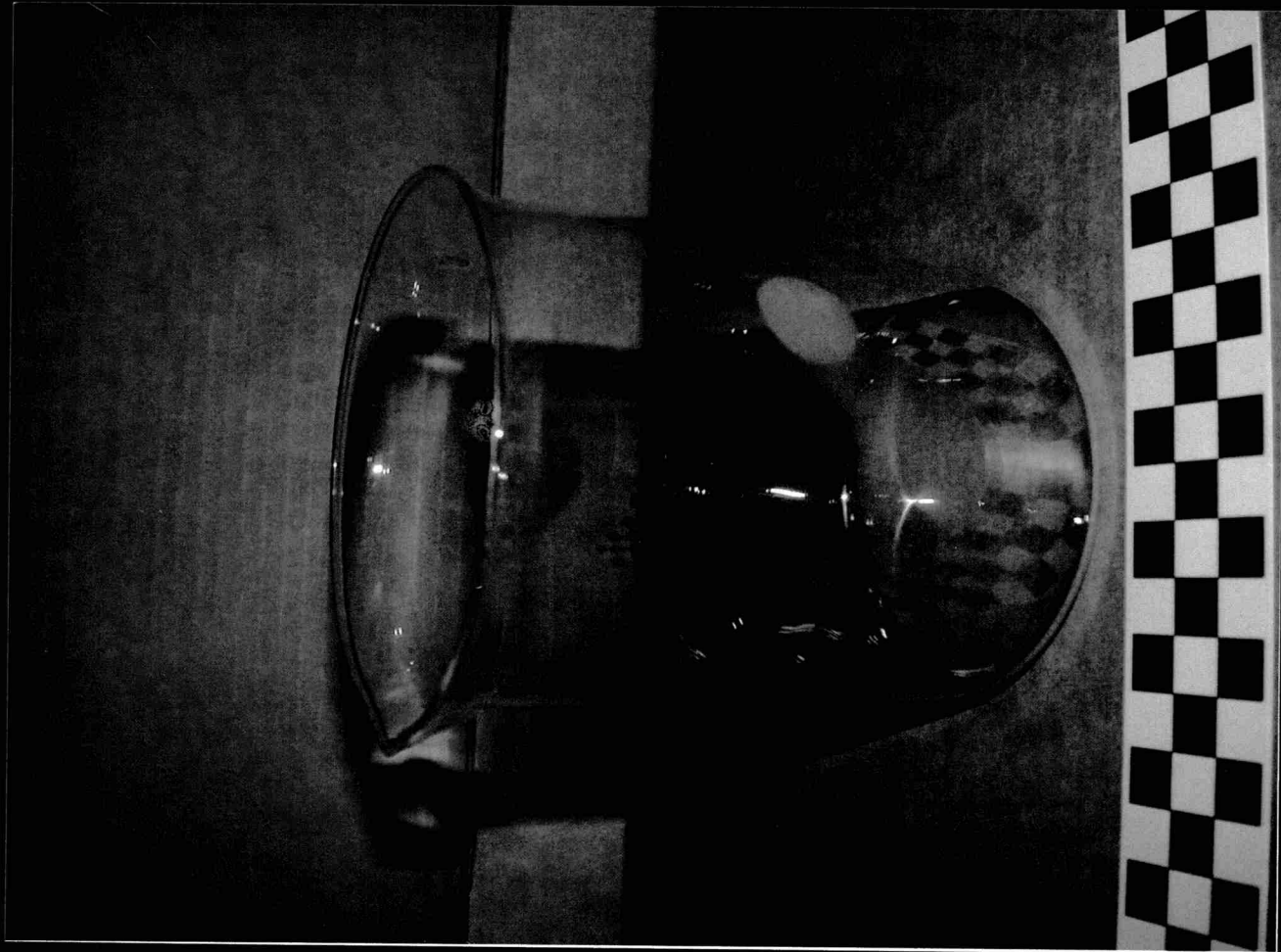


Fig. 12





