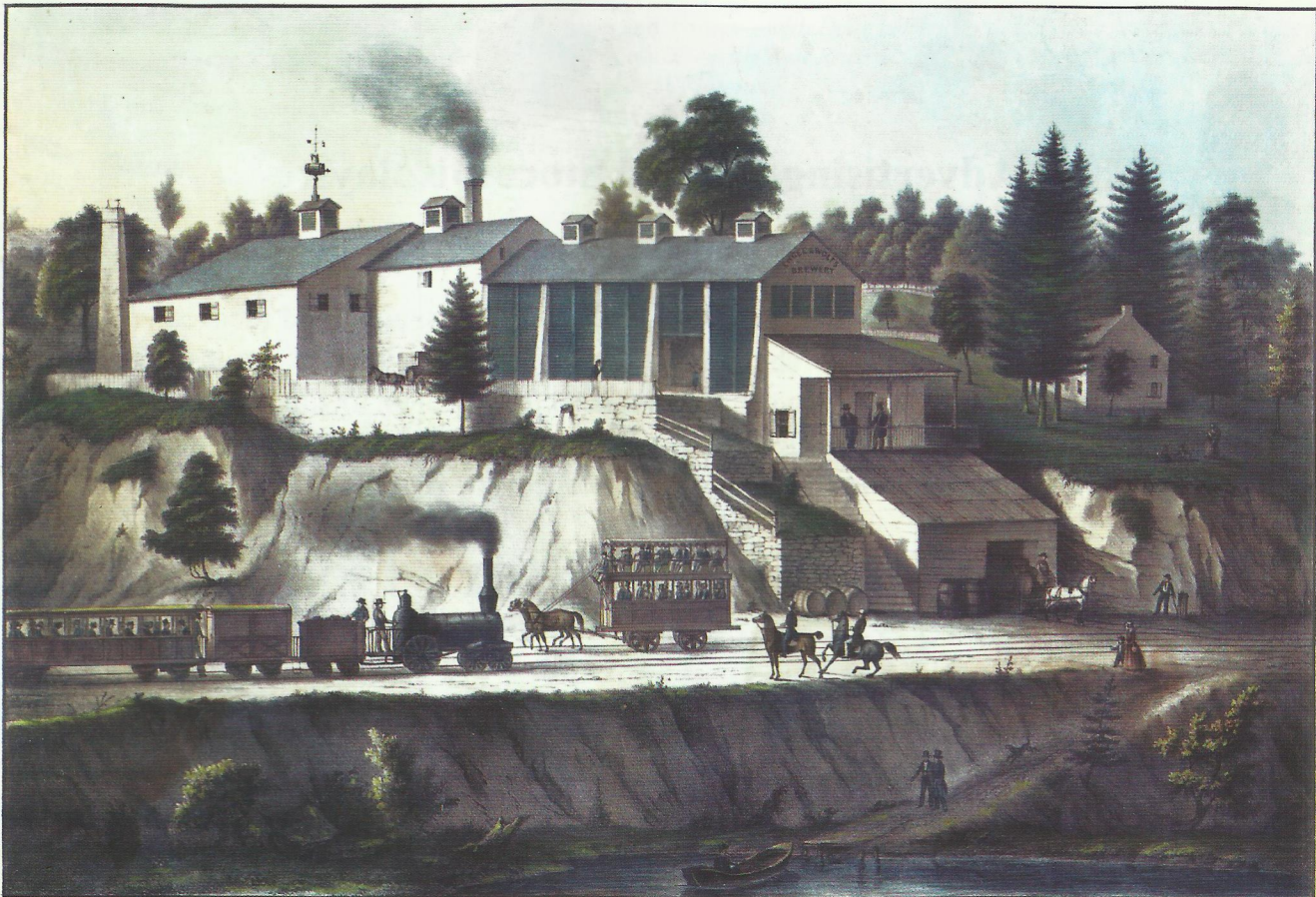


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**AMERICAN BREWERIANA JOURNAL**

The magazine of brewery history and advertising

ENGEL & WOLF'S



Drawn from nature on stone by J. Kallner.

