

#### by Jean W. Dunn

Before the American Revolution most glassware was imported and considered a luxury. Although England discouraged manufacturing in America, the colonists began to produce glass, America's first industry. Captain John Smith organized a group to make glass in 1608, and some of the products from this short-lived factory were actually exported to England. After the Revolution, industry expanded in the colonies, and by the 1800's considerable glass was made in New York State.

Two rather long-lived glass houses were established in Western New York during the nineteenth century. One began in 1840 in Lockport in Niagara County about twenty miles northeast of Buffalo; the other began in 1849 in Lancaster in Erie County, south of Lockport and about ten miles east of Buffalo. Both glass factories operated until shortly after 1900.

#### Why Was Glass Made Here?

A glass works was often located on a site thickly covered with firewood and near a good transportation system for bringing in raw materials and sending out the finished product. Both the Lancaster and Lockport glass works were located in areas of timber for fuel and hardwoods such as cherry and apple which were used for molds. The major raw material used to make glass is sand. In 1861 the sand used at the Lockport glass factory was obtained from Verona, in Oneida County, and the lime was obtained from Williamsville, in Erie County.

By the early 1850's both Lancaster and Lockport were on railroad lines. The New York Central Railroad came through Lancaster in 1852, and the Buffalo and Lockport Railroad came to Lockport in 1853. Lockport also had steam service to Niagara Falls about 1838 on the Rochester, Lockport and Niagara Falls Railroad, and the Erie Canal, completed in 1825, furnished water transportation. The nearby busy port of Buffalo provided a local market as well as rail transportation to distant points. Shipment by rail or water was not as likely to cause breakage as shipment by wagon.

# What Is Glass?

Unlike gold or wood, commercial glass is not a product of nature — it is the result of a chemical process. Common bottle glass is a mixture of silica (a fine quality sand), alkalis such as potash, sodium carbonate or lime, and cullet (crushed glass) which is added to hasten the melting process and to make the batch easier to work. To make a finer quality glass, called "lead" or "flint" glass, oxide of lead is added. Small quantities of other materials are added to make the glass transparent or to add color.

When the batch is heated to a temperature of about 2,500 degrees Fahrenheit, a chemical process takes place: the silica acting as a powerful acid drives the carbonic acid from the alkali forming a salt called glass.

# How Was Glass Made?

Long before man came to earth, glass was being produced accidentally by nature. Often when lightning strikes sand, glass appears as either a hard thin crust on the surface or as glass rods or roots deep in the earth. Volcanoes produced a glass-like substance called obsidian which was used by the Indians for arrowheads and ornaments.

Man made glass was first found at the eastern end of the Mediterranean Sea. The earliest examples were in the form of stone beads covered with green glass glaze. Some of the world's first glass containers were made in Egypt about 2,000 B.C. These little jars were brilliantly colored, but not transparent, and were used for cosmetics, perfumes, and ointments. Tiny tear-bottles were made to catch the tears of mourners and were buried in the tombs of the deceased.

Primitive methods of shaping glass were the "sand core" technique where softened opaque rods of glass were wound around a sand core, and "pad-pressing" where pads of glass were patted into a mold, and then fused together to form a small object. Later, about 300 B.C., the blowpipe was invented. A glob of molten glass was gathered on the end of a tube and blown to the size and shape desired. Glass was also blown into molds and later pressed into molds by machines.

In the glass factories at Lockport and Lancaster, the carefully measured ingredients were melted in a furnace in large pots over white-hot heat, about 2,500 degrees Fahrenheit for thirty to forty hours. The fluid glass was then cooled to about 1,800 degrees



Interior of 19th century glasshouse.

Fahrenheit to a more workable consistency. Furnaces were kept going twenty-four hours a day, seven days a week because of the length of time required to prepare them for use. Such intense heat caused accidental fires in glass factories built of wood. Both the Lockport and Lancaster factories burned but were rebuilt.

