

Iowa City Glass

BY MARY R. MUSGROVE

During the last quarter of the 19th century when pressed glass became very popular, it was almost inevitable that at least one progressive city in Iowa would become the site of a glass factory. Thus it was that the short-lived Iowa City Flint Glass Manufacturing Company was founded, in the heart of the middle west quite far from eastern glass manufacturers.

The company was incorporated April 30, 1880, by E. Clark, W. H. Brainard, J. R. Coulter, Tulloss and Company, E. Shepherd, Samuel J. Hess, E. H. Tracker, L. Y. Parker, A. J. Tucker, and J. H. Leighton. Leighton was president at the time the company was founded and was also superintendent of the factory; by some sources he was described as the manager and a glassblower.

During the late 1870's Leighton was living in Wheeling, West Virginia, and was planning to establish a glass factory at Oskaloosa, Iowa. His correspondence with people there, however, was not entirely satisfactory so he began to look for some other place in Iowa in which to establish a business. He happened to see a copy of the "Eagle," a newspaper published in Keota, Iowa, a fairly new town in Keokuk County which had been laid out in 1872, and was actively seeking new businesses. Hoping that Keota might be a suitable place for a glass factory, he corresponded with G. L. Reed, editor of the "Eagle." When this proved encouraging, he joined a group of Keota people in establishing a factory there in 1879. This enterprise, however, proved to be less profitable than had been hoped and the plant was closed. According to Miss Kate B. Glover of Keota, who was a child at the time, Leighton then took the machinery off the hands of the Keota promoters and used it to start a new factory in Iowa City.

"History of Johnson County, Iowa," published in 1883 relates some information on the Iowa City glass factory, but J.

H. Leighton is not among the community leaders whose biographies were included. "History of Keokuk County," published in 1880, however, does give a brief biography:

"LEIGHTON, J. H., superintendent of the Keota Glass Works, Keota; born in Boston, Massachusetts, February 18, 1849; there he lived until about eight years of age, when he, with his parents moved to Wheeling, West Virginia; he is a practical glass blower, having been brought up in the business from childhood, the New England Glass Works having been under the control of the Leighton family for sixty-five years; in 1874 Mr. Leighton started and operated glass works in Wheeling, West Virginia, which concern he operated for about four months; meeting with misfortune he lost all he had; being a young man of good judgment, and not easily discouraged, he at once went to work for Hobbs, Brockinsener & Co., of Wheeling, where he continued for about one year, at the expiration of which time he went to Martin's Ferry, Ohio, remodeled and took charge of the old Excelsior Glass Works, now known as the Buckeye Glass Works, where he continued until 1878, when he came to Keota and built and started the Keota Glass Works; Mr. Leighton is a man of more than ordinary intelligence, good business qualifications, and deserves great credit and the help of the community for starting such an enterprise in Keota."

The Iowa City glass factory was located on the northeast corner of Maiden Lane and Kirkwood Avenue in Iowa City, the official description of the site being the south half of Lot 6, and Lots 7, 8, 9 and 10, Block 2, Berryhill's First Addition. Mrs. Miriam Righter of Iowa City, in doing research for her book "Iowa City Glass," obtained the succession of title to this plot of ground from the Johnson County auditor, a record which shows transfer of title to this land to the Iowa City Flint Glass Manufacturing Company on June 9, 1880. However, Edward F. Rate, an Iowa City attorney and grandson of a later owner of the building, reported to Mrs. Righter that the abstract shows that title to the land was acquired on May 17, 1880. It is difficult to ascertain which is correct; it suffices that the company was incorporated in the spring of 1880 and the site acquired shortly thereafter.

It has been assumed that the factory probably began operation in the spring of 1881, but in "History of Johnson County, Iowa," the Agricultural Report for 1880 is quoted as mentioning the glass works:

"The report for Johnson county to the State Agricultural Society was made this year [1880] by E. K. Lucas, and embodied some general information of permanent value, which we quote:

"The roads and bridges are first-class. Iowa City shows signs of prosperity on every hand. Besides being a center of education and culture, it is becoming a great manufacturing point. There are: 1st, Glucose Works. . . 4th, glass-works, capital \$25,000; employs twenty-five hands, and manufactures the finest quality of flint-glass, table-ware, etc., . . ."

