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STATE
INDUSTRY AND COMMERCE

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Although Delaware is classed as an agricultural State, the total value of its manufactured products, is many times greater than that of agriculture. The many natural advantages, which gave its pioneer industrialists wide and varied markets, have been greatly enhanced by its system of good roads, the excellence of its railroad facilities, and the construction in 1923 of the Marine Terminal in the Harbor of Wilmington. (see story of Wilmington Marine Terminal, p). V 6, p. 62, 352, 361 and 370

Through this gateway to world markets, Delaware products are shipped to many foreign countries, and other States of the Union, and vast cargoes of raw materials are received by manufacturers of Delaware and neighboring States. In 1936, 534,526 tons of cargo, valued at more than \$19,000,000 were handled. However, steamboats and ferries, landing at private wharves and municipally owned docks other than the Marine Terminal, ply the Delaware bay and river, bringing passengers and freight to Wilmington and other Delaware towns on the waterways of the State.

Other means of transportation which enable the State to utilize the natural advantages of its ideal commercial location are equally satisfactory. Three railroads serve the State: the Pennsylvania, the Baltimore and Ohio, and the Reading, with 301 miles of track in all, exclusive of terminal, siding, and storage tracks. Wilmington alone has 155 private sidings and large shop and yard facilities.

More than 65 percent of Delaware's highways are of modern construction. 825 miles are of concrete, and, over 50 miles of this total, are of the dual type. Practically all industries of the State employ motor transportation as well as rail and water in the receipt of raw materials and the transshipment of manufactured products. Poultry and dairy products, in addition to other farm produce, are shipped largely by motor caravans, especially in the case of short or medium hauls.

The fruit seasons bring a tremendous increase in the commerce with other states. From early spring until late fall a steady stream of large and speedy produce trucks passes along the State highways as millions of dollars worth of strawberries, peaches, and apples move from Delaware farms to commission merchants in Philadelphia, Newark, N. J., New York City, Boston, and other cities. At the same time, large quantities of produce move northward in the refrigerator cars of long freight trains.

The State's industrial life today gains stability from the fact that its larger establishments have sprung from the sure growth of the industrial strength of the older State. Industries are largely centered in New Castle County, where the aforementioned port and railroad facilities are the best for the general upbuilding of industry and commerce, both in a domestic and foreign sense.

Wilmington, the metropolis of the State, ranks among the three largest glazed kid producing areas in the United States, and Northern New Castle County is generally considered the center of the vulcanized fibre industry. Braided rubber hose is made in Wilmington, by the firm which originated the manufacture of this article in lengths of 500 feet or more, and is exported to many countries. Wilmington

built papermaking and sugar-mill machinery is operated in Russia, Canada, Hawaii and other countries. Superior bookcloths, sunfast hollands, and other textiles, carwheels, plumbing fixtures, castings and general machine shop products, all go to make up that diversity of industry that has insured prosperity for generations.

Here are established the headquarters of the three largest explosive manufacturers on the American continent. Contrary to general opinion, no explosives are manufactured in Delaware. The last lot being made by the E. I. duPont de Nemours Company, October 21, 1921, in its Brandywine Mills. These mills closed that year, and while the duPont Company is still the largest producer of commercial and sporting powders in the United States, only about two percent of its business is explosives and one-half of one percent of those products may be considered munitions.

For 135 years Wilmington has been the home of this world renowned company, and while the average individual generally associates its name with the manufacture of explosives, it is really one of the world's largest diversified industrial chemical industries. DuPont products are used in virtually every American industry as well as in agriculture, and the company operates eighty-one plants in twenty-seven States. Two of the plants that manufacture pigments and dry colors for use in paints and inks and for other purposes are in Delaware one at Edgemoor, the other at Newport, both within the metropolitan area of Wilmington.

The Atlas Powder Company has recently completed a plant at Atlas Point, between Wilmington and New Castle, for the production of industrial chemicals. Originally devoted to the manufacture of explosives and their allied products, this well known company and

the Hercules Powder Company, the third of the explosives manufacturers, like their parent company the duPont corporation, have entered other fields of endeavor. The Hercules Company, however does not have a manufacturing plant in Delaware, but the activities of its many plants in other states, as well as those of the duPont Company and the Atlas Company, are directed from their large main offices in Wilmington.

In recent years many large companies have transferred their headquarters office and its personnel to Delaware. Liberal laws and a simple and moderate tax system are the reasons. Address boards in the corridors of the principal office buildings list such names as the Coca Cola Company, Associated Gas and Electric System, Vick Chemical Company, and the Mentholatum Company, among others, in addition to the numerous duPont affiliates.

In addition to the large fibre mills operated in Wilmington by the National Vulcanized Fibre Company, there is also the Newark mill of the same company. The Continental-Diamond Fibre Company also operates large mills in Newark. Both of these companies operate paper mills in conjunction with the fibre plants. The Curtis Paper Company of Newark are the operators of one of the State's oldest mills. The Rockland Paper Company and the Delaware Paper Mills Incorporated, manufacture paper and newsboard respectively, on the Brandywine Creek near Wilmington.

The Delaware Rayon Company operate^s a plant near New Castle for production of imitation silk, and employ several hundred men and women from the community. The Bellanca Aircraft Corporation on the outskirts of New Castle, enjoys a worldwide reputation, and holds the enviable record of building planes which have made more ocean

crossings than any other make. Steel mills and iron casting foundries are operated at Claymont, Edgemoor, New Castle, and Wilmington. The Claymont plant of the Worth Steel Company, produces large quantities of steel plate and railroad materials.

Outside of New Castle County, the industries are mostly associated with agriculture. Poultry raising is rated among the most important, and is valued at approximately \$7,000,000. Milk production is one of the main sources of income on the general farms.

The canning industry is carried on extensively, and more than thirty communities boast of one or more establishments. A nationally known chicken canning plant, Richardson and Robbins, is in Dover, and the Greenabaum plant in Seaford produces 100,000 cases of catsup and chili sauce, and preserves, 15,000 bushels of cucumbers in brine, for the processing of pickles, per day in season. The packing of fruits and vegetables is a large six months' business in many towns and villages throughout the State.

Another industry of great importance to the lower part of the State is the L. D. Caulk Company, manufacturers of dental supplies and pharmaceutical preparations. Shirt and garment factories in addition to those operating in Wilmington, furnish employment to many workers, mostly women, in Middletown, Smyrna, Dover, Milton, Seaford, Dagsboro, and Delmar.

The fruit industry in the lower counties created a demand for crates and baskets, and factories manufacturing these articles have been established in Dover, Harrington, Laurel and other towns in Kent and Sussex Counties. Large quantities of gumwood, which is readily available in nearby forests are used for this purpose. John H. Mulholland Company of Milford, manufactures small spoons out of this

same wood, which are given away with small purchases of ice cream and other products, by retailers all over the country.

The fishing industry, including the dredging and packing of oysters, and the catching of crabs for fertilizer as well as for food, is carried on extensively in several river towns. Lewes at the entrance to the Delaware Bay, is undoubtedly the most important commercially, however Bower's Beach and Little Creek miles up the bay, lead in the business of taking parties out for the ~~sole~~ purpose of fishing for sport. Commercial fishing has suffered greatly since the last century, because of the pollution of the rivers emptying into the Delaware Bay, the sewerage and chemicals dumped into the streams have practically annihilated the sturgeon and greatly reduced the shad catch. (see story of fishing # V.6, p 276)

During the year 1935, 434,000 barrels of non-food (menhaden) fish were caught by two companies operating at the mouth of Delaware Bay. Two large factories are maintained at Lewes, by these companies, for the processing of the fish. Oil is the chief product and the residue is used in the manufacture of fertilizer and chicken food. Horseshoe crabs, valuable for their content are collected at Bower's Beach. After these crabs have been dried and coarsely ground, they are sold to fertilizer manufacturers. In 1927, one-half of a million were collected. Fertilizer plants in addition to those mentioned are operated in Laurel and Smyrna.

Commercial fishing is still carried on in Seaford, on the Nanticoke River, and large catches of herring are occasionally reported. Three firms are engaged in the shucking and packing of oysters, the towns oldest industry. Ground oyster shells, once in great demand for road building in that locality, are now used

in the manufacture of scratch feed for chickens, by one firm.

The Seaford Shipyard builds yacht and boats of all descriptions, and account for most of the shipbuilding in the State outside of Wilmington, with the exception of the small yards operating in other river towns, for the maintenance of the fishing fleets.

The passing of the large forests in Delaware resulted in a decline of the saw mill industry which was one of the prominent early industries of the State. It is said that at one time there were no less than thirty saw mills within eight miles of Laurelton, -now- in Sussex County.

The decline was most notable in the last twenty-five years. In 1909, there were fifty-five million board feet of lumber produced in the State, while in 1933 there was but one million board feet produced. Delaware oak at one time was in great demand, for use especially in the building of stout wooden sailing ships, and this product of early State industry, has been said to have had a great influence in the establishment of Delaware's shipbuilding activity. The trend away from lumber in building construction, especially in the towns and cities of the State, has contributed largely to the establishing of plants for the manufacture of building materials such as concrete-block plants, brick yards, stone and marble quarries and yards, several of each which are scattered throughout the State, as well as plants for fabricating metal to be used in erection of garages and buildings.

The Bureau of Census figures of 1935, show 343 establishments with an output valued at \$5,000 or more were operating in Delaware, as against 460 in 1929. The industries in 1935 employed 17,627 wage-earners who drew \$17,196,819 in wages. In 1929, 23,552 workers

earned \$29,062,739. The cost of materials, fuel and purchased electric energy in 1935 was \$47,753,624 and the value of finished products, \$86,451,838. As may be seen, these figures were considerably less than those of 1929, the high point in Delaware industrial statistics, the cost of materials in that year being \$80,490,738 and the value of finished products \$149,642,042.

New Castle County produces 88.5 percent of the value of Delaware manufactured products, and has 83.5 percent of the wage earners of the State, and while it is becoming more important industrially and commercially every day, a marked change in its industrial character is evident. Many staple industries were affected in various ways by the so called years of depression, but the change has been noted since the early part of the century.

Shipbuilding and carbuilding, among the foremost in State industries since the early days of its history, thrived in the latter part of the nineteenth century. They lagged somewhat in the new century until the World War, which brought about a tremendous increase in industrial activity in Delaware. In 1923, the Bethlehem Steel Corporation, removed the ship department of its Harlan plant in Wilmington, to plants in other States. This greatly affected the labor engaged in that type of work, and many of the experienced shipbuilders migrated to other industrial centers; those who remained were in most cases, forced to enter other fields of endeavor.

In the years preceding the World War, skilled artisans of various kinds, (137 different manual trades being represented in one shop alone), made up a great part of the State's population, but now census figures show a majority of its gainfully employed, occupied in office work, trade, professions, and of course agriculture. The tremendous growth of the companies, having their main

offices in Wilmington, is responsible in a large measure no doubt for the change in conditions.

A natural sequence of this change has been the reluctance of the young man, who ordinarily would have entered a shop as an apprentice, to learn a trade. Consequently most of them, in the years following the war became salesmen, clerks, and other types of white collar workers, and thus many natural mechanical talents have been wasted. The Wilmington Board of Education and the Chamber of Commerce of that city, are at the present time endeavoring to correct this condition, by advocating the building of additional trade and technical schools, which would, it is hoped, turn those who are mechanically inclined, to the production branch of industry.

For a time following the Civil War, Wilmington was the center of the coach and carriage manufacturing business, and at one period was rivalled only by the city of Columbus, Ohio, with Philadelphia next in rank. The industry was not only extensive, but many of the men engaged therein were recognized experts. After the opening of the Philadelphia, Wilmington, and Baltimore Railroad, the Wilmington product became known all over the country, and the very excellence of the product contributed in a great measure to its subsequent decline.

The slump first began as a result of a disastrous financial panic, precipitated in September 1873, by the failure of the great banking house of Jay Cook and Company, in New York City, and which led to a six year period of depression. No city in the country felt the enervating results of this business inactivity more severely than did Wilmington, and the coach and carriage business never recovered from this setback.

About this time, competition from the west, where manufacturers were employing machinery in the construction of their carriages, and

substituting cheaper parts for the more expensive materials used by Wilmington manufacturers, became so strong that the Delaware product became a luxury. The western carriages were introduced at a time when rigid economy was being practiced, and the more expensive hand-made products of Delaware manufacturers faced a limited market, with patronage rapidly declining. The advent of the automobile and motor truck marked the beginning of the end for most carriage manufacturers, and while some gradually adjusted themselves to automobile work, such as making, repairing and repainting bodies, only small traces remain of a once prosperous industry in Delaware.

A number of other industries which flourished in the days of the horse and carriage, have also faded from the industrial picture of Delaware. Carriage spring manufacturers, wheelwrights, spoke and hub factories, blacksmiths and many other industries allied with the carriage business have long since, except in rare cases, ceased to operate.

Cooperage, the manufacture of matches and the production of natural fruit juices, were at one time important units in the industry of the State. The manufacture of explosives, both military and commercial, were among the first and most important products of Wilmington, but as mentioned before this industry was moved in 1921, to other plants of the duPont Company.

The tanning of goatskins or the manufacture of glazed kid for shoe uppers and other leather products is an exception. This industry had its beginning in 1829, in a small way, and with the exception of short periods of inactivity, has grown to its present large proportions. It is true that the number of leather manufacturers had decreased in late years, but the invested capital is as great if not greater than at any previous period in the industry's history.

Machine shop and foundry products also among the early industries, are still at the head of the list in manufactured products, according to the figures of the Bureau of Census, and while the character of finished products has changed, Wilmington trademarks on articles made by the various shops are still found in many parts of the World.

LABOR

The labor supply of Delaware is made up of many different nationalities and is drawn not only from the cities and towns, but from the thickly settled suburban and agricultural sections. They are comparatively free from the dictation and domination of outside influences, and in the main are loyal and steady. This fact is responsible for the small number of strikes and controversies that have occurred in Delaware, and testifies to the splendid relationship and mutual recognition of the responsibility of both employer and employee. The unions have a large membership in their respective crafts and trades, and practically every trade is represented in Delaware.

There has been a great improvement in the past twenty years in the Child Labor situation in Delaware. In 1913, the Uniform Child Labor Law was adopted, and with later amendments comprises the present law of the State on this subject. These laws, although corresponding in most details with the model Child Labor Law advocated by the National Child Labor Committee, have several weaknesses which allow abuses to creep in. Agricultural work and domestic service are exempted from all provisions of the law, and children over 14 are permitted to work in canneries. The only regulation of children's work in these occupations engaged in the preserving of perishable

fruits and vegetables is through the compulsory school law. There is also a provision to permit a child to work if its labor is necessary for its support or to assist in the support of its family - this is called the "poverty permit", and is only granted upon recommendation of the State Child Labor Inspector after thorough investigation.

The Federal Child Labor Amendment passed by Congress in 1924, and ratified by 28 states up to 1937, has been twice rejected by the Delaware legislature, once in 1925 and again in 1935. The supporters of the amendment have hopes of having it ratified by the present legislative body, and claim its adoption will automatically take care of the bad features of the State Act.

In 1915, a commission was created by legislature, to govern the inspection, regulation and condition of the labor of minor children and females under the existing laws of the State of Delaware.

The Commission consists of five members, one bona fide resident from each county and two bona fide residents of the State at large. Two inspectors, one for the Child Labor Division and one for the Women's Labor Division, make regular examinations of places of employment, and see that the regulations relating to sanitary conditions, and the number of hours a woman or child is permitted to work under the law, is carried out. Regular reports are made to the commission by the inspectors, and violators are notified in accordance with provisions of the Act. Prosecutions are instituted in cases where the notices are disregarded or the examination or investigation of the inspectors is obstructed.

File W-250

Submitted by Frank Grant,

Date April 30, 1936

Reference
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IndustryIndustrial Development of Wilmington.

1633-1800 The geographical location of Wilmington has been largely responsible for the growth of the city as an industrial center. The early settlers grasped the opportunities afforded by the Delaware River and two of its tributaries, the Christiana River on the South and the Brandywine Creek on the north, and around these the first industries began their existence.

The Indians were probably the first tradesmen and their industrial efforts consisted of making arrowheads and pottery, the preparation of animal skins and making other articles which they used in bartering with neighboring tribesmen. The erection of flour and barley mills on the streams and the building of boats on the river were the initial industries of the white man shortly after settling here.

Historians recall that "the rattle of the cooper's tools, as he hooped the sounding barrel, and the sharp stroke of the caulker's hammer as he filled the seams between the planking of the yacht, must have been heard plainly at Fort Christiana." This work was carried on at Cooper's Island, now known as Cherry Island, as early as 1642.

In the same year the use of a windmill for grinding corn at Christina, when the Swedes were in possession, is also noted. The building of small grist mills followed and thus the early forerunners of two of the largest industries for which Wilmington was later to be renown were started. The manufacture of kegs and hogsheads were necessary, the former for tobacco which the settlers raised and were

probably also used for the salting down of meat while the hogsheds were utilized for storing wild grape wine.

As early as 1729 there were two small grist mills on the south side of the Brandywine occupying land owned by Dr. Tyman Stidham, the first recorded on that stream in this vicinity. Oliver Canby is recognised as having built the first mill of any size along the stream, being erected in 1842. Other grist mills were operated on Shellpot Creek before 1670. *Del. Guide, p. 226, says "about 1662"*

In 1764 a group of eight grist mills were operating four on each side of the Brandywine. Joseph Tatnall was the first to build a mill on the north side and upon his death the business passed to his son-in-law, Thomas Lea. The mills remained in possession of the Lea family and operated continuously until several years ago when fire razed the property.

During the Revolutionary War the mills furnished flour and meal for the American Army which encamped in this vicinity at times. General Washington ordered the dismantling of the mills upon the invasion of the British Army and the mill stones were taken to Chester County, Pa., and hidden. They were later restored.

In connection with the flour industry it was at the Lea mills that the method of kiln drying corn was developed after it was found that corn meal rotted in transit. The wilmingtton Mills put into practical use the improvements in mill machinery invented by Oliver Evans, of Newport.

The old barley mill, at the fording place, about Adams St., was another industrious place. John Fleming for a score of years, used the old south side mill for cleaning barley and afterwards the Jordans printed and dyed calicos there. About 1790 an Irish exile,

Archibald Hamilton Rowan, conducted a similar business there. The structure was later enlarged and named "Rockburn," when used as a cotton mill. Subsequently it was converted into a carding mill and for spindle making. A mill stone near the race, above Adams St., is a memento of the ancient mill.

With the building of the flour mills there was much work for the coopers, many of whom lived in Brandywine, a settlement north of the Brandywine. The introduction of gunpowder manufacturing here early in the nineteenth century and the rise of the whaling company also aided their work materially.

As for shipbuilding a small business grew in the vicinity of Fort Christina and with the passing of time gradually expanded to the construction ~~of~~ of small craft, sloops, ferry boats of a limited capacity and sail-boats. Wilmington was to gain extensive commercial interests and carried on a brisk import and export business later.

William Shipley, in 1736, started a shipyard in connection with, strangely enough, a brewery. In 1740, the brig, "Wilmington," owned by Shipley and others left with a cargo for Jamaica, this being one of the earliest records of a local boat leaving Wilmington to engage in foreign trade. Thomas Willing built the first sloop packet in 1750 which ran between this port and Philadelphia. Nearly all of the leading citizens from 1741 to 1775 owned or had some interest in sailing vessels, many of which were the products of the local shipyards.

Among the early shipbuilders were William Woodcock and Barney Harris being succeeded by John Harris. The brig, "Nancy," which while in a foreign port was the first vessel to fly the Stars and Stripes, was constructed at the Harris yards.

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The Revolutionary War hampered commerce to some extent and did not revive to any degree until 1789.

In the early industrial period of the settlement it is found that Sir, William Keith had an iron works on the Christiana Creek before 1730, probably built between 1717 and 1728. It included a furnace and forge. Iron was made in the bloomeries on the Christiana after 1730 and in 1787-88 a slitting and rolling mill was located near Wilmington to which Russian and Swedish iron was sent.

Brickmaking is another old trade for this section. Historians record that bricks were made in this locality as early as 1657, the brick kiln following the grist and saw mills. At one time valuable deposits of brick clay were found in the vicinity of Seventh and Poplar Sts., and later near Lancaster Avenue and Rodney Streets. Esau Coxe, Josiah Stagg and Thomas Wallace were some of the pioneer brick makers. After the supply of clay had become exhausted the excavations were used as skating rinks during the winter.

Matthew Grips was among the early industrialists. He established a pottery here in 1760 and his cups and saucers were sold throughout this State and New Jersey.

- Kentmore, on the Brandywine, was the scene of a papermill in 1787, the first plant to manufacture paper by means of a revolving cylinder. The plant was directed by Joshua and Thomas Gilpin. They had a foundry nearby at which they manufactured their own machinery.

Their products included the printing of bank-note paper and the paper for the printing of Lavisne's celebrated atlas, Freshets and fires later damaged the buildings which were eventually sold and used as a cotton mill.

William Young and Robert Gilmeur operated the Delaware Paper Mills at Brandywine until 1803.

There was a variety of manufacturing in Wilmington prior to the opening of the nineteenth century. Francis Robinson, a Friend, prepared buckskins and chamols leather as early as 1732. His son, Nicholas, shot squirrels in the then woodlands at Fourth and King Streets. When he retired William, his son, took over the business and in 1803 was the first person in Wilmington to manufacture moroccoes.

Dr. Daniel Bancroft, who served in the British Army, who with his brother discovered the process of making quercitron or dye from black oak bark, was the first person to ship that product, which was made near Wilmington, from American to any foreign country.

Watchmaking was carried on by John Aldricks and Thomas Crow in the late years of the century and chair-making was the trade of Timothy Hanson in a factory near Second and Market Streets., while Sheward's brewery was located at Second and Shipley Sts. Joel Zane had a hardware store at the southeast corner, Fourth and Shipleys, and his wife daily fed French soldiers quartered in the neighborhood.

John Sellers was a hatter and Michael Wolf, born in 1736, earned his living by selling cakes in the street.

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Saddles were manufactured by John Patterson in 1797 at his Market St., store while Jacob Broom in 1795 had a cotton factory on the Brandywine which was a prey to flames two years later. Authorization by the assembly of a lottery to raise funds for the rebuilding of the factory was made but the project evidently failed to materialize--anyhow the mill was not erected.

Joshua E. Rhoads in 1792 established a tan yard in Chester County, Pa., and later the business, remaining in the family, came to this city. Today it is known as the J. E. Rhoades & Sons and is concerned with the manufacture of leather and belting. The Warner Company another old established firm was founded here in 1794. The company engaged in a general wholesale and transportation business. The first anthracite coal from the Schuylkill mine was brought to Wilmington in 1830 by this Company.

Another achievement was the establishing of the first printing business here. James Adams, a Philadelphian, came to Wilmington in 1761, after serving with Franklin and Hall. He started a weekly, the "Wilmington Chronicle" which continued for but six months. Up until 1775 he was the only printer in Delaware. Adams and his son started the "Delaware and Eastern Shore Advertiser" here in 1769. James Wilson in 1799 published the "Mirror of the Times," a semi-weekly. Peter Brynberg and Samuel Andrews published a paper before 1800. Hezekiah Niles, later known for his publication in Baltimore of "Niles's Register" was educated and learned the printing business here.

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It is due to his publication that many of the early happenings of the city have been preserved. Vincent Bonsall was associated with Niles.

Jacob A. Killen and Company appeared as a printing company after Adams and in 1784 published the proceedings of the State Assembly. Killen is credited with first publishing the "Delaware Gazette," which made its appearance in 1785 which was the first Delaware newspaper to attain a permanent position in the journalistic line here. In 1789 the paper, a semi-weekly, was published by Frederick Craig and Company. The paper later passed into other hands.

The seventeenth century was also a period enjoyed by carriage makers and ^{especially} ~~more so~~ before 1750. In the seventeenth century two frame buildings, one located on the site of the old Delaware Bank north east corner Sixth and Market Streets and the other on the west side of Market St., between Sixth and Seventh Streets were used to manufacture carriages. John Martin, John Reynolds, Joseph Hoopes, John Dixon and John Way were among the early carriage makers. The industry continued to flourish and reached its peak in the nineteenth century. Wilmington was one of the largest carriage manufacturing centers in the United States between 1784 and 1872.

Following the Revolutionary war and up until 1797, Wilmington passed through a trying but prosperous era, such periods are generally experienced following the close of any conflict. During the war the city was occupied by both the American and British armies. The insurrection in San Domingo and the yellow plague in Philadelphia drove many persons to this city, many of whom opened business. With the flour mills, coopering shops, cotton and paper mills on the Brandywine and other establishments in the borough Wilmington was a thriving community and with contemplated progress faced the beginning of the nineteenth

century.

1800-1875 Perhaps one of the most important industries added to the growth of the borough in the new period was the manufacture of gunpowder. In 1801 powder making was started at the mills of Peter Bauduy and his son-in-law J.P.Garesche, at Eden Park, formerly known as Monckton Park. The mills were operated by Garesche until 1861. Incidentally Bauduy drew plans for the city hall erected in 1798.

Elouthere Irene duPont founded the famous powder mills on the Brandywine in 1802. DuPont's determination to manufacture a better grade of powder than that which he found in this country at the time led him to purchase a 95 acre tract of land from Jacob Broom for \$6,740. Mills were gradually added to the enterprise and powder for the American armies and navies have been supplied by this concern, since the mill's founding. In 1904, the experimental station was erected on the site of the first powder mill. A research department is also maintained at the place.

In this century many industries were started here, some of which were discontinued after a short life, others flourished for a long period, and some of them are still in business at this time.

One of the early business enterprises was the cabinet making establishment of John Aiken who came here in 1802 from Philadelphia and located at Fourth and Shipley Streets. In the same year Peter Dixon was the first to sell ice to the people of Wilmington.

Wilmington. In the following year Vandever and Test opened a distillery at or near Queen and Tatnall Streets. William Young purchased the Brandywine Paper Mills and David West had a nail factory at Front and Market Streets. In 1804 Chalfont and Dixon were machinists near Sixth and Shipley Sts., adjoining the coach factory of John Dixon.

Before the second war with Great Britain the borough's population was less than 5,000 but at the time, 1810, there were 22 squared rigged vessels trading out of the port. Superior cloth was made here in the early part of the century, but the war curtailed the exportation of that article. The growth of manufacturing on the Delaware was increased during the strife and the protection and encouragement of high tariff duties, incident to the expenses of the war had enabled the manufacturers to enjoy prosperous business.

There were war scares in the city during the times however and precautions were taken to safeguard the powder mills when rumors of invasion were circulated. A defense for the town was built near the Rocks in case enemy troops or ships threatened Wilmington. However, no enemy occupied any section of the borough during this war.

In the immediate vicinity of Wilmington along the Brandywine, in 1814 there were 14 grist mills, 16 cooper shops, cotton, paper, and snuff mills and many other concerns. Wilmington and Brandywine had nine shops making cotton and woollen machinery, 22 cooper shops, three carriage making factories, six batteries, a

brass foundry, three wheel wright shops and others, including a cotton mill with 40 looms, this being located at Front and Tattall Sts.,

The Rokely cotton factory opened with 500 spindles early in the century and this number was increased latter to 1200. The Simmelville mills on the Brandywine was another large concern. The latter, a four story structure, ran 3,000 spindles. John D. Carter, operated the first named mill in 1823 and the employees were accommodated in eleven tenement houses on the property. Joseph B. Simms purchased the Simmelville property in 1824. Machine cards used in these mills were made at No. 40 Fourth St.

In 1820 there were 894 dwellings houses here, only 290 more than were erected in the city during 1831. In 1832 when the city was incorporated the houses numbered 1228. In 1836 two entire city blocks were erected including several foundries and machine shops, 52 buildings in all being included.

Thomas Garrett in 1822 was making chain and hand made horse shoe nails at his shop at Second and Shipley Sts., In 1823 the first manufacturing of morocco started, William Robinson entering this business. He continued for seven years employing about a dozen employees. In 1830 he discontinued the business to open a foundry at Tenth and Orange Streets with James Rice as a partner.

The Delaware Journal was published in 1827 and was considered a rival to the Delaware Gazette. It was semi-weekly. Many of the various publications which have made their appearances from time to time had been merged with these papers and the Wilmington Daily Commercial, Wilmington's first daily, published in 1856. The papers in turn were eventually obtained by the Every Evening which appeared in 1871.

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Some papers of the last century were the Blue Hens Chicken, started by William T. Jeandoll and Francis Vincent in 1848; the Morning News appearing in 1890 following the Morning Herald, the first State morning daily newspaper, which was published in 1875.

The daily Republican made its appearance in 1841 and 40 years later the Sunday Morning Star was published.

Joseph Bancroft founded the Rockford Bleaching and Dye Works and cotton factory at Rockford in 1831 and in 1895 the Company absorbed the Riddle Mills which had been used for cotton spinning since 1858. Riddle and Laurence purchased the Gilpin Mills on the Brandywine and following the addition of other buildings had at one time 12,000 spindles operating.

Philip McDowell in 1832 had a thriving coopering business near 11th and duPont Streets. The section as a result was known as McDowellville. A year later the Wilmington Gas Company was operating and another enterprise was the Wilmington Whaling Company which discontinued business in 1846.

Enoch and Charles Moore were engaged in the shipbuilding business first at the foot of Poplar Street and later in 1834 at the foot of Fourth Street. Enoch Moore, Jr. took over the business in 1871. Later the Moore's conducted a similar business on the South Christiana Creek.

It is related that in 1834 a locomotive was built here for the New Castle and Frenchtown Railroad under the direction of E.A. Young of Norfolk, Va., and was placed in successful operation. It passed over 25 feet descent per mile near Frenchtown at 12 miles per hour."

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File W-250

On July 4, 1837 the western section of the Wilmington and Susquehanna Railroad Company ran a train from here to Perryville, Maryland. After a short operation the company was merged with the Philadelphia, Wilmington and Baltimore Railroad.

The appearance of steam power lessened the attractiveness of water power and business gradually declined on the Brandywine and turned toward the Christiana. Here industries could take advantage of both rail and water traffic. Wilmington boomed with the introduction of the railroad and in the next 17 years the population jumped to 18,000.

In 1835 silk growing was attempted on the land south of the Christiana by Thomas Garrett, who had received a supply of silk mulberry trees in payment of a debt from a resident of South Carolina. Garrett sold the cuttings in 1845 for \$7,500, and after an exchange of various owners, the last of whom received \$18,000, the morus multicaulis fever abated and the trees remained on the ground untouched. A silk firm was established three miles from Wilmington on the Concord Pike where mulberry trees were cultivated and in 1845 there were 8,500 pounds of cocoons raised in the State.

In 1836 the forerunner to the Harlan and Hollingsworth Company was established when Mahlon Betts, who introduced the first stationary engine in the State, at his foundry, and Samuel H. Pusey entered a partnership to build cars at Front and Tatnall Sts.

Samuel Marlan entered as a partner the next year and Elijah Hollingsworth entered the business in 1841 taking over the interest of Pusoy. In 1849 Betts retired and in 1858 J. Taylor Cause entered the concern.

