

The Cork Industry As Lancaster Knows It

By FRED J. DAUM

Growing and Harvesting Corkwood

Cork, or corkwood, of commerce is the bark of a live cork oak tree—*Quercus suber*.¹ The cork oak tree is confined to the southwestern portion of Europe and the northern coast of Africa. Portugal, Spain and Algeria, in the order named, are the leaders in the production of corkwood. Cork oak trees are also found in France, Corsica, Sicily, Sardinia, Tunisia, and Morocco. In olden times the mountains of Italy had extensive cork forests, but they have almost disappeared owing to the demand for firewood and charcoal.

The cork oak tree is not grown in the United States in commercial quantities, although various unorganized efforts have been made since 1858 to establish it as a forest industry. Several thousands of these trees, between the ages of twenty-five and ninety years, are growing in California and about a hundred in Arizona and the South. The first real organized effort to establish a domestic cork forest industry was made in 1939 when the McManus Cork Project was initiated and founded in California by the late Charles E. McManus of the Crown Cork and Seal Company, Inc. In cooperation with Federal and State Foresters, Agricultural Institutions, Universities, and the like, the Project has expanded into the Southwest and the South, and to date, has made nearly a million plantings throughout twenty-four states under widely varying climatic conditions.²

There is no need to go so far afield. On a farm in Lancaster County we find several dozen cork oak trees, about two feet tall, doing quite well. The owner, Arthur B. Dodge, is very enthusiastic about their prospects since

¹ Some scholars contest this name, claiming *Quercus liber* is the correct designation. Just as the designation of the tree is a matter of dispute so is the term "Cork." Some claim it is a mutilation of the Spanish "Corcho." Others the French "Calk" and still others that it is taken from the Latin Cortex, meaning the outer shell or husk. Gilbert E. Stecher, "Cork: Its Origin and Industrial Uses," New York, N. Y., D. Van Nostrand Company, 1914, Page 7.

² Extract from "Some Geographic and Economic Aspects of the Cork Oak" by Victor A. Ryan, Director of Research for the Crown Cork and Seal Co., Inc., Baltimore, Maryland.

Lancaster County is on the fringe of the most favorable growing belt in the United States for this type of tree.

In appearance, the cork oak is a rather low, spreading tree, rarely exceeding two feet in diameter and thirty or forty feet in height. Its leaves are small, dusty green in color, leathery in texture, lanceolate in form, with serrate edges. The trees produce a pithy, elastic, easily compressible outer bark which, during the summer months, can readily be removed from the tree without injury, leaving intact the cambium or true bark layer, which carries the sap and from which nourishment is fed on the inside to the true wood of the tree and on the outside to the bark commonly known as cork. It grows in almost any kind of soil and will stand considerable cold without damage, although it could not be classed as a hardy tree in a climate where severe frost is frequent.

In twenty-five to thirty years the tree reaches four or five inches in diameter and the first or virgin bark is removed. This material is used in a small way by florists and others for decorative work, but the most of it is granulated and is used for packing grapes, for making corkboard for insulation purposes, or is ground and finds its way into linoleum. In about eight or nine years the tree grows another coat of cork, this time suitable for making bottle stoppers and other articles. The subsequent strippings are better and the tree continues to produce bark of good character until, through age or injury, it loses its vigor, after which the bark is invariably of inferior quality. Many cork oak trees reach an age of several hundred years but the average age will range between one hundred and one hundred fifty years. The forest owner frequently finds it advantageous to cut out old trees, reduce them to charcoal, and replace them with young ones.

Cork is Unique in Usefulness

The properties of cork which render it unique in usefulness for industry are dependent upon its cellular structure. Cork is composed of myriads of small cells about 1/1000th of an inch in diameter. Each cell has a cellulose wall and is filled with air. It is cemented to neighboring cells by a water-resistant natural binder. Research has shown that each cell is surrounded by fourteen others, thus giving the closest possible packing of cells.

Due to its cellular structure, cork possesses a high degree of compressibility when subjected to any force, and a high degree of recovery when the force is removed. This resilience explains why a cork stopper is superior to any other type of closure, because the compressed air in each cell forces the cork substance tightly against the side of the bottle.

Since each cell is surrounded by others and is cemented to each of these cells by a water-resistant binder, cork is impervious to the penetration of many liquids. While a piece of cork which is completely submerged in water will become water-soaked after a long period of time — months or even years — it is so much more resistant to the penetration of liquids than other materials that it has been the standard closure for centuries.

If an engineer were to set up a specification for an ideal insulating material, he would say, "Air space well broken up by walls of a low conductivity material, plus ample structural strength." The small volume of air enclosed in each cork cell is not at all subject to convection currents; the cell wall is of cellulose which possesses a low conductivity; and corkboard has sufficient structural strength for handling and installation on walls and ceilings. Here again, the cellular structure of cork renders it unique among insulations.

When cork is examined under a microscope, it is readily seen that the majority of the surface cells are cut, leaving small vacuum cups. This fact explains why cork has so high a coefficient of friction.

When pressure is applied to cork, about 95 per cent of the change in volume is in the direction of the force applied. This is due to the fact that pressure merely compresses the air in the cells. In the case of rubber or similar materials, when pressure is applied, the material must flow out, because it must go somewhere. Cork makes an ideal gasketing material for it does not extrude under pressure; it possesses resilience so that it effectually seals the uneven surface of the metal; and it has a high resistance to penetration of oil or other liquids.

Properties of Cork Known Centuries Ago

Few people are aware of the fact that cork played a part in shaping the destiny of the Roman Empire and, perhaps, the world. For seven months³ the Gauls had fiercely assaulted the walls of Rome and it was thought it would be only a matter of days before the enemy would batter down the gates and burst in upon them. All seemed lost! There was no hope; nothing could now save the Roman Empire from the fury of the barbarians.

Those Romans who had previously escaped from the net of the Gauls, together with their sympathizers, begged Camillus, the old Roman soldier who had been forced into exile by his own people, to again take up his sword and lead them against the invaders. They told him that he alone had the power to save Rome. But Camillus refused, saying he would not do so unless instructed by the legal Roman authorities now besieged in the Capitol. They, who had alienated him from his country, alone had the right to ask him to return.



The call was made for one brave enough to attempt the seemingly impossible feat of swimming the treacherous Tiber and stealing through the enemy lines into the Capitol to present the situation to

the Romans. Plutarch in his *Life of Camillus*⁴ writes: "Pontius Cominius, having dressed himself in mean attire, under which he concealed some pieces of cork, could not pass the river by the bridge, therefore [he] took off his clothes, which he fastened upon his head, and having laid himself upon the pieces of cork swam over and reached the city." The Romans created Camillus dictator with full authority over all the Roman people. When the messenger returned with this information Camillus accepted the responsibility and with his loyal troops drove the Gauls out of Italy and delivered Rome.

An odd use for cork by the ancients has been revealed by the excavations at Tell el Ajjual in Palestine, the site of the ancient city of Gaza. In the writings of the eminent archeologist Sir W. M. F. Petrie, on these excavations, it is stated:

We found better bedsteads in the ruins of Gaza than many that are slept in today. The woodwork is beautifully formed and the webbing strung for real comfort. I have slept with my head on one of their ancient wooden pillows, carved to fit the curve of the neck and skull and finished with cork.⁵

The article gives no specific date to these cork-cushioned wooden pillows, but states that the things uncovered by the excavation date from 3100 B. C. to 1350 B. C.

Several thousand years later cork is advertised in a Lancaster newspaper for the same purpose:⁶

CORK! CORK!

2000 pounds of fine quality of Cork Shavings which will be sold at reduced prices. Don't fail to have your beds filled, \$5 of Cork equal to \$20 of Feathers, and far better and much healthier. Cork mattresses, pillows and bolsters at Hoffmeier's, No. 23, East King Street.

Theophrastus, Greek Philosopher and writer on botany, in the fourth century before Christ, was evidently familiar with the material, for he mentions the cork tree as being a native of the Pyrenees.

For decades before the time of Horace cork was used for stoppers for wine vessels, or amphorae. In fact, the poet tells one of his friends, about 25 B. C., that on the occasion of a coming anniversary banquet he expects to "remove the cork sealed with pitch" from a jar of the rare vintage of forty-six years previous, the first but not the last proceeding of this character of which history makes record.

It remained for the elder Pliny, however, in his wonderful work on natural history, written in the first century of the Christian era, to make the most remarkable reference to cork to be found in ancient literature: "The cork oak is but a very small tree and its acorns of the very worst quality . . . the bark is its only useful product, being remarkably thick, and if removed will

⁴ "Plutarch's Lives," Vol. I: *Life of Camillus*.

⁵ Sir W. M. F. Petrie, *Philadelphia Public Ledger*, September 3, 1932.

⁶ *Lancaster Intelligencer*, November 26, 1870.

grow again . . . This substance is employed more particularly attached as a buoy to the ropes of ships' anchors and the dragnets of fishermen; it is used also for the bungs of casks and as a material for the winter shoes of women."

While centuries ago mention was made of several uses of corkwood, the employment of cork for bottle stoppers appears to have established its first commercial use. Early apothecaries used stoppers of wax, which were not only much more expensive but far more troublesome. It was natural with the wider use of bottles that a more adaptable material for stoppers would be sought. The industry had its origin in Spain, in the Province of Gerona, in the town of Llacostera, towards the latter part of 1750 and was contemporaneous with the more general use of bottles. The trade flourished in Spain until wars drove the industry to the mountains. There it struggled and slumbered for many years until peace was restored. About 1828 French agents at Catalonia found enough information to warrant their returning to France and establishing the cork stopper industry. Keen rivalry existed between Spain and France until 1849, when the trade assumed such proportions that both had all the business they could handle.

In cork-producing countries, cork manufacturing was originally done by hand; few hand-cut corks are made today. The sheets of cork were sliced to a width equal to the length of the stopper desired. These strips were cut into squares or quarters from which the corks were rounded by hand. A good workman could produce from 2,000 to 2,500 corks per day. The Catalans became very skillful, and are today the most adept cork workmen in Spain. Cork manufacturing by hand was never carried on to any great extent in the United States, although in the early days prior to 1850, there were a few hand-cutters, mostly English, in New York and Philadelphia.