In charge of the whole glassmaking operation was the master blower (gaffer) who, with his assistants, a gatherer, servitor, and a boy, were referred to as a "shop." The gatherer dipped the blowpipe into the melted batch to pick up a blob of glass. The servitor was the chief assistant and did jobs such as attaching the punty rod to hold the object as it was finished. A boy carried the finished product to the annealing oven or "lehr," where it was gradually cooled. The young boys who carried the hot bottles and worked near the severe heat of the ovens objected to such working conditions and went on strike from time to time. The *Lockport Journal* often carried a want-ad for boys because the company solved the problem by simply firing the strikers. All of the glass articles discussed here were formed in one of three ways: blown, blown into a mold or pressed into a mold. *Blown* glass is usually called hand-blown, free-blown or off-hand-blown and was formed by blowing and working with tools without the use of molds. *Molded glass* was formed by blowing into several kinds of molds. It was blown into a one-piece or part mold to give it basic shape or pattern, then withdrawn and expanded to the desired size by free-blowing. Glass was also blown into full-sized, pieced molds to give it shape or decoration. The finished article had a more distinct design than items that were only partially processed in a mold and then expanded. Articles made in full-size molds were of standard size and capacity as compared with free-blown bottles.

*Pressed glass*, the mechanical method of making glass objects, invented about 1820, was the first innovation in glassmaking since ancient times. A glob of glass was gathered on an iron rod by a workman, dropped into a pieced mold on a machine, and a plunger forced the glass into all parts of the mold.

The tools used to blow glass were simple in form and few in number. Only three were essential to form a simple object: the blowpipe, the punty rod, also called a pontil; and a tool for shaping called a pucellas. In a thousand years there have been only minor changes and few additions. The more elaborate designs required the use of additional tools

The hollow blowpipe, made from brass, bronze or iron, varied in length from  $2\frac{1}{2}$  feet to 6 feet. It was thicker at the gathering end. The size of the "knob" at the end controlled the amount of glass gathered and in turn limited the size of the object to be made. The punty rod was usually a solid rod about the same length as the blowpipe. Its principal function was to hold the object after it had been separated from the blowpipe. The pucellas, a tong-shaped iron tool, was used for shaping the object such as spreading the tops of bowls, constricting parts of the diameter, or elongating and shaping parts such as stems.

Besides these hand tools, two other pieces of equipment used in blowing glass were the marver and the chair. The marver was a polished metal slab on a frame. After the workman had gathered the thick liquid on his blowpipe, he rolled it on the marver to give it form and an even surface so that when the glass was expanded it would have uniform thickness. The chair was used by the master blower. He rested the blowpipe on the slanting arms of the chair and constantly turned it with his left hand, while with his right hand he shaped the object with tools.

While the pitcher was being formed, the glass had to be pliable or soft and the shape had to remain symmetrical. To keep the glass pliable it had to be reheated often, and to keep the shape symmetrical both the blowpipe and punty rod had to remain in constant rotation while in use.

After completion, the glass article was placed in the annealing oven where it was carefully reheated and gradually cooled, a process which gave strength to the glass and removed the stresses and strains so that it would resist temperature changes and not break as easily. Without the annealing process, the glass would be brittle, and if it were merely touched, it might fly into a million pieces. As the glass article was moved through the annealing oven, it gradually cooled until at the end it was just right to touch.

Today, some of our finest glass products are still free-blown, such as the famous Steuben ware made in Corning, New York. However, to serve the commercial market with its great demands for food and beverage containers, the whole process has been mechanized since the invention of the glass blowing machine in 1903. Although furnaces are now heated by natural gas rather than wood or coal, the same technique of blowing is used in the modern automatic machines which turn out thousands of bottles or jars an hour.

# **Glass** Colors

The natural colors of glass range through greens, olive-ambers, and ambers and are caused by the presence of metallic substances such as iron or aluminum oxide in the raw materials. To make glass crystal-clear, chemicals, such as oxide of manganese, can be added to neutralize the natural color. Glass can be made any hue of the rainbow by adding metallic oxides such as cobalt for blue, and copper or gold for red. The place of manufacture of a piece of glass can sometimes be determined by its color. In other words, the particular combination of metallic elements in the raw materials used produce a unique color. Both Lockport and Lancaster produced a certain blue. It was a clear, light, delicate blue with the Lancaster color tending to be lighter than the Lockport blue. Both Lockport and Lancaster made other blues, rich deep greens, yellowgreens, olive-greens, blue-greens and ambers or browns which sometimes appeared black as in the case of the Oak Orchard Acid Springs bottle made in Lockport.