A. Kallner Lith. Phila.

Die erste Lagerbier-Brauerei in Amerika.  
**BREWERY & VAULTS**  
AT FOUNTAIN GREEN

Office  
No. 20 & 22 Dillwyn St.  
between Vine &

Callowhill &  
Third & Fourth Sts.  
Philadelphia

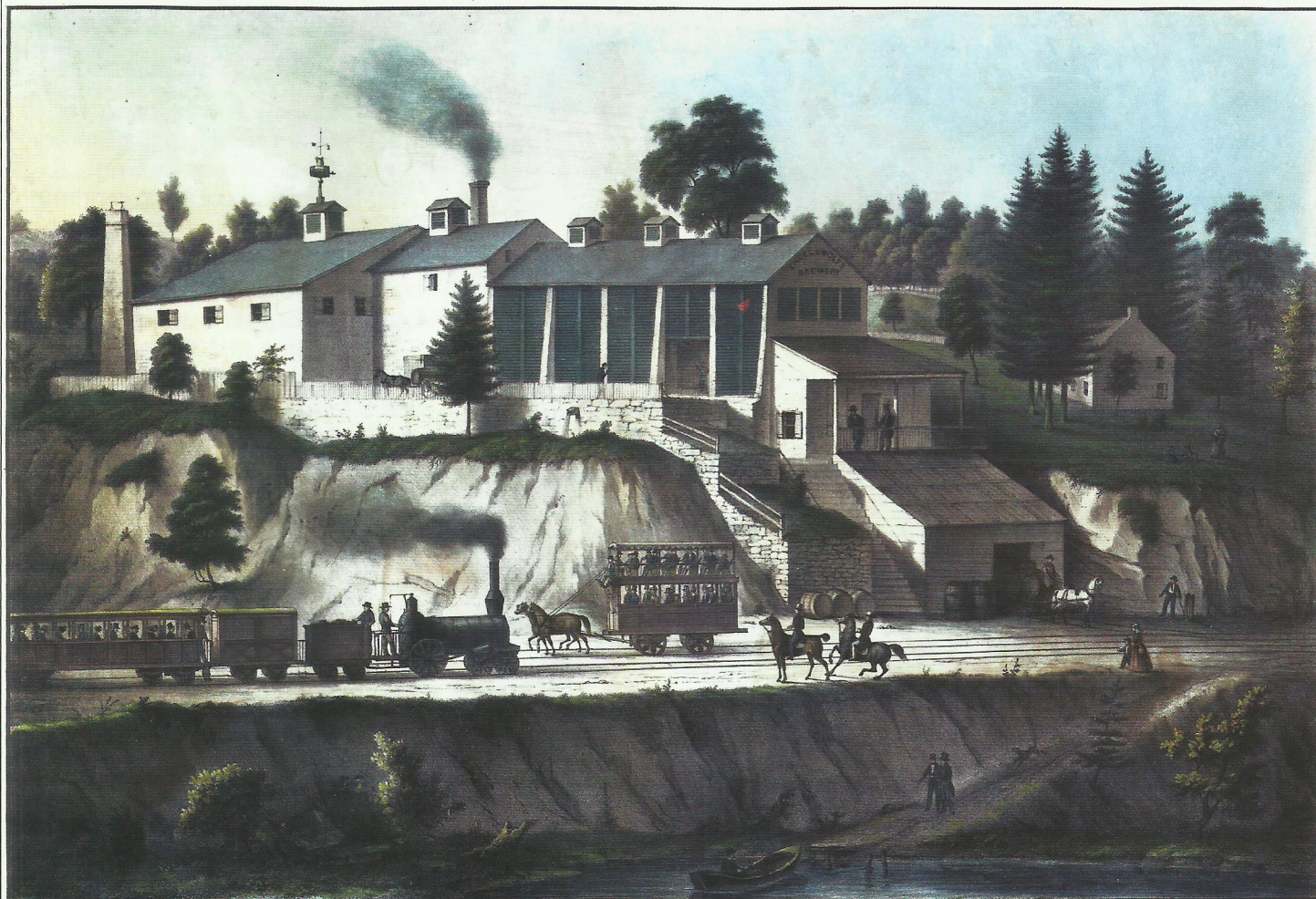
Including five large Vaults containing 50,352 cubic feet cut out of the solid rock and about 45 feet below ground, where they keep their well known **LAGER BEER**.  
Temperature of the Vaults in widsommer 46 degrees of Fahrenheit. They are situated on the Columbia Rail Road, about one mile above the Fairmount Waterworks, Philadelphia! °



# Engel & Wolf: "Die Erste Lagerbier Brauerei in Amerika"

By Rich Wagner

## ENGEL & WOLF'S



Drawn from nature on stone by A. Köllner.