Cork Industry Migrates

The beginning and growth of the Cork Industry in the United States was of an evolutionary nature which makes positive dating impossible and the record of its development fragmentary. Searches were made of historical and archival records in Boston, New York, Philadelphia and Washington, where it was felt the cradle of the industry would be found.

The opinion prevails that William King started the Cork Industry in the United States, also that he was the first to cut corks mechanically, and, too, that he was the first to manufacture corks on a commercial scale. The time of his beginning is roughly given as 1850, but the evidence does not seem to bear out these claims.

In the New York City Directory of 1792 Joseph Smith is listed at 1 Crane Wharf and his occupation given as Cork Cutter. This same Joseph Smith was appointed a fireman by Common Council at a later date and again his occupation was given as that of Cork Cutter.

Duties are levied on imports to protect an established domestic industry from lower labor cost products of other countries. It is claimed some duties are levied for revenue-raising purposes only. Since neither the weight of

corks nor the usage in the early 1800's was great enough to make it worth while for revenue purposes, we can rule out this thought. Starting with the premise it was for protection, it would be fair to assume the Cork Industry was well enough established in the United States by 1818 to warrant the necessity of imposing a 16.5 per cent ad valorem duty on imported corks, since the raw material is not native to the United States. The Act of May 22, 1824, changed this to 12c per pound and the Act of July 14, 1862, jumped the duty to 50 per cent. Over the years the duty has fluctuated considerably.

James D. Sparkman is listed in the New York City Directory of 1827-28 as conducting a "Cork Store" at 64 Water Street. It was not indicated that he was a manufacturer, which is the phase in which we are more particularly interested. However, it does indicate that the sales of corks at this early date were sufficient to justify setting up a store for their specific sale.

Stephen King, William's father, was in the cork business as early as 1830. No recognition was given to William King as being in the business until 1841, and at that time he appears to have been associated with his father.

It is uncertain as to when the first mechanically cut corks were made, but on January 13, 1819, J. Barron was granted a patent on a machine for mechanically cutting corks. This indicates that some thought was being given to the subject at this early date.

Prelude to Lancaster's First Cork Works

Moving to a more familiar stage, we learn General Charles T. James, in the early 1800's, had extensive financial holdings in the cotton textile industries of the New England states. His pioneering spirit kept him forging new links towards the source of the raw material until his chain of factories reached the Carolinas. Lancaster was chosen as the site for a link. On May 29, 1848, he purchased land at the northwest corner of South Prince and Conestoga streets, on which he started the erection of a cotton mill. Gideon W. Arnold, a nephew of General James, and a man of considerable practical experience, was brought to Lancaster in 1849 to look after his uncle's interests. As the mill developed, need for equipment arose. Harris Boardman, of Griswold Connecticut, came to Lancaster to erect some engines in the cotton mill and, being pleased with the country and business outlook, remained and became a citizen. His mechanical ability was noted then, he having set up the largest engine ever put into operation in Lancaster, up to that time. On completion, General James disposed of the mill November 8, 1849, to the Conestoga Steam Mills Company. At a later time both Arnold and Boardman play prominent parts in this narrative.

At this point it is necessary to digress in order to bring into being the land and building which later became the first Cork Factory in this vicinity. On April 29, 1807, John Okely sold to Jacob Miller 90¾ acres of land, in Lancaster Township, on the west side of the Conestoga Creek, a short distance beyond the limits of the southeastern section of the city.

On the 28th day of March, 1812, an agreement was made between Jacob Miller, who resided upon and owned the farm and mills, and Samuel White,

dry-goods merchant, Lancaster, James Humes, who owned a fulling-mill on Milk Creek, near the crossing of the Philadelphia and Lancaster Turnpike, James Houston, cashier of the Branch Bank of Pennsylvania, located at the corner of West King and Prince streets, in Lancaster City, and Joseph Ogilby, Jr. They associated themselves as Jacob Miller & Company, in the business of carding, etc., for a period of ten years and six months.

Each of the parties paid, upon the day the agreement was made, into a common fund the sum of \$1,000, and agreed to pay an additional sum of \$3,000 each. Jacob Miller was to erect, at his own cost, a mill house of stone near his saw-mill, sixty feet long by fifty feet wide, three stories high, and a dwelling house near the mill-house; also a stable. The dwelling was to accommodate thirty-five persons, each above the age of ten years, in addition to any family it might be rented to. The other parties agreed to pay Mr. Miller six per cent on the cost of buildings which were erected.

On November 17, 1812, the foregoing agreement was cancelled. The same day these same men, with the addition of Matthew Waddel, entered into an agreement for a term of twelve years, four months and thirteen days for the same purpose. Each partner agreed to pay into the partnership \$1,500 and a further sum of \$5,500 in installments. Annual rent of \$1,250 was payable in quarterly installments to Jacob Miller. On September 1, 1815, Jacob Miller & Company released to the Manufacturing Company of Lancaster their agreement for the remainder of the term. On the 30th day of July, 1818, the assets of the Manufacturing Company of Lancaster were sold by the sheriff to the Lancaster Manufacturing Company, who later incorporated under the name of Conestoga Manufacturing Company of Lancaster. Their efforts to place the establishment on the road to success were a failure.

Jacob Miller, on July 31, 1820, deeded to Martin Shreiner, Christian Shenk and John Landis, assignees and trustees, with power to sell, four parcels of land. On April 1, 1821, the Conestoga Manufacturing Company of Lancaster surrendered their lease to the assignees and trustees of Jacob Miller. On May 1, 1821, the assignees sold to James Humes these four parcels "on which is also erected and being a mill house lately occupied by the Conestoga Manufacturing Company of Lancaster as a cotton factory and also a saw mill." The property had a checkered career for, between this date and December 1, 1853, it was involved in ten real estate transactions.

Sheldon S. Spencer and Harris Boardman, then superintendents of the Conestoga Steam Mills Company, became infected with the speculative spirit of the times. On December 1, 1853, we find Samuel Miller, Jr., then owner, deeding to Sheldon S. Spencer, Harris Boardman and Seth P. Spencer 11½ acres on which was a "Four story stone cotton mill, known as the Conestoga Cotton Mills, dwelling house, blacksmith shop and other buildings."

They entered into a co-partnership, under the firm name of Spencer, Boardman & Spencer, and converted the mill into a cotton twine and yarn manufactory. While there is no definite proof, the available records indicate they adopted the name of Rockland Cotton Mills for their business. There is evidence to this effect as of 1858-1860. A severe panic hit the cotton industry



HARRIS BOARDMAN

Founder of the Cork Industry in Lancaster.

in 1857 and lasted for a decade. Money went into hiding and interest rates reached a high of 25 per cent during this period. On March 14, 1860, the firm stood in need of funds and placed a mortgage of \$7,000 on the business. Sheldon S. Spencer probably saw the handwriting on the wall and sold his third interest to Harris Boardman and Seth P. Spencer for \$3,800. The Dissolution of Partnership Notice in *The Daily Express* of May 3, 1860, reads:

The co-partnership heretofore existing under the firm of Spencer, Boardman & Spencer, in the Cotton Manufacturing Business, has this day been dissolved by mutual consent, S. S. Spencer retiring. The business of the late firm will be continued by the undersigned, under the firm of Spencer, Boardman & Company, to whom all persons having claims will present them for settlement and those indebted will make payment.

Lancaster, May 1, 1860.

S. P. Spencer
H. Boardman
Cyrus Blair

On October 10 of this same year, the trials of Job were visited on this firm again. In the *Lancaster Examiner and Herald*, under Notices, we read:

The co-partnership heretofore existing in the cotton manufacturing business, between S. P. Spencer, Harris Boardman, and Cyrus Blair has been dissolved by the death of Cyrus Blair.

The same business will be continued from this date by S. P. Spencer and Harris Boardman, as partners, under the firm of Spencer, Boardman & Company.

Lancaster, October 6th, 1860.

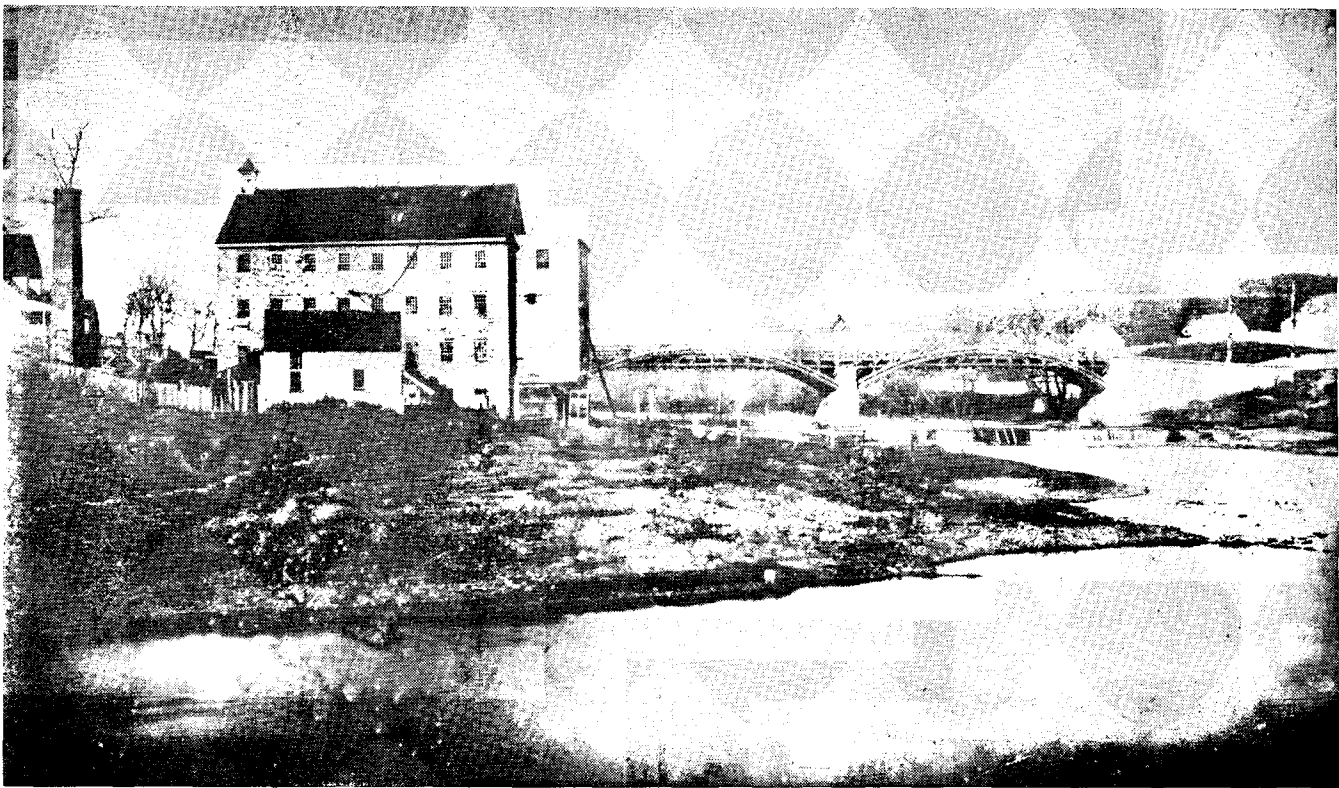
The Civil War added to the woes of the cotton industry and values declined rapidly. On the death of Seth P. Spencer, August 30, 1861, Sheldon S. Spencer administrator of Seth P. Spencer, by order of the Orphans Court, sold to Harris Boardman the undivided half interest of the real estate of Spencer, Boardman & Company for the sum of \$50. This placed Harris Boardman in complete possession of the much-handled property.