#### Lockport Glass Factories

The first glass factory, known as the Lockport Glass Works, was opened in the spring of 1840 by Twogood and Company of Mt. Morris, New York, in a rented building at the corner of Gooding and Grand Streets in Lockport. After about a year the firm failed because of insufficient capital and was taken over by Parson and Moss who controlled it for a year before giving it up to Silas H. Marks. Marks entered partnership with William Keep, A. J. Webber, and G. W. Hildredth, and the plant operated under the name of Hildredth and Company beginning in 1845. Hildredth and Company employed 50 to 55 men, of whom about 18 were blowers. The average wage was \$2.00 a day which was agood salary at that time. In the spring of 1846 the firm built a modern plant at Green and Transit Streets.

In 1850 Mr. Webber died, and his heirs sold his interest to Francis Hitchins who bought out the firm in 1853 and managed it until 1866 when it became known as the Lockport Glass Manufacturing Company. At that time it was managed by five trustees: James Maroney, Patrick Glynn, Edward Batten, Joseph Batten, and Andrew Garfield. In 1869 S. B. Rowley purchased the plant and made the "Gem," "Hero," and "All Right" fruit jars. Joseph Batten held controlling interest.

In 1872 the business was sold to Alonzo J. Mansfield who enlarged the factory which burned in 1878 but was rebuilt. The company was reorganized in 1904 with Alonzo J. Mansfield, president, S. J. Clark, vice-president, and George E. Emerson, secretary-treasurer. In 1908 the company went out of business.

In 1900 another glass factory was established on Michigan Street and called the Lockport Glass Company, so from 1900 to 1908 Lockport had two glass factories. Officers of the new company were W. W. Storrs, president; C. G. Sutliff, vice-president; and J. Milton Woodward, secretary-treasurer. They made fruit jars, pickle bottles, and other small containers. In 1919 the Thatcher Manufacturing Company, which owned plants in Elmira, Olean, Long Island City, New York, and Streeter, Illinois, bought the plant and concentrated on milk bottles. The introduction of paper milk containers forced them to switch to jelly, pickle and coffee jars, and they closed the factory in 1942.

# Lancaster Glass Factories

The glass works in Lancaster was started in 1849 on a threeacre site at what is now the corner of Lake Avenue and James Place by eight blowers from Pittsburgh, an area which had been a ESTABLISHED, 1849.

# -\* Lancaster Co-operative Glass Works.

(Successors to Frederick H. James.)

# MANUFACTURERS OF GREEN, AMBER & FLINT GLASS.

Particular Attention Given to Private Molds. HIGH PRESSURE BOTTLES A SPECIALTY. Public Telephone, Times Office. Lancaster. Erie Co., N. Y.

1895 Advertisement.

training center for glassworkers. The promoter of the enterprise was Charles Reed, and the management of the pioneer company apparently included some of the workmen, as it was called Reed. Allen, Cox and Company. The duration of the first company's operations is not known. Evidently some of the founders of the original cooperative company sold to Samuel S. Shinn, for the second recorded name is Reed, Shinn and Company. Destroyed by fire in 1859, the plant was rebuilt at once and continued under the same control until 1863 when Dr. Frank H. James purchased the interest of Shinn and carried on the business with N. B. Gatchell under the name James, Gatchell and Company. This partnership continued until after the Civil War when James and Gatchell purchased the holdings of Reed and manufactured glass under their own names, James & Gatchell, in 1866. Later the interests of Gatchell were purchased by Dr. James, and the firm was then known as The James Glass Works. Dr. James retired in 1881 when his company was purchased by some of the workmen and called the Lancaster **Cooperative Glass Works.** 

In the early days of Lancaster the glassworks was among the most prominent of the town's industries, and it flourished until 1904. The buildings stood idle for a number of years serving only as shelter for tramps moving through the area. In 1912 the plant was demolished except for one building thought to have been the company store; it is an apartment house today. Part of the old brick furnace lies under the driveways of two homes. In 1907 a new factory was started in Lancaster at the corner of Sheldon and Drullard Streets. Its major products were food and beverage containers. The plant operated under the following names until 1965 when it consolidated with another plant in Pennsylvania: Industrial Glass Co. (1907), Hygeia Glass Co. (1921), Hazel-Atlas Glass Co. (1929), Continental Can Co. (1956), Brockway Glass Co. (1963).