A. Köllner Lith. Phila.

Die erste Lagerbier-Brauerei in Amerika.

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Including five large Vaults containing 50,352 cubic feet cut out of the solid rock and about 45 feet below ground, where they keep their well known LAGER BEER. Temperature of the Vaults in midsummer 40 degrees of Fahrenheit. They are situated on the Columbia Rail Road, about one mile above the Fairmount Waterworks, Philadelphia Co.

This beautiful lithograph is based on a painting by A. Köllner made in 1855 and is part of the collection of prints at the Library Company of Philadelphia. It is rare that we get such a magnificent view of an early lager brewery before the days of artificial refrigeration. Compare this view with the Hexamer General Survey conducted in 1866 on page three. By using the numbers identifying each building on the survey we can describe the arrangement of the brewery in some detail. At ground level we see the wash house and entrance to the vaults (#4). Above this we see two men on the porch of the office (#3). The building with three cupolas (#2) is divided into two portions separated by the cartway with fermenting room with coolships on the second floor in front, behind which is the brewing room containing 50-barrel and 90-barrel direct-fired kettles. The next building to the left contained the engine room with a malt mill on the second floor. And the building with the weather vane (#1) was used for storing malt and hops and had a fermenting cellar in the basement. Later views show this building with a third story added. There is also a dwelling shown (#10) to the right of the brewery where the employees lived. Not pictured in the scene are the cooper shop (#9) and Mr. Engel's dwelling (#14).





*Pennsylvania Historic Marker "America's First Lager" at American & Poplar Sts., Philadelphia.*

**A**S A RESEARCHER AND interpreter of history, one of my primary objectives is to open a window into the past. And what could be better than fleshing out a story with details that not only set the stage, but support the main characters with scenery and props? So it was when I began putting together a PowerPoint presentation entitled "Lager Origins in Philadelphia" as one of my talks at Yards Brewing Company.

The story is told by pioneer lager beer brewer Charles Wolf who, in *One Hundred Years of Brewing* (1903) describes how

Bavarian brewmaster John Wagner brought the "America's First Lager" to Philadelphia with him in 1840. That part of the story inspired me to have a Pennsylvania State Marker erected on the site to commemorate that noteworthy event. Wolf's invaluable oral history paints a picture of the city's, and the nation's, first lager beer brewers in those early days before mechanical refrigeration when the brewers brewed only during the cold months of the year and relied on river ice to refrigerate the vaults where they "lagered" their beer until summer.

A volume published nearly contemporaneously with the events de-

scribed is Edwin Freedley's *Philadelphia and its Manufacturers* (1859) which backs up Mr. Wolf's account of the birthplace of lager beer and provides a description of Engel & Wolf's brewery and vaults at Fountain Green. This volume is now available online through [Googlebooks.com](http://Googlebooks.com).

Adding a technical dimension to the picture is an industrial survey of the brewery which includes a floor-plan and detailed written description of the premises. A collection of the Hexamer General Surveys are currently accessible through [phila-geohistory.org](http://phila-geohistory.org).