Boardman Establishes First Cork Works

Were this a fable, the first cork works in Lancaster County could be established with the statement, "Once upon a time." The way of the researcher is not so easy, and it is advisable to retrace our steps a few years and lay the foundation in the conventional way.

As stated earlier, a depression visited the textile industry in 1857 and steadily grew worse. It would be natural for men of varied abilities to seek other means to supplement their dwindling income. From the time of his coming to Lancaster, Harris Boardman was termed a "mechanical genius." This is borne out by his several patents on equipment for the carriage, cotton and cork industries.

While no legal documents or recordings have been found, available newspaper articles, advertisements and statements by historians indicate that Harris Boardman started the Conestoga Cork Works in 1860. He took



Birthplace of the Cork Industry Before Fire.

advantage of the excess space in the cotton mill, and here the first cork factory in this vicinity had its humble beginning.

It has repeatedly been asked, "Why should Boardman select the manufacture of corks for the outlet of his energies when he could have selected any one of many established articles? Why should Lancaster, an inland city, be a fertile field for this industry?" There are no recorded answers to these questions. A cross section of the thinking indicates —

The history of Lancaster County is the story of an extremely fertile area on the route which connects Philadelphia with the West. It was early settled by a very frugal class of people. Considerable grain was grown in this area and cattle raising was profitable. Facilities were not available to make transportation of grain in its raw state profitable but as flour or whisky it had a larger market and a greater commercial value. The residue of distilling whisky from corn and rye produced cheap cattle feed for the farmers. At one time there were 283 distilleries in Lancaster County and the jugs, casks and barrels required bungs.

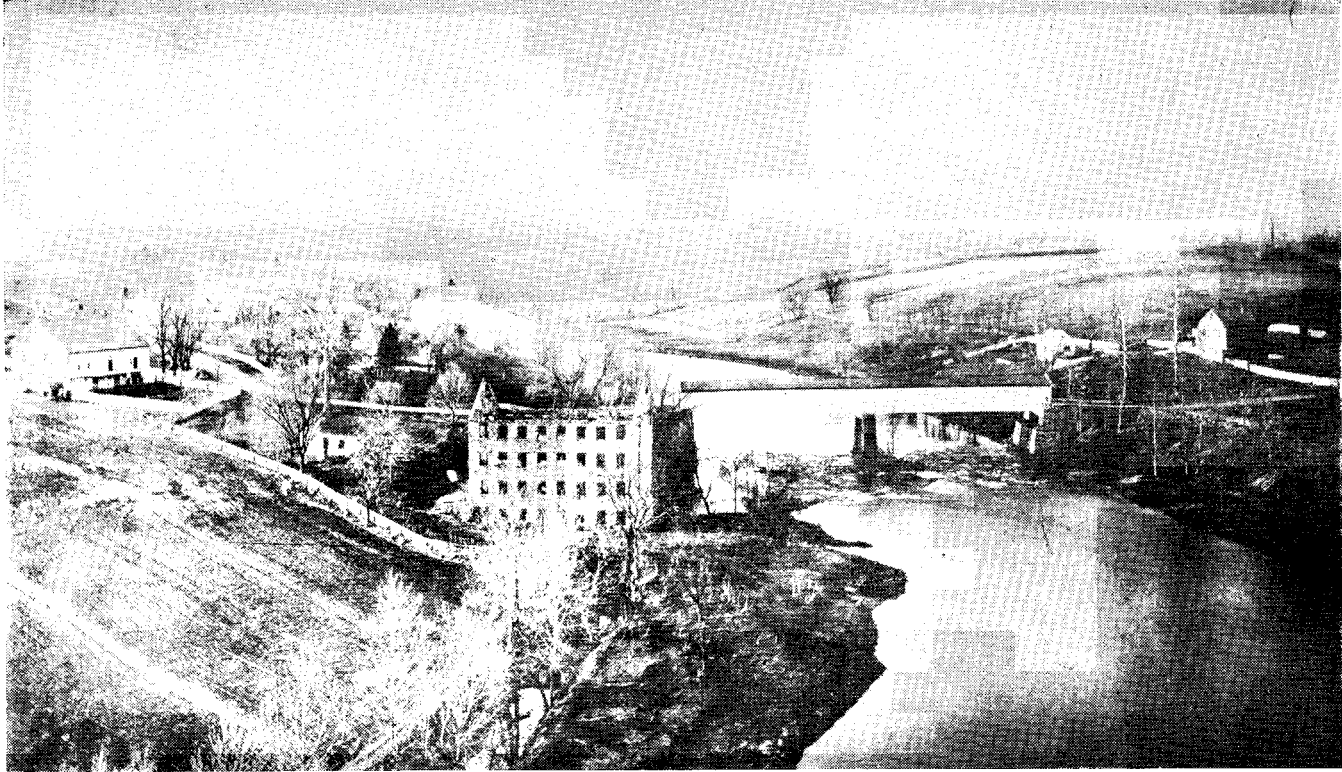
Also, the soil being very fertile and the people frugal, as well as good "eaters," encouraged the preserving of foodstuffs on a large scale for the non-growing months. The type and size of the containers used in preserving varied with what each person was able to accumulate. Corks for these containers were cut by hand and in many cases were what could be termed a hand-tailored job. In such cases the customer brought the collection of containers to the cutter and the various diameters were hand-cut and fitted. In some cases the cutter took his bark to the home of the customer and did the necessary cutting and fitting there. Jar corks were the bread and butter of the Cork Industry. It is suggested that Boardman, seeing the local usage and the hand-cutters plying their trade, determined to enter the field, but on a mechanical basis.

During the early struggles of the Conestoga Cork Company, Jay Cadwell joined Boardman and in May of 1869, Robert J. Houston associated himself with the company. The reason these men joined Boardman is not clear but it is presumed they brought into the business needed capital. At all times Boardman retained title to the property and machinery. Little is known about the activities of this company from its inception until April 26, 1870, when fire destroyed the buildings and equipment.

EXTENSIVE FIRE

DESTRUCTION OF THE CONESTOGA CORK WORKS

The Conestoga Cork Works, situated on the old road leading to Strasburg, and known for many years past as the Old Factory, a mile and a half from this city, was completely destroyed by fire last night. The main building was a three-story stone, originally built, many years ago, for a cotton factory, but had been frequently changed and adapted to various manufacturing purposes. Some ten or fifteen years ago Messrs. Spencer & Boardman, then superintendents in the Conestoga Steam Mills of this city, became proprietors of the factory and converted it into a cotton twine and yarn manufactory. The first-named of the firm having died,



Ruins of Conestoga Cork Works Some Years After Fire.

the firm was dissolved and a manufactory of corks established under the name of the Conestoga Cork Company. The firm consists of Jay Cadwell, Harris Boardman and Robert J. Houston. It was the first manufactory of corks in this section of the country, and probably the first west of Philadelphia, the work all being done by improved machinery which was a great saving of time and labor over the old hand process of cutting.

It is not known how the fire originated, but it is supposed to have been the work of an incendiary. The fire was first discovered in a small three-story frame addition erected on the east side of the building, the lower story of which was used for the storing of corkwood and the upper stories for manufactured corks. The building was a substantial one, but before sufficient assistance could reach the scene the fire had gained such headway that all efforts to arrest its progress proved futile.

The alarm of fire was given in the city between ten and eleven o'clock, but the belief prevailed that it was false, as very little light, indicating a fire, could be seen, several large hills intervening between the city and the mill. The Lutheran church bell, however, struck about eleven, when all the fire apparatuses were put in motion, and the six steamers and the Hook and Ladder Company made their way out, but too late to do anything except protect the adjoining property. The wooden bridge which spans the Conestoga at this point, and which is close to the mill was on fire several times, but the fire was quickly extinguished and it sustained no serious damage.

The loss on the buildings, machinery and stock, is estimated at about fifty thousand dollars, on which there was an insurance of twenty-seven thousand dollars, divided among some six or eight companies.

The building was erected by Jacob Miller in 1812 and some ten years ago passed into the hands of Harris Boardman, who still owned it. He owns the machinery also.

Nearly fifty persons, most of whom are females, have been thrown out of employment by the fire.⁷

Lancaster City Acquires Property

Hectic times followed the fire. In addition to looking for new quarters and equipment, the City Fathers pressed Boardman for the sale of the property. Eight days after the Fire Common Council adopted the following resolution, in which Select Council concurred:

Resolved, by Select and Common Council, that the Water Committee be instructed to wait upon Harris Boardman, and inquire what he could sell his mill property for, to the city, and report at next meeting of council.