This suggests that the glass works was in operation before the end of 1880, eight months or less from the time of incorporation. At first glance this may appear to be too short an interval from the time the business was established until the factory was built, equipment installed, workers hired, and operation begun. The factory at Keota, however, was in operation by September, 1879, four months or less from the time ground for the building was broken in May, 1879. On a somewhat similar time table, one year later, it seems quite possible that the Iowa City factory may have begun actual operation sometime during the fall or early winter of 1880.

Later reports give a larger number of employees than the Agricultural Report; an Iowa City Board of Trade booklet dated November 1, 1881, gives the capital as \$40,000 and number of workmen as 150. It also says the company "was organized last spring," which is in apparent disagreement with the official incorporation date and the dates for acquisition of the land, and may be the reason for the belief that the plant didn't actually start operation until the spring of 1881.

Iowa City certainly looked upon its glass works with pride. On December 13-15, 1881, the Iowa State Improved Stock Breeders' Association held its eighth annual meeting at Iowa City. In his opening address of welcome, Dr. E. F. Clapp, president of the Board of Trade and Professor of Anatomy in

the Medical Department of the State University, included the glass factory in his enthusiastic summary of progress in Iowa City: "...We came to the conclusion that the only way was to go to work and build these manufacturing interests ourselves. Then we formed what is known as the board of trade, an imperfect board of trade, ... but sufficiently perfect to do something in building up the interests of Iowa City. To-day we can point with a great deal of pride to the ten or twelve manufacturing interests that are carried on in Iowa City. ... So we have our glass works, not as large as we intend they shall be, but we send out its products throughout the entire country. ..."

When the editor of "History of Johnson County, Iowa," in 1882, requested information from Iowa City industries, the glass factory was not among those which answered, so no description of the industry and its operation is available from this source. This is probably not surprising, for by the time the history was being written, the glass factory was perhaps already experiencing financial difficulties. Mrs. Righter reports that the property was mortgaged to T. Sanxay, Trustee, sometime in 1881, and that on June 2, 1882, foreclosure proceedings were started. A sheriff's deed to the property was issued to Theo Sanxay, Trustee, on September 19, 1883; after an appeal to the Supreme Court, foreclosure proceedings were apparently completed when a sheriff's deed was issued on September 12, 1887.

The editor of "History of Johnson County, Iowa," in addition to sketches of those industries which supplied information, did list the major industries in Iowa City and give the number of employees; on this list we find "Iowa City glass works . . . 60." This is more than twice the number listed in the agricultural report for 1880, but less than half as many as the 150 men reported as employees by the Board of Trade on November 1, 1881. Interestingly enough, the History lists only one Iowa City industry with more employees than the glass factory, this being the "Iowa City grape sugar works," often also referred to as the "glucose works," which employed 75. It is possible

that at its peak employment of 150, the glass factory had the largest working force of any industry in the city.

The glass factory also appears in "History of Johnson County, Iowa," when the author describes the Iowa river flood of July, 1881, one of the greatest floods in the history of Iowa City:

"Fortunately our city stands high above all possible floods, with only a small part of its homes below the cruel line of inundation. That lower part was covered, driving about twenty families to higher ground. At the foot of the Dubuque street hill, below the Rock Island railroad track skiffs departed on voyages all over the bottom, to the glass works, packing house, and distillery, all of which, however, were above the flood line, and suffered no injury." Presumably these industries continued in operation during the flood, though the historian doesn't say so specifically.

Well before November 1, 1881, the Iowa City glass factory was in full operation; on that date, the Iowa City Board of Trade issued a booklet which speaks of the plant in glowing terms:

"The Iowa City Glass Company

"This company had a capital of \$40,000; was organized last spring; and has its buildings completed, machinery in, and is now turning out as fine quality of ware as any of the eastern factories.

"The furnace house is two stories, 75 feet square; and the building in which are the engine, cooling, storing, and packing rooms and office, is two stories—40 by 120 feet.