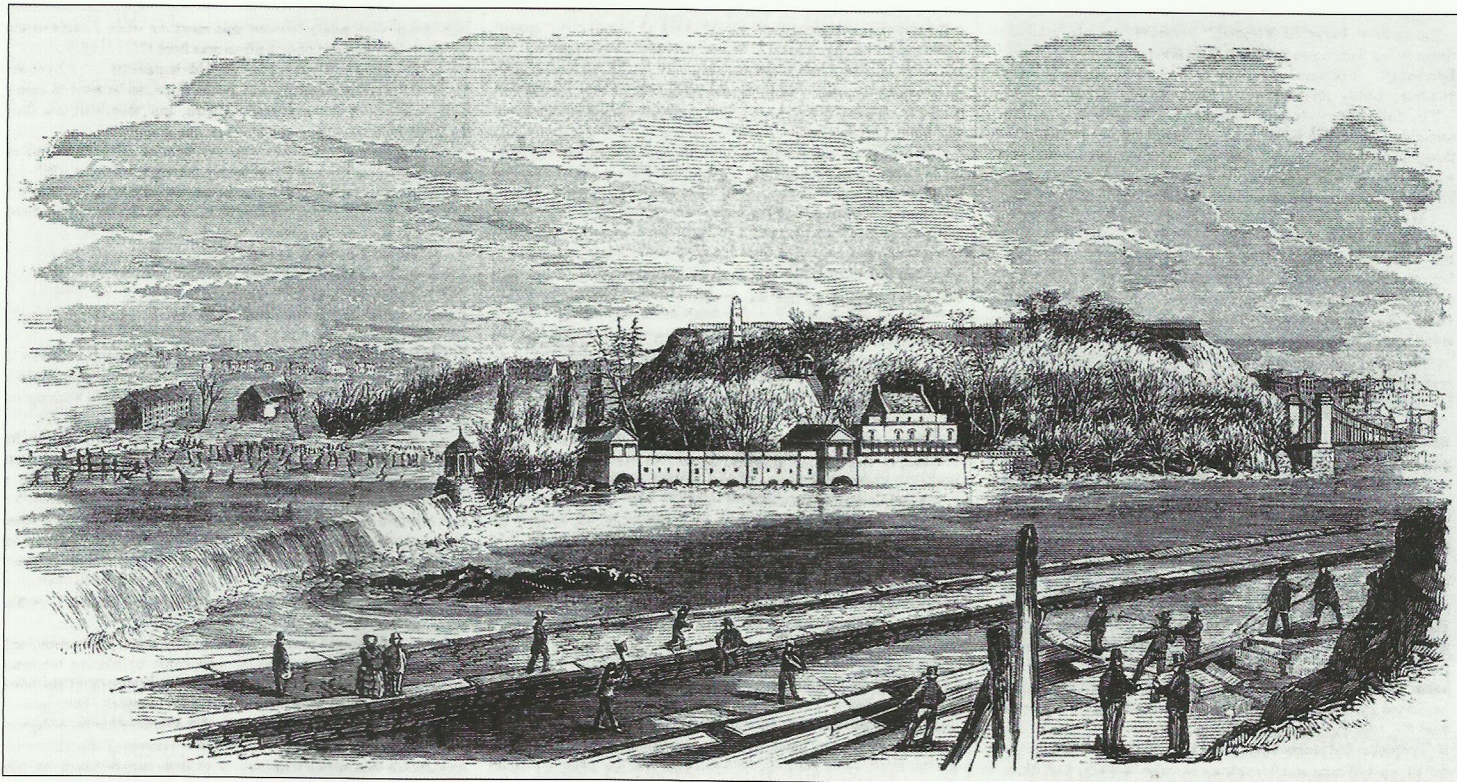
The *coup de gras*, however, is a lithographic print from the Library Company published by Engel & Wolf featuring an artistic rendering of their brewery and vaults on the banks of the Schuylkill proudly proclaiming them to be the "Erste Lagerbier Brauerie in Amerika."

According to *100 Years of Brewing*, Mr. Wolf had a sugar refinery near Crown and Vine Streets, near where the Benjamin Franklin Bridge stands today. An employee, George Manger was "a practical brewer" and obtained a sample of Wagner's lager beer yeast and started brewing nearby on New Street near Second. Charles Engel, a lifelong friend and employee of Mr. Wolf's, brewed a batch of lager beer in the firm's sugar pan and put it up in sugar hogsheads.