On May 19, 1870, we further read:

The Water Committee of City Councils in accordance with authority given them by City Councils, purchased from Mr. Boardman, a day or two ago the ground and water power lately used by the Conestoga Cork Company.

⁷ *Daily Evening Express*, April 27, 1870.

It would be natural to wonder why all the haste. The newspapers of months past are not too definite on the subject. *The Lancaster Intelligencer* of February 20, 1871, makes clear to the uninitiated that the haste was to help the City Fathers out of a dilemma:

We hear a report on the streets the new wheel at the City Water Works refuses to go on account of back water, while the little old ones which have been represented as about falling to pieces, and for the repair of which our city authorities are trying to borrow \$30,000 to \$50,000, are making full time. We hope the story is not true. The creek is scarcely bank full, with about two feet of water running over the breast of the dam. It is bad enough to know that the new wheel will not run at low stages of water; but entirely too bad to think that it will not run when the creek gets a little high, particularly so after paying \$10,000 for Boardman's mill property for no other purpose than to prevent the interference of back water.

Birth was given to the property on which the first cork factory was erected with a sale of John Okely to Jacob Miller, April 29, 1807. Ninety-two years later the requiescat in pace is pronounced with an article from *The Daily New Era* of October 24, 1899:

THE OLD FACTORY PROPERTY

IT PROVES A BETTER INVESTMENT THAN EXPECTED — PLENTY OF STREET MATERIAL THERE.

Street Commissioner Trissler has finished the work of crushing for street purposes the stone of the Old Factory and the stone from the abutments of the old bridge there, and he has on hand sufficient stone to see his department through this season. The great deposit of sand and gravel discovered on the Old Factory property proved a veritable bonanza of its kind, furnishing all the material in this line since required for street purposes. Commissioner Trissler says these seven acres of land which the city owns on the bank of the Conestoga contain something beside a sand and gravel deposit, and that is good stone for macadamizing, better than any the city has been buying. It crops out above ground and all that the city needs could be easily quarried at comparatively little cost. The Street Committee of City Councils will doubtless have this stone tried before getting soft stone elsewhere.

Competition of 1870

The Conestoga Cork Company maintained a business office at 45 East King Street, later at 64 East King Street, and at the time of their last move, April 1, 1870, the following advertisement appeared in the *Lancaster Intelligencer*:

C O R K S

The office of the Conestoga Cork Company was removed from its Old Location of East King Street on the 1st of April last to No. 6 South Duke Street, 2d door South of the Farmers Bank.

Many persons have supposed that we are still selling Corks there. This is a mistake. We have no connection with the Cork Business done at the place.

We sell Corks which we make ourselves and at Manufacturers Lowest Wholesale Prices and Lower than any other cork manufacturer in America.

CONESTOGA CORK COMPANY

It is difficult to understand the necessity for this advertisement without reading another that appeared in the *Daily Evening Express* of July 8, 1870:

"CORKS AGAIN" — A revolution in the price of Corks having been effected through the agency of Geo. Torrence & Company since the 1st of April last the public well know how to appreciate the efforts of the firm, and continue to buy corks at the old stand, 64 East King Street as usual.

N. B. — I have no connection with the so-called "Conestoga Works," and defy competition in price or quality.

J. J. SPRENGER

Conestoga Under Cadwell

The management of the Conestoga Cork Company lost little time in securing a new manufacturing location and on May 8, 1870, "leased the three-story brick building of D. P. Locher situated in the rear of the Express Office, located at the northwest corner of South Queen and Mifflin streets."

The fire and the troubles attending it brought to an end the existing partnership. The notice in the *Daily Evening Express* of May 28, 1870, reads:

Jay Cadwell, R. J. Houston and Harris Boardman, trading under the title of the Conestoga Cork Company, and who have commenced operations in a building immediately in the rear of the Express Printing Office, have dissolved partnership. Mr. Cadwell continues the business.

While the lease of the Locher property was for a term of five years, later information indicates it was a temporary expedient, for the *Daily Evening Express* of September 21, 1870, states:

The Morning Telegraph says that Jay Cadwell some time since purchased the properties of John Swartz, and the rear portion of that of John Powell in Middle Street, for the purpose of erecting an extensive Cork Factory. The area to be covered by the building, which will front on Locust Street, will be almost equal to that on which one of our Cotton Mills stands. The work of erection will shortly commence.

The foresight of this move is appreciated when we learn that the Conestoga Cork Company was again totally destroyed by fire November 19, 1870:

DESTRUCTIVE FIRE

LOSS OF THE LANCASTER CORK FACTORY⁸

On Saturday evening about 9 o'clock, the large brick building belonging to Mr. D. P. Locher, situated in the alley in rear of

⁸ Conestoga Cork Company erroneously referred to as Lancaster Cork Factory and Lancaster Cork Company.



JAY CADWELL
Copartner of Harris Boardman.
Later Owner of Conestoga Cork Company.

the publication office of the *Express*, and used as a factory by the Lancaster Cork Company, was discovered to be on fire. An alarm was at once given and the firemen were promptly on the ground, but the contents of the building were of such combustible nature that all efforts to save the property were unavailing. The flames spread with wonderful rapidity, and in a short time the interior of the building was a mass of flames. So intense was the heat that before eleven o'clock the west wall of the building was forced out and fell with a crash. The rafters and upper joists then gave way and fell into the building, forcing out the upper portion of the south wall, which fell into the alley burying beneath it and seriously injuring Jeremiah Reitzel, William Leonard, Jacob Price and Reuben Rohrer, who had charge of the branch pipe of the American Steamer. They were speedily extricated from the ruins, and Price and Rohrer taken to Dr. Carpenter's office, and Leonard and Reitzel taken to Dr. Metzger's office where they were properly cared for and thence taken to their respective homes.

The fire originated in the southwest corner of the basement at which point no fire is kept in the factory—the boiler being at the opposite end of the building. It was evidently the work of an incendiary, who probably threw a match or fireball into the basement through the grated window in the south wall.

We are informed the entire loss on stock and machinery is estimated at \$22,000. Mr. Locher's loss is estimated at \$2,200. He had the building insured for \$1,000. The only other damage done by the fire was to the brick stable of Mr. John P. Myer.

We have been requested to state that all the officers of the different Fire Companies will meet at the Friendship Engine House this evening at 7 o'clock, for the purpose of making arrangements to relieve the wants of those Firemen who were injured by the falling of the wall.⁹

A perusal of the newspapers of years past indicates arson was quite common. Following the second destruction of the Conestoga Cork Company on November 22, 1870, Jay Cadwell placed an advertisement in the *Daily Evening Express* which read:

A CARD TO THE PUBLIC

It is presumed that people generally know of the burning of my Cork Works on Saturday night last, but probably few know anything of the circumstances attending it.

The fact that there has never been a fire made within the premises, since I have occupied it, nor any stove or other place of any kind in which to light a fire (except under the boiler, which was completely outside of the building) taken in connection with the fact that there was nothing burnt, nor so much as scorched near the boiler; and, further that the fire on Saturday night was seen in its early stage entirely confined to that part of the cellar fronting on the alley, at least sixty feet from the boiler, shows most conclusively to my mind that it was deliberately set on fire by some person. Such being my conviction, in order to subserve the ends of justice, and help to protect society against a recurrence

⁹ *Lancaster Intelligencer*, November 21, 1870.

of such terrible crimes and calamities, I hereby offer a reward of five hundred (\$500) for the arrest and conviction of the perpetrators of the crime. Though the fire did its work of destruction most terribly and fearfully well, still I honor and love the heroic firemen who performed their whole duty so nobly; and could I but restore to health those unfortunate men who were stricken down while so fearlessly going where duty calls, though my pecuniary loss is large, I should feel comparatively happy. Let us all remember them now in this their hour of sorest want and suffering.

JAY CADWELL

CONESTOGA CONTINUES ON LOCUST STREET

The records indicate the Locust Street property (134-140) was purchased prior to the fire. It is believed that Cadwell had also started erecting his new cork factory prior to the fire. This belief is based on a little "mud slinging" that took place January 4, 1871. which, in part reads:

For a week past the water in the reservoir has been so low that citizens in the higher parts of the city have been entirely deprived of its use. The Cork Factory and the Breweries on Locust Street have been obliged to suspend business greatly to the inconvenience and loss of the proprietors and employees.¹⁰

It would have been nearly impossible to have engaged the necessary workmen, erected the building and secured the equipment to get into operation in forty-six days.

The career of the Conestoga Cork Company was uneventful during the next few years. The pasteurization of beer increased the demand for corks, and the business prospered.

Disposal of the waste generated in the manufacture of corks was a problem. A resident of the neighborhood recalls "blocker skeletons" being peddled as firewood at three bags for twenty-five cents.