"The stack is 84 feet high. The furnace contains 13 pots and there are also three small side furnaces.

"The erection of the works has been under the personal supervision of Mr. J. H. Leighton, superintendent of the factory. The sand for the manufacturing of the glass is obtained within a few miles of the city. It has been thoroughly tested and is as good as any for flint glass.

"The proprietors employ 150 men, and when in full operation, the works turn out at least a carload of glassware each day."

(The above is quoted from Mrs. Righter's book; the Board of Trade report was made available to her by the late Jacob E. Reizenstein of Iowa City.)

At the site of the glass factory, railroad tracks, still in existence, run along the east side of Maiden Lane and can be seen in old pictures of the factory. These were the tracks of the Burlington, Cedar Rapids, and Northern, often referred to as the "Bums Can't Ride North" line from its initials. At that time, this spur line ran north to a connection at Elmira (in Johnson County) with the main line, which ran from Burlington to Cedar Rapids. According to James R. Gill of Iowa City, there was then no connection with the main line of the Rock Island railroad, whose tracks run east and west through Iowa City only a few blocks north of the glass factory site, because of competition between the two railroad companies. The tracks of the Rock Island now cross the old tracks of the B. C. R. & N. on a viaduct, the apparent age of which suggests that this was probably the situation when the glass factory was in operation; the connection between the two lines was not built until later. The B. C. R. & N., while not an east-west line, probably did afford not only service out of Iowa City, but also adequate connections with major east-west lines at Burlington and at Cedar Rapids.

Mr. Gill's recollections also give a vivid picture of the factory building itself at about the time it was taken over by E. F. Rate and Sons Glove Factory in 1891. This building, which had apparently been vacant since the glass company failed in 1882, burned in 1898; a few stones of the old foundation are all now remaining.

The building consisted of two chief parts: the northern section was square, housed the furnace, and was topped by a distinctive, almost bottle-shaped chimney; the southern section was narrower and longer and was used for packing. Both sections were described as being of frame construction, though the Rates later resurfaced the southern (or front) section with brick. Both sections were two stories high.

The section which housed the furnace (and for which the Board of Trade gives the dimensions of 75 ft. square) had a

stone foundation seven or eight feet high above the footings; this is clearly shown in old photographs, and its remnants seem to be the only part of the glass works still remaining. On all four sides the metal-covered roof sloped up to the chimney, in the center of the building.

According to Mr. Gill, two ramps led into the east side of the furnace portion of the factory. The more northerly of these ramps led up to the second floor of the building, where the pots for glassmaking were located; the other, near the center of the building, led down to the level at which the ash pit of the furnace was located; the ashes and cinders were hauled out, he believes, in carts. Near the southeast corner of this section of the building, and south of the ramp leading to the ash pit, a pile of white glass sand still remained in 1890 or 1891, and perhaps later.

The furnace and chimney, in the center of this building, were variously described as "shaped almost like a jug" and "bottle-shaped." Old drawings and photos show that it slanted rather sharply up to the top section which had straight sides and was capped with an ornate rim. It was 84 feet tall. Old photographs of the ruins of the factory after the fire of 1898, when only parts of the foundation and stack remained, also show clearly the arrangement of pots around the furnace, with arched openings Mr. Gill described as "small" leading into pots "like ovens" which were five or six feet high. During the glass-making process, slabs of tile resembling furnace brick were used to close these arched openings. Brick lining these pots, became heavily coated with glass during use, and Mrs. Righter reports having recovered pieces of such glazed brick along the sherds of glass at the factory site.

The Board of Trade indicates that there were thirteen glass pots; Mr. Gill's memory is less specific, and he is sure of only about seven, three each on the north and south sides of the furnace and one on the east side. Regardless of the accuracy of this number, it gives a good idea of the arrangement of the pots. On the west side of the furnace, on the same level as the pots, there was an arch which provided access to the interior of the furnace, with a door. The pots all rested on a kind of floor which extended out into the chimney and over the fur-

nace proper, with a hole four or five feet across in the center. Mr. Gill remembers going into the center of the chimney through the door on the west and walking around this ring-like floor behind the pots, looking up at chimney swifts nesting in the chimney, birds which provided amusement as targets for boys with muzzle-loading rifles.