Fig. 15

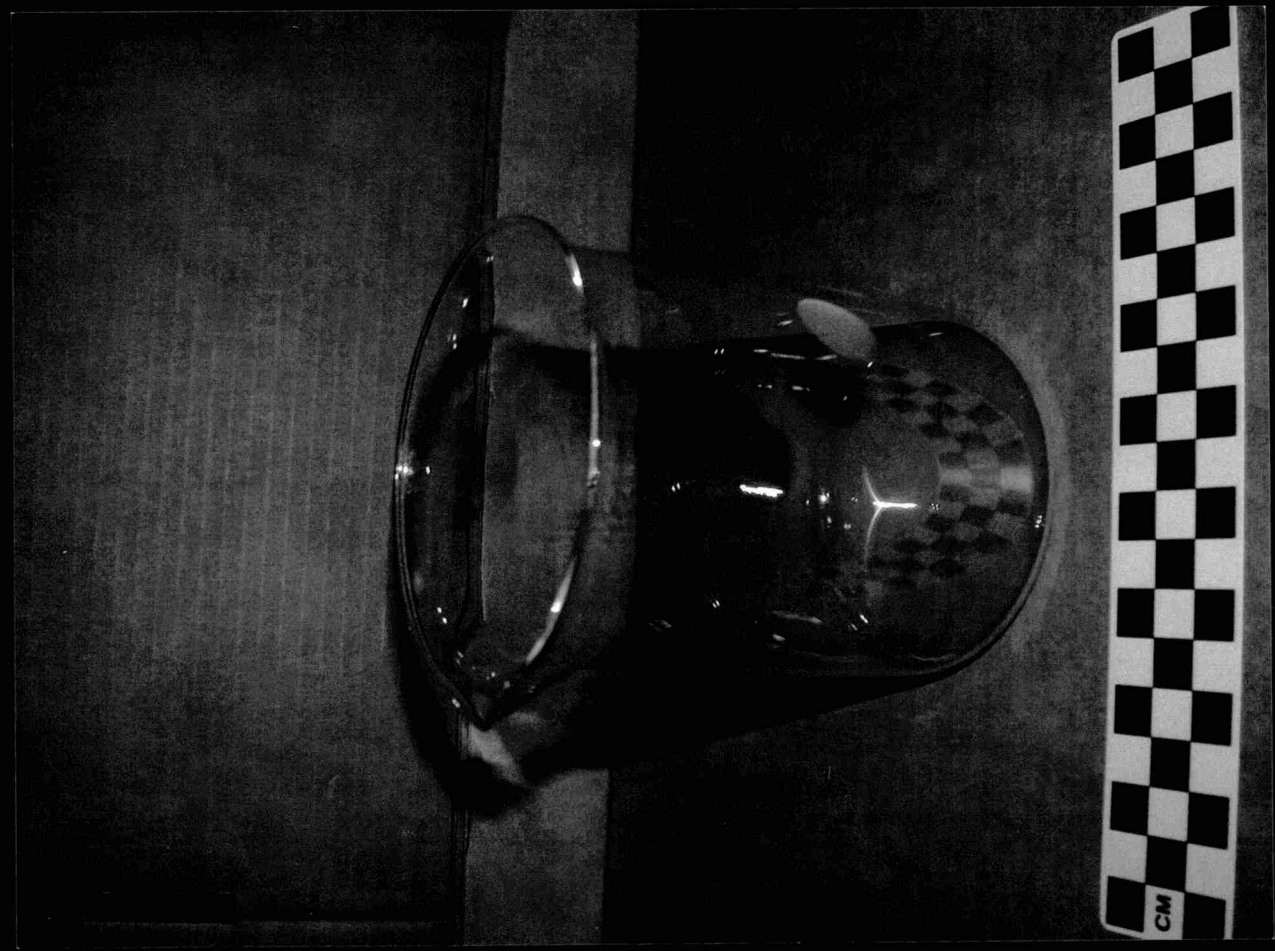