Larger quarters were taken in 1841 at the foot of West Street and in 1843 the ship-building ventures of the company began, making the first sea going iron propeller steam, the Danger, in May 1844. The company is regarded as being the first iron ship-building yard in the United States.

The Lobdell Car Wheel Company had its origin also in 1836 being founded by Bonney and Bush. George G. Lobdell, a nephew of Bonney succeeded his uncle and the company was known as Bush and Lobdell in 1838. In 1859 the Company came into possession Lobdell and in 1867 the Lobdell Car Wheel Company was organized. The panic of ¹⁸⁷³ 1857 prostrated business, but in 1880-81, prosperous times returned and the plant was enlarged. Chilled wheels and rails, rolls for paper machines and flour mills were manufactured. The company is the oldest concern in the country for manufacturing wheels and rail type of railroad equipment.

Heisler and Roberts started a coopersmith shop here in 1838, this being the only shop of its kind in the State at the time.

As the half way of the century approached the following industries were located here:- J. Morton Poole Company, makers of chilled iron rolls and calenders, being located at the time 1839 upon the Brandywine on land now occupied by some of the Bancroft mills:-

Jessup and Moore, 1843, paper manufacturers on the Brandywine purchasing the Augustine Mills and in 1860 purchasing the paper plant of William Young at Rockland, erected in 1793. Later they operated the Delaware Mills on the Christiana.

In 1844 the Diamond State Car Spring Company started in business at the foot of Eighth St., and C. and J. Pyle had a leather business near Fifth and Orange Sts. According to a city directory of 1845 some of those engaged in business at that period were; Wilmington Rolling Mills, Joshua P. Edge and Company, foot of Letitia St., between Ninth and Tenth Streets near the railroad bridge on the Brandywine; Enoch Roberts, soap and candle manufacturer, Third and Orange Sts., William Chandler, tanner, Fourth and Tatnall Sts., John Yohs, Manufacturer of boots and shoes, "his gentlemen's boots stood unrivaled" Betts and Stotsenberg, foundry, Eighth and Orange Streets. Robinson and Henry, Soap and candles, Fourth and Tatnall Sts., J. Rumford, hats, 92 Market St., William G. Jones and S. McClarey, cabinet makers and undertakers; John L. Hadden and Company, 57 Market St., manufacturers of tin, copper and iron ware; J.B. Moore and Company plough manufacturers, West St. near Front; Ziba Ferris, clock and watchmaker, Orange St. between Fourth and Fifth Streets. Moore and Haman, plough manufacturers, Orange St. between Front and Second Sts., and Jonathan Wightman, lottery and exchange office, 31 Market St.

A small rolling mill built about 1845 was the beginning of the Seidel and Hastings Company, which was incorporated in 1884. A year later Charles I. DuPont and Company exhibited cloths at the National Fair in Washington and the government ordered 60,000

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yards of kerseys and 20,000 yards of blue cloth for the army during the war with Mexico. Cyrus Abbott of this city, constructed the first telegraph line between Philadelphia and Wilmington.

The brickyards were busy during that time and nine million bricks were made and in 1848 there were 13 million bricks turned out, McCaulley and Rice, in the latter year, made a brick making machine propelled by steam costing \$10,000. and capable of making 25,000 bricks per day.

Elwood Garrett in the meantime had invented a machine for making wooden screws.

Flagler and Company in 1846 had a large carriage factory here and in 1856 Frist and Allmon succeeded them establishing their works at Seventh and Shipley Sts. In 1847 the machine shop formerly owned by Garrett A. Hollingsworth was changed to a steam saw mill and William Chandler built a steam mill on Tatnall Street between Third and Fourth Streets.

In 1848 the present plan for numbering houses was adopted, and in the same year Pusey and Jones Company came into existence, The Company located at the foot of Poplar St., and manufactured heavy machinery, engine boilers and ships. This company cast the anchors for the Brooklyn Bridge. The anchors weighed 23 tons each. The products of the company are distributed throughout the world. The "Volunteer" a racing yacht, which defended the International Racing Cup was constructed by the Company.

In 1849, Jones, Guthrie & Company were coach manufacturers on the south side of Market Street bridge and Betts and Stotsenburg erected a foundry on Front Street.

at the foot of Washington, for the production of large castings.

At the Castle Garden Fair held in New York in 1849 Bush and Lobdell received premiums for the best car wheels in America and J. Pierson received an award for the best patented wheat drill while Jesse Urry received a premium for inventing a self supporting endless chain and railway horsepower.

William F. O'Daniel sold the first sewing machine in the city in that year.

Joseph Teas in 1850 started the manufacture of nuts, bolts and washers which later became the business of Hare and Morgan Company.

The Diamond State Iron Company started as a small rolling mill in 1853 and grew to become one of Wilmington's greatest industries. Robert S. Harris associated with Joshua P. Edge formed the first company. The Diamond State Iron Company, upon its incorporation, became the first incorporated manufacturing company in the State; it having purchased the property in 1865. The plant was greatly enlarged and occupied land on both sides of the Christiana River.

John S. Crosseley and Samuel Davis in 1854 started in the tool making business at Ninth and Church St., but after various owners had conducted the business the property was acquired by William S. Hilles and Henry C. Jones and the company was known as Hilles and Jones. Boilers, Engines, and wooden vessels were built, the shipbuilding being discontinued at the end of the Civil War.

Manufacturing establishments in 1854 were the Diamond State Match Company and Allen Gawthrop, plumbing supplies. In the following year a cotton factory was built in Brandywine Village Gregg and Bowe started a carriage factory at Eighth and Orange Streets and in 1858 G.T. Clark and Company started a morocco plant. In 1860 Betts Machine Company was established on Maryland Ave., the products being machine tools and appliances. The Diamond State Coffee Mill was the outgrowth of a concern started in that year by John Aspin and Daniel Rawcliff (1860).

In 1860 the output of the manufacturers of New Castle County (almost entirely in Wilmington) amounted to nearly nine millions of dollars and employed 5757 hands. There were 380 establishments employing that number of persons. Flour and meal had a valuation of \$1,537,266, the highest, followed by cotton goods valued at \$941,703, and iron foundries was third with \$658,750.

There were many industrial enterprises established in the city between 1860 and 1875. In brief they included Jackson and Sharpe Company, known at one time as the Delaware Car Works, one of the largest concerns in Wilmington; The Pullman Palace Car Company, which originally started here in 1871 by Thomas W. Bowers and Henry F. Dure; the Remington Machine Company, founded by George W. Remington in 1872; the G. W. Baker and Company, near Second and French Sts., specializing in morocco machinery, and established in 1870. A.L. Henderer, machine shop 1872; started on Christina St. and later removed to Maryland Avenue and Beech St., Trump Bros. Machine Company who came to this city in 1873 from Rochester, N.Y.

J. G. Hirzel, 206 East Second Street, 1870;- manufacturing a bolt and rivet cutter. McCullough Iron Company 1875;- whose plant was at the foot of East Seventh St., the outgrowth of a partnership started in 1847 between Delaphine McDaniel, Jethro J. McCullough and E. A. Harvey, all of this State, who purchased an iron works originally at North East, Md., In 1875 they built the Mingus Mill in Wilmington and galvanized the first sheet iron in the United States.

Other concerns were the Washington Jones and Company, 104-110 Walnut St., morocco plant, established as Baynard and Jones in 1858;- William Bush, morocco plant, 114 Walnut St. started in 1858 by G. T. Clark & Co., in which Mr. Bush was the silent partner;- other morocco plants here were the Charles Baird & Co., succeeding Maltrits, Baird and Taylor who began business near Fifth and Poplar St., and in 1865 Baird moved to 214 West Third Street. John G. Baker on East Fifth St., 1863, James Bonner 302 West Fifth St., formerly Jones and Richmond, who began business in 1875.

Leather

A steam bakery was operated by J. Barkley and Brothers Company at Fourth and French Streets., the business being founded in 1868 as was a similar undertaking by W. and J. Lang in the same year. The Wilmington Dental Manufacturing Company was started here in 1866 by Dr. J. Shelp at Ninth and Market Sts., and later the business was taken over by H. C. Robinson and Professor S. J. Willey and incorporated larger quarters being taken on King Street opposite the old court house which then occupied the site of the present Rodney Square.

Charles E. Smith in 1848 had a marble works at Tenth and Tatnall Sts., and the Delaware Steam Marble and Granite Works was located in 1861 at Fifth and King Sts., by Brown and Davidson. Another marble works was located at Ninth and King Sts., by William Davidson; John L. Malone had a marble works at Delaware Avenue near Madison Street and L.W. McGowan had another plant at 235 Shipley St.,

Walton and Whann were fertilizer manufacturers here in 1861, the plant being located on the Christiana. At Front and Orange Sts., James F. Wood & Co., had a patent pipe covering plant about 1872, the company succeeding Wilson, Wood and Company. The manufacture of fruit juices was carried on by Smith and Painter who in 1863 had a drug store at Seventh and Market Sts., As the business expanded larger quarters were taken near 11th and Bennett Sts.,

Other noted concerns of the period were the Vulcanized Fibre Company, 10th and Walnut Sts., started in 1875; Thomas Drein and Son who built small boats starting business in 1866; Wilmington Mills Manufacturing Company 16th St., and Railroad Avenue started in 1870;- in 1868 Stephen Downey had a hub factory at Third & Tatnall Sts., and there were many carriage factories at the time in the city.

The Diamond State Brewery was located at Fifth and Adams St., on the site of the old Nebeker Bros. brewery built in 1859; Hartman & Fehrenbach Brewery was located at Lovering Avenue and Scott Sts., as early as 1868 and in addition before 1875 there were many brickyards and lumber yards doing a thriving business.

There were also many contractors and builders located throughout the city. In 1867 there were 278 houses, 14 manufacturing establishments and three churches built in the city with a total valuation of \$969,000. In 1870 the population was 30,904. The capital employed in Wilmington in 1872 was \$12,275,000, compared with \$12,625,000, in the following year, and the product in this period arose from \$20,125,000, to \$22,150,000.

The aggregate manufacturers of the State in 1862 were \$9,920,000, and consisted chiefly of shipping flour and meal, steam engines and machinery, railroad cars, carriages, lumber, cotton and woolen goods, and boots and shoes.

At the outbreak of the Civil War many mechanics were employed and business was suffering. However, this condition did not endure when the government began calling for manufactured articles. The result was that Wilmington manufactures and mechanics were in demand. Steam boilers, engines and machinery were chief demands and the Fusey and Jones Company received a contract from the Government amounting to \$100,000, in 1861.

The shipyards were particularly busy and gunboats and monitors were constructed. Army wagons, tent poles, army and navy supplies were also made here for the Union cause. Although the Southern Forces never advanced as far as this city there was intense excitement when the Confederates were reported in nearby Maryland.

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File W-250

Two men suspected as being Confederate spies and having believed to have a knowledge of the operation of the duPont Powder mills on the Brandywine were arrested by Union officers at Rising Sun and sent to Fort Delaware.

Feb

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Reference 34

Wilmington industries

File No. 250

LOCATION - Wilmington,
Submitted By - Gordon Butler,
Date - - - - - January 20, 1936.

1c in Wilmington News
Alphabetic Section

(c) The carriage industry started here about 1750 and was considered one of the leading manufacturing centers of this industry until about 1904. One firm built 900 Army wagons during the Civil War.

(b) The manufacture of hand made paper was started in 1787 and paper making machines was patented by Thomas Gilpin in 1816 made bank note paper in which silk was mixed with rags. Local paper making machine shop developed the soft necked chilled roll one of the leading industries since early 1800.⁵

(a) The manufacture of powder was started here in 1801 and is now one of the leading industries.

(B) The Spring Water Company organized in 1803 incorporated in 1804 purchased by the Borough Council in 1810. In 1819 water was first piped to houses in wooden pipes and in 1825 metallic pipes were first used.

(D) At the beginning of the 19th Century the cotton industry grew rapidly.

(D) Before 1812 beef, pork, flour, grain and cheese exported extensively. Later exports dropped off on account of the increased home demand.

(D) The Brandywine had a fall of 100 feet in $4\frac{1}{2}$ miles and in that distance there were 36 mills operating in 1814. They owned 9 sloops from 40 to 60 tons and used for shipping flour mostly to Philadelphia. The flour mills continued in business for years and the last one operating up to about 1920 when it burned.

(B) Wilmington was chartered as a city in 1832.

(D) Whale fishing was important here at one time. The Wilmington Whaling Company operated from 1833 to 1846. They had several vessels and averaged about one year and a half to each voyage. Used sperm oil for light.

Shortly after 1833 gas works was started in Wilmington using resin for manufacture of gas. Improvement over sperm oil light and also cheaper. The works was blown up and new plant built in 1848. The Coal gas Co. organized in 1851 and absorbed former company. Started water gas plant in 1887. Originally there was but 50 customers.

(B) The western section of the P.W.& B.R.R. was opened July 4, 1837.

(B) The first sea going iron ship was the "Bangor," built in Wilmington which was for years the most important shipbuilding centre in the United States. The Bangor was launched in May 1844 and was burned on her second trip and rebuilt and sold to the United States Navy and was used as a war vessel during the

propeller ship built in the U.S.

trouble with Mexico under the name of Scourge.
She was sold after the war and record of her was
lost after October 9, 1848 when registered at New
Orleans.

She was a propeller ship of 231 tons and 131
feet overall length and was schooner rigged with
three wooden masts. She was built for the Bangor
Steam Navigation Company of Maine.

(B) Morocco leather was first manufactured on
a large scale here in 1845.

(C) In 1872 it was the largest single item in
Wilmington trade. Local plants were pioneers in
the use of machinery in this industry.

(C) In October 1849 one car wheel Company was
awarded premiums for the best railroad car wheels
in the U.S. at the Castle Garden N.Y. Fair Trade
"Chilled in" wheels.

(D) In 1869 they invented the double plated
car wheel now used on all railroads.

(D) The Wilmington City Electric Light Company
was founded November 1882 and started operating in
January 1883 with 55 arc lights built 40,000 candle
power plant in 1886 was granted charter the same year
used first incandescent lights December 2, 1885 also
furnished power for Brandywine.

extension of Wilmington City Railroad.

(D) Railway Car building shop here used embryo straight line system later developed by Henry Ford for automobile production built freight,passenger and Pullman cars.

(D) Vulcanized fibre was another industry that had its beginning here. It was invented in 1872 and patented in 1873. It was first manufactured on a small scale and in 1875, the Vulcanized Fibre Company was organized. It ranks as an important industry today.

(D) In 1780 Flour sold for \$24.00 per bushel.

(B) The industrial growth of Wilmington was very slow until the 19th century. It reached its peak about 1914. The coming of steam moved the industries from the Brandywine to tidewater on the Christiana early in the 19th century. A good many industries were founded between 1830 and 1848. (D) Between 1860 and 1880 giant strides were made in industrial development. The leading industries today are morocco leathor,chemicals, railway cars, ship building and paper making.

No real important strikes have originated here.

- A. Author John Gilbert Craig, Murray Hetten and Brooks Darlington, "Highlights of Wilmington, Dec. 1832 to 1932. Published by Wilmington Chamber of Commerce, Wilmington, Del. 1932. 65 Pp.
- B. Author J. Travers Jones, (City Editor of Every Evening Journal) "Every Evening History of Wil." (Copyright P. T. Smiley & Co.) Press of Moss Engraving Co. New York, N. Y. 1894. 279 p p.
- C. Editor John C. Harkness, "Harkness Magazine" published by John C. Harkness, Wil. Del. 18 editions, September 1872 to May 1888. Special Industrial number #19 - 1871. Complete in book 1141 p p -2 parts.
- D. Author J. Thomas Scharf A. M. L. L. D. History of Del. (Copyright by L. J. Richards & Co. Phila. Pa.) Press of Jas. B. Rodgers printing Co. Phila. Pa. 1888. Two Vol. 1358 p p.
- E. Author Henry C. Conrad "History of the State of Del." (Copyright by Henry C. Conrad, Wil. Del.) Press of Wickersham Co. Printers, Lancaster, Pa. of 1908. Three Vol. 1179 p p.
- J. Authors J. M. McCarter and B. F. Jackson - Historical and Biographical Encyclopedia of Del. Adeline Publishing and Engraving Co., Wil. 1882, printed by The James & Webb Printing Co. Wil. Del. 1882 - 572 p p.
- K. Author The Association of Centenary Firms and Corp. of the U. S. Centenary Firms & Corp. of the U. S. Published Christopher Sower Co. 1916. Second issue, 164 p p.

O. Author Elizabeth Montgomery "Reminiscences of Wilmington" publishers, Johnson & Bogia, Wilmington, Delaware, 1872. Second Edition, 310 p p.

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J. Barton Cheyney,
January 19, 1937.

1833/MS
names
Delaware Whale Fisheries

40
~~Polklore~~ -

Wilmington
Special Features
Ships and Railways

950 of what about
disburse
dates

The scarcity of sperm oil and the demand for whalebone, with the logical increase in the selling prices of both, induced a company of Wilmington capitalists to organize the Wilmington Whaling Company November 23, 1833. New England then was in exclusive control of the industry, unchallenged by fishermen of any other section of the country. The new promoters;- Edward Tatnall, James Price, James G. Howland, C. I. duPont, Samuel B. Davis, John Gordon, Daniel Wilson, Robert Porter, George Bush, Mahlon Betts, William Chandler, William Seal, John Wales, Stephen Bonsall, James W. Thompson, Henry Whitely, George Jones, Miller Dunott, John Rice, John Wright, and William P. Brobson, purchased or disposed of the \$100,000 in stock. The Company was chartered ^{January 23,} in 1835 and inaugurated the whaling business with \$300,000. capital. At that time it was among the most strongly financed corporations in the Diamond State. Before assuming activities the company was re-organized with twenty-five directors, several of whom were Philadelphians. ^{Insert A} The Ceres, a whaling craft, was the pioneer of the fleet, which by additional purchases from the New Bedford builders, was increased to five. The Ceres fellow-whalers included the Lucy Ann, the Superior, the Jefferson and the North America.

It required from five to six months for the vessels to sail to the fishing grounds, leaving Wilmington they would round the Cape of Good Hope to reach the Pacific Ocean, arriving in New Zealand in March when the whaling season there was at hand. Later the whalers shifted with changing weather to the Fiji and Samoan Islands and back again to New Zealand- the fleet following the whales. The yield of sperm oil was large; it was extracted from the carcasses of the monsters where

Insert A

The Wilmington members of the directorate were David C. Wilson,
Edward Tatnall, Samuel B. Wheeler, Thomas Newlin, Thomas Bonsall,
Charles I. duPont, Thomas ~~Larkin~~ Larkin, Jonathan Bonney, Mahlon Betts and
James A. Bayard.

they were captured. The ships returned after from two to three years whaling voyage with the oils in barrels. It was sold here on to dealers in larger cities.

The business of the company seemed to progress satisfactorily at the outset, (after the disappointment over the catch of the Lucy Ann had been overcome) for the Superior came home after two years of whaling with a cargo valued at \$11,254 and the Jefferson later returned from a long cruise with large quantities of oils. Indeed, the gratification over the top yield of the Superior lead to "Chairing the Captain," an honor conferred for meritorious services or success. It is recorded that the crew borrowed a chair from the Foul Anchor Hotel and on it the hero of the ceremonies was carried up and down on Market Street, the cheering whalers following in the wake of their chief.

In the second or third year of the company's activities good fortune seemed to have desered^t it. The Superior lost her captain by death and returned without a profitable cargo of oil or whale-bone, while the North American was wrecked in a hurricane off Holland in 1846. Even the Lucy Ann defaulted by not returning with a paying cargo - one sufficient to meet the cost of her operation, — and the directors held a meeting and decided to liquidate the Company and retire from the business. This action doubtless was further prompted by the decline in the prices of whale oils which was accounted for by the discovery of petroleum which soon snuffed out the lamps burning sperm oil. In 1840 ^{six} ~~five~~ years prior to the dissolution, the net profits were \$16,598. and ^tthe vessels were appraised at \$180,185.

By stock netted seven per cent. Stephen Bonsall was then president; W.T. Wheeler secretary and Allen Thompson treasurer.

Page No.3
Folklore - Cheyney
Delaware Wahle Fisheries.

The coming and going of the whaling vessels from Wilmington were occasions of sadness and rejoicing. When ~~notice was~~^{a cannon shot} proclaimed, that a whaler was at the mouth of the Christiana waiting to be towed over the sand bar near her wharf, now the site of the Pusey & Jones Company, half the city dropped whatever work that was under way and rushed to the ~~whaling~~^{scene} wharf. As the crew had been away ^{as long as} two or three years there were emotional reunions of wives and husbands, lovers and sweethearts. There was general rejoicing in the town which continued almost until the vessels had discharged their cargoes and ready to put off for another ~~fishing~~ voyage. There were tears and caresses from wives, sister, the bachelor sailor pledging his troth and fidelity to the girl he left behind him, who with tear-dimmed eyes watched the whaler as she headed down the Delaware destined to spend the next two or three years on the other side of the world fishing for the monster mamals of the deep.

There came also to the returning whale craft fathers and mothers of prodigal sons, ~~members of the crew~~, who had shipped on the long voyage for discipline and to overcome the habit of over indulgence in strong drink. Especially hopeful were such parents and, of course, were keen to embrace their sons for their departure from the evils of intoxicating liquors. In the absence of cable news, or radio information, a ~~strong~~^{shot of the cannon or} blast from a whistle at the Whalers' Wharf announced that one or the other of the long absent whaling craft was at hand waiting to be towed up the rather uncertain channel of the Christiana.

The waters of the Delaware River and Bay however, have yielded generous profits to Delawareans in past years. A century ago the food fishes in the river were so numerous that an historian declared

Page No.4
Folklore- Cheyney
Delaware Whale Fisheries.

that one could not wade in the shallows of tide water streams without stepping on herring or shad in the spring. Fishermen captured sturgeon in large numbers; they were abundant in Delaware waters; before it became generally known that their meat was of surpassing excellence or that roe of the species was the most prized and expensive of all seafoods. The shad were netted by the gills and were caught by the boatload while herring were so super-abundant that farmers scooped them in baskets from the waters and fertilized the ^{land} ~~enough~~ with the carcasses. The great schools enabled the fishermen to sell them for a song, and they must have contributed more than any other article of diet to the upbringing of the large families of the underprivileged. Terrapin and other turtles, crabs and lobsters contributed largely to the earnings of watermen while Delaware's oyster beds perhaps if developed to the utmost of their possibilities would return enough money in taxes to almost pay the cost of administering the government of Delaware. Later day, pollution of the waters of the Delaware river and bay is ^{signalling} ~~marking~~ the final disappearance of the shad and herring, and increasing the scarcity of all the food fish including the sturgeon- the most valuable of all of the species in our waterways. Lewes

Fishing has been turned into a goodly profit at Lewes where there are large factories for the extraction of oil from the otherwise useless menhaden. A fleet of ships with steam drawn seines, net millions or billions of the fish and convey them in heaping steamship loads to the factories on the shores of the ancient city - the southernmost incorporated town in Delaware. The carcasses of the menhaden after the extraction of the oil is manufactured into a fertilizer which is used on farm lands.

Porpoise
Leather

1885

44

Page No.5
Folklore - Cheyney
Delaware Whale Fisheries.

A company of Wilmington capitalists in the mid-eighties was
organized to manufacture leather from the hides of porpoises. ^{Insert B -} They
established a tannery at Cape Hatteras where the waters abounded in
big fish. In addition to the fine leather made from their skins
secret cache^s in their jaws yielded the finest of machine oils
used in clock and watch making, and was sold at one dollar an ounce^N.
Soon after the company had erected its plant and made large expen-
ditures for equipment the docile and usually dumb porpoises found
a home in other waters where there were no nets nor traps to endanger
their lives. ^{their departure} Without the ~~new product~~ the porpoise factory closed.
The company liquidated and quit fishing. X

Reference:- History of Delaware, J. Thomas Scharf, A.M. LL.D
2 Vols. Vol.2 pp 751-752; L. J. Richards & Co.,
Philadelphia, 1888; Wilmington, Chamber of Commerce,
Wilmington, 1933;
Newspaper files and clippings;
Personal recollections.

Insert B

Z. James Belt was president of the company; S.L.West, vice president; Benjamin F. Jackson, ~~Secretary~~; Henry C. Conrad, treasurer and ~~for~~ John Wainwright manager. Seventy-five men were employed in the fishing and in the tannery ~~at~~ ⁱⁿ Wilmington,

45

Chronological analysis :

Origin, Progress and Present Status of the
Iron Artificers and Products.

taken from:

Harkness Magazine, Special pamphlet #18.
Wilmington, Del. Harkness. May, 1888.

//
1638: Credit the Wilmington Metropolis with an early discovery of Iron Ore about two and one-half centuries ago. (1888)

1773: Earliest idea of a steam carriage which soon developed into the conception of a Railroad Steam Locomotive in the mind of Oliver Evans.

1776: First High Pressure Steam Engine invented by Oliver Evans: light, quick, powerful to propel his steam carriage and steamboat.

1777: The primal invention by Oliver Evans of two machines to replace the tedious hand tools in making wool and cotton cards.

1782: Invention of the Flour and grist mill with conveyor, hopper boy, drill, kiln dryer, - 1785.

1783: Earliest rolling mill located at "Hagley Shades" now duPont's Hagley Powder Mills on the Brandywine.

1787: Flour mill invention of Oliver Evans, recognized by Legislature Acts of Pennsylvania, and Delaware, and the same by Maryland and New Hampshire, with carriage propelled by the light, quick, and powerful Columbian High Pressure Steam Engine, he called "the simplest and perhaps the most philosophical steam engine ever conceived," and which he explained to Captain Master that he might describe it to the engineers and people of England, "to show", said Evans, "that both steam carriage and steam boats were practicable with my steam engine, I first put wheels to it and propelled it by the engine a mile and a half up Market St. (Phila.) and around Center Square to the river Schuylkill. Secondly, I fixed a paddle wheel at the stern and propelled it by the engine down the Schuylkill and up the Delaware 16 miles, leaving all the vessels that were under sail full half way behind me (the wind being ahead). Altho the application was so temporary as to produce great friction and the flat most illly-formed for sailing, all of which was performed in the presence of thousands."

1800: The origin of the first iron foundry at Second and Justison Sts.

1810: The opening of the first machine shops by Alrich, McClary, and Allen at north west corner of Seventh and Shipley Sts.

1816: The first and original paper making cylinder patented by Thomas and Joshua Gilpin - originating the cylinder paper making machine in place of the hand process and seive.

1829: The first stationary steam engine used in the Wilmington Metropolis by Mahlon Betts, 8th & Orange Sts. Foundry - low pressure (i.e. condensing) and about 7 or 8 horse power.

1830: A steam locomotive railroad - The New Castle and Frenchtown.

1832: The first long car supported by two four-wheel trucks one at each end - invented by John B. Dawsey in the employ of the New Castle and Frenchtown Rail Road.

1832: The first steam engine built in Wilmington by McClary and Bush at their machine shop, south east corner of 8th and Orange Sts.

1835: Samuel Harlan, Jr.'s first passenger car built at south west corner of Tenth and Market Sts.

1836: March 1st, the founding of the Harlan-Hollingsworth Company, who saw America's then recent and imitative prosperity in forges and rolling mills and England's (1820 forward) in iron ship building; the present population, in 1880, being nearly ten times that of 1836.

1840: The "Tioga" passenger car built by the Harlan and Hollingsworth Co. used now for about half a century.

1843: Constructing a cylinder for Capt. W. Whilldin, Sr.'s, steamboat "Sun" led to the establishment of the first iron shipbuilding yard in the U. S. - the Harlan and Hollingsworth Company's. (Semi-centennial Memoir, p. 189.)

1843 to

1844: Building of the "Bangor" the first utilized and regularly plied iron seagoing propeller steamer constructed in the U. S., begun Oct. 1843, launched May, 1844.

1844: The first iron steam boats in the U. S. to go to sea; with spanker and schooner rigging, built by Harlan and Hollingsworth Co., the "Ashland" and the "Ocean".

1848: The Pusey and Jones Co. founded, by John Jones, 1818, and Joshua L. Pusey.

1853: Most complete "boring and turning mill" in the U. S. built by Pusey and Jones Co.

X 1853-4: The Pusey and Jones Company's first iron steamer "The Flora McDonnell", Cape Fear River, N. C. and the first iron sailing vessel built in the U. S. the "Mahlon Betts" - by the Pusey and Jones Company - 250 tons.

X 1862: U. S. Iron Clad Monitor "Patapsco" built by the Harlan and Hollingsworth Co., the "Saugus" and "Napa".

1863: the "Saugus" and "Napa".

X 1878: Side wheel steamers "Republic" and "St. John" built by H. & H. Co., with speed of over 20 mi. per hr.

X 1880-6: Development of high speed in steamboats.

X 1880: Steamer "Albany" 27½ mi. per hr.- built by H. & H. Co.

X 1881: Palatial Long Island bound boat "City of Worcester" - 350 ft. long, over 20 mi. per hr. built by H. & H. Co.

X 1884: "Nourmahal" built for William Astor, by H. & H. Co.

X 1885: Passenger and freight Screw Propeller "Brandywine"-over 20 mi. per hr. on the Delaware River by H. & H. Co.

1885: Largest boring and turning mill ever built in Wilmington, more than double the size of the one built 35 years before (1850) supposed to be the most complete and largest in the United States, by Pusey and Jones Co.

X 1887: Two hundred and thirty-two iron vessels since 1843, by H. & H. Co. and 43 acres area of works.

X 1887: Development of high speed in yachts - the world's champion swift sailer, bearing the Queen of England's cup, the "Volunteer" built of steel by Pusey and Jones Co. for Gen'l. Payne, from designs of Edward Burgess, both of Boston, Mass.

1887: The largest cotton press of its most approved patent ever built in U. S. by Pusey and Jones Co. with capacity of 30,000 tons pressure, upon each ball of cotton per minute.

1888: The largest stationary engine ever built in Wilmington, one thousand horse power compound condensing, with Corliss Valve Gear, by Pusey and Jones Co. for Armour and Co., Grain Elevator, Chicago, Ill.

LOCATION: Statewide.

Submitted by - John Cuningham.

Date - July 24, 1936.

Reference
(in State)

Water Transportation in Delaware.

Delaware has been greatly favored in natural facilities for water transportation. Its wide and deep rivers furnished numerous avenues of commerce. Historians state that progress follows transportation and this fact is clearly shown in the history of Delaware. The convenient and efficient means for the movement of goods, persons, and ideas was a fundamental factor in the economic and cultural growth of the various communities.

The waterways of the New Sweden dictated the course of early regional development. The early settlers planted themselves on the banks of the Delaware River and its tributaries, where navigation afforded them easy communication between the settlements and likewise provided the highway that brought new colonists and supplies of utensils, tools, etc., from Europe; and took back to the old country the exports: - beaver skins, tobacco, etc.

In those days the principal mode of travel was by water, as neither the Swedes nor the Dutch were roadbuilders, nor were the Indian trails or paths, peculiar to other sections of the country, numerous in Delaware. The life of the people turned chiefly toward the bay and river, and attempts to penetrate far into the interior were few.