# **Glass** Products

The commercial products of most early glass factories were window glass and bottles. Such items were more important in the rugged life of the settlers than fancy, decorative items. Flasks in quart, pint, and half-pint sizes and bottles were made at both Lancaster and Lockport. It is believed that these were the only products of both factories, except for a period during the Civil War when Lancaster made large quantities of telegraph insulators. The bottles were used for medicines, soda pop, and beer, and the flasks were used for liquor. The flasks were often purchased empty at a general store and then filled or refilled at a tavern as glass was too valuable to be discarded.

#### Pictorial Flasks

Americans bursting with national pride were delighted to have flasks with designs of national heroes of the day and symbols of the economic and political developments of the time. Our ties with England were weakening, and there was country-wide interest in what was called the "American system." In other words, it was government policy to stress internal improvements such as transportation facilities and the purchase of American-made goods. High tariffs protected our manufacturers by making imported goods more expensive to the American consumer than goods produced in America. Also, the high tariff on imports made more federal money available for internal improvements.

# Lancaster Flasks

The emerging railroad industry was noted in flask designs and was the subject of a pint flask made at the Lancaster glass works. During the late 1820's railroads in the eastern part of the United States were built with wooden rails over which horse-drawn carts could travel. This mode of transportation helped solve the problems of vast distances, poor roads, spring thaws, and winter freezes. The first railway in America for horse and cart was the three-mile long Quincy Railway over which granite blocks for the Bunker Hill Monument were carried to the Neponset River in Massachusetts in October 1826. During the next six years, at least 185 state or private companies made plans for railroads or actually installed the rails.

Early in the 1830's the steam locomotive was beginning to replace horsepower and was the subject of twelve known varieties of flasks. The Lancaster pint flask has on both sides a steam locomotive with the words "Success to the Railroad." Although the railroad flasks are not marked to indicate that they were made in Lancaster, they do occur in the same range of colors as flasks that are marked with the Lancaster identification. For example, Lancaster's "Cornucopia and Urn" flask made between 1850 and 1860. marked "Lancaster Glass Works, N.Y.," is found in the same distinctive blue as their railroad flask. The colors listed for the Lancaster railroad flask include its typical olive-greens and ambers and show the nuances of color categories used by the collectors: olive-yellow, light sapphire blue, golden amber, deep amber, clear green, clear olive-green, aquamarine, clear with pale yellow tint, olive-amber, cloudy yellowish or mustard green almost opaque, all of which are comparatively scarce, and a clear dark olive-green which is rare.



Lancaster Railroad Flask. Courtesy of The Corning Museum of Glass.



Lancaster Cornucopia and Urn Flask, 1850-1860; sketches of front and back. Courtesy of The Corning Museum of Glass.

The "Pike's Peak" flask made at Lancaster and other factories represents another dramatic event in our economic history, a gold rush in Colorado in 1859 at a time when our country was in one of its periodic financial depressions. Hordes of unemployed workmen, bankrupt businessmen, and adventurers had nothing to lose and hurried West. Because the gold find was in the area of the mountain called Pike's Peak many easterners traveled to that point, crying "Pike's Peak or Bust." The flask shows the figure of a prospector carrying a staff in his left hand and a pack over his right shoulder. Above his head are the words, "For Pike's Peak." It is believed that Lancaster's design showed the traveller, but not the inscription. The Pike's Peak flask is usually categorized under the American eagle flasks, as the eagle appears on the reverse. The eagle, symbolizing strength and sovereignty, has been widely used as a decorative motif and emblem of state since ancient times. The Great Seal of the United States adopted in 1782 shows the American bald eagle with a shield on his breast, an olive branch symbolizing peace in his right talon, and a bundle of thirteen arrows symbolizing power in his left talon. This motif, used in all arts and crafts is found on more than 100 historical flasks although seldom identical to the eagle on the Great Seal. On many flasks he bears a closer resemblance to the eagle appearing on United States gold and silver coins of the time which were probably the models used by the mold makers.