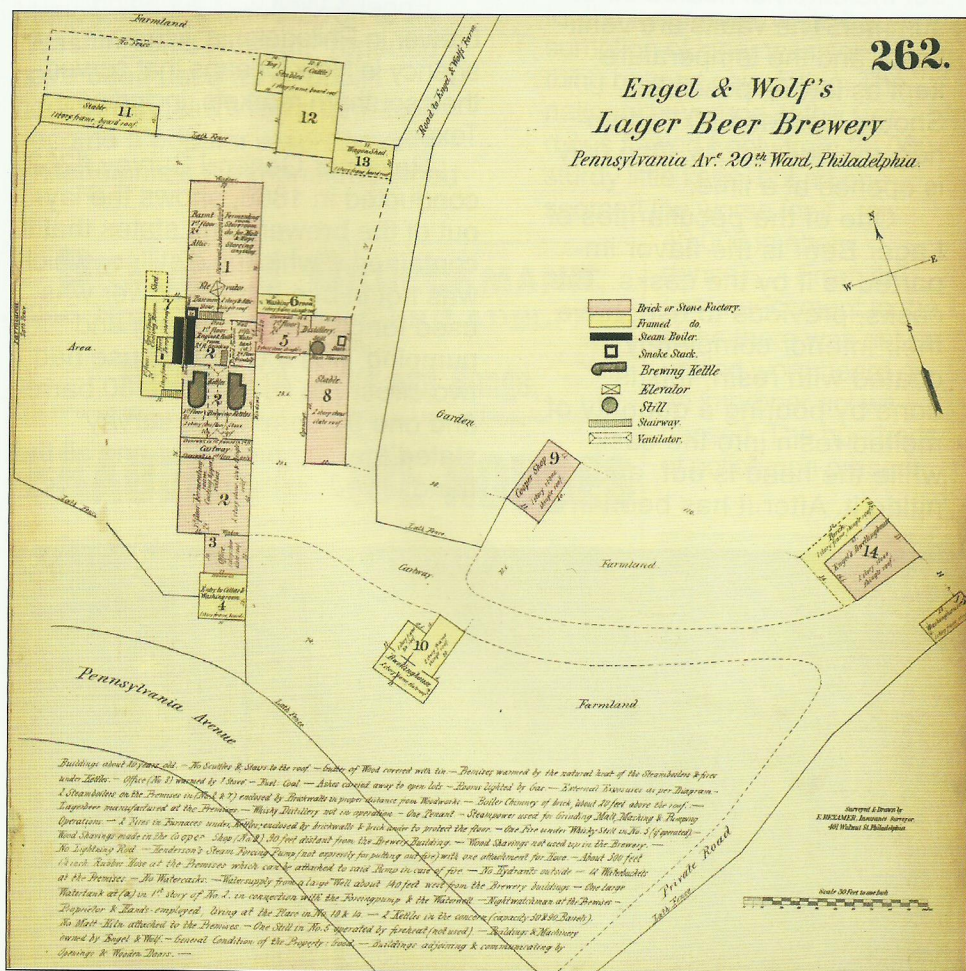
In 1844 Mr. Wolf moved his operations to 352/354 Dillwyn Street, and in conjunction with a distillery and saloon, commenced making lager beer. Engel & Wolf's product became so popular with the city's German population it was reported that the frequently "drank the brewery dry." Lager beer vaults were dug there and at the Mitchell Grindstone Works nearby to store the yearly production of 3,500 barrels.

Five years later they purchased a property known as Fountain Green, named for a nearby cold water spring along the banks of the Schuylkill River, where the firm excavated huge vaults. For ten years





Cutting ice on the Schuylkill River with a view of the water works. Ballou's Drawing Room Companion 1871 (Philadelphia Water Department Archives).



Hexamer General Survey of Engel & Wolf's brewery at Fountain Green 1866.  
 Philadelphia Free Library.



Charles Engel. One Hundred Years of Brewing.

Engel & Wolf shipped wort by ox cart from their Dillwyn Street brewery three miles to Fountain Green where it would be fermented and stored until summer. Just down-





*Charles Wolf. One Hundred Years of Brewing.*

stream was the dam of the Fairmount Water Works which had essentially "ponded" the river for six miles and created a thriving ice harvesting industry. The proximity to ice made the banks of the Schuylkill attractive to many lager beer vaults.

By 1859 a new brew-house, malt-storage house, boiler-house, office and stables were erected above the vaults. This "plant #2" was on the main line of the Philadelphia & Columbia Railroad. Edwin Freedley, describing Engel & Wolf's brewery in his book, said that the vaults, over 50,000 cubic feet cut out of solid rock and extending forty-five feet below ground, were probably the most interesting 'sights' at Fountain Green. With solid stone exterior walls, they were subdivided by brick partitions into cellars about twenty by forty feet connected to each other by a door large enough to admit a puncheon (2-bbl. cask) and a small opening just large enough for a keg.