Fig. 14

Fig. 17

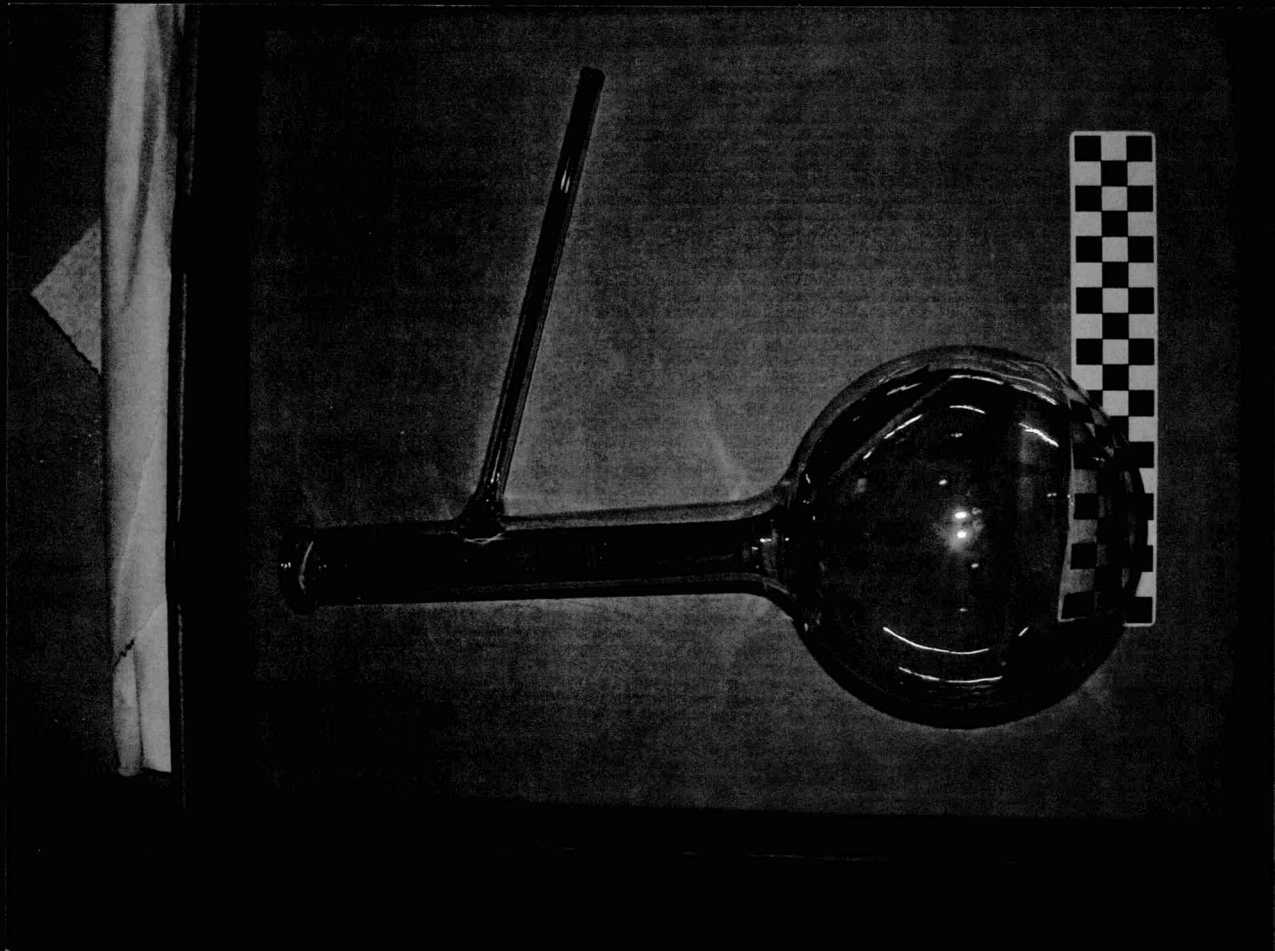