Owing to this preference for water travel, small boats were built by the Swedes almost from the beginning of their settlement on

the Delaware, and Campanius states that in 1642 he found ship-building as well as boat building carried on on "Cooper Island" in the Christiana near Wilmington. Commerce out of the Delaware Bay to other seaports sprung up rapidly and attracted numerous pirates and privateers, who were not eliminated until about 1780.

Wilmington, situated at the junction of the Christiana and Brandywine Rivers, and near the deep channel of the Delaware River, from an early date carried on an extensive export and import business with domestic ports as well as with the West Indies and foreign countries. As the city grew in size Wilmington's shipping developed rapidly. Grain was carted from the surrounding country and from Lancaster and Chester Counties in Pennsylvania, to be ground into flour in the Brandywine mills, which furnished regular cargoes for many ships that plied to coastal and foreign ports. Flour and grain, cornmeal, beef, pork, and cheese were exported in large quantities. The early imports were Irish linen, tools, utensils, glassware, and a great number of immigrants. In the period from 1833 to 1846, five whaling vessels sailed out of Wilmington, but the project did prosper and the company went out of existence.

The water-borne commerce between Wilmington and Philadelphia, Dover, Smyrna and other ports was considerable. When the railroads were completed, competition between the two modes of transportation was keen; rates were reduced until at one time the fare was 12½ cents one way to Philadelphia by train, and 10 cents by steamboat. The railroad gradually won out, however, and much of the shipping declined.

Before Philadelphia was founded, New Castle was the most important port on the Delaware River. It was known in Europe as a port when Wilmington, separated from the Delaware by some miles of the narrow

and crooked Christiana was still an insignificant settlement. New Castle was forty miles nearer the sea than Philadelphia and fifty years older. During the Scotch-Irish immigration the majority of these immigrants landed there, and from this port made their way inland. New Castle was the early Dutch capital and seat of Justice for the settlements on the South River, and in Penn's time was the chief place of the "Three Counties on the Delaware". In 1790 the transfer of the capital of the United States to Washington placed New Castle on the direct land-and-water route from New England and the Middle Atlantic States to the new seat of government. It was also regarded as on the direct route from the Atlantic coast to the new West. New Castle had its regular and frequent freight and passenger packets to Philadelphia and its turnpike across the Peninsula connecting with packets to Baltimore.

With deep water at its wharves, and situated as it was on the main North-South and East-West routes, New Castle seemed destined to become a metropolis larger than Wilmington, and rivaling Philadelphia. Yet the city never attained the greatness that was expected. The opening of the route to the West from Philadelphia to Pittsburgh lessened the importance of New Castle as a point on the East-West route. The settling of the thrifty industrious Quakers at Wilmington, where they had the water power for the mills on the Brandywine nearby the deep waterways of the Christiana and Delaware Rivers, caused Wilmington gradually to forge ahead of its neighbor city. About 1800, the U. S. Custom House was moved from New Castle to Wilmington. The Chesapeake and Delaware Canal completed in 1829, took away most of the North-South traffic, and the development of

the all-rail route to Baltimore and Washington by way of Wilmington was also a severe blow to New Castle. Another blow was the transfer of the county seat to Wilmington in 1860, and the city of New Castle gradually lost its importance both in commerce and in public affairs. After a temporary boom during the World War, New Castle resumed its quiet life, while Wilmington became the metropolis of the Delmarvia peninsula.

As in the case of Wilmington and New Castle, the other early settlements were practically all located on the navigable tributaries of the Delaware River and Bay, which were used as commercial highways. To these settlements were brought the products of farm and forest for shipment to the centers of commerce to be exchanged for the primitive manufactures of that time. The shipping points became the location of shipbuilding plants, especially as much of Delaware was at that time covered with the famous Delaware White Oak, considered the best wood for building ships. Also at these settlements mills were constructed for the grinding of the grain and granaries for its storage.

Many of the communities on the tributaries of the Delaware had regular sailings of vessels to Wilmington, Philadelphia, and New York, as well as numerous transient vessels, carrying lumber, grain, and the small fruits. A mighty fleet of steamboats and sailing vessels once touched the Delaware River towns; Newport, Christiana, Wilmington, Delaware City, Port Penn, New Castle, Odessa, Smyrna, Landing, Leipsic, Frederica, Dover, Milford, Milton and Lewes.

In the fifties the Delaware Railroad was built and offered new facilities for transportation. Some of the shipping centers were not on the line of the railroad and some, such as Odessa and

Smyrna, refused to permit the railroad to enter. These towns situated away from the railroad gradually declined as they found they could not compete with the railroad in transportation. The commerce was diverted away from shipping points on the waterways to communities located further inland on the rail route.

Odessa is one of the old towns which formerly was a flourishing shipping center. It was first called Cantwell's Bridge, but in 1855 changed its name to that of the Black Sea grain port. Situated on the navigable Appoquinimink River, seven miles from the Delaware, Odessa was an important grain shipping point as early as 1820. From 1820 to 1840, 400,000 bushels of grain were shipped annually by boats to Philadelphia. During this period, six sloops made weekly trips to Philadelphia, three schooners made weekly trips to New York and Boston, besides a large number of transient vessels. Six large warehouses were erected for the storage of grain. In the 50's the conservative element forced the railroad, seeking to pass through their village, off to Middletown, then much inferior in population and business. Odessa soon found that the Appoquinimink River could not compete with the Delaware Railroad as a grain carrier, and saw Middletown capture the shipping business. Odessa's decadence then began, and has continued until it resembles at present a "Deserted Village" in contrast to its past activity.

Port Penn was an important grain shipping port in early days. It had five taverns in 1822, was a Port of Entry, and had a U. S. Custom House until 1868. It was one of the busiest ports in the Delaware River and Bay until the building of the railroad.

The village of Christiana, located at the head of tidewater navigation on the Christiana River was at one time an important shipping center of farm products to Philadelphia. A line of sailing

vessels was operated as early as 1785 between Philadelphia and Christiana. Many flour and grist mills were in operation near the town, and their output was shipped by water to various points. This shipping gradually increased so that in the first part of the 19th Century four packets ran semi-weekly to Philadelphia and the wharves presented a scene of lively commercial activity. This prosperity was at its height in 1837 when the building of the P. W. & B.R.R. proved a deadly blow to the shipping and commercial interests of the place, and it suffered at last the same fate as Odessa.

Newport was also formerly a shipping point for grain. Before the Lancaster Pike from Philadelphia was opened, Newport was the eastern terminus of the old "Gap and Newport Turnpike", which was a much traveled highway to the West, and over which the grain crop of Chester and Lancaster Counties came to Newport to be shipped or to furnish grist for the mills there, which were then among the most important in the country. The completion of the Lancaster Pike and the building of the railroad took this trade away from Newport.

Smyrna for a long time had a thriving shipping industry. Vessels came up navigable Duck Creek to Smyrna Landing (one mile east of Smyrna), and transported the products of Kent County and of nearby Maryland to Northern markets. As many as seven vessels a day left Smyrna Landing carrying grain, lumber, bark, fruit, etc to New York, Philadelphia, and Boston, and returning with lime, stone, coal and other merchandise. Two shipyards and seven large granaries were in operation. When the Delaware Railroad sought a right of way through the town, Smyrna refused; and Clayton, situated on the railroad became the shipping point for the district. The water commerce on Duck Creek vanished, much business left Smyrna, and its

population declined.

Delaware City, founded at the entrance of the C. & D. Canal, was laid out in 1826 on a considerable scale and in the early part of the last century was an important shipping point. A regular line of steamers, owned and operated by Major Reybold, ran to Philadelphia, carrying all kinds of fruit and produce. Major Reybold shipped as many as 200,000 baskets of peaches in one year; also millions of dollars worth of bricks which were made near Delaware City. However, after the building of the railroad, the canal languished, and later the peach industry diminished. Delaware City has even lost its position at the head of the canal, since the main canal entrance was moved to Reedy Point, two miles below the town.

Seaford, at the head of navigation on the Nanticoke River, a large tributary of the Chesapeake Bay, had a considerable water commerce to Atlantic coast ports, to the West Indies, and even to Europe. An important article of export in the early days was kiln-dried cornmeal. Seaford is now an oyster packing center, and many oyster boats make it their base of operations.

Indian River Inlet formerly had a large amount of water transportation. Vessels made regular sailings to Wilmington, Philadelphia, New York City, and many lesser ports carrying lumber from sawmills, averaging about 2,000,000 board feet a year, as well as thousands of bushels of wheat, corn tomatoes, potatoes, and oysters. On the return trip the boats carried lime, fertilizer, bricks, stone, flour, clothing, furniture, and other manufactured goods. The construction of the Assawoman Canal in 1891, and later the Lewes Rehoboth Canal as part of the inland waterways for national coast defense lessened

the natural flow of tides through the inlet and caused it to become too shallow for commercial vessels to pass through. The shipping (as much as could stand the more expensive form of transportation) was diverted to railroad and truck lines.

Other towns, Dover, Frederica, Milford and Milton, situated on navigable waterways, all had water transportation in their early days, but the advent of the railroad with its speedier, more efficient mode of transportation was a severe blow to this shipping industry.

Outside of the Delaware River and the Christiana, the formerly busy waterways are now practically deserted by shipping. Most of the small rivers and tributaries leading into the Delaware Bay have shrunk considerably in depth and width in comparison with their former size. The deforestation of the watersheds has caused the neglected waterways to fill up with silt, and their size is so reduced that it would be impossible for the large sized vessels to navigate them as in former times.

The Wilson Line is now the last remnant of the mighty fleet of steamboats and sailing vessels that once plied between the ports of the Delaware River and Bay. From the wharves at the foot of Fourth Street this company maintains frequent passenger and freight service between Wilmington, Penns Grove, Chester, and Philadelphia. It is much patronized by people desiring an interesting and comfortable river trip at a low price.

The Port of Wilmington, with 35 foot channel into the Delaware Bay, and ample facilities at the Marine Terminal for handling cargoes, maintains regular steamship service with Atlantic and Pacific Coast ports, as well as Gulf and Mississippi River ports. Ocean liners make Wilmington a port of call, sufficient tonnage offering.

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Wilmington Directory, R. L. Polk & Co. N. Y. 1936. Page 14. Transportation in Wilmington.

*State: Transportation
Water Transportation*

LOCATION - Lewes

Submitted by - George R. Carey

Date - January 15, 1936.

Topic -- IndustryPILOTS OF THE DELAWARE BAY AND RIVER

The Delaware Bay and river connecting the ports of Wilmington, Chester, Marcus Hook, Camden and Philadelphia with the Atlantic Ocean is one of the most important waterways in the eastern United States. The distance from Philadelphia to the mouth of the bay is 103 statute miles or 89 nautical miles. From the time of the first passage by ship until the present day, piloting has been one of the most important industries of Lewes.

All foreign ships or ships with foreign cargoes are obliged to take on pilots to navigate the bay and river. American ships, whose captains hold Federal licenses are not required to take pilots, yet many times a pilot is requested. A Federal license may be attained after having made twelve round trips of the bay and river. Fees for pilotage are charged according to the actual draft of the ship when boarded.

In 1896, The Pilots Association of the Bay and River Delaware was formed by popular vote of the 94 men who then held licenses as pilots on this waterway.

Previous to that time each man worked singly. Eight boats, the W. W. Curr, Thos. F. Bayard, E. W. Tunnell, Henry C. Cope, E. C. Knight, John Wildren, Thos. F. Howard, and J. Henry Edmunds, were used for boarding and landing. Competition between men and boats was so intense that they scoured the sea for distances up to 200 miles in search for incoming ships. Many times two pilots would reach the same ship at the same time and then would come much arguing and near violence as to who should have the right to take over the prospect. This grew to such a pitch that something had to be done.

The organization was formed by all of the pilots, and rules were made to govern the association's industry. Three of the eight boats previously used were kept on duty. One worked to the south, another to the eastward and one was used for taking off pilots. A new steam vessel, the Philadelphia, was bought and put into commission in July, 1897. One of the eight sailing vessels was kept on as a tender.

The earnings of the pilots are pooled and after all expenses are taken out are divided accordingly.

A pilot boards his ship in Philadelphia or other river port, takes it down the river and bay and boards the pilot boat at the capes. He stays on station until he gets another ship to take into port. Only in cases of emergency is he taken directly to the pilot ship from shore. In order that each man does the same amount of work, rotation of turns is used.

Motor transportation is taken by the men between their homes and the port of boarding a vessel.

During the Spanish American War, the steamer Philadelphia was sold to the Government and in December of 1898 a very similar boat was built and placed in commission. The new vessel was also named the "Philadelphia". She is 144 ft. long, 25 ft. beam and 12 ft. draft. This boat is still being used along with the Delaware, a diesel powered boat, 118 ft. long, 26 ft. beam and 10 ft. draft. The Delaware was commissioned in 1929 and replaced the old J. Henry Edmunds that grounded during a fog in 1928. Pilot boats are exempt from tonnage classifications. The Philadelphia is valued at \$100,000 and the Delaware at \$80,000. Both boats are owned and operated by the Pilots Association. They may be distinguished by day or a blue flag and at night by a red light ten feet below a white light visible all around the horizon.

To become a bay and river pilot, an apprenticeship of four years bound to a full licensed pilot is required. During this period the rate of pay is \$5.00 per month. The first two years are spent aboard the pilot boats learning seamanship and navigation. The latter half of the apprenticeship is spent making trips up and down the river. Within the two years a total of 96 trips must be made, with an oral and written examination at the end of the given time. Pilots are licensed for 15 ft., 23 ft., and unlimited draft of ships.

Apprentices are appointed and pilots are licensed by the Commissioners for the Bay and River Delaware, in Pennsylvania, and by the Delaware Pilot Commission in Delaware. At present, there are 65 pilots and 2 apprentices. Thirty-three of the pilots reside in Lewes.

Cooperation by the pilots with the quarantine authorities is maintained. All foreign ships or ships with foreign cargoes or ships which have come through foreign waters must stop at the quarantine stations located at Marcus Hook and at Reedy Island. The buoy system of markers and locations is very clear and well maintained. The U. S. Engineers are charged with the work of soundings for deep and shallow water in order to keep the channel well marked. The channel at present averages from 800 to 1,000 ft. wide with a depth of 35 ft.

The Pilots' Society, which dates back to 1782, was formed to provide for the widows and orphans of men of this occupation. This was the first and only cooperation ever shown until the present association was formed. There is no age limit for active duty nor is there a limit to time in service.

Offices of the Pilots Association for the Bay and River Delaware are located at 322 Chestnut St. Philadelphia. The president is Eugene C. Kelly; the secretary and treasurer is George Coulter. The senior pilot is Captain Fred Burton of Lewes, Delaware.

A club is maintained with recreation facilities and for staying overnight. Admittance may be had only by invitation from one of the members.

Competition to this organization is afforded by a group of men who have licenses for these waters and work independently. They are generally known as the "mud pilots" and but a small amount of the work is taken by them.

References: Harry W. Chambers, Master Pilot, Lewes, Del.

File No. ^W416

LOCATION - Wilmington

Submitted by - - John Cunningham,

Rewrite by - - Lucile Anderson,

Date April 9, 1936.

Wof File

STEAMBOATS

located at the foot of East Fourth Street,
The Wilson Line, operates steamers on the Delaware

River between Wilmington and Philadelphia, providing a ride
of about 2 1/2 hours between the two cities. Boats leave both
Wilmington and Philadelphia on the following schedule:

A.M. 7:30 - - 10:30

P.M. 1:30 -4:15 - 7:30

In warmer weather, when the boats are used by large
numbers seeking recreation the schedule is enlarged. Visitors
should ^{same} ~~are advised to~~ inquire regarding it as the ^{same} /schedule is not
adhered to year after year.

Present passenger rates are as follows:-

Bet. Phila. & Pennsgrove or Wilmington,		
weekdays, including Saturdays,	Rd. Trip	.35
	One Way	.20
Sundays and Holidays	Rd. Trip	.50
	One Way	.25

Bet. Phila. Chester; Chester and Penns-		
grove or Wilmington; - Pennsgrove and		
Wilmington; daily inc. Sundays and holi-		
days, round trip-----		.25
	One Way	.15

This line does not carry automobiles. Marine Terminal
at the ~~Marine Terminal~~
The Delaware-New Jersey Ferry Company operates

ferries between Wilmington and Pennsgrove. It carries passengers,
autos and trucks. These ferries are used as a short cut
from the south to the New Jersey shore. The fare is 10¢ a
person and 75¢ for car and driver. Ferry leaves Pennsgrove
at 6:00 A.M. and Wilmington at 6:30 A.M.

Trips are made hourly thereafter until midnight from Pennsgrove and 12:30 A.M. from Wilmington during the winter months and half-hourly in the summer. This line also operates ferries from New Castle, Delaware to Pennsville, N.J.

The Ericsson Line operates in the summer between Philadelphia and Baltimore. It does not stop at Wilmington but connections may be made from Pennsgrove, N.J.

Virginia Navigation Company is operated by Dupont Company for its employees. It runs from Dock #5, Commerce St. Wilmington to Dupont Plant at Deepwater, N.J.

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Summary

Delaware River and Bay

The Delaware River

The Delaware River and Bay must be accorded top rating in any appraisal of America's great waterways in their contributions to the development of the country and its natural resources. This maritime highway carried cargoes exceeding a total of one million tons in 1936 which were appraised at about one billion of dollars. Seventy-seven steamship lines called at 137 ports carried merchandise to and from every part of the globe while steam tankers brought almost fifty per cent of the oil produced in this country to the refineries along the banks of the river to undergo the final process of making it merchantable. In addition a two-hundred mile pipe line from the petroleum fields of Pennsylvania adds a constant stream into the huge tanks at Marcus Hook where it too undergoes the refining processes. Vessels ply up and down the waterway carrying precious cargoes to foreign ports or bringing them to Philadelphia or Wilmington. Pleasure yachts and vessels of all types dot the bosom of the Majestic Delaware indicating how useful is the river and its manifold tributaries and the bay. It perhaps has brought greater wealth on its tides than any other freight carrier in the

Middle or New England States.

The Delaware river is 400 miles long and navigable for light draft craft about 140 miles and for ships of bigger tonage 120 miles - from the Atlantic ocean to Philadelphia. It drains a watershed of 12,012 square miles in its upper reaches, and an additional 2,000 or more between the Christiana and the mouth of the bay, equaling the area of Alabama, Arkansas and Connecticut.

The Delaware rises in the Catskills of New York from two sources - a stream originating from a spring and the overflow of a tiny lake, 2,000 feet above sea level. The two brooks pursue separate courses for a hundred miles, when they come together at Houston and their mingled waters run on to the sea - possibly reaching their destination in 10 days. This juncture the Indians, with their aptness in nomenclature called the river "Wedding of Waters."

The Delaware has borne innumerable names, before finally adopting that of Lord Delaware. The different tribes of Indians gave it a title that symbolized the sector of their habitation, while the Swedes, the Dutch also applied names in their own language, and which like those of the Indian had an aptness or significance. It was finally named, one year after its discovery in 1608 by Henry Hudson an English navigator on the Dutch

vessel, "Half Moon", sailing under the Netherlands' flag. Hudson soon after discovering the South River, as he named the Delaware, sailed for Manhattan and in a few days ascended, as the first explorer, the North River which soon after took his name. He sailed far up the latter and perhaps closely approached the head of the Delaware, as well as finding its mouth. He later discovered the Hudson Bay and Strait, but when he returned to Holland with charts of his explorations and observations his thrifty Dutch employers treated him coolly for his failure to find the shorter passage between Europe and the Far East, even though he had brought confirmatory news of this great, untouched reservoir of inexhaustible natural resources - the greatest, the richest storehouse the world had known. He deserved a better fate than to be set adrift in the Arctic cold of the Hudson Bay, by a mutinous crew, never to be heard of again.

As the Delaware descends from her mountainous eyrie and splashes its way to the sea it forms in part the boundary between New York and Pennsylvania, Pennsylvania and New Jersey and finally it marks the entire line between the latter state and Delaware for a distance of ninety or more miles.

From the source down through its long course it absorbs the waters of more than 150 rivers and creeks, many of them navigable or partly so. After

passing Philadelphia it receives the Schuylkill and half a score other strong streams before it mingles the outpourings of the Christiana - conveying the Brandywine the White and Red Clay creeks - with its own tides. Below the Christiana the Delaware is expanded by the floods of two score Diamond State streams and an equal number of streams from the Jersey shore. These great volumes of water explain the gigantic dimensions of the bay - 55 miles long by 15 wide, at its mouth.

Before the water wheel bowed to steam and electricity the Delaware ran hundreds of mills and factories - furnishing slow but sure power, free. It ground the grain of the fertile farms along its course until the swifter machines usurped the mission of the river. The more modern massing of industry along this navigable water way - where freight may be economically handled - is crowding the river's banks with great plants until eventually every foot of space will be occupied.

It was within quite recent years, that the line of the Diamond State marking the boundary of New Jersey was adjudicated, possibly ending age-old contentions that had their genesis in the twelve-mile circle which was foisted on William Penn as the northern boundary of his three counties. The arc of the circle hatched contentions and controversies among many generations of Delawareans and Pennsylvanians, and Jersey fisher folks. The swing of

the circle gave Delaware a "new moon" shaped slice of terrain on the east side of the river. Residents in that "bite" into Jersey were obliged to come to New Castle to vote and pay taxes. The Diamond State eventually cancelled its claims to that land and the new boundary was fixed at low water mark on the Jersey shore of the river.

This adjustment, however, did not end the contentions nor even minor physical encounters among fishermen. Those of one state insisted that those of the others were poaching on their grounds.

It was not until 1934 that a court finally referred the dispute by giving Delaware the entire river bed down to Bombay Hook, where the middle of the channel becomes the boundary between the two states. In the decision both won. Delaware's claims were sustained but much of the valuable oyster beds, the cause of much of the contention were awarded to New Jersey. The fact that they are appraised at \$40,000,000 discloses the bone of contention and further emphasises another element in the valuable assets of the river. Delaware, however, was granted a generous section of the bivalve domain which may be expanded, and which produces more revenue, in normal conditions, than any crop grown on Diamond State farms. The decision leaves no angle of the twelve-mile circle contention undecided.

The placid Delaware was, almost never for more than a century after its discovery, without its wars or rumors of wars. The prize was too precious to be given up without force or threats of conquest. From the moment of the completion of Fort Christina by the Swedes in 1638 the Dutch cast envious eyes on the possibility of having to share this great country with other Nations and the Governor of New Netherland sent a message to Peter Minuet that he must get out or remain under Dutch rule. Such threats and war like postures soon won the desired response. But it is shown in records that the surrender terms were far from modernistic as they promised to transport back to Sweden those who chose to return and as tokens of further friendliness to forward the personal belongings of the "conquered" if they would leave a forwarding address. Gracious terms - but never fulfilled.

The experiences of the colonists at New Castle was similar to that of the Swedes at Christina. The flag of the "reigning nation" was changed five times until England swept all other contenders from the river and in 1664-5 became master of all she surveyed in the colonies. In defending their rights to liberty and independence, the colonists were threatened by English war-ships off Lewes but the greatest damage was to the contents of meat houses and live stock. The invaders encountered a

brave courageous colony of sturdy men, who knew no fear, and they respected such unflinching courage, as the Lewes citizens manifested in the face of threatened extermination. A somewhat similar experience faced Lewes in the War of 1812 and one or two of the English fighting craft sailed up the Delaware as far as this city before returning to the main fleet anchored in the bay.

It is recorded that the reputed shallows and obstruct ons in the Delaware bay and river caused Lord Howe to abandon his plan of sailing up the river and striking Washington's Continental Army on Delaware soil. He proceeded instead to the head of the Sassafra River where he debarked his troops and marched to Birmingham Meeting House in the effort to turn Washington's flank and destroy his army. Otherwise the battle of Brandywine probably would have been fought in Delaware.

The River and Bay "fended" the Delaware further against danger in time of war. In the World conflict chains across the narrow channel at Fort duPont imparted a sense of security to cities along the stream.

During the Civil War, Pea Patch Island entertained thousands of Confederate prisoners. Hundreds died from their wounds or sickness and are buried in a plot on the New Jersey shore,

marked with a mone-lith, rising high above the ashes of the forgotten soldiers of the fratricidal conflict.

The Delaware River was the chosen theatre for many of the notable events and achievements of the Colonial days. It must be credited with making the first experiment with steam driven boats. Even though Robert Fulton's Clermont is popularly accorded that distinction, John Fitch had launched a vessel with oars and steam, 21 years earlier and his steam-boat was carrying passengers between Philadelphia and Trenton seventeen years before Fulton had his boat running on the Hudson river.

The "Carush" the first ship built in the colonies, was cradled in the Delaware. It was a small craft but the fact that it was constructed, equipped and sailed on the Delaware is a testimonial to the skill of the pioneers. The first iron sailing vessel, built and launched in the Delaware, was another tribute to the skill of mechanics who were employed in a Wilmington yard.

In the shipyards on the Delaware were built half the naval craft for the reconstruction of the new Navy - many years ago. The Tsar of Russia renewed his naval fleet through a Delaware yard who not only built the vessels but employed instructors to teach Russians the way to handle the ships and man the guns. Japan also came to the Delaware for her

naval vessels which served as models for her development of shipbuilding. Toyke is an apt pupil.

In more recent years a Delaware river shipyard built the very highest type of a sea fighter which stands today as the highwater mark for American built warships. It cost the government \$4⁵/₇,000,000.

The same constructors built the largest and finest Trans-Atlantic fleet liners constructed in this country - American Cunarders they were called. Fast clipper ships for the Cope Philadelphia-Queens-town line were also constructed on the Delaware and long held the record for speedy crossings. They were the fastest vessels propelled by wind and continued as leaders of Atlantic travel until the successful application of steam power.

With England in the saddle as rulers of the new world the real troubles of Delaware colonists began. The most brutal demonstration of this was manifested on "Long Finn" at New Castle who protested against the surrender of Fort Amstel to the British. He lead a small group who insisted on freedom and independence. The big handsome Finn was whipped into a state of unconsciousness branded "H" with red hot irons burned into his flesh, deported to the Barbadoes and sold into slavery. Half the chattels of the other Revolutionaries were con-

fiscated. It was not more than a century later that the seeds of British brutality and oppression burst into flame and the flag of George III followed the retreating emblems of the Nations England had driven out of power in the New World.

The public whipping of Long Finn is the first record of the brutal, corporal penalizing offenders in this country. Delaware was getting its first taste of the rule (or misrule) of the Stuarts, wrote a contemporaneous historian.

The beauty of the Delaware River and Bay is an outstanding note in citing their history. The arrival of Peter Minuet and his Swedish colonists, at the mouth of the bay found them so responsive to the landscape that they named, what is now Cape Henlopen, "Paradise Point". Delighted with the situation they remained a week or more after arriving from a call on the Jamestown, Va., English colonists headed by Captain John Smith, where they remained several days recuperating after the long voyage of five or six months on the Key of Malender and the Griffin.

Captain May and his party earlier made the up river voyage to the present site of Camden without mishap, so Peter Minuet with his Swedish colonists had no hesitation in turning his small vessels up stream. He was on the lookout for an agreeable location until the party reached the mouth

of the Christiana with its broad waters, and background of rolling country and long vistas of virginal forest. He was further lured to the selection by reason of the Brandywine. If he had any hesitation about making the decision to land here it must have been dispelled when the small ships pulled up before a ledge of rocks, ~~so~~ ^{been} ~~wel-~~comely inviting as if they had ^{been} formed by nature to receive the first permanent settlers of the Delaware.

The picturesque types of beauty of the Delaware invited the pens of such nature lovers as the late John Burroughs who has rendered in prose poems many remarkable word pictures of the Northern reaches of the stream - not omitting, of course, to emphasize the wondrous beauty of the Water Gap sector. In the industrial portion Joseph Pennell etched great factories with their curling smoke, investing them with artistic beauty without sacrificing their industrial aspect.

Howard Pyle has perpetuated the beauties of the Bay, its shifting sand dunes, its broad waters and "moods". Perhaps his best painting has its locale in the sands of the great waterway. His Indians have been embalmed in the pages of history and his pirates give us intimate portraits of those desperadoes of the sea and their raiding craft.

Except for the massacre of the DeVries colonists at Lewes (the outcome of a misunderstanding)

the Delaware river Aborigines, perhaps inflicted no other penalties on the settlers. The disappearance of Captain May's party up the river, opposite Philadelphia, has been ascribed to an Indian attack but this is disputed.

The Tinicum colonists, however had a narrow escape from extermination, but a liberal distribution of gifts averted the massacre voted unanimously by a tribal council. There had been an unusual number of deaths (from an infectious epidemic) which angered the tribal warriors against the colonists. In addition the Europeans were charged with demoralizing the braves but the renewed pledge of friendliness coupled with the gifts of trinkets vetoed the proposed uprising against the whites.

The booming of cannon announced that the council had saved the Tinicum colony from extermination.

How paternally the Washington Government safeguards the Delaware and the ships that come and go along her broad waters! Annually from \$2,000,000 to \$4,000,000 are applied to dredging deeper channels so that the river will accommodate the biggest vessels afloat. It has attained a depth of 35 feet and will go deeper before the dredgers halt their \$40,000,000 task. More than a million is required to clear the channel of mud and silt and half as much more to mount her shoals with warning signals range

and flash light to show the mariners the path to safety.

Perhaps the greatest maritime undertaking the government accomplished is represented by the Breakwater near the mouth of the bay. The first one was started in 1818 but not complete almost 60 years later. It was later rebuilt and is the largest in the world. It cost \$3,000,000 and is a mile long. The great granite rocks rising high above the tides safely shelter 100 ships against storms. The gigantic stone pile, enlarged in 1897, includes huge stones taken from the rocks, on which the Swedes landed along the Christiana in 1638.

In the storm of 1889 forty-three vessels who sought the protection of the stone pile were wrecked and broken up so badly that no effort was made to salvage them, while the blizzard of 1898 claimed the lives of seventy sailors. But since its enlargement it will never again prove unequal to its mission.

Quite as essential as a breakwater or lights to guide vessels along the tortuous channels are the pilots who convey vessels up the river and down again. They seemingly have always existed. They succeeded Indians in steering ships to avoid the shoals and rocks. They are recorded to have had a working organization and carrying on as early as 1733.

In earlier years the calling required the exercise of much daring but cooperation has barred a perilous rivalry and these knowing seamen dwell aboard a steam craft with all the comforts of home and through taking turns in their service most of them can spend a greater part of their time with their families.

The service requires a man of nerve and unafraid of wind and weather or cold, but the exposure appears to prolong their stay. But a few still benefit the ships by their training and knowledge of the channel until they may be beyond eighty. It was to Delaware pilots American patriots turned for the capture of the "Polly" the tea ship upon which it was proposed to repeat the Boston "tea party" by turning the cargo into the Bay. A reward was offered for the sighting of the Polly but she failed to appear perhaps changed her course out of the Delaware Bay.

Perhaps the worst tragedy in the pilot service at Lewes was the loss of nine of the number who sought to board vessels in distress in time of storm and save them from sinking. Only one of the ten was ever heard of again. The survivor was washed ashore at the point of death.