A rare pint flask made at Lancaster, called the "Traveler's Companion," was made in olive-yellow, deep bluish-green, and aquamarine. The words "Traveler's" and "Companion" are separated by an eight-pointed star on one side, and on the reverse "Lancaster" and "Erie Co. N.Y." are separated by an eight-pointed star.

A fairly common flask called "Clasped Hands" or "Union" was made at Lancaster and in many other places in various colors and sizes during the Civil War to encourage unity. One side shows a shield with hands clasped in reconciliation with the word "union" and the reverse shows an eagle. This flask is often grouped with the "Masonic" category which honors a fraternal organization called "Free and Accepted Masons," a secret society founded on the practice of social and moral virtues and using the square and compass as part of their symbol.

Lancaster also made the "Scroll" flask which was violin or heart-shaped with a purely decorative scroll design.



ancaster Traveling Companion's Flask, front and back. Courtesy of The Corning Museum of Glass.



Lockport Washington Flask. Courtesy of The Corning Museum of Glass; Lockport Traveler's Companion Flask, front and back. Courtesy of the Crawford Wettlaufer Collection.

# Lockport Flasks

Several varieties of pictorial flasks were made in Lockport, the finest being the collector's treasure known as the Washington flask, the only known variety with a portrayal of George Washington on both sides. This quart-sized flask is found in a wide range of colors. Those of aquamarine or deep blue have the inscription "Lockport Glass Co." Those without the inscription are aquamarine, dark yellow, green, clear deep green, and dark olive-green.

Lockport was not the only glass house that honored George Washington (1732-1799) as our first famous American. His portrait appears on at least sixty different flasks. On some he is shown as a military hero and on others as a statesman or president. On the forty produced before 1840, he is shown as the military hero, usually with an inscription such as "General Washington" or "Washington." On a few flasks from the Pittsburgh area the more personal "G. Geo. Washington," "G. G. Washington" or "G. Washington" appears. After 1840 he is represented as a statesman, and his more classical bust appears on the Lockport flask. The difference in such markings on a piece of glass is important to the collector in establishing the date and place of its manufacture.



A trade card, the forerunner of modern advertising; four bottles that have become collectors' items: a bitters bottle for Dr. Pierce's Favorite Prescription, a pottery ale bottle made for bottler John Howell, a soda bottle marked "Dr. Cronk", all from Buffalo; and on its side is Shiloh's Consumption Cure from LeRoy, N.Y. *Courtesy of the Buffalo Evening News.* 

In Lockport, as well as Lancaster, a "Traveler's Companion" flask was made, and it occurs in several varieties. A rare pint found in yellow-green, aquamarine, and deep blue-green has a figure of a crude fish or whale with "Traveler's" above and "Companion" below, and on the reverse an eight-pointed star with "Lockport" above and "Glass Works" below. A very rare half-pint in yellow-green and aquamarine has "Traveler's Companion" in two lines on one side, and "Railroad Guide" in two lines on the reverse.

A very rare Lockport half-pint flask in pale yellow-green and aquamarine has a duck swimming with the words above, "Will you take a drink?" and the answer, "Will a [duck] swim?" with a plain reverse side. This flask was also made in a pint size.

# **Bottles**

In 1830 the temperance movement was underway, and by 1850 some people were very active in trying to prevent the drinking of liquor. However, the conscientious individual still drank his liquor camouflaged under the name of "bitters" which were patent medicines, available without prescriptions, having an alcohol content as high as 46 percent or 92 proof. Every disease known at that time supposedly would yield to some one of these medicines. Great faith was put in these cure-alls as well as in home remedies such as sassafras tea and sulphur and molasses. In the heyday of patent medicines, millions of glass bottles were needed.