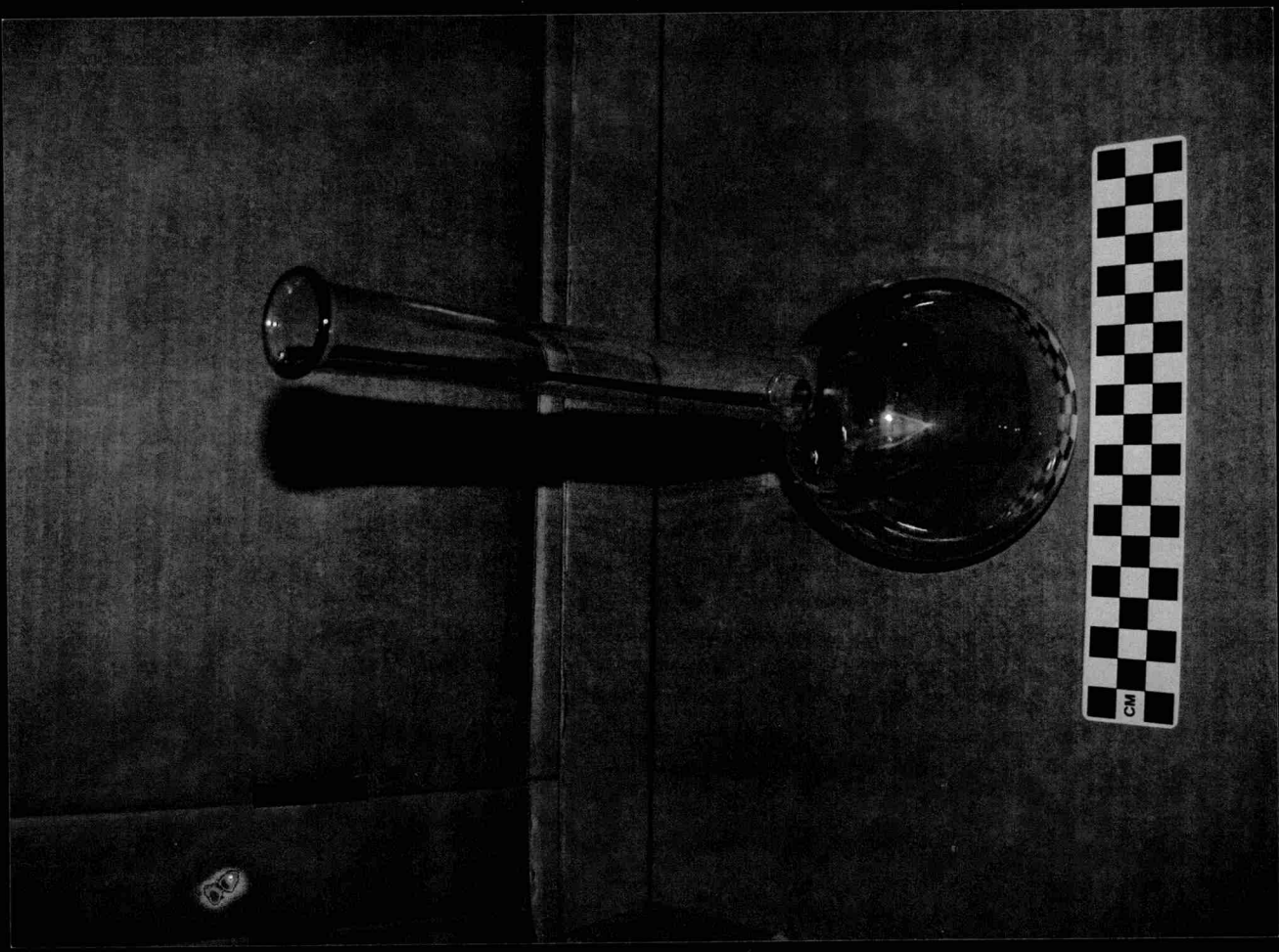