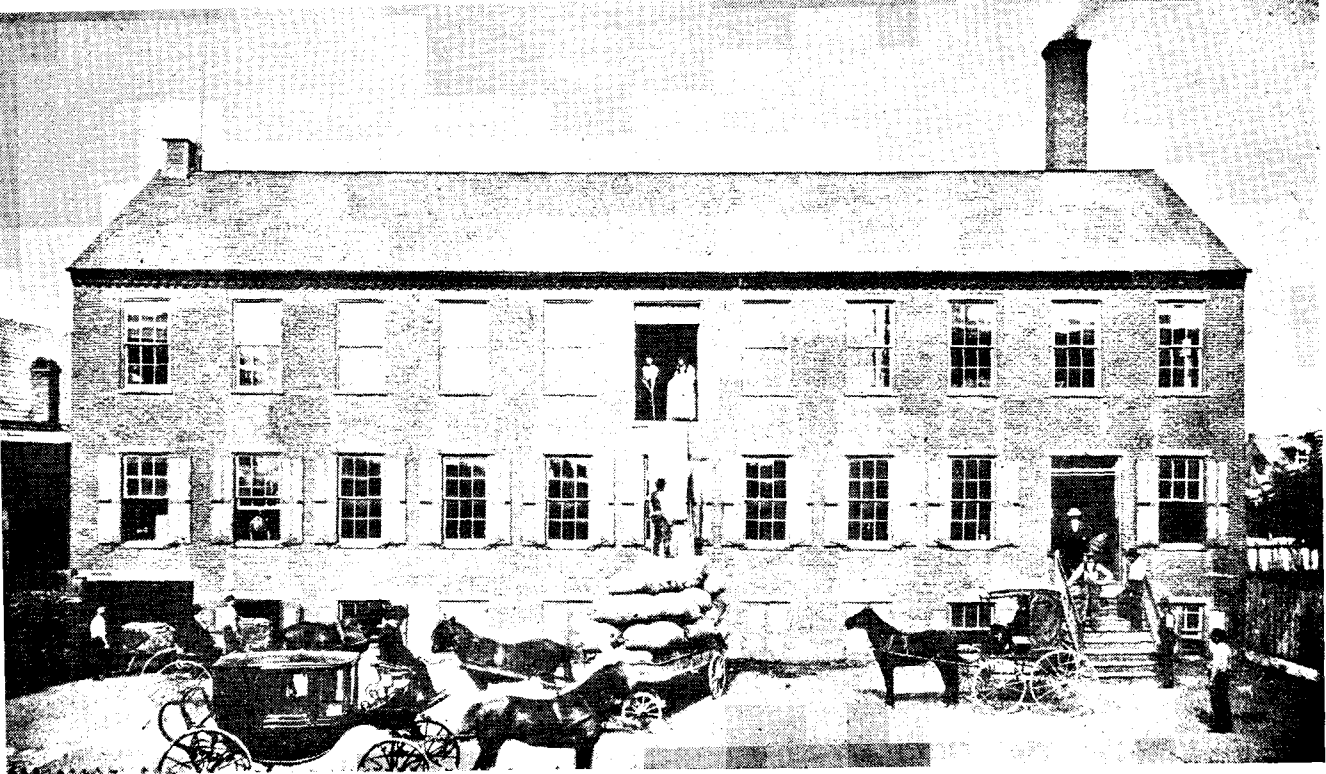
On March 24, 1874, Jay Cadwell, owner and operator died. His widow inherited the business and with the assistance of Joel S. Eaby, as managing superintendent, continued its operation.

The machinery and products of the Conestoga Cork Works were awarded first premium at the Centennial Exhibition in Philadelphia in 1876. The "fine exhibit of manufactured corks arranged in grades and classified showing great variety and excellent workmanship," elicited the special commendation of the judges.

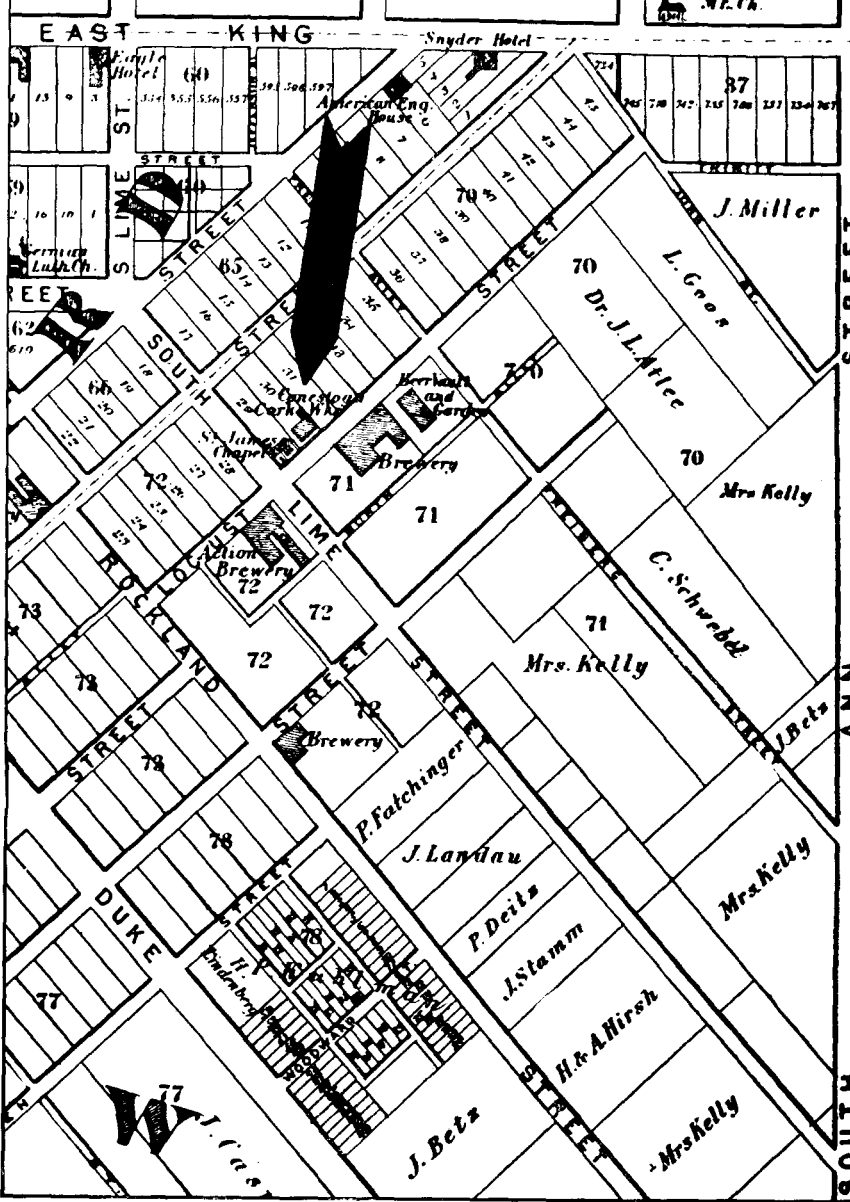
As of 1880 it was claimed they regularly employed from sixty to seventy hands.

In a little over a decade (January 15, 1882) the buildings and equipment of the Conestoga Cork Company were destroyed for a third time by fire. Arson was again given as the cause.

¹⁰ *Lancaster Intelligencer*, January 4, 1871.



Conestoga Cork Works on Locust Street.



Site of Conestoga Cork Works.

A DESTRUCTIVE FIRE

ANOTHER CORK FACTORY DESTROYED

Loss \$50,000 — A Church Steeple in Flames. Sixty-five men, women and children thrown out of work — gallant firemen work all night.

About 1:30 on Sunday morning the American Hose House bell began ringing vociferously, and after ringing about five minutes the Empire took up the alarm and struck "South."

After tolling for a few minutes the Empire stopped and Old Trinity took it up, sounding a general alarm. Meanwhile the southern skies were brilliantly illuminated, and the news quickly spread to every section of the city that the cork factory on Locust Street was in flames.

THE ORIGIN OF THE FIRE

The cork factory was situated on Locust Street, near Lime, and was part brick and part frame. It was three stories in height and extended about one-third of a square along Locust Street.

Built by the late Jay Cadwell, it was owned at the time of its destruction by his relict, now Mrs. Henry Baumgardner. It originated in a frame warehouse situated about 30 feet in the rear of the factory, in the yard and contained about \$12,000 worth of cork. A. D. Ailes, the clerk of the establishment, arrived at the scene before the main building had caught and, rushing in, opened the safe and saved the books.

Sixty-five men, women and children were thrown out of employment. The building was worth \$8,000 and on the first day of January an inventory was taken which showed that the stock amounted to \$30,000. Since then \$12,000 worth of additional stock has been purchased, and putting the machinery at a valuation of \$5,000, the total loss would be \$50,000. Allowing that \$5,000 worth of material may have been shipped since January 1, the loss would still be \$50,000 upon which there is an insurance of \$25,000.

A CHURCH STEEPLE IN FLAMES

Just west of the cork factory stood (and still stands) the pretty little mission chapel of St. James' Episcopal Church. Twelve times in the course of the conflagration the steeple or cupola (constructed of wood) caught fire, and just as often the gallant firemen poured their drenching streams upon it and saved the chapel. Fortunately, the roof was of slate, and well constructed, otherwise it would not have resisted the falling of a portion of the factory wall upon it and the intense heat to which it was subjected.

GALLANT FIREMEN

Never were firemen braver or more self sacrificing than on this occasion. From 1:30 till daylight they stood at their posts of duty, drenched to the skin and doing battle with the fiery element without hope of reward. About 6 o'clock Sunday evening the fire broke out anew but was finally subdued.¹¹

¹¹ *The Daily New Era*, January 16, 1882.

Arnold Acquires Conestoga

The Conestoga Cork Company had as devious a course as the stream from which it derived its name.

The fire of January 14, 1882, brought new ownership to the Conestoga. Gideon W. Arnold, who was instrumental in bringing to Lancaster the man who started the first cork factory in this vicinity, now entered the field. He purchased the assets and goodwill of the Conestoga and began operations on the north side of East Fulton Street, between Lime and Shippen streets. The business was known as the Conestoga Cork Works, Arnold & Company, Proprietors, 211-25 East Fulton Street. Walter J. Arnold, a son, was made manager. The following year Gideon W. Arnold died, and the business was conducted by his heirs. As their business developed they expanded westward along Fulton Street until their office fronted on Lime Street.

Until the spring of 1888, all the pay rates of cork workers were on an hourly basis. At this time the Lancaster Cork Works, B. G. Dodge, Proprietor, broke away from precedent and instituted piece work rates on many of their operations. The employees of Arnold & Company asked that they be given piece work rates. Their request was complied with but at slightly lower figures than those of the Lancaster Cork Works. About July of this same year a walkout occurred, attributed to the rates not being placed on a parity with the Lancaster Cork Works. Contrary to present day practice, they did not picket but many of the best employees secured employment with competitive cork manufacturers. After the walkout and the subsequent loss of employees, Walter J. Arnold said to a former employee that, "Had I followed my own feelings in the matter instead of being guided by my general superintendent, the walkout would never have taken place."¹² From this time forward the business of the Conestoga Cork Works appeared to be on the decline.