At the base of the furnace was an ash pit which arched up to the furnace grates. Thus the general setup of the furnace, beginning at ground level, was this: ash pit, grate, fire pot; then at about the level of the second floor, a floor-like extension over the fire pot with a fairly small hole leading up into the chimney, and with pots for glass making resting on this floor.



1890 PHOTO OF GLASS FACTORY TAKEN WITH PINHOLE CAMERA.
PHOTO—LEO MUSGROVE

In later years, at least, there was a bin for coal in the southwest corner of this part of the building, adjoining the railroad tracks on Maiden Lane. Mr Gill says that when he was a child and explored the glass factory, before the Rates had taken over the building, the chimney was blackened by coal soot and there were a lot of cinders around the plant, giving support to his belief that the glass factory used coal as a source of heat. This is an apparent contradiction to the belief held by some students of Iowa City glass that wood was used, but these people, when contacted, have also agreed that there

were a great many cinders around the plant site. Also, coal was the fuel used in the short-lived glass plant at Keota; according to "History of Keokuk County," "coal peculiarly adapted to the melting process is procured at Oskaloosa, . . ." an indication that Leighton, the plant manager, was acquainted with use of coal as a fuel in glass making. Use of coal at Iowa City therefore seems to be a logical conclusion.

At the time the Rates operated the factory, coal was unloaded into the bin at the southwest corner of the furnace section of the factory and was hauled around to the east side of the furnace where the door of the fire pot was located. While this arrangement may seem unhandy and inefficient by modern standards, it does have some virtue for times when a good deal of hand labor was available. Coal could readily be unloaded from the tracks at the west side of the building, but existence of the tracks made that a very poor location for removal of ashes and cinders. Also, hot ashes or cinders probably gave off fumes and smoke, making their rapid removal quite important. Bringing coal in from the west side and taking ashes and cinders out the east side may actually have involved less back-breaking labor, in the long run, and less inconvenience than any other arrangement available.

Old photographs show a door on the south side of the furnace wing of the building, at the second story level just west of the point at which the two wings join; what appears to be a ramp leads up this door. Inside, Mr. Gill remembers two doors between the two wings of the building. He believes there were three windows on the north side of the furnace section, at the second floor level, and photos show a row of five (possibly six) on the west side and three on the south side, all at this same level, and one on the ground floor level, south side. It appears also from pictures of the plant after the fire that there were probably four windows and one door in the west side at the ground level; earlier pictures either don't show that side of the furnace wing or it is obscured by freight cars.

The southern section of the building, 40 by 120 feet, was connected to the furnace section somewhat east of center, roughly an L-shaped arrangement. This section too was frame,

later bricked over by the Rates, but lacked the high foundation. Its lower floor, according to Mr. Gill, had been dug down two or three feet; it had a gable roof, high ceilings, and he could remember seeing the framework of roof trusses, an indication that the second floor ceiling was unfinished.

According to the Board of Trade, this section housed "the engine, cooling, storing and packing rooms and office." In later years it was the section the Rates used for most of the operations in actual manufacture of gloves, though part of the work on such specialized equipment as corn husking pegs and hooks for husking gloves was done in the furnace section. The Rates are said to have had living quarters downstairs at the south end, stairs at the west, and office quarters on the second floor above their living quarters. Because of the need for someone to tend the furnace twenty-four hours a day, it seems possible the glass factory also used these quarters in the same manner. Old photos show one door on the south side of this wing of the glass factory and two on the west side, with rows of windows on both sides on both first and second floors. Unfortunately no photographs showing the east or north sides of the factory are available.

This, then, was the building in which glass making hopefully began late in 1880 or early in 1881. But the company failed and foreclosure proceedings were begun June 2, 1882. It had operated perhaps fifteen months, at the most, eighteen or twenty.