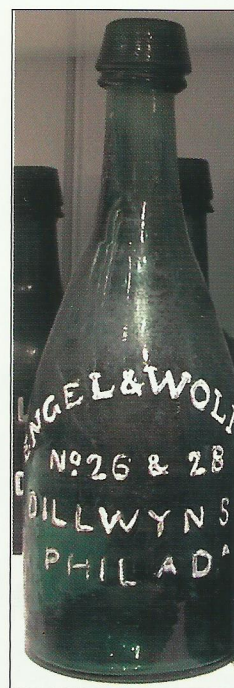
Freedley described their brewing and cellaring operations:

The beer made in the winter is lighter, and may be drawn five or six weeks after brewing, but the real Lager is made in cold weather, has a greater body—that is, more malt and hops are

used—and is first drawn about the first of May. It is much improved by age and by keeping in a cool place. When first drawn it is five months old: and as it is usually made in December, it is ten months old when the last is drawn.

After the brewing has commenced, say in December, unless cold weather occur earlier, the most remote cellar or vault is filled—the ground tier, consisting of large casks, usually three rows far enough apart to permit a man to walk between. On these two rows of casks are placed; and above these, if the vault is high enough, one row of smaller casks or kegs are stowed. The other vaults are filled in like manner. After each is filled, the door is closed, and straw, tan, and other non-conductors are placed to keep out the external heated air of summer. The vaults are ventilated, and the temperature kept as low as possible. Should it exceed 50 Fahrenheit, the beer spoils. One only is opened at a time.

One of the peculiarities of Lager Beer is the flavor imparted to it by the casks. The casks, previous to use, have their interior completely coated with resin; this is done by pouring a quantity of melted resin into the cask while the head is out, and igniting it. After it has been in a

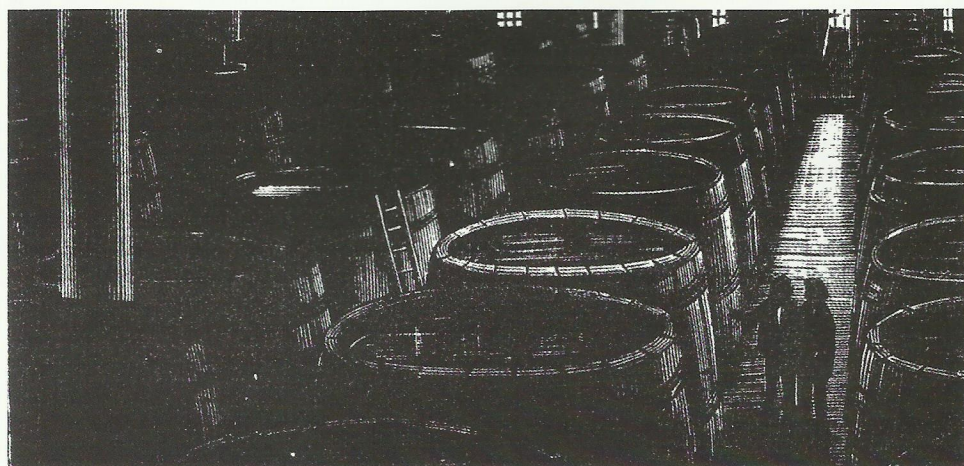


*Engel & Wolf lager beer bottle. Tod Von Mechow's collection.*

blaze for a few minutes, the head is put in again, which extinguishes the blaze, but the resin still remains hot and liquid; the cask is then rolled about, so as to get every part of the interior with it; any resin remaining fluid is poured out through the bung-hole. This resin imparts some of its pitchy flavor to the beer.

Engel & Wolf was a leading brewer in Philadelphia with an agency in New Orleans that served their southern markets, including Texas.

Hexamer General Survey #262, conducted in 1866, shows the layout of the brewery and states that it contained a whiskey distillery which was not in use. Steam power was used for grinding, mashing and pumping, and the brew house had two direct-fire kettles, one 50 barrel and one 90 barrel. The survey stated that the proprietor and all the hands lived "in the place."