The heirs of Gideon W. Arnold signed an agreement, dated July 20, 1893, to sell the assets of the Conestoga Cork Works to Gudewill & Bucknall and Armstrong, Brother & Company, Inc., who, it has been intimated, were acting for the American Cork Company. It would also appear this sale took place, for these same interests were active in the incorporation of the Conestoga Cork Works, which took place August 28, 1893. Following the incorporation and at the September 7, 1893, meeting of the Stockholders, the Directors were instructed to secure from Gudewill & Bucknall and Armstrong, Brother & Company, Inc., the property lately purchased from Arnolds (not real estate) and assignment of their lease. On January 31, 1895, the Conestoga Cork Works was absorbed by the Armstrong Cork Company. The Conestoga Cork Works, Inc., was operated a short time and the production facilities were then merged with those of the Lancaster Cork Company, now the Lancaster Closure Plant of the Armstrong Cork Company.

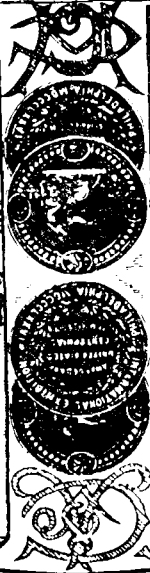
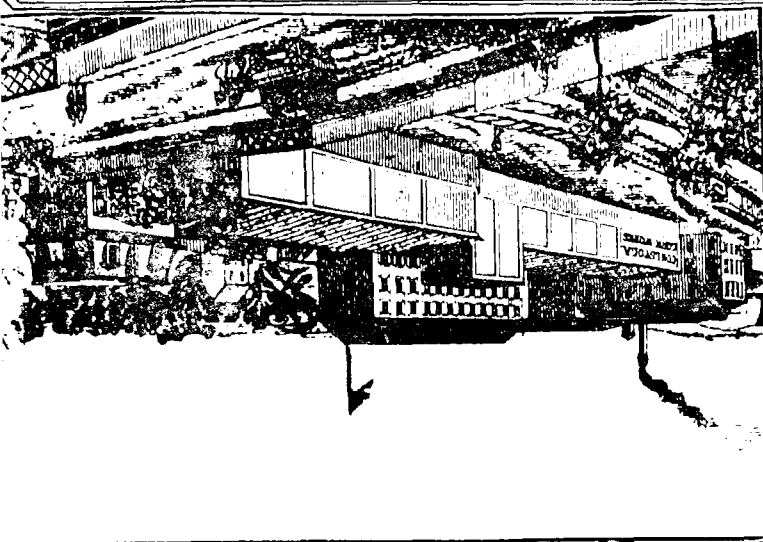
¹² William H. Leonard, 325 South Ann Street, Lancaster, Pa.



GIDEON W. ARNOLD

Who Continued Conestoga Cork Works at Lime and Fulton Streets.

CONESTOGA CORK WORKS, LANCASTER, PA.
NEW YORK SALESROOM, 67 MURRAY ST.



ARNOLD & CO

Lancaster Cork Company, Limited

The first use of the name Lancaster Cork Company is attributed by many erroneously to G. W. Dodge & Son. The Lancaster Cork Company, Limited, came into being February 9, 1875. The articles of association read:

- First* This is to certify that Z. Taylor Richards, Francis L. Herr and Samuel Wilkie have subscribed to the capital of said association the sum of two thousand dollars each.
- Second* That the total amount of capital of said association is six thousand dollars and the full amount thereof is to be paid in at once by the subscribers.
- Third* The business to be conducted is the manufacture of corks and the location of said association is to be at the city of Lancaster in the County of Lancaster and State of Pennsylvania.
- Fourth* The name of said association is "Lancaster Cork Company, Limited."
- Fifth* The contemplated duration of said association is five years.
- Sixth* The names of the officers of said association selected in conformity with the provisions of the Act of Assembly are:

Dated: February 9, 1875.

Z. Taylor Richards, Chairman
Francis L. Herr, Treasurer
Samuel Wilkie, Secretary¹³

The first Lancaster Cork Company was established in a building on East Fulton Street, (223-225), between Lime and Shippen streets. There is no available record indicating the company got into production, and in August, 1876, the business was sold to G. W. Dodge & Son.

G. W. Dodge & Son

Before coming to Lancaster, George W. Dodge operated in Berlin, New York, for about five years, cutting corks by hand.

In August, 1876, G. W. Dodge & Son purchased the business established by the Lancaster Cork Company, Limited, and leased the same buildings on East Fulton Street.

Little is known of G. W. Dodge & Son's activities for the first few years after coming to Lancaster. On July 15, 1881, the plague, feared by all cork factories, visited Dodge. About 9:30 A. M. fire broke out and completely gutted the building. A brief of the newspaper account follows:

FULTON STREET FIRE

The burning of the factory is not only a severe loss to Mr. Russel and the Messrs. Dodge, who were overrun with work and were receiving more orders than it was possible for them to fill, but also to the large number of men and women, boys and girls who were employed in the factory and who are thrown out of work by the accident.

¹³ Recorder of Deeds, Lancaster County Court House, Book 1, Limited Partnership, Page 41.



GEORGE W. DODGE
Founder of G. W. Dodge & Son.

The fire is believed to have originated from the boiler, which stood in the boiler house at the east end of the building.

The building, a two-storied brick structure, was owned by A. W. Russel. The old portion of it was 32 by 50 feet in dimensions, and the addition built one year ago, was 24 by 55 feet. In the rear of the main building was shedding, extending to the railroad wharf, and the boiler house, on the east, was also an additional structure. Mr. Russel also owned a portion of the fixed machinery.

The P. R. R. runs directly in the rear of the factory through a deep cut, and on the bank of this cut was built the foundations of a brick building used for the grinding of cork shavings. Excessive use of water on the burning building undermined the foundation, and about half-past one o'clock this afternoon it fell with a crash, rolled down into the cut, blocked up the railroad track, and for a short time delayed the trains.¹⁴

On August 27, 1881, G. W. Dodge & Son purchased from the Lancaster Working Men's Saving Fund & Building Association two parcels of land, one three acres and thirty-two perches, and the other one-half acre, on which were erected a three-story brick shop 48' x 65', a two story brick warehouse 42' x 64', a boiler and engine house 15' x 50' with a forty-horsepower steam engine and a frame office 16' square which was the former property of the Lancaster Saw, Bark, Spoke & Bending Mill operated by Jacob A. Leippe. This site is now occupied by the Lancaster Closure Plant of the Armstrong Cork Company. Here G. W. Dodge & Son started anew in the cork business.

The United States passed through a business depression in the years 1883 to 1886. *The New Era* of April 18, 1885, carried a list of contributors to the "Lancaster City Soup Fund" over a column in length. Adverse business conditions may have had some bearing on G. W. Dodge selling his undivided half interest to Byron G. Dodge, March 14, 1885, and retiring from the business.

Shortly after this transaction, A. W. Russel, who it has been suggested helped finance G. W. Dodge & Son to get started in Lancaster, entered execution on two notes. Judge Livingston stayed execution until April 18, when the matter was to be argued in court. Execution on the Judgments was set aside and a lien placed against the business.

In times of a depression a move on the part of one creditor is bound to unleash others. On April 25, 1885, John Robinson of New York City purchased the real estate and machinery and the stock was purchased by the Consolidated Cork Company, a business organization of cork manufacturers. Members of the organization from Boston, Chicago, New York, Philadelphia and Pittsburgh were in Lancaster, May 13, to attend an auction of the stock. The newspaper articles of the times indicated that the factory would be closed for a period of five years, throwing out of employment approximately seventy-five men, girls, and boys. It is claimed part of the sales agreement limited Dodge's activities for a few years. This is not borne out by the facts for

¹⁴ *Lancaster Daily Intelligencer*, July 15, 1881.
The Daily New Era, July 15, 1881.

on March 12, 1886, we find Robinson deeded the property back to Byron G. Dodge, and we are informed that in 1888 he was again manufacturing corks.

The Lancaster Cork Works, Byron G. Dodge, Proprietor, was incorporated July 25, 1893, as the Lancaster Cork Company. The directors and officers as of September 7, 1893, were:

B. G. Dodge, President
H. W. Bucknall, Vice-President
Francis L. Herr, Secretary-Treasurer
C. D. Armstrong
John Robinson

On January 31, 1895, the stockholders of the Lancaster Cork Company ratified the action of the Board of Directors authorizing the acceptance of shares of stock of the Armstrong Cork Company for the business, property and assets of the Lancaster Cork Company. At the same time Byron G. Dodge signed a five-year contract to continue as business manager of this operation for the Armstrong Cork Company.

Phoenix Cork Works

Following the destruction of the Conestoga Cork Company (January 15, 1882), Joel S. Eaby, former managing superintendent, John W. Holman and Dr. William C. Compton started a cork factory at 111-117 East Chestnut Street where they operated for about five years before moving to 319-321 East Fulton Street. They adopted the name Phoenix, meaning "out of the fire," according to a daughter of Eaby's. Webster gives the definition of Phoenix — "a miraculous bird, an embodiment of the sun god, fabled to live 500 years, be consumed in fire, and rise in youthful freshness from its own ashes."

Little is known of the operating details of the Phoenix Cork Works. It is a matter of record, however, that June 24, 1893, Eaby & Compton, owners of Phoenix, agreed to sell the assets of their business to Gudewill & Bucknall of New York City. On November 4, 1893, Gudewill & Bucknall sold the Phoenix Cork Works to the American Cork Company. During the process of liquidating the stock of the newly acquired company, fire destroyed the operations. Unlike Egyptian mythology, the Phoenix did not rise again from its ashes.

CORK FACTORY BURNED

The Phoenix Cork Factory went out of existence on Tuesday evening in flames and smoke, the place being entirely destroyed by the fiery elements. Even the building, with its substantial walls of brick, will be a complete loss, as the walls are so badly bulged and wrecked generally, that they will have to be torn down. It was a terrible night for a fire, the ground was covered with snow, the cold intense, and the gallant firemen suffered severely.

The main structure was a two-story building, with basement, fronting forty feet on Fulton Street and extending back 85 feet to Tobacco Ave., along which there was a wing eighty feet long, built only four years ago.



JOEL S. EABY
Founder of the Phoenix Cork Works.