Reasons for failure of the glass factory can only be a matter of speculation, but several seem probable—competition, increased freight rates, business conditions, and inferior quality of the glass are all possibilities. Many of the eastern glass factories were undoubtedly better equipped to turn out glass in quantity and in better quality, and could probably have shipped their products into the trade area in competition with such smaller firms as the Iowa City company. Freight rates are said to have been increased, adding to the costs of shipping the finished product from the Iowa City factory. These increased rates would also have had a bearing on costs of material for manufacturing glass. If coal was used as the

source of heat, it would have been shipped in since Iowa coal deposits lie south and southwest of Iowa City, none located within easy local hauling distance. There is reason to believe, too, that at least part of the sand was brought in from a distance; Mrs. Leroy Mercer of Iowa City said (in the Righter book) that sand used in the factory was hauled in in freight cars, which checks with James Gill's memories. So any increase in freight rates, however small, might have had an almost calamitous effect on the cost of producing and distributing glass made in Iowa City.

It has also been reported around Iowa City that many of the factory workers were imported from the east and that many of them came west originally to work in the factory at Keota. They were apparently a source of trouble in town, being heavy drinkers and inclined to have an uproarious time in the saloons. One brawl is said to have ended in a murder for which the saloon keeper was sent to prison. Information given Mrs. Righter indicates their favorite saloon was in the block south of the Old Capitol building where the University's Engineering building now stands. There is also supposed to have been, in the 1890's, and perhaps earlier, a saloon in the house at the northwest corner of Maiden Lane and Kirkwood Avenue, which would certainly have been handy for the glass workers.

Inferior quality of the glass may have been due in part to difficulties in obtaining sand of a quality suitable for manufacture of good glass. The Board of Trade booklet says "The sand for the manufacturing of the glass is obtained within a few miles of the city. It has been thoroughly tested and is as good as any for flint glass." Many people believe the source of this sand to have been the same as that for building sand now used in Iowa City, south of the old glass factory site and near the railroad spur which runs along Maiden Lane. This river sand, however, would hardly appear to qualify as "good" glass sand. A check of the geology of Johnson county fails to turn up any deposits of sandstone which would provide sand suitable for glass making. And it does appear that at least some of the time high quality sand

may have been imported for use in glass making, since occasional well-authenticated pieces of Iowa City glass are clear and of good quality; these, however, are exceptions. Mrs. Righter suggests that this good sand may have come from the Indiana dunes or another distant source.

Conversation with James Gill may throw some further light on the question of sand, since he remembers having played, as a boy, on the pile of white sand beside the old glass factory, near the southeast corner of the section which housed the furnace and not too far from the ramps which went into the east side of this section of the building. This sand, according to Mr. Gill, was slightly off-white with a few black specks "like pepper." He feels sure it was not river sand and believes it was brought in on railroad cars. He speculates that it may have come from Illinois or Indiana, perhaps from as far as the east coast, but does not know the exact source of this sand except that it was a type not obtainable around Iowa City.

Sand now being produced from the St. Peter sandstone formations in Clayton county, Iowa, however, does fit the general description given by Mr. Gill, and has been used as glass sand. In "Geology of Clayton County," published in 1906, we find the following concerning the use of Clayton county sandstone as a source of glass sand:

"The Saint Peter sandstone furnishes a sand of such purity that it is suitable for use in the manufacture of glass.

"The following is an analysis of a sample from Clayton after the material has been washed:

Silica (SiO_2)	98.94
Alumina (Al_2O_3) and ferric oxide (Fe_2O_3)60
Calcium oxide (CaO)33
Magnesium oxide (MgO)14

"The chief locality in Clayton county where the sand is obtained is a large pit near Clayton. This is located in a ravine a short distance back from the river where thirty to forty feet are exposed. The sand is easily dug with a pick and broken into fragments five or six inches in diameter. Then a strong current of water is turned on, which causes the pieces

to crumble and the sand is washed into a long wooden trough leading to the railroad. As it is carried along this trough by the water it is thoroughly washed and is conveyed into a large tank. Here the water is drawn off and the sand is loaded directly on the cars.

"This pit is owned by Mr. J. H. Buhlman and much material has been removed. There is a large abandoned pit just east of the one at present worked. Sand has been taken from this locality for thirty years. It is shipped to the glass factories at Clinton, and to Milwaukee for use in several malleable iron works there.