Again the Bay with its floating quarantine staff service possibly saved the country from an epidemic of yellow fever in 1864 by holding up an

infested ship that was making for Philadelphia. Since that time the quarantine station was moved to Tinicum and more recently to Ready Island safeguarding the country against infections of diseases from foreign craft.

The story of the Delaware Bay would be complete without mention of the piratical raiders who held up and looted ships and slew unsubmitive sailors in long past times. They continued their depredations until the early years of the last century when tradition reports a "raiding gang" were outwitted by the captain and crew of a Cope clipper ship and compelled "to walk the plank", into the bay--which means their careers as marauders ended then and there. There are still rumors that Blackbeard--one of the most brutal and merciless of the "sea waymen", buried much gold and plunder of his own "accumulation" along the bay but it was never found and perhaps the search has ended forever.

He was perhaps the most murderous of all the sea robbers that preyed upon the commerce of the ~~Delaware Bay~~. He died with his boots on and his crew were hanged at Williamsburg, Va., in 1715 much to the relief of sailors and vessel owners of the Atlantic coast.

was Captain Kidd

The old story that Captain Kidd buried trunks filled with treasure in the sands of the Bay evidently cannot be downed. There have been

intermittent hunts for his booty since his "departure" long ago.

But the Bay has a more intriguing treasure hunt than searching for the piratical plunder. Ten million in gold and silver bullion are at stake in the search for the strong boxes of the British warship De Brack which sank in the bay near Lewes in 1798. It (in 1936) is sought by organized capitalized salvagers. The sunken ship was assigned to attack and confiscate the vessels of national allies of Napoleon and had captured one and brought it into the Delaware Bay when a sudden gust of wind capsized the De Brack and she sank with 40 of the 65 men of her crew. Wood from the sunken craft brought to the surface by gold hunters and coin discovered in along the shore hold out the hope that the strong boxes of the De Brack will richly reward the salvagers.

The Delaware river that used to be an hindrance to highway traffic is now spanned by many bridges. One at Philadelphia costing \$40,000,000 has proved so beneficially convenient and profitable that there are prospects that the river will be spanned or tunnelled at convenient distances along its upper branches. The construction of two under river tubes between Philadelphia and Wilmington have obtained the sanction of the government and may soon be under contract. Thus expert modern engineer-

ing is slowly overcoming the only obstacle to detract from the super-value of a navigable River - like the well behaved Delaware which rarely becomes unruly within her own boundaries. All the misbehavior and destructiveness marked up against her had their origin in storms at sea.

John Wynne

Sept. 2. 38

81

Ships and Shipping

Some interesting verse written upon the appearance of the steamboat "Phoenix" the first passenger steamer to run regularly on the Del. river. (About 1810.)

"Of each wonderful plan,
Eer invented by man,
This nearest perfection approaches,
No longer "gee-up and gee-ho,
but fiz-fiz-off we go.
Nine miles to the hour
with fifty horse power,
by day time and night time
arrive at the right time
without rumble or jumble
or chance of a tumble
as in chaise, gig, or whiskey
when horses are frisky."

Written by a Mr. Watson, ostensibly a boat builder connected with the building of the "Phoenix".

Semi-Centennial of the Harlan & Hollingsworth Co. 1836-1886.

John Wynne
Sept. 2, 1938.

Ships & Shipping

The "Onrust" (Restlessness).

The "Onrust" was built & launched in the spring of 1614. This vessel was the first product of skilled labor in New York city, (New Netherlands.), by the Dutch settlers.

She was classed as a yacht of 44'6" keel, 11'6" beam & about 16 tons or as the Dutch put it "8 lasts burthen".

The "Onrust" was large enough for ocean going and on the other hand capable and small enough for navigating the channels of the 13 rivers which have their outlets thru N.Y. bay.

Capt. Block sailed her thru "Hell Gate" and it is quite likely that the "Onrust" was the first sailing vessel to make that perilous passage.

Cornelis Hendriksen later assumed command. He discovered "a certain county, bay and 3 rivers lying between the 38th and 40th degree of latitude." One of these rivers was the Delaware.

The "Onrust" was undoubtedly the first boat to explore the Delaware.

Janvier-Dutch founding of N.Y.

974.7 - j26.

John Wynne

I

Ships and Shipping

The Banger

The "Bangor", built by the Betts, Harlan, and Hollingsworth Co. ^{*} was the first iron seagoing propeller steamer constructed in the U.S. She was begun in Oct. 1843, launched May 1844. Completed and delivered to her owners, the Bangor Steam Navigation Co. eight months after the keel was laid. Amazing speed in those days. The Bangor measured 231 tons burden, 120ft. in length between perpendiculars, 23' breath of beam moulded & about 131' overall on deck. She had 3 wooden masts, schooner rigged with bowsprit & jibboom carrying ~~an~~ suit of 8 sails.

* Wilmington, Delaware

The "Ocean and "Ashland" built by the H&H Co. were the first iron steamers built in the U.S. to go to Sea. Delivered in 1844.

The ~~first~~ steamboat to ply regularly between Wilm. & Phila. was the "Vesta" in 1812. She was followed by the "Superior" and the ~~-----~~ "Wilmington. After these the ~~EXXX~~ "Emerald" & the "Newcastle" were placed on this line.

1833- the steamboat "Telegraph"-Capt. Whilldin-

1842-50.-the side wheel steamer "Whilldin" was built by Capt.

Whilldin for this route.

1850-"The Zephyr

1863- "The Samuel M. Felton".---

Semi-Centennial, H & H Co. 1836-1886.

Butler.

Marine Terminal

The greatest centralized construction activity in Wilmington of the WPA. since its inception has been located at the Marine Terminal. ..

All four main loading platgorms of cargo sheds at the terminal have been rebuilt as well as the dismantling of an unused market house at the municipal wharf and re-erected at the terminal where added improvements were made.

Because the terminal was constructed on made ground over marshy area, the concrete platforms sank, cracked and became so broken that they were dangerous to use and hampered efficient handling of cargoes. The WPA broke up and removed hundreds of square feet of concrete, laying new steel supports and concrete.

In addition to this they have built new quay-fronts, added acres of outside storage space, painted and repaired buildings and constructed a new concrete highway link, through the terminal to Delaware River ferry terminal, which not only relieves traffic congestion byt also makes available new storage areas for the increasing lumbar imports.

J. E. S. 3-20-37

**Rehoboth Bay Waterway
Is 60 Per Cent Complete**

Dredging of the channel from Broadkill River to Lewes, the new inland waterway between Rehoboth Bay and Delaware Bay, is 60 per cent complete, Lieut.-Col. John C. H. Lee, U. S. district engineer, Philadelphia, reports. The Atlantic, Gulf, and Pacific Company dredge, Scud continued on dredging work throughout February.

Work on the construction of the two parallel sheet steel pile jetties at the new entrance to the waterway of Short and Shockley is underway.

A survey of Murderkill River, from Frederica to the mouth, has been made to determine the dredging necessary.

Submitted by James R. Allen.

March 15, 1937

JOHN FITCH, THE INVENTOR OF THE STEAMBOAT

John Fitch was born at South Windsor, Conn., on January 21, 1743, amid poverty and misfortune. His early years were unhappy because of ill-treatment by his brother and father. At the age of ten he was apprenticed to a watch-maker. After completing his apprenticeship he married but his connubial bliss was short-lived, and in 1769, Fitch decided that this, too, was unfortunate and he became a wanderer. But wherever he went mis-fortune haunted him.

He settled at Trenton for a time to practice his trade, and it was here, as he watched from his store window the boats propelled by cars work their way up the river, that he conceived the idea of propelling boats by mechanical rather than by man power. With the out-break of the Revolutionary War he entered the service as a gunsmith but fortune was elusive, he fell into the hands of the British and his property was confiscated. Penniless, he enlisted in the New Jersey regiment for the remainder of the war. When peace was signed, he resumed his trade in Bucks County, Pennsylvania. While here, after some political wire-pulling, he received an appointment as a deputy surveyor to survey lands in Kentucky belonging to the State of Virginia. He received some land in the vicinity of Bardstown, Kentucky, in part payment for his service. After completion of the surveys, he came to Philadelphia in 1781, and spent a part of the winter of 1781-82 in Wilmington working as a tinker; later, in the spring of 1782, he organized an exploring expedition to the North-west Territory. Misfortune again befell him, and he was captured by the Indians but escaped some months later and made his way back to Warminster, Pennsylvania, arriving penniless and dejected. During his explor-

ing trip he kept a complete record of the territory which was valuable to him in later years.

In 1785, he again found time and energy to cope with the steamboat idea which was in his mind. In April of that year he built a model of his invention, and on July 26, 1786, he pushed a strange looking skiff into the Delaware River and proudly chugged upstream to Philadelphia. The mechanism consisted of a large frame work raised six feet above deck; swinging from the top pieces were twelve cars (six on each side) which were motivated by a sliding piston attached to a steam boiler. Cumbersome as it was, Fitch's steamboat was the first in the world to function.

In 1786 the General Assembly---as did Congress and private citizens---refused to invest money in his proposition. But, however, on February 3, 1787 the General Assembly passed an Act "granting and securing to John Fitch, Esq., the sole and exclusive right and advantage of making, constructing and employing the steamboat, by him lately invented, for a limited time." He needed money to build and equip a boat, so he made a map of the Northwest Territory from his notes and sold the map for eight hundred (\$800.00) with which he built a 45-foot vessel--a forerunner of the modern propellers--which made its first trip on the Delaware on August 22, 1787, and was enthusiastically greeted at Wilmington. A larger boat followed in October, 1788; and in December, 1789, Fitch placed a 60-foot boat in service between Wilmington and Trenton. The inventor occupied a house on Market Street between Front and Second Streets, and directed his line from this end.

He went to France in 1793 to seek capital, but the Revolution was abroad in the land and he accomplished nothing. He left his plans with the American Consel and went to London. During his absence, it

is charged, the Counsel loaned the papers to his young friend Robert Fulton, who copied the plans to build a steamboat, which he did about twenty years later. Fitch worked his way back to America and went to Kentucky to reside on his land near Bardstown, but became despondent and committed suicide in July, 1798. He was buried in an un-marked grave at Bardstown.

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90
229 Larch Avenue,
Teaneck, N. J.

September 5th, 1938.

Hon. Edward Cooch,
Lt. Governor, State of Delaware,
Dover, Delaware.

Dear Sir:

In a book entitled "Delaware", recently published through the W. P. A., and bearing your endorsement, there is a reference to the Springer heirs, I think on page 277, or 77, and a suit they brought against the City of Wilmington. I am not interested in the suit as such for anything over two hundred years old is a waste of time and generally the unwritten law of repose is a bar to it, but as one of the Springer descendants I would like to find out on what authority the authors of the book base the statement that a meeting of the Springer heirs was forbidden by a Chicago judge. This reference I would very much like to secure as to Liber and page, or a copy of the decision and papers in the record. It appears to have been based on some confession of fraud in bringing the suit, and may throw some light on the ancestry of Carl Christopher Springer, the immigrant ancestor.

Thanking you for any information you may give me.

Yours very truly,

Archibald N. Jordan

91

Location - Wilmington

Submitted by J. Barton Cheyney
Re-written by E. Knight
Date June 2, 1936

*See State Prison
Biography of Springer
for late conclusion*

*State Prison
taken labeled
"Sp. Heirs"*

Springer Heirs - Celebrated Case.

The city of Wilmington provided the location for one of the most peculiar and interesting claims on the part of heirs of old settlers ever encountered in the United States. For many years the celebrated case of the Springer Heirs continued providing the city with thousands of lines of newspaper publicity, throughout the nation.

The name of Charles Christopher Springer is known to the students of early Wilmington history as the agent for the leasing and selling of property which was owned by Old Swedes Church; 500 acres having been given to the church by Mrs. Anna Stalcop, wife of one of the largest landowners in the section. But to many others the name had a different significance. It was to them means of laying claim to a large section of the City of Wilmington most of which is now occupied by the business section of the city. Originally begun by persons who felt that they had an honest claim to the property, the claimants were eventually banded together by a group of shrewd promoters who saw in the unsuspecting persons a target for one of the widest spread confidence games in the country.

The Springer Heirs first came into existence about the end of the Civil War and continued their efforts until about 1929, building castles and making unfounded claims for the land which was reputed to have been given to Charles Springer, prior to his death in 1738, under a grant from William Penn and which made up

a tract of some 1900 acres of land²²⁸ of which ran through the center of the present city. The promoters elaborated on the scheme, held meetings and talked of an estate which ran from eighty million dollars to as high as one hundred and fifty million dollars. The interest of the the victim was kept alive by constant increases in the estimated value of the estate and the adding of fictitious tales such as relating that Springer had been a Swedish Baron and that there was one hundred million dollars in treasure deposited in a Stockholm bank.

The Scheme continued to flourish even after many setbacks on the part of the "heirs" who were of great number and were recruited from all sections of the country. Meetings were held in great secrecy and large sums of money extracted from the prospective millionaires to carry on the research, but all to no avail. Court records proved conclusively that Charles Springer had not been a landed member of the original settlement and that the land that was attributed to have been his was rightfully the property of Old Swedes Church through the gift of Mrs. Stalcop.

Undaunted by their continued setbacks the "heirs" continued their efforts and it was not until a Chicago Judge had refused to allow a meeting of the clan and the confession of one of the promoters that there was any let up in the activity of the group.

Even today there are letters received in the city asking when the claims of the "Springer Heirs" will be settled.

It might be well to point out that the legitimate descendants of the Springer family in this city at all times scoffed at the scheme and did a great deal to have the swindle stopped.

B 94

LOCATION -

Submitted by - J. Barton Cheyney

Date - March 13, 1936.

*could, June 2, 1937
Revised plan 11 '37*

Springer "Heirs" - Celebrated Case.

The colossal confidence scheme embedded under the name of Springer Heirs (Inc.,) tops all local achievements in relieving unsophisticates of their money, through the most disingenuous methods possible, and continued for seven or eight decades before it was permitted to die for lack of victims. Perhaps 1929 may take credit for wiping out the crooked game. It is remarkable that such bold deception could be utilized to fleece so many persons over such a long period of years as was practiced on the witless claimants of the "estate" of Charles Christopher Springer. There was not a statement in building up the scheme or continuing it that was true. In fact the truth and light were carefully avoided. While the plan was not ingenious it was baited with promises of \$80,000,000 and later with \$150,000,000 and brought thousands and thousands of dollars to unscrupulous promoters.

The Springer "heirs" based their claims on the false premise that Charles Christopher Springer (or just Charles Springer, the same individual) was the owner of 1,900 acres of land, 228 of which had become the heart of Wilmington and that his descendants - (he had five sons all born here) - were entitled to the property or its equivalent in money.

The "heirs" were informed that their ancestors owned the property as a grant from William Penn, and again that he had purchased it soon after reaching Wilmington. It was further claimed that he had leased the property to the Swedish Church, all of which was fictitious. Notwithstanding, the records clearly showed that a tract of 500 acres was deeded to the church by Mrs. Anne Stallcup (or Stalcop) as a gift, and Charles Springer acted as agent in selling or leasing the properties and so signing the deeds of transfer. Just when the scheme was incubated records fail of the information, but soon after the Civil War so-called heirs held meetings and organized as a preliminary of going after the Springer millions with a united front. Then began the pursuit of the "Will-o'-The-Wisp" - the demand for "the land of Charles Springer upon which half of Wilmington had been built."

The background of the scheme was prepared well in advance and the reports were put into circulation declaring that Charles Springer was born in Stockholm, (Sweden), and later taken to Germany, from there sent to college in England; kidnapped from his school and sold into slavery to a Virginia tobacco planter. At the conclusion of his bondage he was released and proceeded afoot to join the Swedish Colonists who had settled on the Christiana, the story ran.

Much emphasis was laid on the bogus claim that Springer, soon after his arrival at Christeen, purchased 1,900 acres of land, adjacent to the Swedes' Church which at the lowest estimate could not have been acquired under \$1,500. This claim was rapped and ridiculed by a judge of the Supreme Court of Delaware writing off-bench.

He pointed out that tobacco was the only currency in Virginia at the time, and to have brought here its equivalent of the reputed purchase money would have required a small train of pack horses; the jurist added, if he had started away with tobacco, he would have been arrested and jailed.

In further appeal to the "heirs", the promoters reported Springer to have been the seventh son of the third wife of his father, which believers in astrology might interpret into good luck, good health, good fortune and riches. Another fable was to catch the interest of those to whom a title means much, made Charles Springer, "Baron" Springer. The confidence game was subsequently strengthened and the possibly waning enthusiasm of the "heirs", rallied, by the announcement that in the vaults of a Stockholm bank the "baron's" father had deposited great treasure valued at \$80,000,000 or \$100,000,000. But there was a string to the inheritance: the bank's claims must be met, and could be, by a small percentage of the wealth coming to the "heirs" through their Wilmington claim. It is scarcely surprising that the "heirs" trusting in the truth of such glowing reports were easy fleeced. After the victims had been stimulated with such golden promises vocal pressure was applied and the statement that the 228 acres in question were the gift of Penn and never had belonged to the generous Mrs. Stalcup. This was exactly the opposite of truth or fact.

Groups of attorneys and accountant made occasional visits to the New Castle County Court House pretentiously to examine the records, and thus showing earnestness in following up their claims and renewing the confidences of victims.

They remained for weeks apparently busy with research; they never reported the results but quietly stole away without explanation - walked out on the "heirs." One group would be followed by another but all must have discovered at first sight of the records the truth about the Springer land; it was written plainly and with authoritative detail.

One pitiable individual, who came with the examiners insisted that the promises of riches that had induced him to turn over all his savings to the promoters, continued at the books in the vain hope that he might find a clue to documents. He remained so long that hungered, friendless and alone he was obliged to turn to the county for food and shelter. There were innumerable similar instances where lure of riches had brought despair and poverty.

The times and meeting places of the heirs were known only to members in good standing. A direct descendant of Charles Springer learning of one in Philadelphia hastened to advise the victims of the swindle but he had great difficulty gaining admission. He afterwards informed friends that he had never before been in such an Aladdin-like atmosphere. Every mention of money was in terms of millions or tens of millions and when he was permitted to speak he informed the heirs that they were being deceived - literally robbed, and laughed at - that the Swedish ancestor had little if any money or property at the time of his death, or at any period of his life. The "heirs" preferred to accept the happier version of the heads of their corporation, rather than the charges of one ^{who was} "hostile" to their hopes. Who would ~~got~~ rather listen to the narrative of wealth just around the corner than to the fact that they were

victims of unscrupulous schemers?

Another time when the faith of the shorn lambs was faltering the false shepherds staged a dramatic bit of publicity in the announced sale of one-half a share of a claim for \$6,000, but the buyer declaring he had been cheated resold his purchase for the same amount as he had paid. The latter rejoiced at the opportunity, declaring he would be "^{well} healed" for the remainder of his days. The sellers and buyers were reported to be booming the business. The "phoney" gesture expanded the roll of members - potential victims.

To impart an air of confidence, the meetings were usually headed by one bearing the Springer name or some one introduced as a member of the clan. (It should be borne in mind that Wilmington descendants of Charles Springer kept aloof from the scheme - unless to frustrate the swindling of their kinsmen). Not a single truthful statement, it was said, entered into the claims of the heirs. To keep the movement alive and going strong the report was given currency that Wilmington churches, courts and the entire citizenry had united to deprive the heirs of the rights and dues. The chiefs bethought themselves that the missing deed or will might have been buried in the grave with Charles Springer to thus dispose of all the evidence of his "vast riches." Consequently they announced that they would reopen the grave in Old Swedes Cemetery, doubtless knowing that it had been built over with masonry when the church was restored several years before. They could have ascertained also that in digging foundations for abutments to strengthen the walls of the protico the workmen accidentally had dug into the 180 years old grave of Charles Springer but found nothing.

Of course there were no documents for there had never been either a will or deed of Charles Christopher Springer. The reaction to the publicity and to the golden promises of the promoters at the meetings of heirs was expressed in the volume of letters that poured in from every section of the country seeking information regarding the Springer estate. It was obvious that a great number of victims were being attracted to the rich bait, and the Mayor Wilmington, the Register of Wills, and Recorder of Deeds of the County, and the Wilmington postmaster, in order to awaken the "heirs" to the fact that they were being shorn, issued a statement over their names denouncing the whole affair. In fact letters came to be a nuisance, not only for the officials but for almost everybody in the city, whose friends were anxious to ascertain if they were not eligible for the great divide of the millions they had heard about.

The first official "rap" administered to the "heirs" was by a Chicago judge who forbade the holding of a scheduled meeting and ordered an immediate audit of the books. But this failed to shake the faith of those waiting for millions to drop into their pockets. Even the confession of Mary Springer McMahon about the same time that she had formed and organized the Springer claimants years before brought few immediate desertions from the ranks of the hopeful. Mrs. McMahon made her admissions through an attorney at a meeting of the heirs who declared that that she had only sought to obtain money from people in small towns. It was also promised that she would end all connection with the scheme. Mrs. McMahon soon afterwards forwarded a copy of her confession to the writer, who had previously denounced the robbery.

This is only interesting in revealing that the woman was decidedly lacking in those mental qualities that would beget such shrewd plotting. The persistent enduring faith of the victims was further demonstrated, directly after the confession of the organizer of the scheme, when at a largely attended meeting "50 well dressed and genteel men and women" were admitted to membership in the corporation by paying \$15.00 each for initiation and a year's dues. In addition they were doubtless inveigled into paying six other dollars for certification of their eligibility as an heir, and to be recorded on the much overburdened family tree. Each applicant for membership was called upon for a similar contribution to the cause. The process was costly for a voucher was requisite to establish kinship with the clan and in cases where these were not "convincing" the entollment might be facilitated by the payment of an additional fee for further search when the missing link in the chain of kinship was sure to be found.

Almost constantly there were calls for extra funds for searches were declared expensive. It is recorded that even after Mrs. McMahon had shot the lid off the incorporation, \$5,000 was collected towards a sum of \$50,000 to continue the search. Research work was costly, the meeting was informed - to which every "heir" could have voiced an "amen."

One exposure after another of the rascally scheme failed to entirely Scotch the plot, for even as this is written, there continues inquiries by mail as to when the heirs may expect the Springer melon to be cut.

The land the confidence promoters utilized to back their crooked scheme would have greatly enriched all the heirs and claimants.

The plot is "boot shaped" of 228 acres, extending from the Christiana River at Stalcop's run, then up the run to nearly parallel with Poplar Street, thence West of it to Seventh and Poplar Streets, thence northeast more than a mile to Rattlesnake Run, about 13th and Lincoln Street, then about at right angles south 123 feet thence southeast to Third and French Streets, down French to the Christiana. The tract includes factory, residential sites, stores, etc., and possibly today its value would be little short of \$60,000,000. There never was the least danger of the owners losing their property nor was there any anxiety on that score for every Wilmingtonian knew that the "glebe" land - the gift to the church of Mrs. Stalcup - was simply being exploited - used as a peg upon which to hang the worst confidence scheme of the last century, worst when it is recalled that the victims were small town folks, who like the rest of mankind, sought to escape denials, dratness and drudgery through worldly possessions and pleasures.

Through the infamous swindle Wilmington has gained more newspaper publicity than any other city. For more than half a century there have been inquiries regarding the Springer estate and numbers of "heirs" have come here prepared to take home their share of the mythical millions. But the scheme is dead never to gain its feet again even though there be many more years before the inquiries from anxious long waiting heirs cease.

The whole plot was based as stated on the false premise that the 220 acres was asserted to have been the property of Charles Springer, whereas the land was first owned by the husband of a devout member of the Old Swedes, who after his death, the widow deeded 500 acres to the congregation, and

Charles Christopher Springer in disposing of the land by sale or long term leases signed his name as agent and not as lessor or owner. All these facts could have been gathered from the county records had the promoters actually not been afraid of the truth. The Supreme Court Justice referred to above in ridiculing the claim challenged the heirs to bring suit in Delaware, the home of five or six generations of real Springer heirs. In fact the Judge regarded the long pursuit of the Springer millions as a rascally proceeding to trap unwary unsophisticates.

A direct descendant of Charles Springer quotes from an authentic "History of Swedes on the Delaware" to show that the founder of the American Springer clan was born in Stockholm, in 1658, came to this country 1683, and died at 80, in 1738. There is no mention of his having a title nor having been in bondage. He was educated above the average of his nationals, engaged in small business, conducted services in the church in the absence of a rector, and was selected by the congregation to exercise the power of attorney in the stewardship of the "glebe" property the gift of the wealthy Mrs. Stalcup. Only 228 of her 500 acres gift can be located.

No one has ascertained the number of the Springer "heirs" and claimants who were fleeced, but it is recorded that there were hundreds of them. Recalling that the present Springers are but five or six generations removed from the emigre leads to the conclusion that they closely approached the fecundity of M. and Mme. Dionne, French Canadians, who appear to have topped all records for multiplication in the production of progeny in the simultaneous birth of five daughters.

References:

"The Springer Case" by Judge William G. Whiteley (1883) with further explanations by Former Chancellor Charles M. Curtis, active in the administration of Old Swede's affairs; in pamphlet form issued in 1908. Statement by John H. Springer, Wilmington descendant of Charles Christopher Springer inserted in the same folder. Newspaper Clippings, and from writer's own notes, readings and interviews.

Traveling Minstrels Formerly Frequent Visitors

WHILE writing recently concerning my earliest observations of theatrical facilities in Wilmington I was reminded of the frequent visits in years past of traveling minstrel troupes. These were among the most popular attractions for many years.

I remember many times when I enjoyed the parades of the troupes and their subsequent performances. The fact is that business on Market Street was temporarily suspended when the minstrels were marching past the stores, so that everybody could see them.

For many years minstrels appeared regularly at the Grand Opera House. That arrangement prevailed until the Playhouse began to function, when the scene shifted to that theatre.

When a minstrel troupe was to appear at the Grand Opera House it was advertised long in advance. On the day of its appearance the company usually arrived in the morning. In snappy dress attire the fun makers, with their bands playing, often gay in brilliant uniforms, marched up Market Street about noon, and sometimes out Delaware Avenue some distance.

Prior to the performance there generally was a concert by the band in front of the theatre. Sometimes there was only one performance, that at night. At other times there was a matinee also.

Magnetic Influence

It was a rare exception when the theatre was not filled to capacity. Frequently people were turned away. There was no room for them inside. Minstrels

had magnetic drawing power. Wilmingtonians—like people in other cities—were great admirers of the minstrels. They became familiar with all of the outstanding members of the various troupes. And it is my conviction, from observation at the time, that the principal performers, those who were regular visitors, felt that they knew the people of Wilmington.

There was little opportunity for personal acquaintance, but there was very pronounced evidence that the people on both sides of the footlights felt that they were acquainted with each other. There was a very apparent bond of friendship.

'Gallery Gods'

One of the interesting phases of a minstrel performance at the Grand Opera House was participation of the "gallery gods" in the program. The "gallery gods" were noisy boys who frequented the balcony. It was customary for the troupe to sing popular songs familiar to everybody besides introducing new ones occasionally.

And so, when the company joined with a soloist in singing the chorus there was help from the gallery. If the boys upstairs had not heard the song before they were quick to learn the air. If they did not know the words they could whistle or hum the tune—which they did with all of the vim they could muster.

And they were encouraged to do so. The members of the company welcomed the help from the gallery. And the more sedate and mature patrons downstairs did also.

Among the earliest minstrel troupes visiting Wilmington that I can remember were those of Primrose and West; Barlow, Thatcher, Primrose and West; Carncross and Dixie, and "Lew" Dockstader. These were famous names in minstrelsy.

In later years the most nearly regular minstrel visitor to Wilmington was Al G. Field and his company, which appeared at the Playhouse several years. I recall that "Billy" Raymond, a popular Wilmington vocalist, was a member of the company.

I had heard of "Tony" Pastor's minstrels. Although I do not remember having attended any of their performances I did visit "Tony" Pastor's Theatre on the Bowery in New York City. I was taken there as a boy when I was a guest in New York.

"Tony" Pastor's Theatre was devoted to what was called a variety program. This was what in later years became popular under the name of vaudeville. The fact is that it was not far removed from minstrelsy. The latter, however, is somewhat different, although it centres about comedy and vocal and instrumental music.

Comedy, a strong point with the black face entertainers, was localized by the minstrels in the communities they visited. For example, it was not uncommon for minstrel jokesters, when performing in Wilmington, to aim their comic darts at well known local citizens. They were harmless quips and everybody enjoyed them. They gave the show a homelike atmosphere.

A. O. H. G.

Early Theatrical Facilities in Wilmington

WILMINGTON'S contribution to what obviously is current revival interest in the spoken stage is a reminder of the popularity of the "ultimate" theatre with our people before the "movies" began to share the night.

Frequent attractions at the Playhouse, productions by the Drama Guild and the Arden theatre, and the dramatic activities at the University of Delaware are indications of the turn of tide. So are the school and church dramatic projects.

Looking back, some of the older Wilmingtonians can remember when, even before the Grand Opera House came being, which was in 1871, our people showed keen interest in dramatics.

First Adequate Playhouse

The Grand Opera House was the first adequate theatre in Wilmington. It was the first in which there could be produced satisfactorily the big stage attractions accustomed to appearing in principal theatres in the large cities. Yet, long before the Opera House came available extensive use was made of the old Odd Fellows Hall, northwest corner of Third and King Streets, and the auditorium of the Wilmington Institute Building, northwest corner of Eighth and Market Streets, of which antedated the Opera House. Odd Fellows Hall was placed in place in 1849 and the Institute Building in 1861.

While both of these structures had auditoriums and stages equipped for dramatics, the capacity of each was limited in both respects. Neither could accommodate a large audience. The floor of each auditorium was level. Both were used frequently for dances, also for fairs, bazaars and a variety of other uses.

And yet, the stages were high enough above the floors to enable the seated spectators to see the stage action fairly well.

As I recall, the acoustic properties of each produced satisfactory results. I do not remember having heard any complaints on that score.

Theatricals Incidental

Neither building was designed or constructed primarily for theatricals. The function of Odd Fellows Hall was to accommodate several lodges of the Independent Order of Odd Fellows who held their meetings there.

Provision also was made for tenants, including storekeepers whose places of

Shipley Street, which at that point is lower than Market Street at Eighth Street.

The drafting school, I believe, was devoted chiefly to night sessions. It was attended largely by young men employed in the industries during the day. If my memory serves me correctly Vincent G. Hazard, a draftsman for the Pusey & Jones Co., was head of the school.

At the Market Street front of the Institute Building for a long time was one of Wilmington's most popular drug stores. Herbert K. Watson was the proprietor. At one time also there was a mercantile establishment styled the Ninety-nine Cent Store. It was at the Eighth and Market corner. It carried a varied stock of merchandise, including toys and novelties.

Both the Institute Building and the Odd Fellows Hall were frequently used for dramatics and other types of entertainment long after the Opera House was built, as well as before that time. The "big" shows, however, preferred the Opera House for obvious reasons. It could accommodate much larger audiences and had better stage appointments.

Comprehensive Shows

The Opera House had a large stage as well as a large auditorium with a slanting floor and an adequate balcony. The scope of the stage's facilities was demonstrated best, perhaps, when some of the mobile appurtenances were temporarily withdrawn to make room for trained wild animal shows. There were large cages within which the performances took place. The cages, much like those in the circus today, were on the stage.