# Lancaster Bottles

During the 1870's Lancaster was a large producer of brown bottles for some of these medicines. It should be noted that these brands were not exclusively Lancaster products. Manufacturers purchased their supply of bottles from the maker who quoted the best price. Examples of the Lancaster bottles were: Burdock Bitters; Clarissy's White Oil Liniment; Dr. Fish Bitters; Flora Temple; Hostetter's Bitters; G. W. Merchant, Lockport, N.Y. (also made in Lockport); Monitor Inks; Picnic; Plantation Bitters; John Roach Bitters; Shilo's Cough Cure; Shoo-Fly; Stimson and Hebblewhite Blacking; Summerville Horse Medium, Buffalo, N.Y. (shape of horse's hoof); Warner's Safe Bitters; Warner's Tippecanoe Bitters; Wishart's Pine Tree Cordial; C. B. Woodworth, Rochester, N.Y. (many shapes including boots and slippers); and a barrel shaped bottle.



Trade card advertising Horsford's Acid Phosphate, manufactured by Rumford Chemical Works.



Flora Temple Flask and Wishart's Pine Tree Cordial bitters bottle made in Lancaster; Lockport flask. All courtesy of The Corning Museum of Glass.

The Lancaster bottle showing the famous harness trotting horse, "Flora Temple," has been found in several colors and in quart and pint sizes with or without a handle. Her world record of 2.19-3/4 (a mile in two minutes, nineteen and three-fourths seconds) and the date it was set, October 15, 1859, appear on the bottle, although the entire date is omitted in some cases.

Flora Temple was a bay mare, short in height (14.2 hands or about four feet, eight inches) but long in body, born in 1845 in Oneida County, New York. Her tail was bobbed when she was a colt which helped to identify her on the turf, as well as to make her the subject of Stephen Foster's song, "Camptown Races" — "I bet my money on the bob-tailed mare." Not bred from trotting blood, through her early life she was passed from hand to hand at very low prices.

Her first appearance on the track was at Union Course, Long Island, on September 9, 1850. In 1853 she tied the world's record at 2.27 and continued to surpass herself until on October 15, 1859, she reached her peak of 2.19-3/4 in Kalamazoo, Michigan, at the

age of 14. Flora Temple, named for her dam, Madam Temple, raced only once in Buffalo on November 2, 1859. Her record stood for fourteen years, from 1853 to 1867. Today's world record for trotters over the standard one mile distance is 1.54-4/5 set in 1969 by Nevele Pride.

Flora Temple appeared in 112 contested races, won 95 of them, was second in 14, third in one and twice did not place. After retirement in 1861 she produced three colts and died in 1877 at the age of 32.

Two other bottles made at Lancaster in the 1890's were the "Picnic" with the word "picnic," on one side, and the "Shoo-Fly" which contained a thick syrup used by the Amish people to catch flies. The lower portion of the bottle is diamond latticed.

# Lockport Bottles

Lockport likewise made bottles for medicinal products or bitters such as the following: Dr. Caldwell's Dyspepsia Remedy; Clark's Cough Compound; Columbia Cough Balm; Empire Medical Co.; Faxon Williams & Faxon; Hildredth's Rheumatic Cure; Hall's Vegetable Worm Tablets; Merchant's Gargling Oil; Moye's Star Liniment; Nekoda Spring Water; Niagara Star Bitters; Oak Orchard Mineral Springs Co., later called Oak Orchard Acid Springs; Quinn Importing Co.; Root Oil Medicine; and The Seven Sutherland Sisters Hair Grower.

Lockport made bottles for many local breweries such as: Christy & Jenney, Drapers Brewery, David Dye, Enright Brewery, John Gibson Brewery, Humphrey & Jenney, Chas. H. Kandt, Lockport Brewery & Malt House, Lockport Brewing Co., Lockport City Malt House, J. B. Naismith, Newtons Brewery, Ontario Malt House, J. H. Patterson Lockport Brewery, Steele & Hoag Malt House, Anton Ulrich, Union Brewing Co., and Wendel Bros.

Soda pop bottles made at Lockport were: Cherry Blossom Bottling Works, Connelly & Cushin, M. Crandell, Crogan & Meyers, Donnelly & McGlynn, George H. Downs, Lock City Bottling Works, Lockport Bottling Works, Mayer Wein, W. M. Mayers, and M. Richardson.