Fig. 16



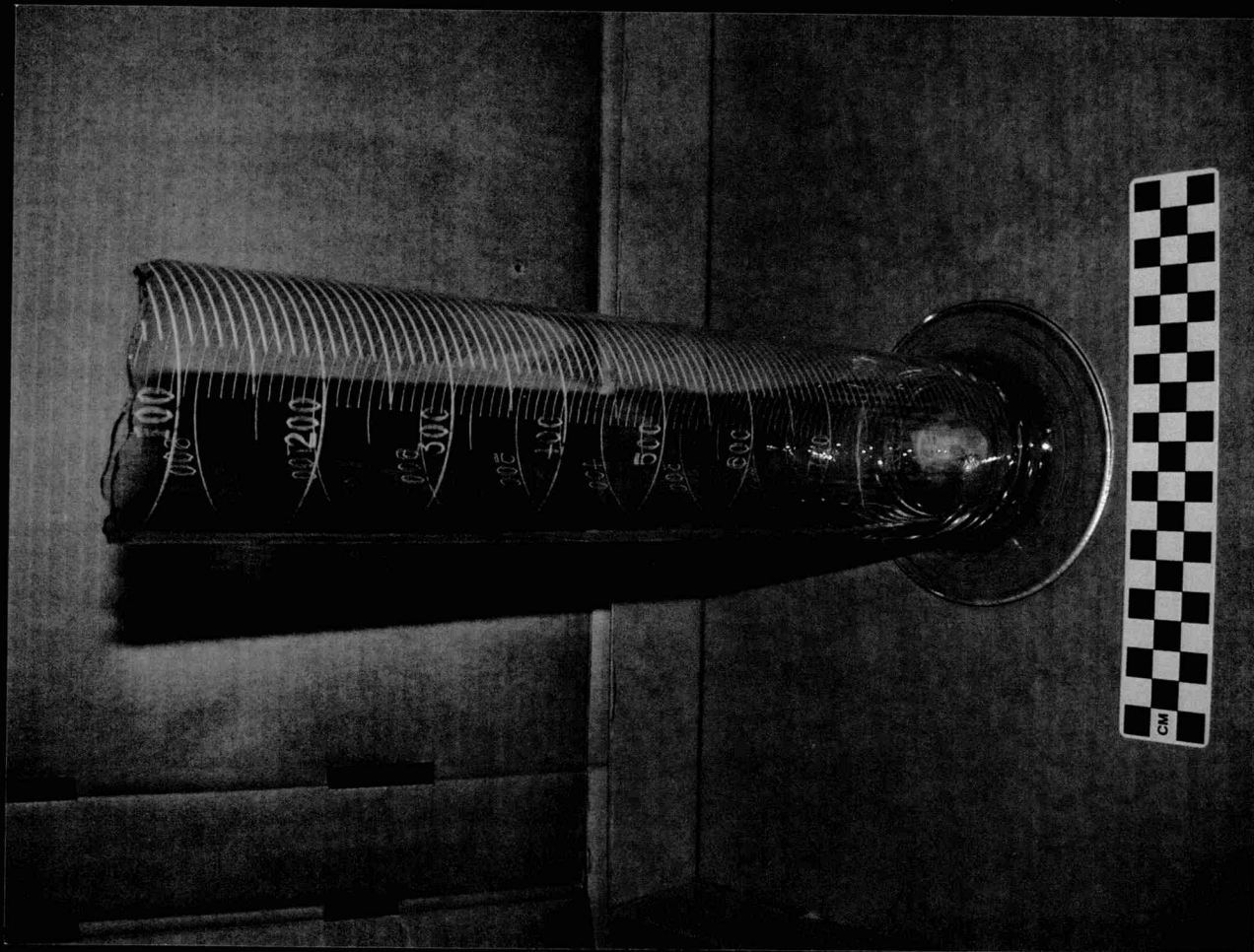


Fig. 19