Last July the Phoenix Cork Factory, owned by Eaby and Compton, was sold. It only recently closed, but nearly a dozen persons were engaged since then in sorting the corks in stock. Joel S. Eaby has been acting as manager of the works since their sale. The price paid by the trust for this factory was in the neighborhood of \$30,000, and this represents the loss to the contents of the building, \$20,000 worth of cut and uncut cork, and \$10,000 in machinery. Total insurance on material, stock and machinery \$14,325.¹⁵

The final disposition of the Phoenix Cork Works took place when the Armstrong Cork Company acquired the assets of the American Cork Company in 1895, and combined the operations with those of the Conestoga Cork Company and the Lancaster Cork Company at the location now enjoyed by the Lancaster Closure Plant of the Armstrong Cork Company.

Cork Ranks High in Freight of Lancaster

In June 1883, William B. Wilson, freight agent of the Pennsylvania Railroad Company in this city, compiled a table of one year's freight shipped to and from Lancaster. It is interesting to note, of the thirty-nine main raw materials coming into Lancaster, cork with receipts of 2,550,000 pounds, ranked twelfth. In the list of products being shipped from Lancaster, cork ranked ninth with 1,770,000 pounds. These figures are doubly interesting when we take into account the volume of cork in relation to its weight and the quantity of finished articles produced from a ton of corkwood.

Warren Cork Company

The name of Warren appears throughout the records of the Cork Industry over a considerable span of years. While Warren was a jobber and not a manufacturer, it is well to record his activities for the benefit of later generations and to avoid any thought of oversight.

We pick up the first record of Warren in Ferris Brothers Directory of 1884, where he is listed as a salesman. In the 1886 publication of this directory we find Marshall W. Warren listed as a salesman for Arnold & Company. From his papers and in his own handwriting, we find the statement, "Started the Cork business April 1, 1887. M. W. Warren & Co." The exact location of the beginning is unknown but from Robert Warren, a son, we are advised it was somewhere on Cherry Street, between Chestnut and Walnut streets, where he remained until fire forced him to seek new quarters. We are led to believe this took place a short time prior to July 26, 1890, when Warren purchased a piece of ground in the six hundred block of North Lime Street, extending through to Jefferson Street. On this he erected a dwelling and the building that at present houses Mack The Coffee Man. April 1, 1903, the name was changed to Warren Cork Company. The company remained on Jefferson Street until December 8, 1906, when the property was sold to H. M. B. Mack. From Jefferson Street the business moved to

¹⁵ *The Daily New Era*, December 6, 1893. Account in part.

23 East Walnut Street. The last known location of the Warren Cork Company was in the one hundred block of East Madison Street. Laconically Warren wrote "Retired May, 1917."

Labor Day Parade

To most people labor unions are of recent origin. Reference to *The Daily New Era* of September 1, 1890, will reveal the full front page was devoted to a description of a huge Labor Day parade. The article in part reads:

LABOR DAY

A Magnificent and Imposing Spectacle

Thirty Crowded Squares

A grand exhibition of Labor and its fruits in our midst!

Four Thousand Participants!

Notes and incidents of the finest display ever witnessed in Lancaster!

Lancaster's first observance of Labor Day! But the day is being royally observed and the laboring men of the city and county have no complaint to make of the treatment given them by the people in our city generally. It was cordial in the extreme, and we are sure that those to whom it was given appreciate it at its full value, and will long hold in kindly remembrance the courtesies extended to them on all sides. Our people, believing that the sons of toil were worthy of the one day of the year devoted exclusively to them, did all in their power to make the demonstration a grand success and afford enjoyment to all participating.

In the listing of the organizations participating, we find:

The Cork Cutter's Union No. 4,084 was represented by 25 men carrying a handsome silk banner.

American Cork Company

For many years each cork manufacturer operated on what might be termed a local basis. As others entered the field, or a manufacturer reached out for new accounts, he "trespassed" on the territory of others and cut-throat competition set in. Prices and terms varied greatly depending on how badly business was needed. Competition also kept the corkwood market in an uncertain condition.

On May 24, 1893, Armstrong Brother & Company, Inc., a corporation of the State of Pennsylvania, (Cork Manufacturers), Gudewill & Bucknall, of the City of New York, (Cork bark importers), and Henry Bucknall & Sons, Limited, of London, England, (Cork bark merchants and ship owners), agreed to organize a corporation to be called the American Cork Company. The company was incorporated June 23, 1893, in the State of West Virginia with the principal office in New York City. While the stated purposes are rather comprehensive, it is claimed the main purpose for which the company was organized was to bring order out of a chaotic market by the control

of prices. George Gudewill did the field or promotion work. The Conestoga Cork Works and the Lancaster Cork Works were affiliated with this venture. It was soon apparent the American Cork Company was running afoul of The Sherman Anti-Trust Law and a threatened suit faced them. On the advice of Green, Honore & Peters, Attorneys, the company was dissolved January 30, 1895.

McCambridge Rubber Cork Company

In the early part of 1898 another cork factory was established in Lancaster. It is interesting to note they occupied the quarters (117 East Chestnut Street) vacated by the Phoenix Cork Works some years earlier. From S. R. Hopkins, son of one of the officers, we learn the company was short-lived, passing out of existence in two to three years. Reference to *The New Era* of May 25, 1898, indicates a rather novel attempt to expand the use of corks.

LANCASTER'S NEW INDUSTRY

The McCambridge Rubber Cork Company Established Here

A recent addition to the manufacturing establishments of Lancaster City is the McCambridge Rubber Cork Company, with offices located on North Lime Street, near East King. The officers of the company are: President, Eugene G. Smith, Esq.; Secretary and Treasurer, Henry D. Hopkins. Instruction has been given to the nucleus of a large number of workers who will be employed and orders are on hand that will require months of activity to supply.

For many years past experimental chemists and inventors have been seeking to find a stopper, light and flexible as cork, with the non-absorbing quality of rubber, that would not taste nor discolor the liquor it imprisoned. It remained for a student of physics and chemistry, Mr. Charles S. M. McCambridge, of Langhorne, Pa., to make the discovery. He has produced a solution into which cheap corks are plunged and chemically treated and they come out white, smooth, odorless and non-absorbent—an imitation of a non-absorbent stopper—lighter and less liable to break the neck of a fragile glass bottle. These corks can be made and placed on the market at less than half the cost of solid rubber stoppers or the best plain corks.

Dodge Cork Company, Inc.

After merging their cork business with the Armstrong Cork Company, in 1895, Dodge as a business name was dormant until 1926 when Arthur B. Dodge, grandson of G. W. Dodge, who introduced the name to the Cork Industry, established the Dodge Cork Company, Inc., at 301 East Liberty Street. The business expanded and by February 19, 1941, they found it necessary to set up a branch factory at 220 North Water Street. January 4, 1945, fire destroyed a large portion of the main factory on Liberty Street, and temporarily the branch factory on Water Street became the main factory. Their lease on this property was fast coming to an end which added to the complications. Rebuilding the destroyed factory, renewing the lease on the



ARTHUR B. DODGE
Founder of Dodge Cork Company, Inc.

branch factory and the need for larger quarters, in the offing, were all factors that had to be weighed by the management.

The unoccupied buildings on the corner of Manor and Laurel streets, formerly used as the finishing plant of "The Laurel Street Silk Mill," operated by Follmer-Clogg Company, Inc., umbrella manufacturers, proved to be the answer to Dodge's problem. This property was purchased June 1, 1945, and at the turn of the year they began assembling their equipment to make it the main factory of the Dodge Cork Company, Inc. By July of 1946 the general office and main factory were operating here, the Liberty Street property being retained as a branch factory. Approximately 225 employees are engaged by Dodge. The labor of earlier years no longer prevails and the present day employees are tenders of automatic machines from which millions of corks flow annually.

Armstrong Cork Company, Lancaster Closure Plant

The group who promoted the formation of the American Cork Company at the same time worked on a plan to merge the major cork factories in the United States with Armstrong, Brother & Company, Incorporated, founded in 1860 in Pittsburgh, Pennsylvania. This was done in the event the American Cork Company program failed. Once the move was under way, it was the determination of these men not to have a return to former practices. Accordingly, in the late spring of 1893, negotiations were started for merging, among others, the Conestoga Cork Works (Arnold & Company) and the Lancaster Cork Works (Byron G. Dodge) with Armstrong, Brother & Company, Inc. In the *New Era* of July 24, 1893, in part we read concerning these negotiations:

A CORNER IN CORKS

Consolidating A Big Industry

All the Lancaster Factories purchased by a Syndicate backed by English capital—a virtual monopoly of the business.