"Throughout much of the extent the Sand Peter sand is colored by iron oxide but there are a number of places in the bluffs of the Mississippi where it is white and pure enough to furnish glass sand."

The thirty-year interval before 1906 during which this sand had been mined would include the years 1881-1882 during which the Iowa City glass factory operated, though no mention is made of Iowa City as a point to which sand was shipped. But sand shipped by rail to Clinton could probably have been shipped from there to Iowa City via Cedar Rapids and Elmira, which lends some support to the theory that the leftover white sand at the glass works may have come from Clayton county.

The formula used by the factory at Keota, as given in "History of Keokuk County, Iowa" is as follows:

"Sand, pounds	1,400
Carbonate of soda, pounds	600
Lime, pounds	200
Nitrate of soda, pounds	200
Arsenic, pounds	10
Manganese, pounds	5"

This is a formula for soda lime glass, a cheaper mixture that became very popular for use in pressed glass following the Philadelphia Centennial Exposition in 1876. Mrs. Righter's research indicates that such a formula was developed by Hobbs, Brochunier and Company of Wheeling, West Virginia, and that William Leighton, originally of the New

England Glass Company, was chiefly responsible for this innovation.

The Keokuk county history says, concerning glass making, "Mr. [J. H.] Leighton, the manager, [of the Keota factory] comes from a family of glass manufacturers, and possesses secrets relating to the manufacture of glass which have never been suffered to get out of the family, and as a consequence of this glass which is being made under his direction is of a very superior quality. The goods turned out by this establishment are of a finer quality and can be subjected to more severe tests than any other made in the United States, and so generally has this fact come to be recognized that without any particular effort to introduce the goods, the demand far exceeds the supply."

While the biography of J. H. Leighton does not give the names of his parents, it does tell us that he was a member of the Leighton family which had controlled the New England Glass Works, that he moved with his parents to Wheeling, West Virginia, and that following the failure of his first glass-making venture he was employed for about one year by "Hobbs, Brockinsener, & Co." of Wheeling, presumably the same company as the one for which William Leighton developed the soda lime glass formula. The fact that J. H. Leighton possessed a formula of this nature, regarded as a family trade secret, is therefore hardly surprising. Moreover, it seems probable that this was the formula he used in making glass at Iowa City.

As for the finished glass itself, most of it certainly was inferior in quality, one more reason why the company may have found rough going in its competition with eastern factories. Some of the glass exploded or shattered for no apparent reason, possibly because of faulty annealing. An Iowa City jelly glass, one of ten specimens obtained for the Historical Museum, has an internal crack which suggests that it too suffered from poor annealing. (See Page 385)

Some of the molds used were apparently old and worn. Rough mold marks appear on many pieces, including some of those obtained for the museum. Some pieces were not only

crude but imperfect; some goblets, for example, had twisted or bent stems. In fact the workmanship was sometimes quite slipshod; and then by contrast it was occasionally quite good.

In quality most of the glass itself was poor and could hardly justify the Board of Trade's enthusiastic description of "as fine quality ware as any of the eastern factories." Most of it had a slight color cast described as cloudy, grayish, yellowish, or lightly tinged with green or lavender. Miss Glover writes that when local sand was used in making glass at Keota, the glass was tinted and the company experienced difficulty in selling it. The large amount of manganese in the formula may indicate an attempt to correct this difficulty, which apparently persisted in glass made under Leighton's direction at Iowa City also. The glass was rather rough in texture, often had bubbles and dark streaks, and was seldom brilliant. The quality, in fact, is one of the factors to be considered in attempting to determine whether a piece of glass may be true Iowa City glass.

It was cheap glass, probably never intended to be a quality product but instead was cheaply made for quantity distribution in a largely rural and small town market. There are stories that it was made for mail-order trade, that it was sold "by the barrel" to stores for use as premiums. William Holub and John Slezak of Iowa City, grandsons of Joseph Slezak, who was said to have been an officer in the glass company, told Mrs. Righter that they remember barrels full of glass stored in the basement; this is probably the glass which was given away as premiums by Holub's store at the northeast corner of Linn and Bloomington streets in Iowa City during the 1920's. Children who grew up in the area at that time recall having seen pieces of glass displayed on the edge of the store's show windows.