Business were on the ground floor. The auditorium was intended to be used for various purposes, chiefly local enterprises, although it was available to travelling entertainers. These included not only dramatic companies but also lecturers, glass blowers and exhibitors of curiosities.

Home of the Public Library

The primary purpose of the Institute Building was to accommodate the Wilmington Institute Free Library, now at Tenth and Market Streets, whose fine new building was erected about a quarter of a century ago. The Eighth and Market Streets building had a variety of other uses.

Goldey College had its beginning in the Institute Building, and it was quartered there a long time.

At one time there was a drafting school in the basement, which, incidentally, was just a little below the level of the street. The entrance was on

There also were other attractions in which many persons took part which required a great deal of stage space. I may cite, for example, an extravaganza styled "The Black Crook." There was a large and fantastically-attired chorus, besides the principals in this show. I have known several managers of the Opera House. The late Jesse K. Baylis held that post perhaps longer than any others.

Wilmington's second "legitimate" theatre was the Academy of Music, northeast corner of Delaware Avenue and Tatnall Street, intended to be the home of opera. It was built in 1884 and was opened by the Boston Ideal Opera Co.

The Garrick Theatre, William L. Dockstader's final vaudeville house, Market Street a few doors above the Grand Opera House, was opened in 1902. Prior to that Mr. Dockstader had theatres, first at 309 Shipley Street, the present Sunday Star building, and later at the northwest corner of Seventh and Shipley Streets.

At one time there was a small theatre on the south side of Seventh Street just east of Walnut Street. It was known as the Seventh Street Theatre.

According to recorded history there were earlier theatres in Wilmington. One was at Front and Orange Streets. Another was at the southeast corner of Sixth and Shipley Streets. Both of these theatres antedated Odd Fellows Hall and the Institute Building. In fact these two early ventures date back more than 100 years, when Wilmington was a small town. There have been other halls in which theatrical performances were given occasionally.

A. O. H. G.

LOCATION - STATEWIDE

Submitted by - Robert Campbell,

Date - January 2, 1936.

WATER RESOURCES.

The only water power available in the State is in the Northern part of New Castle County since this is the only hilly section. There are numerous sites on practically all streams in this section suitable for development of water power on a small scale. Mills were built in this section by the early Swedish and Dutch settlers and in Colonial times waterdriven mills were scattered thickly throughout the hills. Some are still in operation but with the coming of steam and the use of large power units these small water powers were largely abandoned.

Water for domestic use is obtained largely from wells which suffice since there are no large cities aside from Wilmington, which obtains its supply from the Brandywine River:

Bibliography:-

Personal observation.

The Theatre in Delaware

The sudden silence that calms a theatre audience when the house darkens, the footlights go up and professional players await their cues in the wings is a moment of tense expectancy that now is seldom experienced in Delaware. At present, only a few professionals, with amateur, college, and school players are helping to keep the theatre alive in the State.

Although the professional theatre never has found in Delaware a genuinely fertile field, Wilmington has given sporadic support to the theatre, as have Arden and Newark. From their beginnings in this State, theatrical performances have been subjected to the restrictive influences of Quakers and Methodists in successive periods. The remoteness of the lower part of the State in the early years, Delaware's small population, and recently, the vaudeville and road attractions have been other factors checking the theatre's progress in this State. Several Delawareans have gained prominent places on the stage and in the cinema but the State has had only one outstanding playwright, Robert Montgomery Bird (1806-1854), a native of New Castle. (See p. 45). None of Bird's plays ever had a Delaware premiere.

Prior to the Revolution, amusements in Delaware were of the simplest nature and although the Hallam Players made frequent appearances in Philadelphia during the infancy of the American theatre, there is no record to show that the company ever played Delaware. In 1782 and later the State relaxed its stern ban on

amusements to the extent of permitting fairs at Wilmington, New Castle, Dover, and Lewes. These originally were counterparts of the fairs in England. Horses, cattle, farm products and varied goods were offered for sale or barter by farmers and tradesmen. There was life and color and gayety. There was, in addition, music, dancing, and horse racing in which even staid Quakers joined. But the legalized fairs were destined to be short-lived. They were suppressed by the General Assembly on June 4, 1785 because they had been marred by fakirs, liquor sellers, fights, and rude conduct.

The earliest record of a professional theatrical troupe's appearance in Delaware is that of a visit in 1798 of an operatic unit headed by John Bernard, (1756-1828). In his book, Retro-spections of America, 1797-1811, Bernard, who was known as one of the brightest of English comedians and one of the earliest of American managers, tells of the post-season division, into two sections, of the company with which he was connected and of the operatic players' trip to Delaware under his direction. The usual program of songs and recitations was given at "Dover, Lewiston and some other places, varying in size but agreeing so much in spirit that the pleasure of the trip soon began to over-balance its profit, and, like more eminent commanders, I was compelled, with chagrin, to give the signal for retreat."

There is some question as to the location in Delaware of the "other places" mentioned in Bernard's book. His reference to the players' stop-over at "Chesterton," (Chestertown, Md.) indicates that he had only a vague idea of the Eastern Shore section's actual State boundaries.

Although this was an era of restriction, it is probable that the first play ever to be written in Delaware dates to

the period. The play, Fortune Hunter, by Mrs. Ann Booth (1759-1846), of New Castle, was evolved from the circumstances surrounding the courtship and marriage of Mrs. Booth's sister, a wealthy widow. Fortune Hunter in play form is included in Reminiscences by Elizabeth Booth, of New Castle, a book that was published privately for the family in 1884. The book's author, a daughter of the playwright, expresses the belief that Fortune Hunter was written by her mother before the year 1800. Mrs. Booth wrote apparently for her own amusement and that of her family was there is no record of Fortune Hunter ever having accorded a public presentation.

In 1829 Delaware's lawmakers decided that something should be done about "certain nuisances" thus defined:

"If any circus rider or other person or persons at any place within this State shall exhibit or cause to be exhibited or aid in exhibiting, tumbling or other feats in riding upon or managing a horse or horses or any circus show or sport whatever, for the purpose of gain, or for admission to be present at, or to see which, any money or value shall directly or indirectly be demanded or received, or if any rope dancer, tumbler, mountebank or other person shall exhibit or cause to be exhibited or aid in exhibiting at any place in this State rope dancing, tumbling, tricks or puppet shows, for the purpose of gain or for any gratuity, every person so offending in either of said particulars shall forfeit and pay the sum of fifty dollars to any person, who will sue for the same before any Justice of the Peace with costs of suit, proceeding therefor according to the 'Act for the recovery of small debts,' with a right of appeal under the same provisions as therein provided."

Another section prohibited construction of "any structure, tent, stage or place for the purpose of exhibiting any circus show or sport, rope dancing, tricks, or other shows, contrary to the form of the preceding section or either of the provisions thereof."

For this, the person so offending could be deemed guilty of a misdemeanor and upon conviction was liable to a fine of from \$50 to \$100.

Despite these ominous official frowns, the little common-

wealth slowly but surely gained in worldliness. By 1830 there had been a circus exhibition in Wilmington and three years later there is a record of what must have been the first appearance of a professional theatrical troupe in the city. The performance was given in a hotel. In 1834 the first legitimate theatre, the Wilmington, was opened at Sixth and Shipley Streets. When the Philadelphia season closed in the summer the players went on brief tours, usually including Wilmington. In 1836, Mr. and Mrs. Ternan presented The Bath Road, followed by Fazio or the Italian Wife. The program concluded with a farce, Personation or Fairly Taken In. From the start, the sponsors of this theatre encountered much opposition. Quakers, then dominating the town's social life, did not approve of the theatre. Apparently they felt, as did certain leading Philadelphians of the period, that the theatre "encouraged idleness, drawing great sums of money from weak and inconsiderate persons who are apt to be fond of such kind of entertainment, though the performance be ever so mean and contemptible." Soon the unceasing criticism of this new thing in Wilmington's midst reached the proportions of a boycott, and in 1839, the city's first theatre closed its doors for lack of patronage.

Meanwhile, Robert Montgomery Bird, the Delaware-born playwright, was winning recognition. His play The Gladiator, starring Edwin Forrest, a famous actor in his day, had scored a success in New York. Bird provided for the leading role a character called Spartacus exactly suited to Forrest. He was cast as a Thracian captive of Rome who was forced into the arena as the price of a reunion with his wife and child. When The Gladiator was presented in Philadelphia, "the audience rose and cheered in their seats." Walt Whitman, then a drama critic in Brooklyn, seemed favorably impressed also. "This play," he

commented, "is as full of 'Abolitionism' as an egg is of meat. It is founded on that passage of Roman history where the slaves-Gallic, Spanish, Thracian and African-rose against their masters, and formed themselves into a military organization and for a time successfully resisted the forces sent to quell them."

The Eastern Shore of Maryland, and presumably lower Delaware, was being amused at about this time by the so-called "traveling shows" with their wax figures, glass blowers, and the "strongest man in the world." There were occasional agricultural fairs in and about Wilmington, musical programs either in Temperance Hall or City Hall, a ball at Christmas, summer boat rides to New Jersey or lower Delaware, but not much else. Perhaps it was because of the lack of varied amusements that a Wilmington editor, writing in his paper in 1847 of the concert he had attended in Philadelphia, expressed the hope that the same program might be presented in Wilmington. Through the years the same prosaic pace continued, unbroken save for cattle shows, ploughing matches, and church fairs. Wilmington's first Odd Fellows Hall, Third and King Streets, was opened in 1849 as a place for shows, meetings and public gatherings. Among the early performers there was Wyman, the magician, who mystified Wilmington theatregoers of 1852. Ironically, Robert Montgomery Bird's The Gladiator had been performed 1,000 times during this period; none of these performances was in Delaware.

There was a significant event at Newark in 1856 when a Delaware audience listened to a defense of the theatre. The apologist was one of Washington, D. C. Addressing the Shakespeare Club, Mr. Gouley G. F. Gouley said that the people make the drama, so that, if the stage presents an overdrawn picture of life, a picture flushed with sensuality, it is the people who have made it so. According to a contemporary newspaper account, the lecture was well received.

O'Keefe
3-1-37
Rewrite

With the opening of Wilmington's Grand Opera House in April 1872, one section of Delaware, at least, had definitely thrown off the shackles of conservatism. There had been the original theatre, closed through lack of patronage, the Odd Fellows Hall, and the Wilmington Institute Hall in the old Library building at 8th & Market Streets, but nothing had been attempted until now on the scale of this "elegant" new structure which seated 1400 and was so completely equipped that it compared favorably with theatres in larger cities. The Caroline Richings Bernard Co. opened the Opera House on Christmas Day with Daisy Farm at the matinee and Rob Roy in the evening. The Opera House, echoing now to the synthetic voices of the shadows that move across its silver screen, has had a glamorous past. On its roomy stage have appeared Sir Edwin Booth, the Jeffersons, Chauncey Olcott, De Wolf Hopper, Richard Mansfield, Maude Adams, James K. Hackett, Mrs. Fiske, John Drew, William Favorsham, George M. Cohan, Ethel Barrymore, and Corse Payton, the latter popularly known as "America's best bad actor."

The year 1873 marked the first effort on behalf of organized dramatics at Delaware College, Newark, where students presented Richard Brinsley Sheridan's The Rivals as a benefit for the college paper. Some years later an amateur dramatic group had been organized in Wilmington and a rival theatre to the Opera House, the Academy of Music, had been built in 1884 and opened Jan. 1885 without heat in the building.

The Academy of Music, N. E. cor 10th and Tatnall later known variously as the Wilmington, the Lyceum, and, at the time of its destruction by fire, the Avenue, was a 1300-seat theatre. During the

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season of 1902-03, termed at the time the most successful Wilmington ever had, this theatre proved a consistent competitor to the larger Opera House. On its stage the usual portrayals were the tear-jerking plays of the period in which lovely shop girls were continually but triumphantly fighting to retain their virtue against overwhelming odds, or poor little newsboys were breaking the hearts of Wilmingtonians by showing that it was indeed a sad thing to be homeless and alone in a great city. In this theatre was presented the first long motion picture program in Delaware, an exhibition of scenes of the San Francisco earthquake and fire. As the Avenue, the theatre presented several successful seasons of stock.

After the turn of the century Wilmington gained another new theatre, the Garrick, devoted to vaudeville, and motion pictures began to find a foothold in Delaware. These early films, known as the Kinetograph, were offered at the Garrick as part of the regular program. William L. Dockstader, who built and for years operated the Garrick, opened his first variety theatre in Wilmington in 1893 at 309 Shipley, an old building built up. Later he removed further uptown and in 1903 he built his new theatre N. W. cor. 7th & Shipley which he named the Garrick. With the decline of vaudeville and after various periods of stock, burlesque, and motion pictures, the Garrick was closed. A florist shop now occupies the lobby of this once attractive theatre.

The early part of the century also marked the era of the traveling medicine show. While these somewhat crude performances had no part in the development of the theatre in Delaware, they are of interest chiefly for their color and for their reflection on the simplicity of the times in which they flourished. The itinerant impressarios of those days did not confine their wares to medicine but

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vended other articles, soap among them. One showman used to demonstrate the efficacy of his soap at the expense of small Negro boys. During his sales talk to the assembled crowd, the showman rubbed particles of some dark substance on the head of his young stooge. Then, when soap and water had been applied the spectacle of the resulting coal black lather never failed to amuse the audience. Those were the days in which people laughed easily.

In 1902 a movement was launched at Dover for the construction of an Opera House as a community enterprise. Stock was sold and the building was erected, but dividends were small and infrequent. Performances were given by local talent and there were occasional shows by traveling companies or minstrel troupes. The Dover Opera House replaced an earlier community meeting place on the third floor of the Kent County Court House, a section of the building that has since been removed. There were also Opera Houses at New Castle, Newark, and Smyrna.

There is a tradition in the professional theatre that regardless of fire, flood, illness, or even death, the show must go on. In 1902, however, a company scheduled to appear at Wilmington's Opera House failed utterly to live up to that glorious custom. The troupe was so disorganized by the serious drinking of certain of its members that the show could not go on. The theatre management was forced to refund the price of tickets to prospective patrons.

At Arden (see p.), a group was formed in 1906 for the presentation of Shakespearean plays. These presentations have since continued and a summer theatre, the only one in Delaware, also is operated there. During the season, current successes and older favorites are given each week by a resident stock company, most members

of which have had professional stage experience. Frank Stephens, one of the founders of Arden, wrote Peter Grubb of Grubb's Corner, a satirical operetta depicting the landing of the Swedes, Dutch, English, and Quakers on the banks of Naaman's Creek in northern Delaware. It was produced in 1935 by the Arden Chorus.

Appearing in 1911 with the Green Room Club, a Wilmington amateur dramatic organization, was William S. K. Wells, who later became well known as a pioneer film actor. Other Delawareans who were successful in the cinema were G. Raymond Nye and Estelle Taylor, both of Wilmington. Laura Biggar, of Wilmington, was a well-known figure on the American stage in the nineties and later. She is remembered for her appearances in the popular Charles A. Hoyt comedies and her greatest success was in A Trip to Chinatown. After the death of H. M. Bennett, wealthy Pittsburgh theatre owner, Miss Biggar was involved in a prolonged controversy regarding the disposition of his estate.

Miss Biggar, to whom the bulk of the estate was willed, claimed that she had been secretly married to Bennett and that he was the father of her child. The will was contested, however, and the hearing reached a sensational climax on September 26, 1902, at Long Branch, N. J. When Miss Biggar, through her counsel, expressed a wish to abandon the suit, saying that she would be satisfied with receiving 60 per cent of the estate as provided in the will, opposing attorneys served warrants on a justice of the peace and a doctor, who had testified as to Miss Biggar's marriage and the subsequent birth of a child. Conspiracy was charged in the warrants. After both men had been indicted by a New Jersey grand jury, their attorney heatedly branded the verdict the "most idiotic and preposterous I ever heard of." For a time it was

believed that Miss Biggar might also be detained. Anticipating this and probably aware also of the accruing publicity, "Gentleman Jim" Corbett gallantly offered, in the newspapers, to furnish Miss Biggar's bail. He said that he was actuated by sympathy for a fellow professional.

Delaware now has only one legitimate theatre, the Playhouse, Wilmington. Since its opening in 1913 and until the decline of the road, this theatre has presented many well-known stage personages in try-out performances as well as in established successes. Adequately equipped, mechanically; handsomely appointed, and with a seating capacity of 1223, the theatre is now used for community meetings and concerts. Occasional performances still are given there by traveling companies but were it not for the fact that the Playhouse is sponsored by wealthy persons, it undoubtedly would have been closed years ago because of meager patronage. One reason for the apparent indifferent attitude of Wilmington people toward their only legitimate theatre is that playgoers have been disappointed in many of the attractions offered, some of which were little more than dress rehearsals. The proximity of Philadelphia, where several plays usually are simultaneously presented during the season, also tends to limit the attendance at Wilmington's Playhouse. Stage shows now are presented occasionally in the various moving picture theatres that dot the State.

In 1936, there was a new and stimulating contribution to the drama with the opening in Delaware of the Federal Theatre, a division of the Government's work program. This was a unique venture for several reasons: it represented the entrance of the Government into show business; there was no charge for unreserved seats at the Federal Theatre's performances; many persons in its audiences, especially the more youthful ones, were witnessing for the first time a stage performance by living players. The theatre project, which had its

headquarters and a theatre of its own in Wilmington, has given performances throughout the State. Among the presentations of 1937 was Shakespeare's Julius Caesar in modern dress, probably the first of its kind on any stage. In this version of the famous play, black shirts replaced togas and other costume changes were made. The lines were not altered, however.

There now is considerable activity in the drama at the University of Delaware, Newark, where the class in play production annually stages two plays of the E 52 Players. Each year there is an exhibition of stage models constructed by members of the class. With their models, students also submit complete production plans for a play, including costume and property outlines, working drawings, floor plans, and lighting suggestions. The university also offers courses in the drama and in the technique of acting. There is an annual competition for the Dean Edward Laurence Smith prize for an original play. This prize was established in honor of Professor Smith, dean of Delaware College at the time of his death in 1923.

Church, school, and amateur theatrical groups are contributing to the drama in Delaware and many of the newer school buildings in the State are adequately equipped for stage presentations. This is true especially of the Pierre S. du Pont High School, Wilmington (see p.). Of the amateur dramatic organizations the best known is the Wilmington Drama League, Inc., now taking the place of the Aircastle Players, an earlier Wilmington dramatic organization. The Drama League, membership in which is by invitation, is a community theatrical group that presents a series of plays during the fall and winter months in a historic old mill building. Its members direct their own productions, build scenery and serve in other capacities about the little theatre.

Although Delaware has never legalized Sunday amusements, so-called "sacred concerts," featuring vaudeville and stock company players, have been permitted in amusement parks. At two places in the State, Fort DuPont and Rehoboth, motion pictures are exhibited on Sunday.

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OKeefe *Wilmington* *Wilmington Delaware*
NOTES ON HISTORY OF DELAWARE THEATRE. *Folder: Theatre*

(To November 18, 1935 - Subject to extensive revision and additions)

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Previous to 1833 there is no record of professional theatrical activities in Delaware, although there is no question but what from very early times there were individual showmen exhibiting performing bears or tother animals as well as itinerant musicians, jugglers, tumblers, etc. They played in the streets, in barns or wherever they could find a few people gathered together. They followed no definite route and left no record behind them. We therefore have no knowledge of any of the individuals so engaged and must therefore necessarily start with the first performance in Delaware of a professional company that charged a definite admission price instead of depending upon the good will of the audience and that presented their performance from a stage, even though it were improvised.

This company, the name of which is not known, came to Wilmington in 1833 and finding no suitable hall, presented their performance in a large room in the Bayard Hotel, on the West side of Market St. between 5th & 6th Streets. Admission was 50¢.

FRONT & ORANGE ST. HALL - This was the first hall in Delaware to be fitted up for theatrical purposes. A theatrical company - possibly the same one that had played here the year before although there is no definite record - fitted up a hall at Front and Orange Streets in which they gave a series of performances during the year 1834. Their repertoire included Shakespearean plays.

HULLY'S HALL - The Wilmington Theatrical Co. built a theatre on the SE (SW?) corner of 6th & Shipkey Sts. in 1834, this being the first building in Delaware erected especially for use as a theatre. The house was 78' x 43' x 26' high to the dome and included a gallery, giving it a seating capacity of 600. It opened December 22, 1834 with "The Soldier's Daughter", a comedy. The company was headed by Mr. & Mrs. Barnes, and the opening was very successful. The company remained one week and it is said that they could have remained an additional two weeks. This theatre passed through several changes of ownership during the five years of its existence. It seems to have been quite prosperous at first due partly to the free advertising given it by religious fanatics but as to novelty wore off and as the public came to realize that it was not as wicked as they had been told, business fell off and in 1839 it was closed. The curtain rose somewhat earlier then than it does now, being at 7 PM. Prices were not excessive being - Boxes 75¢, Pit 37½¢, Gallery 25¢.

It is quite interesting to note that during its existence "Hully's Hall" was the headquarters of a "little theatre" group.

CITY HALL - Between 1840 and 1850 there was quite an active "little Theatre" movement under the leadership of James H. Allerdice (??? His brother also???) who presented a number of plays with local talent in the auditorium of the City Hall on the East side of Market Street between 5th & 6th Sts. Many other performances were given there, some professional, until 1883 when the room was taken for use as a court room and fire alarm department.

ODD FELLOWS HALL - This hall on the Northwest corner of 3rd and King Streets was dedicated May 28, 1849. At the time it was the largest building in Delaware. Performances of various kinds were given there including Shakespearean plays, Italian opera and lectures. Horace Greely spoke at this hall. The Wilmington School of Music occupied this building for some time.

TEMPERANCE HALL - This hall was built in 1842 and was located on E 4th St. between Market & King Sts. on the S. Side of 4th.

INSTITUTE BUILDING - This was built by the Wilmington Institute organized in 1859. The cornerstone was laid July 24th, 1860, and it was dedicated January 31, 1861. It was located at the North West corner of 8th & Market Streets and extended through the block to Shipley Street. The lecture room on the Shipley St. side of the building seated 1200 persons. While it was poorly suited to theatrical entertainments there were many balls and other entertainments held there and in its day it held the leadership as an entertainment center in Wilmington. This building housed the Library which became a free public library in 1893, at which time the auditorium was altered for library purposes.

GRAND OPERA HOUSE - This house was built by the Masonic Hall Company organized in 1871. It was dedicated April 18, 1872. It is still standing on the East side of Market St. between 8th & 9th Sts. It was in every way the finest theatre that Wilmington had known at the time it was built and retained its prestige until the building of The Playhouse many years later. It had a seating capacity of 1400 and the largest stage of any one-nighter in the country at the time. Powerful oil lamps served as footlights. These were later changed to gas and still later to electric foots.

(Give lists of plays and players, etc.)

The house is now called "The Grand" and has been given over to moving pictures - not only moving pictures but "Westerns". How hath the mighty fallen! The walls that once echoed to the voices of Booth and Barret, of Joseph Jefferson, of Alcala Neilson and Schumann-Heink in the pre-microphone days when actors had voices, now reflect the tones of the loud speaker. Where the Indian war cry and the sound of galloping horses once was heard ~~the~~ a synthetic echo of an Indian war cry and the sound of galloping horses comes back after three hundred years, via Hollywood.

ACADEMY OF MUSIC - This was built in 1884 on the North East corner of 10th St. & Tatnall. It opened in January 1885 with Grand Opera. The building at the time was incomplete, the doors not being hung and the furnace not yet in working order. Blankets were hung over the doors but as a spell of bitter cold weather coincided with the opening the audience, cast and orchestra all wore heavy overcoats throughout the entire run of six days. Neighboring drug stores did an extensive business in cough medicine.

The theatre burned but was re-built and used for stock for some time but burning a second time was not re-built.

THE THEATRE

Research - J. Barton Cheyney.

Wilmington's first playhouse was situated at Sixth and Shipley Streets. It was seventy-eight by forty-three feet in dimension and seated about six hundred. In 1834 a visiting troupe of players played for two weeks to enthusiastic audiences. The prices for admission were seventy-five cents for boxes, thirty-seven and one-half cents for the pit and twenty-five cents for the gallery. The Wilmington Theatre Company, however, did not succeed, the building was sold and all efforts to establish a theatre in the city were abandoned for some time. The citizens of Wilmington strongly opposed the theatre. Quaker influence dominated and it was not until 1849 that Odd Fellows Hall at Third and King Sts. was formally opened as a place of entertainment for the presentation of plays, concerts and lectures. Wilmingtonians boast that across the footlights was heard such artists as Adaline Patti, the Grand Opera Star, the great Ole Bull, the violinist of international fame. The Wilmington Institute with a larger seating capacity took the place of Odd Fellows Hall, notable for its banquet to General Grant. In 1871, the Grand Opera House at an outlay of \$100,000, the costliest structure on Market Street up to that time was erected. The Academy of Music Tenth and Tatnall Streets opened in January 1885, vieing with the Grand Opera House for popularity. It was later burned.

W. L. Dockstader, who collected wealth enough exhibiting a trained pig to build a theatre, erected the Garrick theatre on Market Street and for many years conducted the only vaudeville theatre in the city.

THE THEATRE

The Playhouse, in the Dupont Building at Tenth and Market Streets was dedicated October 13, 1913. In recent years, it has been utilized for local public gatherings, musicals, dramatic performances and occasional films.

Research:
Vera Townsend: -

The Drama League of Wilmington has its own theatre on the top floor of the old Lea Mill at 18th and Market Sts., known as Drama Art Center. The building is the last of the Lea Flour Mills of pre-Revolutionary Days. It has a stage, raised seats for the audience and an adequate lighting system.

The League has a membership of five hundred and fifty. The active members hold positions as director, actors, scenery shifters and makers. It has been in existence for eighteen years.

Submitted by - Sara C. McCarthy

Date - February 12, 1936.

Loew's Theatre - Delaware Avenue at Adams.

Management: - Roger R. Drissel

Seating Capacity - 1024

Class of Production - Screen

Hours - 12 noon to 11 P. M.

Car No. 10 - Delaware Avenue Route.

Subsidiary of Loew's, Inc.

Playhouse: - Du Pont Building, 11th & Market Sts.

Management - Raymond V. Harris - Manager and Lessee.

Seating Capacity - 1223

Class of Production - Screen and Stage.

Cars Nos. 11, 12, 10, and No. 4.

Owned by Du Pont Company.

Aldine - 808 Market Street.

Management - John Smith, Manager.

Seating Capacity - 1825

Production - Screen

Hours - 12 noon to 11 P. M.

Car Route Nos. 8, 10, 11 and 12.

Arcadia - 510 Market Street.

Management - Louis S. Black

Seating Capacity - 1380

Production - Screen

Owned by Stanley Company of America.

Warner Bros. All Market Street Cars.

Nos. 8, 10, 11 and 12.

Grand Opera House - 818 Market Street.

Management - Morton Levine

Seating Capacity - 1327.

Hours

All Market Street Cars - Nos. 8, 10, 11 and
12 and No. 4.

Queen Theatre - 5th & Market Streets.

Management - Arthur Cohen

Seating Capacity -

Class Production - Screen and Vaudeville.

Prices

Hours

Cars Nos. 10, 11, 12 and 4.

Strand Theatre - 2412 Market Street

Management - Benjamin Sleigh

Seating Capacity - Approximately 1,000.

Class Production - Screen.

Strand Theatre - (Continued)

Prices - 20¢

Hours - 6:30 P. M. until 10:45 P. M.

No. 4 Cars Shellpot & Bellefont.

Mr. Topkis owner.

Rialto Theatre - 220 Market Street

Management - A. J. Belair

Seating Capacity -

Class Production - Screen

Prices.

Hours

Savoy Theatre - 515 Market Street.

Management -

Seating Capacity -

Class Production - Screen

Prices: Afternoon 15¢

Evening - 20¢

Park Theatre:- 4th & Union Streets. Use No. 4 car.

Management - A. Joseph DeFiore.

Seating Capacity - 700

Class Production - Screen

Prices - 15 and 25¢

Hours - 2P. M. continuous to 11.

Acc
Avenue Theatre - 307 Maryland Avenue.

Management - Benjamin Schlender.

Seating Capacity - 834

Class Production - Screen and Vaudeville.

Prices - 10 and 20¢

Hours - Continuous 2 to 11 P. M.

National Theatre

See p. 143.

See p. 149-160

LOCATION - - Wilmington

File S-666

Submitted by Gordon Butler,

Date June 18, 1936.

The W.P.A. Dramatic Project.

The WPA Dramatic Project of Delaware with headquarters in Wilmington was organized for unemployed actors and dramatic workers such as directors, stage decorators, scenery builders, scenery shifters, floodlight technicians, make-up technicians, etc.

The project also employs young people who have had no professional experience in dramatics, but who have natural aptitudes for this work and have been limited to dramatic activities, in the public schools and other amateur dramatic productions.

The WPA Dramatic Project is primarily interested in sustaining dramatic acts and the developing of actors and other dramatic workers for the growing tendency for amateur dramatic productions also to develop and perpetuate an interest in the State's history by the production of historical plays.

Wilmington Theatres.

Wilmington has never been a real "show town." Its citizenry has been too church conscious to indulge in the lighter moods, and plays and play-folk were for many years regarded as beyond the "moral pale." Nevertheless, a hundred years ago, or more correctly in 1834, the desire to enjoy dramatic performances given by professional players gained such support that a play-house was provided at the corner of Sixth and Shipley Streets. This little theatre was 78 by 43 feet in dimension, and seated six hundred. The prices were high for those days. Box seats brought 75 cents, the pit was 37½ cents and the gallery 25 cents.

This theatre opened in December with a company that remained for two weeks. Few towns had a legitimate theatre in those days although many of them had museums or "halls" where lecturers, or concerts, or panoramas were produced. But Wilmington was so near to Philadelphia which even then was a theatrical center, that, when the Philadelphia season closed, the players found it profitable to tour nearby towns. The Wilmington Theatre Company continued for four years. Advertisements in "The Gazette and American Watchman" of those times show that the usual entertainment for an evening consisted of three plays, a farce to begin and close the show, a tragedy in between. When Shakespeare's plays were produced, however, only two shows were given, and Richard the Third, and Othello were followed by the closing farce.

The legitimate season lasted a month but at intervals other billings occurred such as vaudeville, with lectures. Among other attractions appearing in the city along about 1836 was that of

The Siamese twins, Chang and Eng. They made no stage appearances but upon payment of 25 cents the interested might gain admission to their room at Porter's Hotel.

The first playhouse failed for lack of patronage in 1839, Ten years later Odd Fellows Hall at Third and King Streets was formally opened as a place of public entertainment, available for plays, concerts and lectures. Across the footlights of this little show place were heard such artists as Adalina Patti, the Grand Opera Star of her day and Ola Bull the violinist of international fame.

The Wilmington Institute was erected in 1861 at a cost of \$50,000. It had a larger seating capacity than the Odd Fellows Hall and was equipped with up-to-date stage accessories. The leading actors, musicians and lecturers of their day appeared on its stage and noted political speakers were also heard. The most notable gathering was that which entertained President Grant at a banquet which is still remembered by some of the older generation.