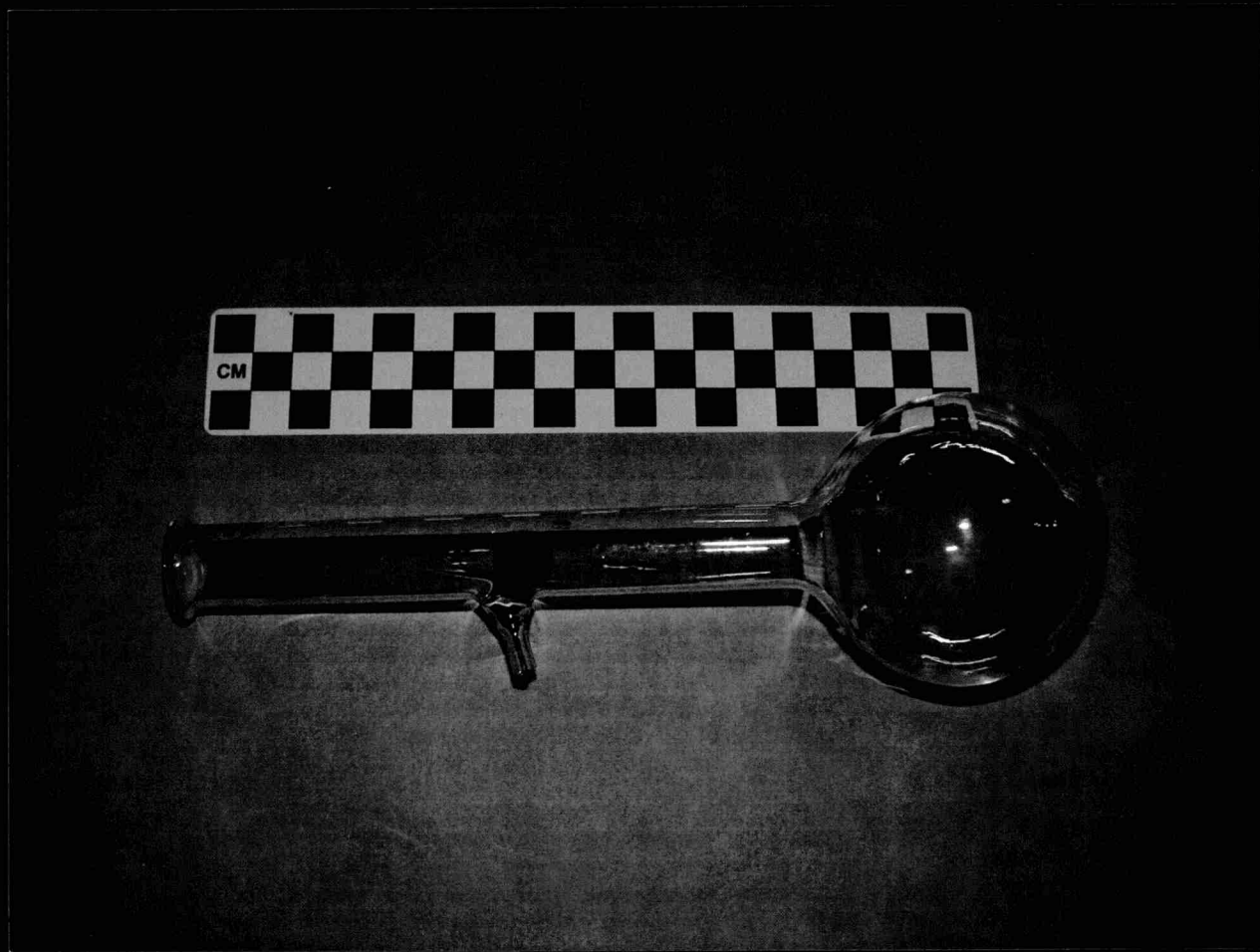


Fig. 18



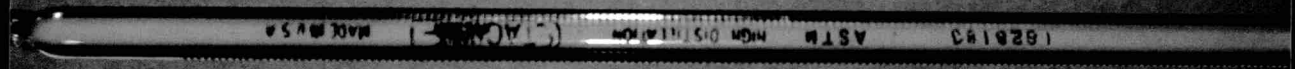