Patterns ran heavily to bird and animal motifs—dogs, cats, rabbits, horses, deer, elephants, cows, sheep, storks or cranes, and small birds. On some of the plates, mottoes appear.

The Iowa City glass dog plate in the Historical Museum is such a plate, with a dog and the motto BE TRUE in the center, and with small birds on the enclosed handles. It has



Photo—Jean Musgrove

typical Iowa City glass stippling, which looks more nearly like scratches rather than true stippling. Also of interest is the fact that this plate does not appear to be quite true with the world. The dog and motto motif, in the center, is not aligned with the handles but has been rotated about $\frac{1}{8}$ turn. This same rotation appears in other specimens of dog plates and is shown in a salesman's sketch which was owned by the late Harry Abbott of Iowa City. The dog plate is the second of what appears to be a series of four plates in graduated sizes, the smallest being a cat, next a dog, with lamb and cow-with-calf patterns progressively larger. In the salesman's sketches the center motif of all of these except for the cow is shown as being rotated in varying amounts in relation to the handles, something which also shows up in authenticated specimens of these plates.

Animal and bird motifs appear on goblets, bowls, nappies, and platters as well as plates. Among pieces of Iowa City glass acquired for the Historical Museum is a platter in the stork or crane pattern and with the distinctive oval-and-bar border which is found on many Iowa City glass pieces. On this platter, as on some other patterns of Iowa City glass, the center design is frosted. This design shows three storks or cranes, all standing in water. The bird on the left appears to be feeding. Of interest in this piece of glass is the fact that perspective and proportion may have given the designer



Photo—Jean Musgrove

trouble. The center stork, standing behind the other two, is the largest of the three, though possibly it is intended to be an old bird with two young ones. A lily-of-the-valley motif on the right and grass on the left are larger than the birds. The overall effect of the design, however, is pleasant. Also made at Iowa City were "Elaine" or flower girl plates, and platters with a beehive motif in the center.

A variety of pieces was made in the formal pattern called "Alhambra" in the salesman's sample sheets, often mistakenly called "Teepee" or "Wigwam." This is probably the best known of Iowa City glass patterns, and it may have been produced



Photo—Jean Musgrove

in quantity. An Alhambra spooner, a comparatively rare piece in this pattern, is in the Historical Museum.

Sage pattern was used for goblets, and a distinctive geometric pattern for wine glasses. A melon-and-leaf pattern was used for footed bowls which are illustrated in salesman's sketches, and for sugars, creamers, and spooners which have been authenticated and perhaps for other pieces. A number of other patterns are reported to have been used, but have not been authenticated.

Added to this was a variety of plain glass pieces which are, of course, difficult to distinguish from plain glass from other sources, though the typical color and quality of Iowa City glass may help strengthen the belief that a certain piece may have come from the Iowa City factory. There were also lamps, salts, syrup pitchers, a plain honey dish, a glass hat, a number of other miscellaneous items including marbles and glass canes, and probably bottles, though the latter cannot be confirmed.

The two Iowa City glass salts obtained for the Historical Museum are the same pattern, eight-lobed sides with a rayed design in the bottom, but are of slightly different sizes. The