The Wilmington Institute Theatre followed the fate of its predecessor when the Grand Opera House was built in 1871. This was the largest and most imposing building the city could boast at that time. It was situated on Market Street, between Eighth and Ninth Streets, represented an outlay of \$100,000, and for half a century it rated favorably with playhouses of larger cities and was the center of Wilmington's amusements and large social functions. Famous actors and actresses appeared there and it was regarded as a favorable stop on the circuit of popular play and high class entertainment.

The first to offer competition in the matter of the popularity of the Grand Opera House was the Academy of Music. It was built at the corner of Tenth and Tatnall Streets and was opened in January 1885. It never interfered greatly with the position of the old Opera House, however, and after a number of financial difficulties, it was burned to the ground.

W. L. Dockstader, brother of the famous black-face comedian, had made a financial success exhibiting a trained pig at Third and Shipley Streets. He drew such crowds with his entertainment that he moved to larger quarters at Seventh and Shipley Streets, and when his showmanship outstripped this place, he erected the Garrick Theatre, on Market Street and almost next door to the legitimate theatre. Here he conducted a vaudeville theatre for many years, booking excellent acts and making a wonderful success of his venture. He prospered and eventually retired selling the Garrick to a rival producer who operated it for a few years and eventually closed the doors. The house remained dark for more than a decade.

The Playhouse in the Dupont Building, Tenth and Market Streets, was dedicated October 13, 1913, its opening show was the melodrama, "Bought and Paid For," with the stage veteran William A. Brady as its producer. The Playhouse measured up to all of the high standards of construction and equipment of the modern theatre. The parquet, family circle and balcony have a seating capacity for 1223 persons. Prpscenium boxes gave an artistic air and the stage is large and the scenery from the studio of a leading New York artist. The Playhouse, however, although leading artists and well liked plays were produced , failed to draw satisfactory audiences. Recently the Playhouse has been utilized

for public gatherings, musicals and occasional exhibitions of musical films as well as occasional bookings of dramatic and artistic successes.

The advent of the movies, cinema houses appeared promptly. One of the earliest was the Queen, located in the reconstructed Clayton House at Fifth and Market Streets, in 1916. The Aldine soon after located on Market Street above Eighth. There are now eleven theatres in the city producing "talkies". They are, in addition to the two mentioned above, the Savoy, at 515 Market Street; the Grand, in the old Grand Opera House at 818 Market; the Rialto at 220 Market; the Arcadia, 510 Market and the Strand at 2412 Market Street. The Park is at Fourth and Union Streets; Loew's on Delaware Avenue near Adams Street and the Ace at 307 Maryland Avenue. The National Theatre at 810-12 French Street is the only Moving Picture Theatre in the city providing entertainment for the colored race.

The Wilmington Drama League, Inc., is an amateur dramatic society which had been organized for the purpose of sustaining interest in the spoken drama. They present a play each month during the winter season for the entertainment of the members and their guests and the membership is by invitation only.

The Drama League has been in existence for nearly twenty years. It has a membership of 550 and their yearly subscription is⁵ five dollars. Each member has the privilege of guest tickets for the performances at one dollar each. Opportunities for those who desire to be active members include; directing, acting, prompting, scene building and shifting, stage decoration, experimentation in lighting effects, costuming, make-up, etc.

The top floor of the old Lea Mill at Eighteenth and Market Streets houses the theatre of the League, above the Art Center which occupies the first two floors. The building is known as the Drama Art Center. A Board of Trustees manages the business end of the project while the usual officers run the theatre.

The Drama League has produced, recently, such plays as The Councillor at Law, The Last Warning, Goodbye Again, and the Green Goddess.

The W.P.A. Dramatic Project of Delaware has its headquarters in Wilmington and its own theatre on the third floor of the W.P.A. Professional Projects homes at 909 West Street. It was organized in the winter of 1936 for unemployed actors and dramatic workers including directors, stage decorators, the builders of scenery, scene shifters, floodlight and make-up technicians, property men and others connected with legitimate theatrical productions. The project has also offered opportunities to those who, although having no previous professional theatrical experience, have shown natural aptitude for this work but have found no openings outside of amateur productions.

The majority of the actors in the Dramatic Project show unmistakable dramatic ability and not a few of them are actors of experience. Their first effort, "Historic Delaware," was an interesting offering. It was first given in the Wilmington High School, April 4, 1936. On the 20th and 21st of that same month it was presented at the New Castle High School, New Castle, Delaware, and June 26 at the Bayard School. On June 30th two performances were offered at the University of Delaware at Newark, Delaware.

Among other offerings are: The Legend of the Pines, and A Happy Journey to Trenton and Camden. The Mikado was given September 10, 1936 in the Little Theatre and at the Gild Hall, Arden for two performances on the 11th and 12th. The Class of '29 was first produced December 14, 1936 and gave two performances. The fairy tale, "The Emperor's New Clothes," gave fourteen performances before enthusiastic audiences of children, the first on January 8, 1937. The latest production, Shakespeare's "Julius Caesar," in Modern Clothes, has received considerable publicity and created some controversy.

The Dramatic Project played "The Emperor's New Clothes" for St. Peter's Orphanage and the Ferris Industrial School. Performances of the various plays have also been given for the Girls Industrial School, the Magnolia CCC Camp for colored, the Boys Club camp, the Georgetown, Lewes and Redden, Delaware, CCC camps, the Lincoln Neighborhood House, the Madison Neighborhood House and the Industrial School for colored.

Wilmington also has a children's Theatre Group of recognized educational value, composed of the pupils of the Wilmington High School, presenting such plays as its latest offering "Cinderella of Loreland." The scenery for the plays is constructed and painted by the members of the Group. The poster, programs and tickets are printed in the school print shop.

The Young Men's Hebrew Association also has an amateur group of actors which presents plays at the Association's Hall at various times. They call themselves the Y Drama Club. Members of the Young Women's Christian Association also have gone in for the drama.

Among the other education institution which have come to regard study of the drama as advantageous for their pupils are Friend's School, Pierre S duPont High School, Tower Hill High School, the Alumni of Ursuline Academy and the two business schools, Beacom's and Goldey College. The employes of the Hercules Powder Company have formed two dramatic clubs, one for the women and the other composed of the men. The churches are also interested and St. John's Episcopal Church and the Second Baptist Church both have dramatic clubs while Grace M. E. Church club has named itself the "Plotters and Players."

Wilmington has one opera company which has specialized in the Gilbert and Sullivan operas so successfully that the whole company was invited to attend the centennial celebration of the birth of Sir William Gilbert in New York City last November.

The organization is called the Brandywiners. The idea was first proposed by Miss Frances Tatnall July 20, 1932, and since then the productions given by this group have been events in both the social and theatrical worlds of Pennsylvania, New Jersey and Maryland as well as of Delaware, although at first there was no definite plan for giving public performances. Frederick W. Wyatt was Musical Director and William Winder Laird Production Manager, and it was decided to give two public performances of "The Pirates of Penzance." This was so successful that it was followed by "Iolanthe," in 1933, "The Gondolier," in 1934, Princess Ida in 1935 and "Pinafore," in 1936. Through the courtesy of Mr. and Mrs. Pierre S. duPont the Longwood open air theatre has been at their disposal for all of their performances.

-8-

RESEARCH - M.B.HULL
J. BARTON CHEYNEY
GORDON BUTLER
L.P.SCHWATLO

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W.P.A. Dramatic Project

Circular Letter from Drama League

Journal - Every Evening - 11-25-36

Information from Frederick W. Wyatt

LOCATION - - Wilmington

File 3-666

Submitted by Gordon Butler,

Date June 18, 1936.

The Drama League of Wilmington

The Wilmington Drama League, Inc., is an amateur dramatic society organized to sustain interest in the legitimate stage and to present a play each month during winter season for the entertainment of its membership and their guests. (Membership is by invitation.) The Drama League is not endowed; its revenue is derived from membership dues and guest admissions.

The Drama League has been in existence for 19 years. It has grown in numbers of participating members and its success is outstanding in this section. Fees from 550 members pay a yearly subscription of \$5.00 and have the privilege of guest tickets at a dollar each.

Activities for those who wish to be more than spectators are; acting, directing productions, prompting, building scenery, shifting scenery, decorating stage, experimentation in lighting effects, costume, make-up, ushers, etc.

The Drama League, has its own theatre on the top floor of the old Lea Mill at 18th and Market Sts., reached by Street Car #4. As the Art Centre occupies the first two floors, the building is known as the Drama Art Center.

A Board of Trustees manages the business and a President and usual club officers run the theatre.

REFERENCE: - Circular letter from the membership committee, November 1935.

E. Thompson Walls.

January 27, 1938.

State Drama
Theatre

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THE FEDERAL THEATRE IN DELAWARE.

The Federal Theatre opened in Delaware in January, 1936. The Project in the beginning was sponsored by the State Board of Adult Education and Wilmington Board of Education, who ceased to be the official sponsors in January 1937, but continued as unofficial sponsors of the Project up until the time the Federal Theatre closed.

The number of persons employed by this project in 1936 was 19, later this number was increased to 21 persons, of which 18 were on relief and 3 non-relief, 14 male and 7 female, later the quota reached 24.

The first production staged by this group was : "Historic Delaware." It had its premiere at the Bayard School in Wilmington, later Historic Delaware played Mitchell Hall at the University of Delaware. It also played the various Junior High Schools and Senior High Schools in the City of Wilmington and throughout New Castle County.

In the summer season of 1936, the company toured the C.C.C. Camps in Delaware at Georgetown, Lewes, Redden, and the Veteran's Camp near New Castle. The program for this tour consisted of short one act plays and skits, such as "Swimmin' Pools," by Belford Forrest, "A Happy Journey to Trenton and Camden" by Thornton Wilder, and songs, monologues and a one act play written by a member of the cast, "Legend of the Pines". These performances were received enthusiastically at all the camps.

During the early fall of 1936 the Federal Theatre, the Federal Music Project in cooperation with The Musicians Guild of the Arden Club, produced Gilbert and Sullivan's "Mikado," five performances in Wilmington and Arden were given.

Following this production came "Class of '29," this production was in rehearsals while a stage was being constructed in the new building occupied by the Federal Sponsored Projects. Several men actors helped stage minstrel shows for C.C.C. Camps in Delaware.

The Fall and Winter season of 1936 and the Spring season of 1937 was given over to such plays as: "Emperor's New Clothes," "Julius Caesar," in addition to "Class of '29."

In February 1937, an agent cashier was added to the project quota, and the policy changed somewhat. The cast now had a repertoire, and regular performances were given Thursday, Friday and Saturday evening. A charge was made for reserved seats, but a number of seats were free. This policy continued until the Federal Theatre closed, July 15, 1937.

The next production was "Help Yourself" which opened April 8, 1937. This play was a great success and continued to play for several weeks, to packed houses. This was followed with "Aria da Capo" and scenes from "A Midsummer Night's Dream."

The Delaware Federal Theatre Group, with the cooperation of the National Radio Division, was furnished with scripts from the series. The weekly broadcast continued over Station WDEL for quite some time.

The Spring and Summer tours for the project were under way at this time, and the plays which had been produced during the past fall and winter were used as their repertoire for the

-3- The Federal Theatre in Delaware.
(Walls)

C.C.C. Camps. The engagements were Magnolia, Camden, Redden and Wyoming.

Birmingham Journal
(re: Arden)
Town Journal
 1210

LOCATION - Statewide.

Abstract

Submitted by - Miss Vera Townsend.

Rewritten by - Gordon Butler.

Date - June 19, 1936.

Arden

The Single Tax group, who established the colony at Arden, started in 1906, to study Shakespeare as an aid to elocution. The participants in the plays were all stump speakers, who found dramatics, entertaining as well as beneficial. From this grew the idea of giving Shakespeares outdoors every summer. So gradually a group has been built up that call themselves the Arden Players. The idea back of it is a combination of the Little Theatre movement in their sincere effort for a higher standard of presentation and Community Theatre in that any resident could belong if he could pay the dues to help defray expenses. Forty cent tickets were sold for each performance. The town itself could not support the group as a community effort since it was under single tax.

Interested residents built a Guild Hall and became members of one or more of the guilds that formed the club. The Players' Guild, to which belonged the amateur players, also known as the Arden Players, took charge of the Shakespeares plays given outdoors each summer. Any community talent, able or not to pay dues, is drawn into the acting. The roles are usually traditional, held summer after summer as long as the actor is at Arden. An adult actor might have started as a child in the part of a page, taken a little better part when older, finally working up to a lead part. In summer Shakespeare may be given only every other week, another group presenting a modern play in the Guild House on the alternate

week. The natural scenery outdoors is used for background, depending on furniture and drapes to help set the picture. Usually just side lighting is used; however, an unusual lighting system was built for the Midsummer Night Dream presentation. The costumes are usually made by the women although a few have been bought from professional companies.

The last two years (1934-1935) the children of the Arden Colony have given two plays outdoors in the summer, either Cinderella, Alice in Wonderland or Robin Hood. A semi-professional or one of the amateurs has served as leader.

The children are used by the adult group when child parts have to be filled and as fairies in Midsummer Night's Dream, etc.

Some of the Amateur Players may also be members of the Musicians' Guild and take part in the Gilbert and Sullivan plays this guild has presented the last four winters. The dramatic preparation is quite a community diversion.

In 1930 the Thirtieth Anniversary of the town, the whole community activity centered around the Guild Hall in the preparation of a pageant. A long parade was given, a ceremony on the Arden Green, games and dancing, a town supper and a fair that extended the proceedings over the week end. The town Fair consisted of a one act play repeated at intervals, a puppet show, a craft exhibit, and a flower exhibit.

In summer a stock company from New York conducts plays now in the Robin Hood Theatre. A bus is run from Fifth and Market at eight o'clock for residents of Wilmington who care to see the play.

Every year a water festival is held at the town swimming pool and plays such as: "A Night in Venice" are played. Lanterns decorate the setting and mandolin and guitar players drift by in

boats. Italian songs are sung and water sports take place.

Reference - Data gathered by Miss Townsed, Jan. 1936.

File No.667.

Savoy Theatre - 6th & Market Sts.

Management - Mr. E. G. Finney, (Warner Bros.Inc.of Delaware)

Capacity - 751

Production - Screen

Hours -

Prices -

National Theatre (Colored) 8th & French Sts.

Management - John O. Hopkins

Capacity - 500

Production - Screen

Hours -

Prices -

144
McCarty, S.

Playhouse

DuPont Building. 11 & Market Sts.

Management: Raymond V. Harris, Manager and Lessee.

Seating capacity: 1223

Class of production: Screen and stage.

Owned by duPont Company

Reached by street cars: Nos. 11,12,10, and 4.

LOCATION - Wilmington,

Duminy

Submitted by Lewis P. Schwatlo.

Rewritten by - Gordon Butler.

Date - June 19, 1936.

The "Brandywiners" is an operatic organization composed of amateur actors who are interested in producing plays during the summer as a means of entertainment. Productions given by this organization are an event in both the society and theatrical world of Del., Pa., N. J. and Maryland.

Miss Francis Tatnall originally proposed the idea on July 20, 1932 to a group of her friends, who were interested in such a venture. At first there were no definite plan for a public presentation but as rehearsals progressed it was decided to give two performances of the Gilbert and Sullivan opera, "Pirates of Penzance" on August 31st and Sept. 1st. The Longwood open-air theatre was obtained and has been used for all subsequent performances.

Following the unusual success of "Iolanthe" in 1933, and "The Gondoliers" in 1934, it was decided to give three performances of "Princess Ida" in 1935. The experiment won approval resulting in the decision to give three performances of H. M. S. Pinafore in 1936 with August 6, 7, and 8, as tentative dates.

All revenue from the production since the "Pirates of Penzance" has been devoted to the Boys' Camp of Community Service.

Mr. Laird as production manager made a special study of Gilbert and Sullivan in London to enable him to present the operas according to tradition. Every presentation has had full orchestral accompaniment

Consultant: Mr. Frederick W. Wyatt.
1619 N. Rodney, Wil.

Scharf 2;661 - General Tom Thumb appeared in Wil. 12/26/1848. (142) Field

Signor Blitz - Magician, in Wil. 5/10/1848. Campbell

Signor L. Grassa, famous pianist, played IOOF Hall in 1850.
Spent part of summer at Brandywine Springs.

Ole Bull, played in City Hall, 1/21/1845, to packed house.

Jenny Lind passed through Wil. 12/7/1850 on her way to Balt. from Phil.

Siamese Twins in Wil. 12/13/1836 and again in 1873.

~~Wm~~ Elihu Burritt, "the learned blacksmith" lectured before the Ciceronean Literary Society 12/5/1842.

Edgar Allan Poe lectured for the Wil. Lyceum 11/24/1843.

General Grant given a banquet at Institute Hall 2/3/1873.

Later the same evening he visited the Grand Opera House and was introduced to prominent local people on the stage by Ex-Mayor Valentine.

P. 661
Schubert

Research Notes on Early Theatre 1936

94 Campbell

Sir Edwin Booth
 Barrett
 Joseph Jefferson
 Jessie Bartlett Davis
 Francesco Remini (Violinist-Was a flop locally)
 Eugene Cowles
 Adelaide Neilson
 Boston Symphony Orchestra
 Paderewski
 Emma Ames
 Schumann-Heink
 Chauncey Olcott
 De Wolf Hopper - (MIKADO, EL CAPITAN WANG)
 Richard Manfield
 Maude Adams
 James K. Hackett
 Mrs. Fiske
 Ethel Barrymore
 Annie Russell
 Mary Anglin
 Blanche Walsh
 Wilton Lackey (TRILBY)
 Rose Stahl
 Wm. Gillett
 Arnold Daly

Charles Granville (local boy) baritone in male quartette playing big time.

Tom Howard made his first stage appearance in repertoire at OH. - Later co-starred with Joe Cook in 1926 and later air comedian.

Sidney Toler playing in OH when he left in mid week to play opposite Julia Marlowe in "When Knighthood Was In Flower."

House managed first by NY Company, Proctor & Soulier. Then by Wm. R. Richardson. Then by Jesse K. Bayliss.

Raymond Nye, an usher in OH in 1902 became later a movie heavy.

Wm. Jennings Bryan spoke there.

Wm. Faversham in "The Squaw Man."

Geo. M. Cohan
 John Drew
 Blanche Bates
 Floradora Sextette

First performance in the Academy of Music was in January (Year?) Furnace not yet working and doors not yet hung. Blankets hung on doorways. Performers (Operatic) and audience all wore heavy overcoats. Played throughout six day run without heat. Made plenty of work for Doctors.

THEATRE

Name - City Hall

Location - East side of Market St. between 5th & 6th.

Date Built - ?

Built by - City.

Opened - ?

Company opening - ?

Name of Play - ?

Seating Capacity - ?

Closed - 1883 - Auditorium taken for use of court and as fire alarm department.

Remarks - Auditorium on lower floor of City Hall was used for plays, mostly amateur. Between 1840 and 1850 there was quite an active "little theatre" movement under the leadership of James H. Allerdice (^{John}Brother??) who frequently presented plays here.

On January 21, 1845 Ole Bull, the greatest violinist of his generation, played here to a packed house.

Museum

THEATRE

150

Name - Odd Fellow's Hall
Location - Northwest corner 3rd & King Sts.
Date Built - Dedicated May 28, 1849.
Built by - ?
Opened - ?
Company Opening - ?
Name of Play ?
Seating Capacity - ?
Closed - ?
Remarks - This was the largest building in Delaware
at the time it was built. Plays produced
there included Shakespearean plays and Italian
opera. Horace Greely spoke there. The Wil-
mington School of Music occupied the building
for some time.

THEATRE

151

Name -	Temperance Hall
Location -	South side of E 4th St. between Market & King.
Date Built -	1842.
Built by -	?
Opened -	?
Company opening -	?
Name of Play -	?
Seating Capacity -	?
Closed -	?
Remarks -	?

THEATRE

152

Name - Institute Building.

Location - Northwest corner 8th & Market, extending through to Shipley.

Date Built - Cornerstone laid July 24, 1860. Dedicated January 31, 1861.

Built by - Wilmington Institute, organized 1859.

Opened - ?

Company opening - ?

Name of play - ?

Seating capacity - 1200.

Closed - 1893.

Remarks - Lecture room was on the Shipley St. side of the building. It was poorly suited to the presentation of plays but many balls and other entertainments were held there. Until the opening of the Grand Opera House it was the most popular center of entertainment in Wilmington. The Library occupied part of the building and when it became a free public library in 1893 the auditorium was latered for library purposes.

THEATRE

153

Name -	New Century Club Hall.
Location -	?
Date Built-	?
Built by -	New Century Club
Opened -	?
Company opening -	?
Name of Play -	?
Seating Capacity -	?
Closed -	?
Remarks -	<u>Wilmington Dramatic Club</u> , amateur, produced "The Arabian Nights" there March 16, 1895.

THEATRE

154

Name - ?
Location - Southeast corner 8th & Orange Sts., 2nd floor.
Date built - ?
Built by - ?
Opened - ?
Company opening - ?
Name of play - ?
Seating Capacity - ?
Closed - ?
Remarks - Was used for amateur productions.

THEATRE

155

Name - Dockstader

Location - 309 Shipley St.

Date Built - 1893, old building fitted up for theatre.

Built by - William L. Dockstader.

Opened - ? - 1893.

Company opening -

Name of Play - Opened as cheap Variety theatre.

Seating Capacity - ?

Closed - ?

Remarks - This was William L. Dockstader's first theatrical venture in Wilmington. It was closed to open in larger quarters at 7th & Shipley.

THEATRE

Name - Dockstader

Location - Northwest corner 7th & Shipley.

Date Built - ?

Built by - William L. Dockstader.

Opened - ?

Company Opening -

Name of Play - Cheap Variety show.

Seating capacity - ?

Closed - 1902 on account of fire.

Remarks - Upon closing this William L. Dockstader built the Garrick Theatre on Market St.

THEATRE

157

Name - Bayard Hotel

Location - West side of Market St. between 5th & 6th.

Date Built - Room fitted for theatre 1833.

Built by -

Opened - 1833.

Company Opening ?

Name of Play ?

Seating capacity ? - Could not have been large.

Closed - Possibly one performance, more likely a matter of several days.

Remarks - Traveling company fitted up room in Hotel for theatrical purposes. Charged 50¢ admission. This is the first definite record of a professional performance in Delaware for which admission was charged.

THEATRE

158

Name - ?

Location - Corner of Front & Orange Sts.

Date Built - Fitted up for theatre 1834.

Built by - ?

Opened - 1834

Company opening - ? - May have been Mr. & Mrs. Barnes' company.

Name of Play - ?

Seating Capacity - ?

Closed - Same year, 1834.

Remarks - This was the first hall fitted up as a theatre in Delaware. (?) Plays produced there included Shakespearean plays.

THEATRE

Name - Hully's Hall

Location - SE ~~(SW)~~ corner 6th & Shipley.

Date built - 1834.

Built by - Wilmington Theatrical Co.

Opened - December 22, 1834.

Company Opening - Mr. & Mrs. Barnes' Company.

Name of Play - "The Soldier's Daughter" comedy.

Seating capacity - 600.

Closed - 1839.

Remarks - This was the first building in Delaware to be erected especially for theatrical purposes. It was 78' x 43' x 26' high to the dome and contained a gallery. Prices were - Boxes 75¢, Pit 37½¢, gallery 25¢. Curtain rose at 7 PM. Opening was very successful. Company remained one week. Could have remained three. Ownership changed hands several times during its five years of existence. Religious fanatics gave it much free advertising which helped it for some time but as the novelty wore off and no doubt as the public realized it wasn't so wicked after all business fell off until it closed in 1839.

THEATRE

160

Name - Academy of Music
Location - Northeast corner of 10th & Tatnall Sts.
Date Built - 1884.
Built by - ?
Opened - January 1885.
Company opening - ? - Grand opera.
Name of play - ?
Seating capacity - ?
Closed - ? (Burned ?) *date -*
Remarks - Building incomplete at time of opening. Bitter cold weather. Blankets hung over doorways. Furnace not operating. Audience, cast and orchestra all wore heavy overcoats during entire run of six days. Neaby drug stores did a big business in cough medicines. Building was burned(?DATE). Was rebuilt and burned again (Date?) In later years was used for stock.

Note - Was built on site of old foundry. Was at once time called the Bijou, also the Lyceum, and also the Avenue. Apparently called the "Avenue" season of 1909 - 1910 when the Conness & Edwards Stock Co. played there. Season of 30 weeks. Character woman, Miss Katherine Brooks, afterwards palyed in the original company of "Rain" in New York and London.

Republican Hundred Chairmen.

Brandywine Hundred	Geo. Hering
Christiana "	Eugene Seareborough Newport, R of D. Office.
Mill Creek "	Geo. Mullin Marshallton, R of D, office.
White Clay Creek "	Wayne Brewer Newark. Insurance, 19 & Orange
Pencader Hundred	Wm. C. Brook Glasgow. Store.
St. Georges "	Henry B. Howell Middletown.
Appoquinimink "	Charles Beith Blackbird.
Red Lion "	Henry W. Hushabeck New. Castle.

Democratic Hundred Chairmen.

Brandywine Hundred	John W. Talley, Concord Pk. near Perry's Tavern.
Christiana "	John W. Ulmer Sheriff's Office.
Mill Creek "	Wm. P. Naudain Marshallton.
White Clay Creek "	J. Harvey Dickey Newark.
New Castle "	Wm. W. Barrett Bear
Pencader "	T. Raymond McMullen Newark.
Red Lion "	Harry C. Webb Delaware City Store.
St. Georges "	Claude Voshell Middletown, (Wilmington Tax Collector's)
Appoquinimink "	James A. Hart, Jr. Townsend.
Blackbird "	John O. Council Townsend.

BAPTIST CHURCHES

Alfa Baptist	Belvedere
First Baptist	E. 5th St., New Castle
Holloway Terrace	West Ave.
Mt. Calvary	Middletown
People's Baptist	Hamilton Park
Pilgrims Baptist	Newark
Welsh Tract	Pencader Hundred

METHODIST EPISCOPAL CHURCHES

Bellefonte	Bellefonte
Bethel	Faulk Rd.
Bethesda	Middletown
Brack-Ex	Brack-Ex
Cedars	Cedars
Christiana	Christiana
Dale's (Colored)	Middletown
Delaney's	Clayton to Massey Rd.
Ebenezer	Delaware City
Ebenezer	Townsend
Ebenezer	Hockessin & Newark
Edgemoor	Edgemoor
Friendship	Near Smyrna
Glasgow	Glasgow
Haven M.E. (colored)	Townsend
Hillcrest	Hillcrest
Hockessin	Hockessin
Holly Oak	Holly Oak
Immanuel	Townsend
Kirkwood	Kirkwood

METHODIST EPISCOPAL CHURCHES (CONT'D)

Lebanon	Red Lion
Lee's Chapel (Colored)	Townsend
Marshallton	Marshallton
M. E. Church of the Atonement (The)	Claymont
Mt. Lebanon	Rockland
Mt. Pleasant (Colored)	Christiana
Mt. Pleasant	Claymont - Holly Oak
Mt. Salem A.M.E.	New Castle
Mt. Zion U.A.M.E.	Newark
New Zion A.M.E.	Townsend
Newark	Newark
Newark Union	Newark
New Castle	New Castle
Newport	Newport
Old Fort U.A.M.E.	Christiana
Old Union M.E.	Near Blackbird (Townsend)
Richardson Park	Richardson Park
St. Daniels U.A.M.E.	Iron Hill
St. Georges	St. Georges
St. James (Colored)	St. Georges
St. Pauls (Colored)	Near Kirkwood
St. Peters (Colored)	Delaware City
St. Pauls	Odessa
Salem M. E.	Christiana
Scott M. E.	Blackbird
Summit Bridge	Summit Bridge
Stanton	Stanton
Simpson (Colored)	Newport
Trinity A.M.E.	Middletown
Union A.M.E.	Delaware City

METHODIST EPISCOPAL CHURCHES (CONT'D)

Zion (Colored)	Congo Town
Zoar (Colored)	Odessa

PROTESTANT EPISCOPAL CHURCHES

Ascension	Claymont
Calvary	Hillcrest
Christ Church	Delaware City
Grace	Talleyville
Immanuel	New Castle
Old St. Annes	South of Middletown
St. Annes	Middletown
St. Barnabas	Marshallton
St. James	Newport
St. James	Stanton
St. Mary's Chapel	Townsend
St. Thomas	Newark
Christ Church	Monchanin

CATHOLIC CHURCHES

Holy Rosary	Claymont
Our Mother of Mercy	Belvedere
St. Helena's	Bellefonte
St. Johns	Hockessin
St. Johns	Newark
St. Joseph	Middletown
St. Joseph	Henry Clay
St. Mary's (Coffee Run)	Lancaster Pike
St. Patrick's	Ashland
St. Paul's	Delaware City
St. Peter's	New Castle

PRESBYTERIAN CHURCHES

Christiana	Christiana
Elsmere	Elsmere
First Presbyterian (Old Drawyers)	St. Geo's Hnd (Between)
First Presbyterian	Newark
First Presbyterian	Delaware City
Forest Presbyterian	Middletown
Greenhill	Kennett Pike
Head of Christiana	Near Newark
Lower Brandywine	Centerville
New Castle	New Castle
Pencader	Glasgow
Port Penn	Port Penn
Red Clay Creek	Marshallton, R.F.D. #2
St. Georges Presbyterian	St. Georges
White Clay Creek	Near Newark

METHODIST PROTESTANT CHURCHES

Bethany Union (Colored)	New Castle
Chippey A.U.M.P.	Hockessin
Salem M.P.	Near Clayton
St. Johns A.U.M.P.	Newark

MISCELLANEOUS CHURCHES

Church of the Brethren	Richardson Park
Gospel Herald (Mennonites)	Richardson Park
New Wark Union	Carrcroft Road - Claymont
Ott's Chapel (Union)	Iron Hill
Star of Bethlehem	Newport

Copies of assessment of Real and Personal Property.

Brandywine Hundred

- First Election District - Walbert Brothers' Restaurant.
- Second Election District - Orth's Food Market, Talleyville
- Third Election District - A & P Store, Bellefonte.
- Fourth Election District - Peco's Store, 4400 Market St.
- Fifth Election District - Claymont Trust Co., Claymont.
- Sixth Election District - E. J. Paul's Store, Penny Hill
- Seventh Election District - Frank C. Beisinger's Store, Holly Oak Road.

Christiana Hundred

- First Election District - A. M. Craig's Store, Newport.
- Second Election District - J. H. Foard's Store
- Third Election District - Shields' Lumber Co. Office.
- Fourth Election District - Smith's Store, Centreville.
- Fifth Election District - Makinson's Service Station, Lancaster Pike and Du Pont Road.
- Sixth Election District - H. G. Terrell's Store, Richardson Park.
- Seventh Election District - Elsmere Meat Market, Elsmere.
- Eighth Election District - Fred Corraza's Store, Maryland Ave. and Du Pont Road.
- Ninth Election District - Squire Bogart's Office, Elmhurst.
- Tenth Election District - Mrs. Leogh's Store, 2700 Lancaster Ave., Colonial Heights.