Fig. 21

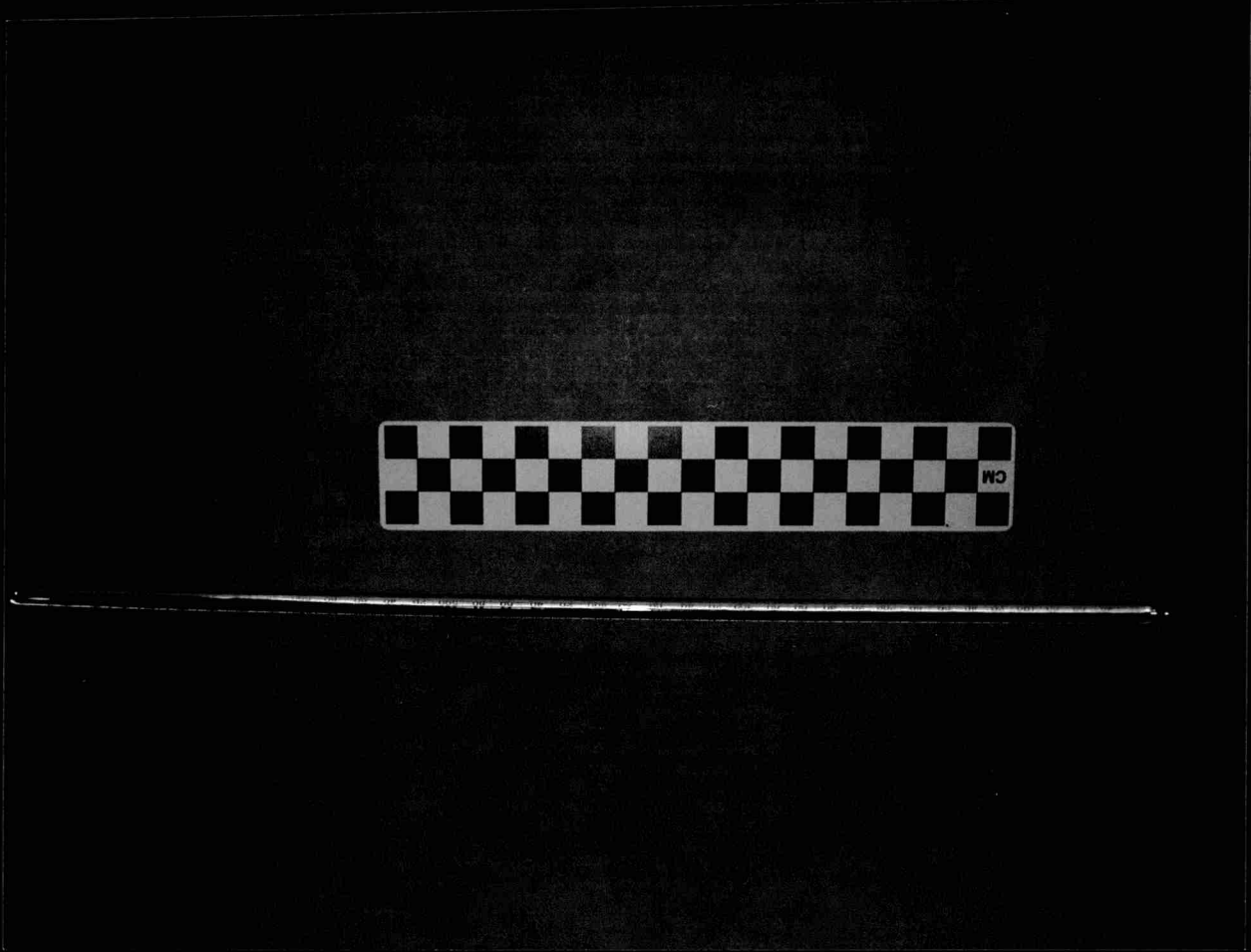


Fig. 20