View of a lager beer vault. *Brewers Gazette* 1879.

Just up the road from the brewery was Engel & Wolf's Farm which was adjacent to Mount Pleasant Manor, sometimes referred to as "Washington's Retreat," reported to have been used as a "public house." Engel & Wolf's farm had become a popular resort among Philadelphia's Germans described

selves under the numerous trees to be found in the vicinity. Well filled baskets showed that there was a thoughtful regard for the inner man, while the consumption of lager was something beyond calculation. The national beverage of the Germans flowed freely from 20,000 sturdy little kegs, but no one seemed the worse for it." (sic 40,000 in attendance) . . . From the commencement to the close there was not an unkind word heard or an improper act witnessed. The hundreds of policemen present

in a newspaper account of the day:

. . . But the great feature of the picnic was the family gatherings. Engle & Wolf's Farm and Washington's Retreat were both secured for the party, and at every available spot where shade could be secured, husband and wife and children could be seen enjoying them-

had little or nothing to do during the day, and at the close of the festival every one had left the ground conscious that everything had been harmonious and peaceful. (*Public Ledger* July 18, 1867, *Bulletin* July 17 and 18, 1867)

The company grew by leaps and bounds and according to the United States Census it was Philadelphia's third largest brewer with a capital investment of a quarter million dollars and a yearly output of 22,000 barrels of beer valued at \$175,000. All this changed when the city acquired the property through eminent domain as it was expanding Fairmount Park to keep the Schuylkill industry-free above the water works. In November, 1870, Mr. Wolf retired and Mr. Engel joined Gustavus Bergner just a half mile downstream in the growing neighborhood of Brewerytown where they would become the city's largest brewer.

**BRAUER & BRUECKMANN,**  
248 North Front Street, PHILADELPHIA,

—MANUFACTURERS OF—

**Machine Cut Corks and Bungs,**

Corks of all Sizes and Shapes made to Order by our Special Improved Machinery

—BUILDERS OF—

**BRAUER'S PAT. ICE HOUSES**

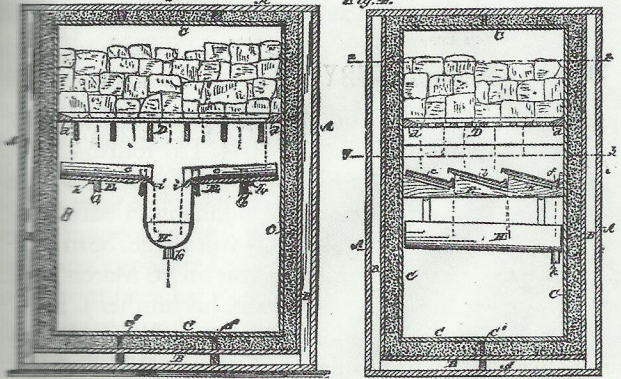
—AND MANUFACTURERS OF—

Brauer's Patent Cork for Packing and Filling Ice Houses, Refrigerators, Ice Boxes and Coolers.

PATENTED JULY 19, 1881.

Fig. 2.

Fig. 4.



The Western Brewer and Journal of the Barley, Malt and Hop Trades. (Dec. 15)

**BRANCH, CROOKES & CO.,**  
**SAW MANUFACTURERS,**  
223 LAKE ST., CHICAGO.  
A full Stock of all kinds of  
Saws, Saw Gummers, Emery Wheels, Butchers' Mill & Taper Files.  
Also a full Stock of  
**ICE TOOLS.**  
Manufactured by the  
**Knickerbocker Ice Company,**  
Of Philadelphia, Pa.

Ad for IceTools. *Western Brewer* 1876.

Since developing his presentation "Lager Origins in Philadelphia," Rich was contacted by explorepa-history.com. Their website includes the stories behind Pennsylvania's historic markers. Rich provided them with a number of primary sources he used in his marker application and a number of images from breweriana collections as well as some of the maps listed in this article which will be linked to their site. Rich was also contacted by teachpahistory.com and developed lesson plans for high school teachers to use on the topic of "America's First Lager" in their industry and technology units. You can find some articles he's written on the subject ("Tracking a Legend" and "Defending a Legend") on the "Archive" link at his website:  
<http://pabreweryhistorians.tripod.com>.