Mill Creek Hundred

- First Election District - Allcorn's Store, Marshallton.
- Second Election District - Fred E. Gebhart's Store, Hockessin.
- Third Election District - Ezekiel S. Cockran's Store, Pike Ck. & Lincoln Hwy.
- Fourth Election District - Stanton Garage, Stanton.
- Fifth Election District - David A. Weinstock's Store, Cedars.

White Clay Creek Hundred

First Election District - Squire Thompson's Office, Newark.

Second Election District - Rhode's Drug Store, Newark.

Third Election District - Currinder's Store, Christiana.

New Castle Hundred.

First Election District - Mayor's Office, New Castle.

Second Election District - John Clayton's Store, New Castle.

Third Election District - Daniel McGinns' Store, New Castle.

Fourth Election District - John T. Stoops' Store, New Castle.

Fifth Election District - William Harrington's Store, Bear.

Sixth Election District - Barlow's Store, Hamilton Park.

Pencader Hundred.

First Election District - Better Stores, Depot Road (Newark Station).

Second Election District - Summit Bridge Garage, Summit Bridge.

Red Lion Hundred.

First Election District - Reybold's Store, Delaware City.

Second Election District - Frederick B. Sutton's Store, St. Georges.

St. Georges Hundred.

First Election District - George W. Davis' Store, Odessa.

Second Election District - Postoffice, Port Penn.

Third Election District - Town Office, Middletown.

Fourth Election District - W. S. Leatherbury's Store, Middletown.

Appoquinimink Hundred

First Election District - Hart's Office, Townsend.

Second Election District - Harman's Drug Store, Townsend.

Blackbird Hundred

First Election District - John D. Steller's Store, Taylor's Bridge.

Second Election District - Royden Caulk's Store, Blackbird.

Blackbird Hundred

The County Assessment for the City of Wilmington and rural New Castle County may be seen at the office of the Board of Assessment, Public Building, Wilmington, during the months of February, March and April, 1937.

The Board of Assessment respectfully requests the taxables examine the assessment of their property. For the purpose of making corrections, noting omissions and hearing appeals, the Board of Assessment will sit in the respective hundreds as follows:

Blackbird Hundred, March 1 - Caulk's Store, Blackbird.

Appoquinimink Hundred, March 2 - Hart's Office, Townsend.

St. Georges Hundred, March 3- Town Office, Middletown.

Pencader Hundred, March 4 - Dayett's Store, Glasgow.

Red Lion Hundred, March 5 - Reybold's Store, Delaware City.

White Clay Creek Hundred, March 8 - Deer Park Hotel, Newark.

New Castle Hundred, March 9 - Mayor's Office, New Castle.

Mill Creek Hundred, March 10 - Gebhart's Store, Hockessin.

Christiana Hundred, March 11 - Smith's Store, Centreville.

Brandywine Hundred, March 12 - Claymont Trust Co.

City of Wilmington, March 6, March 13 to April 30, inclusive - Public Building, Wilmington, Del.

Appeals must be filed with the Board of Assessment not later than April 30, 1937.

NEW CASTLE COUNTY

- Bear
- Bellevue
- Christiana
- Claymont
- Delaware City
- Edge Moor
- Elsmere
- Farnhurst
- Granogue
- Greenville
- Grubb
- Hockessin
- Hollyoak
- Marshallton
- Middletown
- Montchanin
- Mount Pleasant
- Newark
- New Castle
- Newport
- Odessa
- Port Penn
- Rockland
- St. Georges
- Stanton
- Townsend
- Yorklyn

K. A. Horner,

November 22, 1937

170 State Papers:

Folder: Survey

New Castle County

unemployment situation

f. p. 176 ff.
p. 179 ff.
p. 182 ff.

Unemployment Survey - Wilmington.

Coincident with an unemployment census made by the Government by means of having mail carriers leave cards at the doors of all houses in which it was believed that unemployment might exist, the cards to be checked, signed and mailed by such unemployed, Harry Hopkins, WPA Administrator, requested all cities and communities, including Wilmington, to prepare an estimate of the unemployed to check with the figures obtained by the census.

A group of WPA workers were designated to undertake the work. Due to the rapidity with which conditions change it was decided to make the survey within one week. At first it was planned to obtain the figures by questioning politicians, ward and committee chairmen, storekeepers, ministers, employers of labor, industrial firms and others who might know of conditions in their particular neighborhoods. This method was carried out in three wards.

Most accurate information was obtained in the First, Second, Third, and Tenth wards where each house was visited by a worker. In the Eighth, Ninth, Eleventh, and Twelfth wards a similar method was used, although due to the size of the wards, especially the Ninth, it was impossible, with the force allotted, to call at every house. Groups of houses were selected and from the figures obtained and ^{by} counting the actual number of houses in the various sections of the wards - using the city directory - the number of unemployed was estimated. The result of this method was as follows:-

Eighth Ward

Kind of District	Homes Canvassed	Number of Unemployed	Percentage of Unemployed, per 100 homes
------------------	-----------------	----------------------	---

Congested	134	118	89
-----------	-----	-----	----

Number of houses in ward	1935	Estimated Unemployed	1,718
--------------------------	------	----------------------	-------

Ninth Ward

Congested	222	118	53
Intermediate	219	57	26
High income	307	40	13

Number of houses in Congested District	736	Estimated Unemployed	391
" " " " Intermediate "	2680	"	697
" " " " High Income	2351	"	305
	5767		1,393

Eleventh Ward

Congested	245	202	90
High Income	87	15	17

Number of Homes in Congested District	1850	Est.unem.	1665
" " " " High Income "	392	" "	68
			1733

Twelfth Ward

Congested District	90	47	52
High Income	Used figures of Eleventh Ward as high-income group is on same kind (Union Park Gardens and nearby)		17

Number of homes in Congested District	2749	Est unem.	1429
High Income "	394		66
			1495

-3-

Seventh Ward

Lack of time made it impossible to secure a similar check of the Seventh Ward, so it was decided to use the percentages obtained through checking the other wards. From the city directory it was found that the following number of houses are located in that ward.

		Percentage	Total	
Poor or congested district	324	89	288	
Intermediate	"	2281	52	1186
High Income	"	<u>2659</u>	17	<u>453</u>
	5264			1927

Through the use of ^{the} three methods described it was estimated that the number of unemployed in the City of Wilmington, during the week of November 15-20, 1937, by wards, and according to population, was as follows:-

Ward	Population	Unemployed
1	1,862	225
2	6,458	563
3	4,417	935
4	3,098	482
5	12,197	815
6	4,994	577
7	17,052	1927
8	7,744	1718
9	22,283	1393
10	6,796	1090
11	8,978	1733
12	10,718	1495
	106,597	12,953

Those making the survey in the Eighth, Ninth, Eleventh, and Twelfth Wards early discovered that any survey that did not make an actual, door-to-door check of the unemployed would be highly inaccurate. The government check, by mail carriers,

for example will not secure the information desired.

The workers found in talking with the residents that many looked with suspicion on this effort believing it to be made to secure their name for taxing purposes, to check income tax reports or to have their names on file for some reason which they did not understand. Several of the unemployed stated that they did not intend to return the cards. In one instance, where three persons were unemployed, the woman interviewed did not remember having received a card. She was an Italian unable to speak English and the matter was discussed through her next door neighbor who acted as an interpreter. She was advised to ask the postman for additional cards, but it is hardly likely that she would do this. She couldn't understand why she should go to the trouble. Another woman stated that she had got along for four years without government help, and she didn't think she would bother at this time. Another stated that they were leaving Wilmington in the near future and could see no reason for mailing the card.

A majority of those called upon, were fully aware of the reason for the census and had either complied with the President's request, or intended to do so, but there were many who, despite the President's broadcast and the publicity given the effort to the newspapers, were totally unacquainted with its purpose and did not intend to mail the cards.

It was also discovered that it was not possible to judge the number of unemployed by the neighborhood, or to believe

that the average number of unemployed in one district would be the same in another district where the homes were of the same value.

The slum and congested districts of the Eighth Ward are very similar to those of the same districts of the Ninth, but it was found that in the Eighth ward, the unemployed ran 89 to each 100 houses, while in the lower section of the Ninth ward, (the Eleventh Street Bridge section) the unemployed ran 53 to each 100 houses. This is due, in part, to several industries located in that ward which employs a large number of boys and girls. Another instance was that of the Ninth and Eleventh Wards. The latter ward contains a number of very good middle class houses similar to those found in the Ninth ward east and west of Market Street.

The houses in the Ninth ward of this class averaged 26 employed to each 100 houses, while the same class of houses in the Eleventh ward averaged 90 unemployed to each 100 houses. It was only in the higher-income group of houses that the rate of unemployment seemed to be the same throughout the city, running from 13 to 17 in each 100 houses.

Rural New Castle County, Kent and Sussex Counties.

The census was conducted in a different manner in New Castle County. It was impossible to make a house-to-house count or to use a spt-check system, due to the limited time and the distance between population centers.

Three automobiles containing two workers each were dispatched to planned areas and each followed the same form in gathering the figures. County chairmen of major political parties, ministers of churches, general store keepers, postmasters and others thought to be familiar with conditions were interviewed and asked to estimate the number of persons without regular employment in their districts. Payroll figures for the pay periods ending November 15, 1937, September 15, 1937, and November 15, 1936, were checked with the superintendents of the industrial plants, all effort being made to avoid duplication.

The final result was estimated at 1501 unemployed for the county exclusive of the city of Wilmington. This was considered too low and in a final check, three districts so close to Wilmington that they were missed due to the country checkers believing that they would be included in the Wilmington figures, after considering the number of houses in the districts and the classes of inhabitants, it was decided that an increase in the number ~~to~~ of unemployed to the amount of 300 should be made. This would make the final result 1801 for the County of New Castle.

Business men and plant superintendents were asked about future trends. Invariably they stated that the figures would be increased in the next few weeks. Many plants were working on a reduced schedule and working from two to five days a week. This has prevented a greater total lay-off, and may account in part for the county figures being proportion-

lower than the city. It was also suggested that the general lay-off had been so sudden that it had not been felt in the county as it had in the city, and that county figures would be increased materially in the near future.

In Sussex County the work was broken down into 10 representative districts and the following questions were asked approximately 10 to 15 people in each district:

1. Number of persons totally unemployed

Number of persons partly employed and want work

Reported by

Reason

The reasons for unemployment vary from "seasonal employment" - "demand for higher wages" - "no system for employment" - "no work available" "wont work".

The group who were asked these questions were farmers, canners, mail carriers, grocers, butchers, hardware dealers etc. They seem to be a typical group of people and the figure for the district was made up of an average obtained from the people interviewed. The total was 1752 unemployed and 3471 partly employed.

In Kent County a similar census was taken by representative districts. The total number shows 1150 unemployed and 766 partly employed. These figures were obtained by questioning reputable citizens and indicate that of the total number unemployed in the County 40% have some work though not sufficient to maintain themselves.

The total figures arrived at by field workers in the Delaware WPA census was 14,757, but after revision by WPA headquarters, when the question of duplication was taken into consideration, the following totals were submitted to the headquarters of the WPA national census.

New Castle County-----	14,053
Kent County-----	1,150
Sussex County-----	<u>1,752</u>
Total	16,955

Smoot and Clark

Bear and Vicinity

Those in the immediate vicinity of Bear are all employed.

Unemployed and Temporary Laborers 10

Farnhurst and Vicinity

Practically every one in the neighborhood of Farnhurst is employed. Majority of the residents have service stations, Tourist Homes, etc. A few have permanent work in Wilmington.

Unemployed and Temporary Laborers 12

Glasgow and Vicinity

At present, every one employed at least part time. Reconstruction of Glasgow-Newark Road expected to start the 1st of Dec. which should provide work for a number of men.

Unemployed and Temporary Laborers 10

Middletown and Vicinity

Plenty of work at present time for those who want it particularly on the farms. The farm work however will be finished in a few weeks. A number of people in the vicinity would prefer to be on relief, rather than work. The Middletown Milling Co., employ four men the year round and do not require additional help. The Short & Walls Lumber Co., are employing eight men at present time, but three or four of these will be dismissed in a few weeks or as soon as they have completed some extra work they are now doing.

Unemployed and Temporary Laborers 15

Mount Pleasant and vicinity

Practically everyone in this vicinity working on farms.

Unemployed and Temporary Laborers 0

Odessa and vicinity

Approximately twenty persons out of work. Colored people and young (single) white men no work in sight. A few of the residents commute to Wilmington.

Unemployed and Temporary Laborers 20

St. Georges and Vicinity

Probably a dozen people here who do not have work several of these are of the type who do not want it. Work on the canal has provided employment all summer as is expected to continue through the winter.

Unemployed and Temporary Laborers 12

Summit Bridge and vicinity

Everyone in this vicinity are now employed and have been for the past year due to work on the canal and farms. Work through the winter will depend upon what is done on the canal.

Unemployed and Temporary Laborers 0

Townsend and vicinity

Employed on farms at present, but farm work will soon be finished. No other kind of work in this vicinity.

Unemployed and Temporary Laborers 25

Kirkwood and vicinity

Approximately twenty persons unemployed. Farm work about finished. No other employment available at present. Two families moved to Wilmington.

Unemployed and Temporary Laborers 20

Blackbird and vicinity

Ten or twelve persons not working at present, most of whom do not want work, and will depend on relief this winter.

Unemployed and Temporary Laborers 20

Red Lion and vicinity

All farmers all working.

Unemployed and temporary Laborers 5

McDonough and vicinity

Everyone employed, all farmers and Service Station proprietors.

Unemployed and Temporary Laborers 5

Smoot and Clark

Taylor's Bridge and vicinity

Two farms, lighthouse and C.C. Camp. All employed.

Unemployed and Temporary laborers 2

Noxontown and vicinity

Consists of farms and summer cottages. All residents employed.

Unemployed and Temporary Laborers 3

NEW CASTLE COUNTY

1c.
182

Five Points. No industry, mostly employed in Wilmington, Newport, and other industrial centers. Hours curtailed among most of those employed in plants.	Totally unemployed	25
Newport & Vicinity. Out of 2,000 pop. totally unemployed		100
Krebs Pigment Plant		
Number on payroll	Nov. 1936,	265
	Aug. 1937,	278
	Nov. 1937,	257
		21
General schedule curtailed.		
Wood Preserving Company, Schedule curtailed,	laid off	10
Stanton.		
No industry, out of 250 pop. totally unemployed		15
(about 10 additional are seasonable workers race tract etc.)		
Christiana,		
No industry, usually work in Newport or Wilmington,	unemployed	3
Oglestown,		
No industry, usually work in Wilmington, Edgemoor, Newark,	unemployed	3
Newark,		
Outside of those laid off from local plants, very few unemployed.		
Continental-Diamond Fibre Co.		
Number on pay-roll,	Nov. 1936,	407
(peak)	Dec. 1936,	456
	Aug. 1937,	431
	Nov. 1937,	321
	Hours curtailed.	110
Curtis Paper Company,		
Number on pay-roll		
Hours curtailed, but 100 carried on payroll on all three dates.		0
National Vulcanized Fibre Co., (paper and fibre mills)		
Number on payroll	Nov. 1936	225
	Aug. 1937	225
	Nov. 1937	209
	Hours curtailed.	16
Marshallton,		
Continental-Diamond Fibre plant figures included in Newark.		
Town residents usually employed elsewhere		25
Total		328

Elsmere, & Vicinity inc. area to Price's Corner.

Mostley employed in Wilmington. Estimates from Justice of Peace, Fire chief, and others indicate unemployed in area 100

New Castle, and vicinity.

Bellanca Aircraft Corp. Payroll	Nov. 1936,	64	
"	Aug. 1937,	115	
"	Nov. 1937,	84	31

(Peak reached in March, 1937 when 312 were employed.)
(Trend is expected upward when new model is announced.)

American Chemical Paint Co.

Number on payroll	Nov. 1936	12	
	Aug. 1937	14	
	Nov. 1937	12	12

Deemer Street Casting Company

Number on payroll	Nov. 1936	73	
	Aug. 1937	123	
	Nov. 1937	119	4

Working hours curtailed, 5 days per week.

Wilmington Fibre Company

Number on payroll	Oct. 1936	154	
	June 1937	141	
	Oct. 1937	136	5

Schedule curtailed. Work 5 days.

Delaware Rayon Co.,

Number on payroll	Oct. 1936	451	
	Aug. 1937	531	
	Oct. 1937	501	30

Schedule curtailed

American Manganese Steel Company

Number on payroll	Nov. 1936	150	
	Aug. 1937	156	
	Nov. 1937	150	6

Working days curtailed, schedule 2 to 4 days per week.

A great number of the above workers live in places other than New Castle. Possibly 50 of the above 78 live in New Castle.

Delaware City

No industry, Number of unemployed and part time workers including 10 working on Government work-relief projects 25

Milford Crossroads, Thompson's Station and Vicinity.

Small China Clay works employing 9 on part time.

Total unemployed or working part time in this area.

20
233

The following towns were visited and gave the reports indicated.

<u>Town</u>	<u>No. Unemployed</u>
Hockessin	4
Centreville	2
Rockland	25
Montchanin	4
Greenville	1
Mt. Cuba	0
Mc Daniel Heights	6
Grubbs Corner	15
Arden	14
Claymont	15
Holly Oak	14
Penny Hill	<u>10</u>
Total	110

The following plants were visited and gave the reports indicated.

<u>Plant</u>	<u>Location</u>	<u>Employed</u>
Nat'l Vulcanized Fibre Co.	Yorklyn	Nov. 7, 1937 - 273
" " " "	"	Aug. 15, 1937 - 280
" " " "	"	Nov. 15, 1936 - 248
Marshall Brothers	Yorklyn	Nov. 7, 1937 - 27
" "	"	Aug. 15, 1937 - 29
" "	"	Nov. 15, 1936 - 27

Note: The employees in the above 2 mills are only working half time. This started on about Nov. 16th and we were told it was unpredictable how long this condition would exist.

<u>Plant</u>	<u>Location</u>	<u>Employed</u>
George W. Helme Snuff Mills	Yorklyn	Nov. 15, 1937 - 81
" " " "	"	Aug. 15, 1937 - 83
" " " "	"	Nov. 15, 1936 - 86
Rockland Paper Co.	Rockland	Nov. 15, 1937 - 95
" " "	"	Aug. 15, 1937 - 104
" " "	"	Nov. 15, 1936 - 88

Note: The employees of the Rockland Paper Co. are temporarily working half time for November but the trend is towards full time.

Worth Steel Co.	Claymont	Nov. 15, 1937 - 925
" " "	"	Aug. 15, 1937 - 1353
" " "	"	Nov. 15, 1936 - 898
Edge Moor Iron Co.	Edge Moor	Nov. 15, 1937 - 149
" " " "	"	Aug. 15, 1937 - 191
" " " "	"	Nov. 15, 1936 - 89

Note: The Edge Moor Iron Co. in Nov. 1936 was just starting after reorganization proceedings so the figures for this date mean little.

G. Josephs & Co.	Henry Clay	Nov. 15, 1937 - 13
" " "	"	Aug. 12, 1937 - 24
" " "	"	Nov. 12, 1936 - 33

Note: There will be no increase in employment at G. Josephs & Co. before February, 1938.

E. I. du Pont de Nemours & Co.

Salaried Employees

Date

3654

Oct. 31, 1937

3588

Aug. 1, 1937

2638

Nov. 1, 1936

Note: The above figures include all the salaried employees of the du Pont Co. in Delaware and includes their various Delaware plants. The figures for Nov. 1st are of little value as in the past year many salaried employees have been moved to Delaware from other states.

Du Pont Co.

Du Pont Country Club

29

Wage Earners

Oct. 31, 1937

35

" "

Aug. 1, 1937

No figures

" "

Oct. 31, 1936

Du Pont Co.

Advertising Department

26

Wage Earners

Oct. 31, 1937

71

" "

Aug. 1, 1937

62

" "

Oct. 31, 1936

Du Pont Co.

Edgemoor Plant (Krebs Pigment)

214

Wage Earners

Oct. 31, 1937

189

" "

Aug. 1, 1937

165

" "

Oct. 31, 1936

Du Pont Co.

Experimental Station

229

Wage Earners

Oct. 31, 1937

231

" "

Aug. 1, 1937

210

" "

Oct. 31, 1936

Du Pont Co.	Engineering Dept.Special Const.
296 Wage earners	Oct. 31 - 1937
311 "	Aug. 1 - 1937
6 "	Oct. 31 - 1936
Du Pont Co.	Newport Plant
268 Wage earners	Oct. 31 - 1937
261 "	Aug. 1 - 1937
262 "	Oct. 31 - 1936
Du Pont Co.	Wilmington Shops (Md.Ave.)
436 Wage earners	Oct. 31 - 1937
591 "	Aug. 1 - 1937
521 "	Oct. 31 - 1936

Note: These were the latest figures available on Du Pont wage earners. We were informed however that November 1937 will see rather drastic cuts in the wage earner rolls and that this will be especially true at the Wilmington Shops.

We also called at the General Chemical Company and Texaco Oil Company plants in Claymont but the only men who had the desired information were out and when after a long wait on our part they did not return we left. We understand however that that both these plants have recently cut their rolls.

We also called at the Ludlow Sales Company In Edge Moor. They, however, refused to give us the requested information and told us that to obtain it we should write to their main offices at 211 Congress Street, Boston Mass.

It should be stated that in many of the country towns visited we were told that there were certain people who were unemployed but who would not work even if they could obtain employment.

Submitted by:

George Gray Thouron

Unemployed Survey by Wards,

Nov. 19, 1937.

2c 188

Class of District	Homes Canvassed	Number of Unemployed	Percentage of Unemployed per 100 homes.	Total Unemployed
-------------------	-----------------	----------------------	---	------------------

Eighth Ward

Congested	134	118	89	
-----------	-----	-----	----	--

Houses in District 1935				1718
-------------------------	--	--	--	------

Ninth Ward

Slum or Congested	222	118	53	
-------------------	-----	-----	----	--

Intermediate	219	57	26	
--------------	-----	----	----	--

High Class	307	40	13	
------------	-----	----	----	--

H ouses in District

Congested	736 unemp.	391	
-----------	------------	-----	--

Intermediate	2680 "	697	
--------------	--------	-----	--

High Class	2351 "	<u>305</u>	1393
------------	--------	------------	------

Eleventh Ward

Congested	245	202	90	
-----------	-----	-----	----	--

High Class	87	15	17	
------------	----	----	----	--

Houses in congested district	1850 at 90	1665	
------------------------------	------------	------	--

high class	392 at 17	<u>68</u>	1733
------------	-----------	-----------	------

Twelfth Ward

Congested Dist. 90	47	52	
--------------------	----	----	--

High Grade	(Used figures secured in 11th Ward Canvass)	17	
------------	---	----	--

Houses in congested district	2749 at 52	1429	
------------------------------	------------	------	--

" " high class "	394 at 17	<u>66</u>	1495
------------------	-----------	-----------	------

Submitted by James R. Allen

August 5, 1938.

10 Field
20. Photo File

COMPARISON OF TERCENTENARY HISTORY

Delaware Tercentenary Almanak and Historical Repository, Page 29.

They say "Zwaanendael".

We say "Swanendael".

Ibid.

They say "Vogel Grip"

We say just "Grip"

16

✓ Colonial Military Organization in Delaware, 1638-1776, by Leon de Valinger, Jr., Page 7.

He says "Fogel Grip".

The Finns on the Delaware, 1638-1655, Page 43. By J. H. Wuorinen.

He says "Fogel Grip".

Colonial Military Organization in Delaware, 1638-1776, Page 7. By Leon de Valinger, Jr.

He says:

"Mans Nilsson Kling" and "Peter Hollender Ridder".

We say "Mans Nillson Kling" and "Peter Hollander Ridder".

The Finns on the Delaware, 1638-1655, by J. H. Wuorinen (Page 40)

He says "Klas Fleming".

We say "Clas Fleming".

The Finns on the Delaware, 1638-1655, by J. H. Wuorinen. (Page 49)

He says, "Peter Minuit was drowned at St. Kitts in the West Indies".

A History of Swedish Colonial Expansion, by De Lannoy. (Page 24)

He says, in reference to Minuit, "but he perished accidentally on the shores of the Island of Saint Christopher."

We say "He left the colony in June, bound for the island of St. Christopher in the West Indies to trade his cargo of

wine. There he visited a Dutch ship, which was
blown out of the harbor, in a storm during Minuit's visit
and lost with all on board."

Delaware Tercentenary Almanak & Historical Repository, Page 36.

They say "Carr....shipped d'Hinoyossa's slaves to Maryland and traded them for beef, pork and salt."

We say "D'Hinoyossa", but we make no statement on how the slaves were disposed of.

OTHER HISTORICAL DATA

The Sunday Star, Wilmington, Delaware, November 14, 1937.

"An ancient block-house dating from 1654, at the junction of Philadelphia Pike and Naaman's Road, was built by John Risingh, Acting Governor of New Sweden."

History of Salem, By Joseph Sickler

Page 106. "The Swedish Lutheran Church was the first within the confines of Fenwick's Colony. However, their organization as a church did not occur until 1714. Before this and in the years prior to Fenwick's arrival they had worshiped at Christiana, now Wilmington'."

Page 13. "After Fort Elfsborg was evacuated by the Swedes in 1652, or thereabouts, it was allowed to fall into decay as testified by several eye witnesses who touched there or voyaged up the river."

We say: "he came to anchor before Fort Casimir on Trinity Sunday, May 21, 1654," The previous day he is known to have anchored at Fort Elfsborg and spent the night there.

Page 13. "Knickerbocker pictures Printz as 'moving in a cloud, with mosquito music in his ears and mosquito stings to the very end of his nose' and how the mosquitos 'absolutely drove him out of the country'."

Page 103. "There were about five hundred Swedish settlers in New Jersey in 1727." (Letter by Rev. John Holbrooke).

Page 224. "A circus en route from Wilmington to Penns Grove

had the misfortune of losing its elephant. The elephant broke away at the landing and proceeded to visit farmers in the rural districts of Upper Penns Neck. But the elephant came back to the Delaware River for water and it is said 'took a row boat from the shore and rowed back to Wilmington where he was captured by the owners.' (1837).

The Finns on the Delaware, 1638-1655, By John H. Wourinen. Page 75.

He says, "Rising reported that the 'Hollanders dwelling there (at former Fort Casimir) who took the oath (of allegiance to Sweden) are now gone off to Manathans, two or three weeks ago.... The land is now practically clear of the Hollanders."

The Old Swedes Church, 1638-1938, By Charles M. Curtiss and Charles Lee Reese, Jr., Page 11.

They say, "The site chosen by the congregation was on a knoll of ground rising back of the old fort, where the first colonists had buried many of their dead. From this knoll one could at that time look out over a broad bay to the Delaware River beyond, could see the stretches of marsh and lowlands far to the southwest and the wide waters of the bay at what was then the mouth of Skoldpadde (Shellpot) Creek, for it must be remembered that bulkheads and banks had not yet confirmed the Delaware and Christina rivers to their present limits."

New York Times, January 24, 1937. "Swedes to erect monument in the United States."

It says, "Fort Kristina was so named by Peter Minuit...."

We say "Fort Christina."

It further says, "In November, 1637. he was the leader of the expedition that sailed from Gothenburg in the two Dutch vessels, Kalmar Nyckel and Fogel Grip."

We say, "In December 1637 Minuit set sail from Gothenburg with two Swedish ships, the "Kamar Nyckel" (Key of Kalmar) and the

Allen

smaller "Grip" (Bird Grip).

It further says, "Gradually the Swedes bought out the Dutch interests and by 1643 the first Swedish Governor, Johan Printz, had arrived.

Printz was the third Governor sent to New Sweden.

The News-Journal Swedish Tercentenary Edition, June 27, 1938, Page 3.

It says, "Vogel Grip." Also, "the two ships sailed away from Sweden on their mementous voyage about November 20."

We say "Grip"; Also that "in December 1637, Minuit set sail from Gothenburg with two Swedish ships."

Same paper, Page 4.

It says, "The Flying Deer was driven out to sea to its doom. With it went Peter Minuit."

We make no mention of the name of the ship on which Minuit perished.

Ibid, Page 28.

It says, "Hans Janeke arrived on the Kalmar Nyckel with about \$10 worth of medicine to begin his practice in the New World." "He was paid 10 riksdaler, about \$12, by the New Sweden Company."

Ibid, Page 42.

It says, "The depression in the ground near the Rocks, according to legend, originally was a quarry, from which was taken the stone with which to build Old Swedes Church, and the wall around the church yard."

COPY

194

May 5, 1936

*State-wide Delaware
Transportation
Inclusions*

Mr. H. J. Myers
National Communications Assn., Inc.
707 Twentieth St., N.W.
Washington, D.C.

Dear Sir:

Your letter of April 9th required considerable research work which is responsible for the delay.

We have found very little in the way of pictures of the New Castle and Frenchtown Turnpike and Railroad Company or of the Delaware and Chesapeake Canal of the same period.

The Chesapeake and Delaware Canal is, of course, still in use. It was made a sea level canal in 1927 and belongs to the U.S. government.

In 1854 the New Castle and Frenchtown Railroad united with the Delaware Railroad and the junction point was about half way between New Castle and Frenchtown. It is probable that the railroad was abandoned about that time. You can undoubtedly get a full history of all these railroads at the Bureau of Railway Economics in Washington.

There is no history of locomotive building in Delaware. Scattered references may be found to the building of locomotives by Bonney and Bush, Harlan and Hollingsworth and Betts Machine Company.

You may get information relating to the New Castle and Frenchtown Railroad in the following books, all of which ought to be found in the Library of Congress.

Scharf, Thomas. History of Delaware. 1888 1:428-29; 2:866
Powell, Walter. History of Delaware. 1923 p 367-70
Johnston, George. History of Cecil County, Md. 1881 p 428-29
Janvier, Anne. Stories of Old New Castle. 1930 p 29-31

Pictorial Material

Much of this also ought to be in the Library of Congress.

Ancient view of canal, showing mule-drawn ship. Copy of an original drawing. In Sunday Star (Wilmington) Oct. 21, 1934.

Diving bell used when old canal was built. In Delaware Magazine (Wilmington) 1:47 June 1919.

Oliver Evans' Orukter Amphibolos. In Keir, M. March of Commerce p 80 (Pageant of America, v. 3)

Old locks of the original canal. In Evening Journal (Wilmington) Feb. 13, 1924.

Old stage coach. In Scharf, T. History of Delaware 1:422

Poster advertising passenger car service between New Castle and Frenchtown, June 1, 1833. Printed by Young of Philadelphia and illustrated by cut of two cars and a locomotive.

Ticket office of New Castle and Frenchtown R.R. at New Castle, built 1831, later used as crossing watchman's shelter and still standing. In Sunday Star (Wilmington) Nov. 4, 1923 and Nov. 23, 1930.

Monument built from the stone sleepers used on the old Frenchtown R.R. erected by Commissioners of New Castle Courthouse in 1915. In Sunday Star (Wilmington) June 21, 1931.

Types of cars built by local company in 1836 and 1840. In Semi-centennial memoir of the Harlan and Hollingsworth Co., Wilmington. 1886 p 195-196.