Lockport was one of the companies that made Mason fruit jars such as the Lockport Mason Improved and Mansfield Improved Mason.

One of the largest users of bottles made in Lockport was the Oak Orchard Mineral Springs Co., later called Oak Orchard Acid Springs. The Oak Orchard Hotel specialized in rejuvenating people or curing their ailments by serving them spring water. A later analysis of this "health" water revealed a high concentration of sulphuric acid. The hotel, operated by two Lockport men, Isaac Colton and Thomas Olcott, was located in the Alabama Swamps in Genesee County and was a popular resort from 1848 to 1860. These bottles in amber and green are marked, "Glass from F. Hitchins Factory, Lockport, N.Y." on one side and "Oak Orchard Acid Springs" on the reverse.

There were several variations of Lockport's Niagara Star Bitters bottle. One is ten inches high and 2-7/8 inches square, amber, with a roof shoulder, columned corners and indented panels. One side is marked, "John W. Steele — Niagara [star] — Bitters." The reverse reads, "John W. Steele — Niagara Star Bitters" in two vertical lines and has an arch-top panel with an eagle facing left.

It is believed that for several decades, beginning in the 1880's, Lockport made bottles for the hair restorer promoted by the famous Seven Sutherland Sisters from Cambria in Niagara County, New York. The seven sisters, proclaimed to have the longest hair in the world, seven feet long and four inches thick, were billed as musical entertainment more on the merit of their remarkable floor length hair than on their talent. Realizing this, their father had the brilliant idea of concocting a mixture of vegetable oils, alcohol, and a little rainwater and marketing it as "hair grower" to which his longhaired daughters could well testify. They traveled widely advertising their product which made a fortune for them, only to be squandered on riches; the last two sisters died poverty stricken.

# End-of-Day Glass

Although bottles and flasks were the main products of both the Lockport and Lancaster glass factories, workers were allowed to use the glass left at the end of the day to make items of their own creation to take home such as bowls, pitchers, sugar bowls, and many novelty items.

Novelty items found in the homes of former Lancaster glass blowers and their friends were canes, pipes, hats, water hammers, flowers, cigar and cigarette holders, doorstops in the form of turtles, and paperweights. The majority of them, especially canes, hats and pipes, were made of brown glass such as was used in bitters bottles. The paperweights came in many colors: clear, smoky, aquamarine, and deep sapphire blue. Lockport also made "whimsies" such as rolling pins, canes, glass chains used as curtain tie-backs, stars, paperweights, and other small objects.



Glass novelties blown in Lockport. Courtesy of the Niagara Falls Gazette.

Many choice take-home pieces made by blowers at Lockport and Lancaster have survived. The pitchers are perhaps the finest examples. Some are found with a lily-pad decoration, a gather of glass placed in a swirled design on a pitcher or vase after it was blown. These free-blown lily-pad items are rare and very valuable today.

# Why Did These Glass Factories Close?

Neither the Lockport nor Lancaster glass house is operating today. The invention of the automatic glass blowing machine in 1903 made plants such as the first ones in both Lockport and Lancaster obsolete, and their final days were spent making fruit jars. Lockport's new factory also produced milk bottles until 1942 when paper cartons replaced bottles. Although the new plants in both cities converted to modern equipment, they finally succumbed to the pressures of big business. Continental Can Co. with a branch in Lancaster was forced to dissolve its glass container operation in 1963 by federal anti-trust laws. To achieve economy in operations smaller plants often consolidated or moved nearer to the customer who purchased the containers.



Lily-pad Vase blown in Lancaster. Courtesy of The Corning Museum of Glass. Right — Trade cards distributed by druggists to advertise a patent medicine made in Lockport by Dr. George W. Merchant whose bottles were made in both Lockport and Lancaster.

Glassmaking, one of the first industries in Western New York, has disappeared. Those who dig in areas around the old factories sometimes find broken glass to remind us of their illustrious 100 year history. And serious collectors of glass are elated when they "dig" through antique shops and attics and come up with a "find" of their own in the form of a rare piece of Lancaster or Lockport glass.

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