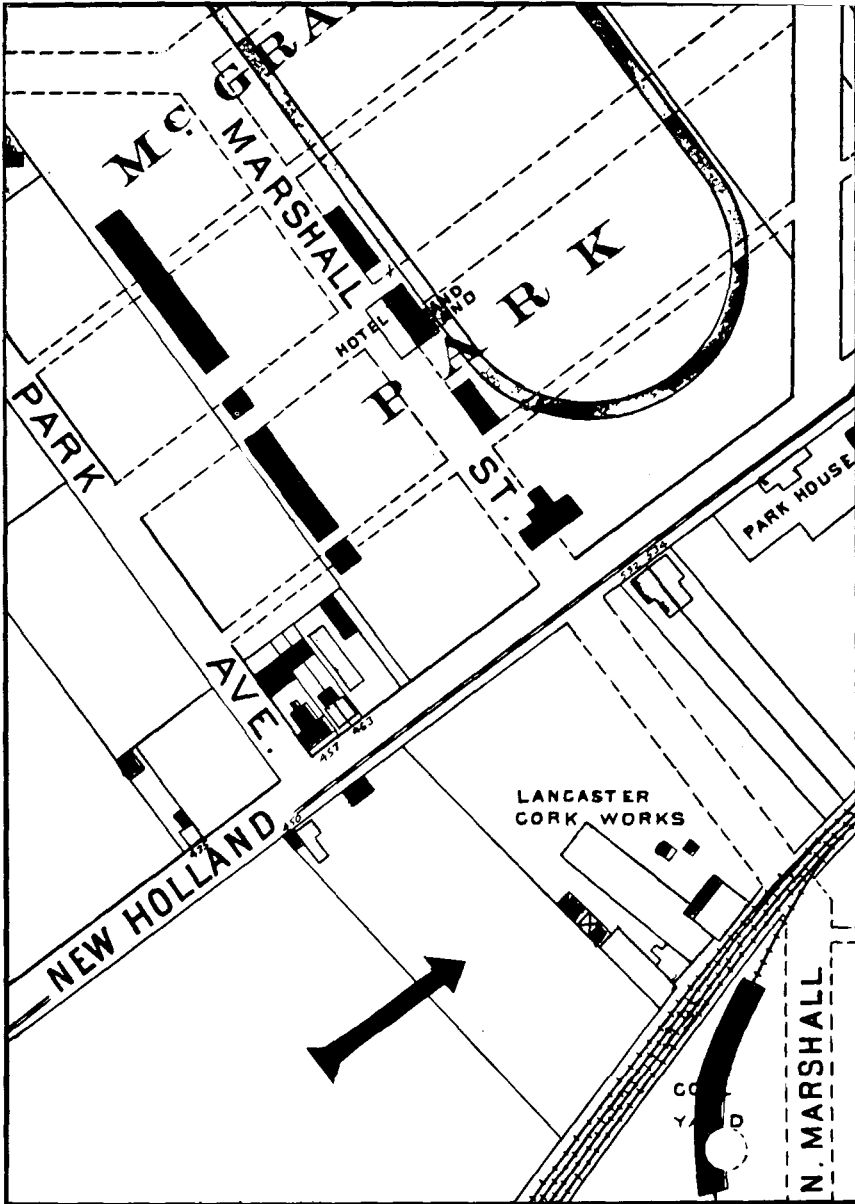
The cork factories of Lancaster City have passed into the hands of a syndicate of capitalists, who will in the future operate them.

The Conestoga factory was the first industry of the kind established in Lancaster. The Dodge factory was the second one and the third was the Phoenix.

Lancaster City has the distinction of being the second cork producing city in the United States. Pittsburgh is first, but it only achieved this distinction a few years ago, Lancaster from 1860 being in the lead. The oldest of the three factories is the Conestoga. It was established in 1860 by the late Harris Boardman.

The purchasers of the Lancaster plants are Armstrong, Brother & Company, cork manufacturers of Pittsburgh. The capital is furnished by a New York syndicate, with English backers, the principals being a firm of corkwood importers, who own cork forests and import the material in immense quantities.

It required considerable courage to attempt a move of this type for the country was then passing through what is referred to as the "Panic of 1893."



SITE OF THE LANCASTER CLOSURE PLANT
On New Holland Avenue.
(Map of 1899)



THOMAS M. ARMSTRONG
Founder of Armstrong Cork Company.

Perhaps the demoralized business conditions emphasized the need for a move of this nature.

The merger took definite shape in 1894, but it was January 31, 1895, before all of the necessary legal and paper work could be completed. At this time the name was changed from Armstrong, Brother & Company, Incorporated, to the Armstrong Cork Company. Most of the merger was accomplished through the acceptance of Stock of the Armstrong Cork Company, in some few cases by part stock and part cash.

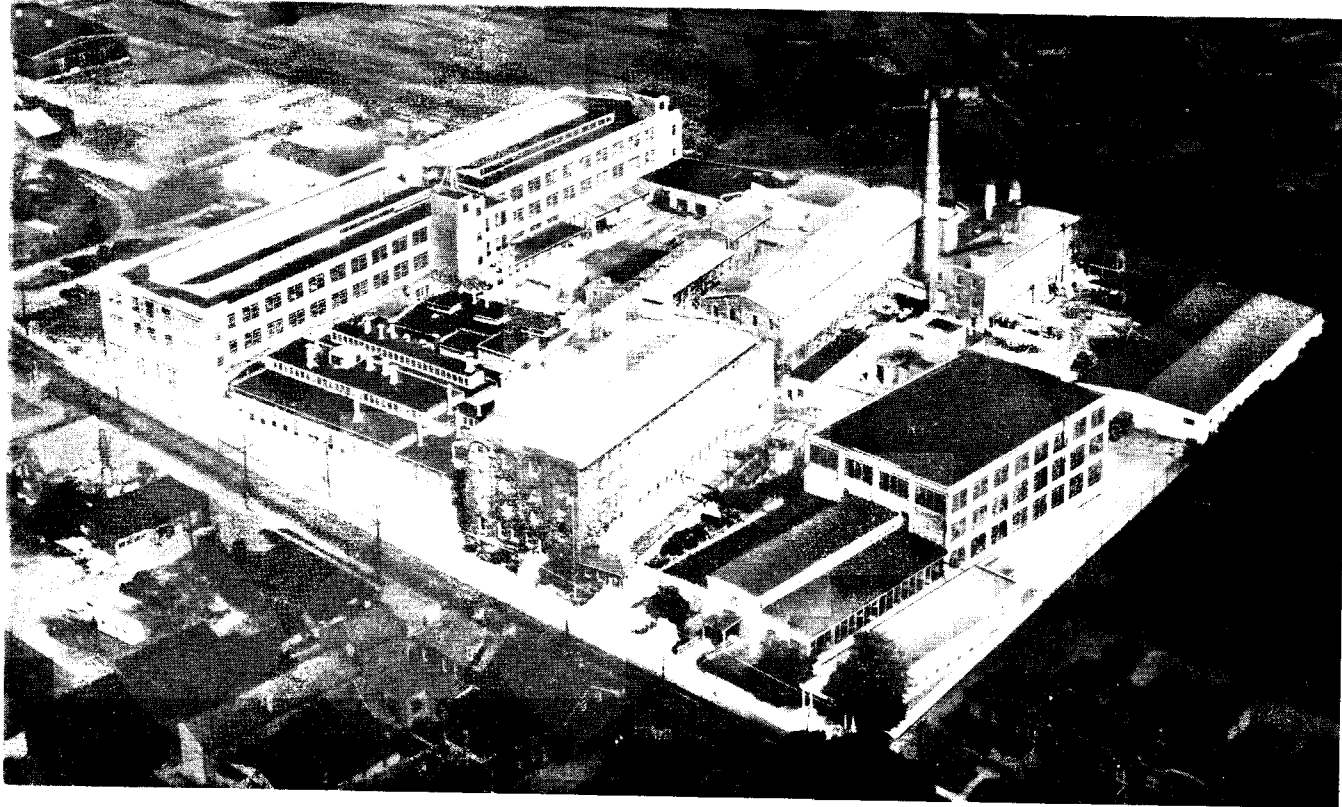
The Conestoga Cork Works and Lancaster Cork Company were merged through direct negotiations while the Phoenix Cork Works was secured through acquiring the assets of the American Cork Company. Both the Conestoga Cork Works and the Lancaster Cork Company were operated until the trade was converted to the change. The facilities of the three companies were then combined at the Lancaster Cork Company, the present location of the Lancaster Closure Plant of the Armstrong Cork Company on New Holland Avenue, Lancaster, Pennsylvania.

At the time the Armstrong Cork Company came to Lancaster, cork stoppers were the chief product of their Lancaster Factory. The demand for cork stoppers steadily declined until it reached such proportions that in June, 1932, the production of corks in Lancaster was discontinued and the operation combined with that of their Pittsburgh Plant.

With the advent of the various carbonated beverages, the need for an inexpensive, easily applied closure became a necessity and Crown Caps came into being. These made the most serious inroads on corks. In 1920, the Armstrong Cork Company began installing equipment for the production of Crown Caps which is the most commonly used type of closure for bottled beverages today. These closures require a liner of cork and since sufficient natural cork discs were not available, the production of a cork composition disc to take its place became necessary. Artmold Caps (made from resin) were added to their line in 1933 and Metal Caps in 1934.

The Lancaster Closure Plant was never completely destroyed by fire, as was the case with many other cork factories, but a number of attempts were made to set the buildings afire. This was particularly the case for about a year after acquisition of the factory. A fire alarm hooked up with the sprinkler system, as well as alertness on the part of a few employees, gave timely warnings and the sprinklers held the fires in check until the arrival of the fire department.

One of the highlights in the life of the Lancaster Closure Plant of the Armstrong Cork Company was brought about by a fire which destroyed their Pittsburgh Factory, February 9, 1901. The fire took place late on a Saturday afternoon and the next day plans were under way to send some 250 employees to Lancaster. This required finding living quarters and round-the-clock planning of production. The "Old Timers" look back with justifiable pride on how efficiently they handled the job. Exceptional progress was made



Lancaster Closure Plant As It Appears Today.

in rebuilding the Pittsburgh Factory and by March 24, 1901, the first group of workers returned to Pittsburgh.

While closures of several types are the principal products of the Lancaster Closure Plant, World War II found them lending their skills in manufacturing such foreign products as: Steel and Brass 40 mm Cartridge Cases, 37 mm Drill Cartridges, Plastic Detonator Holders, Flare Base Blocks and numerous small punched detonator parts.

When the Armstrong Cork Company came to Lancaster, they employed 225 in their Lancaster Factory. Today this same factory employs 850, with a payroll of over two million dollars per annum.

In Conclusion

With this chapter we bring to a close *The Cork Industry As Lancaster Knows It*. To the casual reader this history is probably interesting, but to the scholar and historian these pages are a story of courage and industrial romance enjoyed by few other industries in Lancaster. With a raw material grown and harvested thousands of miles from Lancaster, these men pioneered a local industry that has withstood both the vicissitudes of time and the industry itself. From its humble beginning along the Conestoga Creek ninety years ago, it has struggled and progressed to a place of prominence in the industrial life of Lancaster. While this story is confined to bottle closures generally, it is not out of order to say the Cork Industry sired one of the largest, if not the largest, industry in Lancaster — the Lancaster Floor Plant of the Armstrong Cork Company. The Cork Industry is not the result of our modern chemical and machine age, for the first use of cork antedates the beginning of the Christian Era, although it is true, it had profited and progressed by reason of it. In dealing with the historical facts of *The Cork Industry As Lancaster Knows It*, we have skimmed over the range of emotions which lie hidden therein, each in itself a human interest story.

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