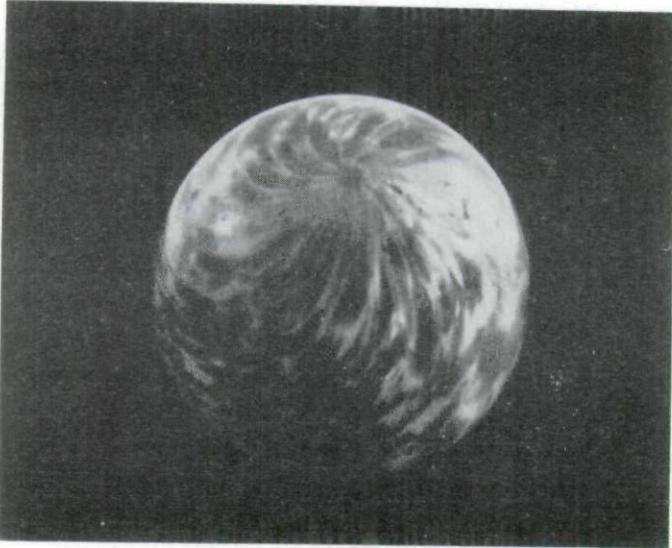
Photo—Jean Musgrove

smaller is of better quality glass; its lines are crisp and clear with the rayed pattern on the bottom sharply defined. The larger salt appears to have been made from a very worn mold since the spaces between the lobes are rounded rather than angular, and the rayed pattern on the bottom is quite blurred.

Two of the plain pieces of Iowa City glass obtained for the Historical Museum, a goblet and a jelly glass, as well as a large marble, came from Miss Katherine LaSheck of Iowa City, whose father John LaSheck came to Iowa City in 1854 and lived there the rest of his life. The late Mrs. Adelaide LaSheck Burge, Dean of Women at the State University of Iowa from 1920 to 1946, was Miss LaSheck's sister. These pieces of glass have been in the LaSheck family continuously since the time the glass factory operated, and are known to have been made there. The goblet, according to the family, was always used as a jelly dish.

The large marble, which has a diameter about one and one-half times that of a silver dollar, has four swirling bands of color, alternating pink- or red-and-white and green-and-white, with occasional spots of bright green, encased in a thin layer of clear glass. This marble was a prized, and much used, possession of the LaSheck children. Clear marbles of various sizes with spiraled threads of color have been authenticated

as products of the Iowa City factory, and clear marbles with little figures of animals and birds are also said to have been made there.



Photo—Beverly Shiffer

Whether the plant may have made window glass is open to question. Because glass for windows would have been in considerable demand in an area which was still not too far from the frontier, production of window glass seems a reasonable possibility. On the other hand, it might not have fitted into the operation at Iowa City, where emphasis was largely on pressed glass.

In 1956 an excavation was begun at the old glass factory site preliminary to building a service station there, the excavation for tanks being just south of the stone foundation. From this excavation Professor and Mrs. C. B. Righter of Iowa City and their family recovered approximately a bushel basket full of sherd. Much of it later proved of little value, but there were quite a number of broken pieces which matched, and thereby helped authenticate, pieces of glass believed to have come from the Iowa City glass factory. Also recovered were pieces of slag. A number of these sherd and pieces of slag have been donated to the Historical Museum by Mrs. Righter.

Over the years, quantities of sherds have been recovered from a garden directly north of the glass factory site, and some of these too are said to have helped authenticate Iowa City glass pieces. During the 1920's and early 1930's, when rock gardens were popular, a great deal of slag is said to have been carried away from the glass factory site and used for this purpose.

More recently, the writer and her daughter have also visited the site and have obtained a few additional bits of slag and glass sherds, some lavender with age, which also fit known patterns. Also recovered was one piece of what may be part of a glass pot from the interior of the furnace. The area seems to have been used to some extent as a dump, since some of the glass pieces recovered appear to be quite modern, but when these are eliminated, several pieces which appear to be old match known patterns of Iowa City glass.

This, then, is the story of the glass factory, which ended ingloriously, bankrupt. Of the "car load of glassware a day" the Board of Trade says the plant produced, only small amounts have come to light, though more is being identified as residents of eastern Iowa clean out basements and attics and as antique enthusiasts have begun to recognize and prize Iowa City glass. The story of Iowa City glass is far from complete; the search for authentic pieces and for bits of information which will add to the store of knowledge on its history is continuing.

One of the men who worked for the Rates when they took over the old glass factory building and converted it into a glove factory later, told his grandchildren that he had, at that time, hauled old glass out of the factory by the wheelbarrow load and dumped it back of the building. It is almost ironic that 75 years later one of his great grandchildren should be seeking Iowa City glass for a personal collection and should have made trips to the site of the old factory to look for sherds of the very glass he helped carry out.

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