Janvier's "Stories of Old New Castle" says "Cars of New Castle and Frenchtown R.R. were secured from Steevers of Baltimore". Scharf's "History of Delaware" says "they were designed by Inlay of Baltimore". There is a description of Inlay's cars given in Peale, L.T. History of the American locomotive, 1887 p 84-5. It corresponds to the picture on the Frenchtown poster and on the Philadelphia and Germantown R.R. poster illus. in the Harlan and Hollingsworth memoir. See also the illus. of cars of this period in Keir's "March of Commerce", 1927 p 110-111 and 130.

Passenger station at Wilmington showing incoming train, also engine house and machine shops at Wilmington.

Round house at Wilmington, erected 1876. In Brown, A.S. Guide book of P.W. & D.R.R. West Chester, Pa. 1877.

Mr. Walter Bush of Wilmington has envelopes showing cuts of the old wood-burning locomotives, also a lithograph showing trains crossing on the ice at Ferryville or Havre de Grace.

Very truly yours,

(Miss Eastman)

Arthur L. Bailey,
Librarian.

Transportation

See Also Articles:

In Pamphlet drawer: Roads

Transportation.

In Wilmington Drawer: History, Colonial- Pony Express Service.

From Rand-McNally Commercial Atlas and Marketing Guide-67 Edition,
1936.

File S-411

DELAWARE AIR LINES

Operating in the State with regular scheduled trips.

(See Wilmington Scheduled Air Line MRP)

Discontinued.

File S-414

TRANSPORTATION
Delaware Railroads.

B. & O.	-	Baltimore and Ohio
M. & D.	-	Maryland & Delaware Seacoast,
P. R. R.	-	Pennsylvania
Read.	-	Reading
SPT	-	Southern Pennsylvania Traction - (Electric)
Express	-	Railroad Express Agency.

File S-416

DELAWARE STEAMSHIP LINES
Serving Principal Inland Waterway Ports.

Chesapeake & Delaware Steamboat Company.

Wilmington - Baltimore - Philadelphia - Camden, N. J.

Green Line - - Chesapeake & Delaware Steamboat Company.

Wilson Line Inc.

Wilmington - Philadelphia - Chester, Pa. - Pennsgrove, N.J.

Travel Facilities Before the Motor Car Era

CURRENT restriction of motoring reminds old timers of the means of travel which were used before the automobile came into use. In that long-ago period when a group of young people—y, in Wilmington—was scheduled for attendance at a social function in the country the first thought was to hire a hay wagon, or some substitute, that is, some other type of horse-drawn vehicle. If there were enough carriages available to the party a hay wagon was not needed. Nevertheless the latter generally was preferred. It was so much fun to pile up on the hay and straw in unconventional fashion. And so, even though this type of vehicle hadn't much to offer in the shape of shock absorbers—perhaps no springs—the ride proved an enjoyable part of the evening's adventure. These were referred to as "straw rides."

A Thrill in the Dark

Night "straw rides" in the country had a sort of "eerie"ness which seemed to add to their charm. Hay wagons didn't have headlights, as automobiles did. There was no public illumination of the highways. There were no means of lighting the road ahead on a "pitch dark" night. Yet, the horses generally could be trusted to keep in the middle of the road and sense the approach of anything coming in the opposite direction. Sometimes, however, things didn't work out that way. There were unexpected difficulties. I remember the experience of one group of which I was a member that got an unexpected and decidedly unpleasant thrill. The night was bitter cold. For obvious reasons we

used a store delivery wagon instead of a hay wagon. The side and back curtains were fastened down tightly. The driver had similar protection from the cold, although he could see ahead through an opening for the reins.

The rig was jogging along on South Union Street, which then was a dusty country road, when there was a sudden collision between our rig and a horse ridden by a man on its back. The rider was thrown to the ground, but not hurt badly. Both horses were frightened but did not get beyond control. And so, we went on and finally reached the farm house where we were entertained in true Hallowe'en style—for it was Hallowe'en.

Funeral Coaches

When there was a wedding what were known as funeral coaches—drawn by horses—were pressed into service to transport principals and guests to and from the church or the home, as the case might be. The same vehicles were used by members of City Council and other officials in making their annual inspections of fire stations and on other business missions about the city.

Although Wilmington then had a volunteer fire department City Council provided the operating funds. Before the semi-annual allowances were made to the companies Council's fire committee was required to report on the condition of each.

Wilmington never had hansom cabs. It had public facilities for moving about, however, including, of course, street cars, which for many years were drawn by horses. Before the motor age there were horse-drawn cabs which generally could be found about the railroad stations. There was no "cruising."

At one time stage coaches, drawn by horses, served "Brandywine Village." One "in-town" terminal was at French Street station. Another was at Tenth and Market Streets. The "Brandywine" terminal was at Riverview Cemetery.

Bicycles, as was the case later with automobiles, at first were regarded as luxuries. They were expensive. An "ordinary" machine cost \$125 to \$150. Patents had much to do with the high prices. While bicycles originally were used for pleasurable diversion later they were found to be useful in business. Bicycles also figured in our sports program. Bicycle races were popular. So were "time runs" over specified courses.

Many farmers who in recent years have been using motor vehicles to do their hauling formerly had to depend on wagons. "Buckboards" did much of the light hauling. Wagons brought produce to the curb markets in Wilmington.

An odd looking cart, to which reference was made in a former article, was used for the collection of mail from street boxes. Wagons also transported the mail between the postoffice and railroad stations.

Horseback riding was popular for business as well as pleasure.

Rowboats provided enjoyable pastime for young people in the evenings. Much of the rowing was in the tidewater section of the Brandywine.

Before there was street car service on Maryland Avenue many persons living in Hedgeville and Browntown used the Wilmington and Northern (now the Reading) Railroad to go downtown and return. The company had way stations at Madison Street and Sixth Avenue.

A. O. H. G.

Gordon Butler,
August 10, 1936.

dup

S-411 199

*Reference
IC in State.*

The U.S. Department of Commerce Report for April
1, 1936 lists the following planes and pilots in Delaware:-
55 Licensed Airplane Pilots, 13 of which are transport
pilots and 22 private licensed pilots in addition
to 3 licensed glider pilots.
32 licensed planes and one unlicensed plane, also
3 licensed gliders.

Reference:- Air Commerce bulletin, Vol. 7 May 15, 1936 Page 274

*Complete Air List in
State.
2d List. Broken =
For Wilmington
Loren
Rehoboth
Bethany Beach*

Submitted by Gordon Butler,

Date August 10, 1936.

Bureau of Air Com. 1-1-36:36 (Star 5-24-36)

The Biggs Field comprising approximately 31 acres was opened in 1922 as a private field and soon was approved by the Commerce Department as the first auxiliary landing field used in Delaware. It is located $4/10$ of a mile north of the Basin road on the Biggs Lane which is itself $3/10$ of a mile east of the Du Pont Highway, approximately 5 miles outh of Wilmington.

The field is credited with having an excellent water repelling sod which allows landing and taking off during a rainy season altho the field is not as level as it might be.

An improvised hangar located near the Biggs residence houses several planes. It is also used as a repair shop where gas and oil may be obtained.

The field is largely used by the noisy "Bird men", a local organization of pilots, aeronautical engineers, mechanics, and men interested in the art of aviation. The club was organized about January 1936. Meetings are held the first and third Monday of each month where discussions of problems and circumstances relating to airplanes.

Rel. 200
1c in State Prison

LOCATION - - Delaware

Submitted by Gordon Butler,

Date August 10, 1936.

(E.E. 12-19-³⁰~~30~~ - 30)

(Bureau of Air Com. 1-1-36; 36)

NEW CASTLE - Bellanca Field - *Wil. Airport,*

~~Wilmington Airport~~ is classed as a commercial field, however it is largely owned by the Bellanca Aircraft Corporation whose factory lies to the east near the Delaware River. The field is located one mile west of New Castle on the Frenchtown highway and 5½ miles south west of Wilmington. This irregular shaped level sod field was opened to the public in 1928 when an agreement was reached between the Bellanca Co. and the Wilmington Chamber of Commerce whereby the latter agreed to install and maintain a system of field lights in addition to leveling the field. The agreement was for a period of 5 years and at the expiration of the term no new agreement was signed.

The "Air Service Inc." which manages the field was organized about June 1930 and is an outgrowth of the "Delaware Flying Service," which dated from the opening of the field. The air service maintains a repair and hangar service for transient and private planes in addition to a flying school. They are also agents for several makes of planes and equipment. Planes may be chartered here for any part of the country altho there is no regular service connecting the airport with other cities.

In 1935 a fire destroyed the hangar and office building and the present commodious building housing the hangar, repair shop, office and club room located near the highway was completed in June 1936.

At the opening of this field on October 6, 1928, an air show was held which was the first to be held in Delaware in 17 years and marked the resumption of aerial activities in Delaware.

The field is the "Home" of both the "Delaware Gliding and Flying Club, Inc." and the "Wilmington Chapter of the National Aeronautic Association," parent body of all aviation in the U.S.

Two Up-to-Date Airports Serve Pilots of State

Modern Landing Facilities Of Delaware's Air Fields Reflect Aviation Growth

Increased and improved airport facilities await the ever more numerous owners and users of private and commercial aircraft visiting Wilmington.

Two modernly equipped airports and two smaller landing fields are in use near Wilmington and there are three landing fields and a number of other emergency fields in the other parts of the state.

Recent improvements to the DuPont Airport, just west of Wilmington, have brought this field the reputation of being the most completely equipped privately owned field in the country. It is the only field in Delaware granted a commercial rating by the Bureau of Aeronautics, U. S. Department of Commerce.

The field is lighted with boundary and clearance lights, equipped with flood lights, and has complete aviation radio transmitting and receiving equipment and radio beam guidance.

The recent completion of a two-story hangar at the airport, the only such hangar in the country, has given the field storage capacity for at least 30 planes. Full repair, refueling, landing, and taking off facilities are furnished and the airport has 24-hour service.

Radio Direction Guide

The DuPont airport has its own flashing green beacon which is operated upon request. The field, which was built up under the direction of Henry B. duPont, the owner, has become one of the chief aviation centers of the state. It has two main runways, one 2,600 feet long and the other 2,100 feet.

The airport's radio station, WDUP, is equipped with the only directional antenna for airplanes in the state. The approaching aviator, landing in a fog, can tell his relative position by the audible radio pulsations he hears through his receiver as he approaches the field.

Bellanca Field, located six miles south of Wilmington, consists of 112 acres of sodded landing field. The total acreage of the Bellanca Field

and adjoining property, owned by the Bellanca Aircraft Corporation, much of which can be used for landing purposes, is 360 acres. Boundary lights and flood lights have been installed and arrangements are under discussion for their maintenance by the bureau of aeronautics of the Department of Commerce.

Bellanca Is Seaplane Base

Bellanca Field has 1,100 feet on the Delaware River and is the only seaplane base in Delaware.

The Air Service, Inc., directed by Richard D. Morgan, its president, has a modern hangar, shops, club rooms, and offices, located on the west side of the field. The newly constructed hangar is the center for all types of servicing, repairing, and refueling of locally-owned or visiting planes. Through lease arrangements with the Bellanca corporation, the Air Service has the use of the Bellanca Field.

Bellanca Field has one runway, running east and west, 2,400 feet long and another running southeast and northwest, 3,800 feet long.

Another field which serves the section north of Wilmington is the Skycraft Airport, located near Carrcroft. Skycraft Airport is directed by Howard Turpin, and is located on about 40 acres of ground. The field, which is 250 feet above sea level, is probably the highest in the state.

Skycraft Field Accessible

It is equipped with one hangar partitioned off into five private hangars. The field, like the others near Wilmington, is easily accessible to the motorist. It is bounded on the west by Weldin Road and on the south by Shipley Road. Runways of the field are 1,300 and 1,000 feet. Due to presence of nearby high wires and poles which are unlighted the field affords dangers to the aviator unfamiliar with it.

Another popular field, one of the headquarters for Delaware's Noisy Birdmen Club, a group of men interested in the promotion of aviation, is Biggs Airport, on Basin Road near the DuPont Boulevard. Biggs field is equipped with two small hangars, one of which is used by Dr. Herman S. Miller, skipper of the Birdmen, and the other by other members of the club. Runways are 1,800 feet north and south and 1,400 feet east and west.

The Delaware National Guard field, located at the camp at Bethany Beach, is used each August by aviators who operate in connection with the field training work of the 198th Coast Artillery. The Bethany Beach field has a 1,500-foot runway east and west, and a runway of similar length north and south.

The field at Dover has two landing strips, one 1,900 feet east and west and a north-south strip of 2,000 feet. A field is available at Rehoboth Beach and is used frequently during the summer seasons.

Aviators frequently find fields suitable for use at Bridgeville, Seaford, and Harrington. There is a field at Newark, but it is undeveloped.

See Skycraft Field on p. 204.

June. E. E. - 2-27-1937

204

Wilmington Thawer
Tramp Air

Submitted by Gordon Butler,

Date August 10, 1936.

(Bureau of Air Com. 6-1-33:-33

Wilmington - Skyekroft field is a marked auxiliary field. It is located three and a half miles north east from the center of Wilmington; 1000 feet north of the B. & O. main line. The field is rectangular shaped and has two landing strips, one 1,000 feet long in a direct north and south direction and the other one 2,000 feet long directly east and west.

The field is of level sod with a natural drainage and the entire field is available for landing or taking off.

Submitted by - Gordon Butler.

Date - August 11, 1936.

Star 9/3/33:12

AVIATION

(Delaware)

Dr. P. F. Quinby

One of aviations most colorful and early aviation enthusiasts was a Wilmington physician, Dr. Watson F. Quinby, who was one of the first Americans to see the possibilities of air navigation and antedated others in attempting to conquer the air by practical methods.

It was a long step from Dr. Quinby to Professor Langley and also a greater distance between the Washington professor and the Wrights and Curtisses, but in all those intervening years with thousands of expert mechanical engineers at work, it is said that none has been able to discard the original principle for applying power and direction, first employed by Dr. Quinby and perhaps picked by him from the study of Oliver Evans.

In the year 1853, man's flying through the air was looked upon with a good deal of jaundice. There were some, upon the infrequent occasions when the matter was broached at all, that quickly looked into the skies for a punching bolt of lightning out of the blue, striking the blasphemer dead. Naturally, no one took the talk at all seriously. But that year, the resourceful and colorful Mr. P. T. Barnum, looking about for something with which to attract the attention of the public, hit upon the possibilities of flying as the scheme. With the aid of his well trained press agent staff, he burst forth into print with the statement that flying could be made safer than riding in a railroad train.

Page No.2

He posted a purse of \$5,000. to anyone who could, alone and unaided fly across the Atlantic.

A great follower of the great Delaware inventor and man of science, Oliver Evans, who antedated both Fulton and Watt in solving the transportation problems of the 18th century. Quinby absorbed many of the Newport Miller's revolutionary ideas upon the subject of man's moving from place to place and became convinced that if man could navigate a ship on the seas, then he could as well fly through the ether. The logic of Barnum's agents only served to strengthen his contention. He became convinced that the stunt was possible and resolved to try it out.

He went to work with a will. Recalled as a man of studious habits and seriousness, he pondered the problem day and night. Like many of his contemporaries, he practiced his profession, "afoot," and it was said of him that he turned many topics over and over in his mind, and connected them still more seriously in the atmosphere of his own home. A deep thinker and by nature, a philosopher, he evolved an argument for his notion that was unbeatable.

He started at once on this aircraft, but perhaps worked in secret for fear that he would be the object of ridicule on the part of his neighbors, and again he possibly felt that his patients would view his undertakings askance and perhaps regarded him in a light that would not prove conducive to the upbuilding of a practice.

Dr. Quinby proved through a series of tests that his principles were right and in try outs of the mechanism he gained a strengthened conviction that the flying machine, even though heavier than air, would fly for a short distance at least. He made a number of these tests indoors until he was convinced that he had wrung the bird's secret from them and he himself would be able to follow them in flight.

The doctor patented an apparatus for navigating the air in November 1861 described as follows:- (U.S. 37-18 1 & 4)

The oscillating wings consists of an oblong frame of light strong material fitting with a sufficient number of valve-like flaps to cover the entire area; such flaps being composed of light strong elastic material, being oiled silk or other suitable fabric stretched upon them the flaps being arranged to open by an upward and to close by a downward movement. The wings are attached rigidly to a shaft arranged transversely to the body of the car, and so fixed that both wings occupy the same plane or planes.

The main shaft carrying fore and aft propellers the patent says, may be driven by a small steam engine, manual labor or any other suitable means.

The ^{spiral} wheels fixed on perpendicular shafts driven by gears upon the main shaft are the lifting powers. The rudder attached to a central perpendicular shaft below and between the spiral wheels is controlled by cords passing down into the body of the car. The parachute is a safety appliance to prevent too rapid descent in case of accident. The construction of the car as described was to be of strong light material braced longitudinally and transversely to obtain great strength, and to be covered as high up as desirable with oiled silk or other suitable fabrics. The original patent

Page No.4

office drawings of this device was made from a working model that was complete except for the absence of a motor. The motive power of the model was a spring.

Another model was perfected and patented in 1872, it, however, was of trial size.

The machine as he designed it would be called weird and fantastic today, but nevertheless it employed the basic principles for applying power and direction as used today. His model, strangely enough, was the bat, and the wings resembled those of that creature. It is said the studious doctor had captured several bats which he studied intensely. The theory of the flying machine was to supply the motive power to the wings by foot and hand power much like a bicycle. The wings were affixed to the aviator's back by a means of mizzen masts accruing in a steel belt fastened about the waist. He thought that the spread wings was sufficient to allow stability and that the friction created by the kicking would propel him through the air. Needless to say the contraption did not work, and the doctor suffered a broken arm by his jumps from the barn roof in either 1871 or 1872. The doctor did not attempt to fly again, however, his belief that man would one day conquer the air was not shaken.

All Doctor Quinby lacked to have made his flying machine soar into the air was concentrated power, such as is obtained from gasoline in a modern engine, to send the mechanism going at a speed sufficient to drive the plane through the air.

That is, how near Dr. Quinby came to being the discoverer or inventor of the airplane, the father of air navigation in fact. Had he been able to obtain the co-operation of such an agent as gasoline the history of aviation would have been different and the machines that roar through the skies and are to be seen

Page No. 5

almost every where would have added their values to the progress of the country and the world at large, almost half a century earlier.

The learned Doctor ^{lived} tried to see his dream realized, for before his death man had mastered the sky. A few years before he passed away he was taken to an airport and seated at the controls of a plane, but due to his advanced age it was deemed inadvisable for him to realize his life long ambition and soar above the clouds.

Born on December 15, 1826, Dr. Quinby was educated at the West Town Friends School, Haverford College and at the Jefferson Medical School. He went to California in 1849 and returned to Delaware in 1852 and practiced medicine in Brandywine Springs until 1863 when he moved to Wilmington. He became associated here with Dr. Caleb Harlan, who was a homeopath, and gradually learned homeopathic medicine. He was a very successful practitioner and enjoyed a wide and lucrative practice.

The learned doctor was interested in aërial navigation since early boyhood when he learned many principals from the study of his kites.

In addition to his flying exploits he displayed a keen interest in other phases of mechanical apparatus, and contributed numberless articles to scientific magazines. He also invented a rotary digger and a method of arch construction without the use of forms and centers for bridge construction. He died May 25, 1918, at the age of 92.

Page No.6

REFERENCES: - - Author, Chas. A. Rudolph,
History of the Society of the Sons of the American
Revolution.
Publisher, The Delaware Society, 1935. 221 pp.

E.R. 6-18-1927: 7

N.H. 5-27-1918: 1 & 4

Mr. James Sample,
1904 Washington St.

Personal Investigation.

Submitted by Gordon Butler,

Date August 12, 1936.

(Star, 7-16-33: 1 & 4)

J. Allison Buck was one of Delaware's pioneer aviators. He was active in aviation in this State since it was an experimental novelty and until his death on July 15, 1933 when he was killed while testing a new plane that apparently flew to pieces at an altitude of about 500 feet.

Buck owned and operated an airport two miles south of Wilmington on the Du Pont Boulevard prior to his death. The field was continued for about a year when it was closed. The field contained 147 acres and was rated as an auxiliary field. Among other aviation activities ⁱⁿ which he was engaged was that of test pilot for Bellanca Aircraft Corporation. He also made many trips across the continent in various types of planes.

211
Wilmington Trans-
portation: Air
(in State papers)

Submitted by; Donald Crowe.

212

DEDICATION OF REHOBOTH AIRPORT

June 3, 1938

Celebration will open with a banquet and ball at the Hotel Henlopen,

June 4, Dedication exercises. Governor McMullen will officiate. Invitations will be extended to Gov. Harry W. Nice, of Maryland, Governor George H. Earle, of Pennsylvania, and Governor A. Harry Moore, of New Jersey. Following the dedication, the visiting pilots will participate in aerial acrobatics, bomb releasing maneuvers and parachute jumping.

June 5,

Celebration will close with aerial contest features.

213

Wilmington Drawer
(1c in State Drawer
Transportation: Air)

REFERENCE: - -

Descriptions of Airports and landing fields in the
U.S.

U.S. Depart. of Com. - Bureau of Air Com. Govt. Printing
Office, January 1, 1936.

Airway Bulletin #2 - Page 36

June 1, 1933.

Bulletin #2 - Page 33

Sept. 1, 1934

Bulletin #2 - Page 35.

Submitted by - Gordon Butler.

Date - August 4, 1936.

Reservations and information regarding schedules, cost, etc., on any of the lines that operate from the Camden N. J. airport, the Newark, N. J. airport or the Washington, D. C. airport may be made at the following places in Delaware.

Any Western Union, or Postal telegraph office in the state.

Wilmington.

Western Union Telegraph Co., 820 Market Street.

Postal Telegraph Co., N. W. corner of 8th and Shipley Sts.

Hotel duPont, 11th St. between Market and Orange Sts.

Wilmington Bus Terminal, N. W. corner of 11th & West Sts.

All reservations made by any of the above mentioned places are authorized and tickets will be held at the respective airports until 15 minutes before plane is scheduled to depart.

Gordon Butler,
August 10, 1936.

(E.E.6-18-36; 11)

See also p. 216

(Bureau of Air Com. 1-1-36; 36)

Wilmington - Du Pont Airport.

This field is rated as a commercial field although it is privately owned by Henry B. Du Pont. It is believed to be the most completely equipped individually owned field in the country. Located at junction of the old Baltimore Pike and Lancaster Pike just beyond the western limits of the city. This is a "T" shaped field ~~and~~ was opened in 1927. It consists of about 100 acres of level sod, with natural drainage. The field has two landing strips, one of 2,600 feet, north-east and south-west and the other of 2,000 feet north west and south east.

Among other modern equipment the field has a low powered radio transmitter in operation in addition to a 24 inch rotating beacon. The broadcasting station is known as "W.D.U.P." and is used together with the directional beacon strictly in airplane communication and plane directorial activities. The field offers 24-hour service.

*Transportation
Airports*A V I A T I O N

Du Pont Airport Records 165,000 Miles during year of 1935

Planes hangared at the Du Pont Airport, Lancaster Pike and Center Road, were in the air 1,500 hours during 1935 and flew a total of approximately 165,000 miles, or more than six and one-half times around the world.

Years 1929 and 1930 were banner years at the Du Pont Airport.

Planes which make their home at this airport have flown a total of 6,500 hours during the past six years and rolled up 750,000 miles of air travel.

During 1935 about 670 landings were made at Du Pont Airport by visiting planes which, with 1,467 by planes which are hangared at the field, make a total of 2,157 landings during the year. All kinds of visiting planes stopped at Du Pont Airport during 1935 ranging from tiniest of private aircraft to giant Douglass airliners with about 22-passenger capacity.

B. Williams

LOCATION - Wilmington.

Assigned to Earl McGinnis.

Date - January 22, 1936.

Airports

Give location of Airports near city, distances from center of city and bus or street car connections for getting there. If the airports have any offices in the center of the city, mention them also giving schedule of flights and with what points they connect.

References - Personal observation.

Wilmington, Delaware
Transp. Folder: Air

Submitted by - K. A. Horner.

Date - May 21, 1936.

Transportation

Airplane.

The City of Wilmington has no airport, the nearest being at New Castle on land owned by the Bellanca Aircraft Corporation. The field is operated by Air Service, Inc., telephone New Castle, 311.

Planes may be chartered from this company for either short or long trips and by as many persons as desire to use the service. A number of planes is available.

The duPont airport is located at Lancaster Pike and Center Road, approximately four miles distant from the center of Wilmington. This is a private field, however, and no facilities for chartering planes are available.

State

Gordon Butler,

July 31, 1936. (E.E. 8-2-29- P.3)

Delaware's aerial activity dates back to the formation of Wilmington Aero Club which was incorporated on February 5, 1910. This Club was organized by a group of Wilmington Business men for the purpose of securing an airplane as a means to advertise.

Robie Seidlinger a well known Wilmington inventor of the time who had been working on model planes and so many of his inventions had been practical and successful he was engaged by the Club to construct an airplane. As the enterprise was to advertise the state the plane was named "Delaplane," to indicate that it was the product of Delaware. Interest in the affairs of the Club grew and on October 5th and 6th 1910 an air show was held which was sponsored by the Club employing the then famous aviator Tod Shriver, who held such records as endurance staying aloft for the whole of 45 minutes and on another occasion circled a field 37 times. He also held the altitude record of 1500 feet which he broke before the meet boosting the tomato crate fliers' record to 2,000 feet. The renowned flier made a successful flight in the "Delaplane," on October 5th and the next day the following description of the flight appears in the local paper.

"Soaring like a huge bird the machine, guided by the steady hand of the "bird man" first took a long flight far
away from the surrounding country, then it came back and circles

This was the first time an airplane had left the ground in Delaware. Later the same afternoon he attempted another flight which resulted in a crack up and fractured the famed aviator's leg, however, the plane was not badly damaged. Other fliers were there, also one or two Wright planes.

The first flight made in a Delaware constructed plane(The Delaplane) piloted by a Delawarean was made on October 21, 1910, altho it only ascended to a height of between five and six feet it was quite successful.

The "Delaplane" was cracked up beyond repair previous to the second meet which was held the following spring. Another meet was held in the fall of 1911. It was not such a failure as the previous two, but the enthusiasm was not great enough to make it a success. Its failure, however, was not due to the bad weather that prevailed as was the case in the previous two meets.

After this meet aviation was practically dropped in this state, and was not actively resumed until several years later, when the exploits of the aviators of the cities in other States and successful flights made during the war convinced the public that the air planes were a success.
From Sunday Star 10-12-30 - 9)

The aerial laws of Delaware are much like those of other states as Delaware was among the first twenty States in the nation to adopt uniform aere regulations. Their regulations prohibit stunting and flying over towns and cities. The State Highway Police are charged with enforcing the State Regulations.

Page No.3

(Gordon Butler)

(Aerial)

(From Star, 9-24-33:9)

Among Delaware's outstanding aviation enthusiasts is E. R. Armstrong, the Holly Oak, Delaware scientist; DuPont Company engineer who invented in 1933 a type of floating island planned to be used as way stations at strategic points across the Atlantic Ocean in line of a proposed trans-Atlantic air line.

The floating islands were estimated to cost approximately \$6,000,000. each and six such way stations were planned. The American Bureau of Shipping passed on the plan and the proposed stations were given an A-1 rating. Much publicity was given the proposed floating islands, but the plan never materialized due perhaps to their tremendous costs.

(Personal Investigation)

No commercial air-terminal is located in Delaware due largely to the States' geographic location. Delaware comprising in part the Delmarvia peninsula which is separated from the main land by the Chesapeake Bay is isolated from the air lanes of travel except for the line of flight across the northern part of the State extended from the Camden N.J. air terminal ^{to the Washington D.C. air terminal.} This air channel crosses the state in a direct line with the two cities, crossing Wilmington ^{on} the south approximately at the City Line.

The close proximity to the Camden N.J. airport located across the Delaware River from Philadelphia accessible by bus, train, or highway from Wilmington, also both the Newark N.J. airport and the Washington D.C. airport are within the radius of convenience.

Gordon Butler,

July 31, 1936.

(Bellanca Folder ,10 pp.)

1c Jimmy
dist. 8.3
1c State
1c Ref

Airplane building has become an important industry in Delaware.

The Bellanca Aircraft Corporation of New Castle, Delaware located between the streets of 13th., 14th., and Washington Park and property fronting along the Delaware River is an outgrowth of the Bellanca Aircraft Corporation of America, which operated for several years at Staten Island N.Y. and moved to New Castle in the later part of 1927 re-organizing and resuming operations in July 1928.

The Corporation has a modern plant of brick construction, the shops are in a one story building divided into several departments. This building also houses the offices of the Company of which part of the building is two stories high. The plant also has a large hangar and an experimental building, the later in which a large wind tunnel is provided for experimental purposes on new models. New models are first done in wood from the drawing and tested in a wind tunnel, and if proven satisfactory full sized wooden models are made with all the necessary controls these models are also subjected to rigid wind tunnel tests before actual production is started.

Associated with the name Bellanca there are probably more world famous achievements than with any other name in aviation. Eleven times, Bellanca ships have successfully spanned the Atlantic. The first West-East crossing of the Pacific, a non-stop flight of more than 4,500 miles, was made in a Bellanca and after accomplishing this feat, the

the sturdy ship completed its flight around the world.

Bellanca airplanes have set the following records:-

1. New York to Eisleben, Germany, 3,911 miles, June 4, 1927 - Chamberlin and Levine in the "Columbia."
2. Old Orchard Beach, Maine, to Santander, Spain, July 9, 1929 - Roger ^{G.} Williams and Lewis ^{A.} Yancey in the "Pathfinder."
3. Harbor Grace, Newfoundland, to Scilly Isles, England October 10, 1930 - Capt. J. Erroll Boyd and Lieut. Harry P. Connor, U.S.N.
4. Harbor Grace, Newfoundland, to Krefeld, Germany, June 25, 1931 - Sir Holger ^{Holm} ~~Holnis~~ and Otto Hillig, in the "Liberty."
5. New York to Cardigan, Wales, - July 29, 1931 - Clyde Pangborn and Hugh Herndon in the "Miss Veedol."
6. New York to Istanbul, Turkey, 5,011 - July 29, 1931 - Russel Boardman and John Polando in the "Cape Cod."
7. Samishino Beach, Japan, to Wanatchee, Washington, October 5, 1931, - Clyde Pangborn and Hugh Herndon in the "Miss Veedol."
8. New York to ^{Pomerania} ~~Pomerania~~, Germany July 16, 1933 - Stephen Darius and Stanley Girenas in ^{"Litvanica"} ~~"Litania."~~
9. New York to Lahinch, Ireland, May 14, 1934 George A. Pond and Cesare Sabelli,
10. Harbor Grace, ^{Newfoundland,} ~~Newfound~~, to Caen, France June 29, 1934 Benjamin and Joseph Adamowicz in the "White Falcon."

11. New York to Newfoundland, Iceland, Orkney Islands, Scotland, Dutch East Indies and Manila, etc. August-Nov. 1934 Dr. Richard Light - Commercial type sea plane.

Guiseppe M. Bellanca, the son of a Sicilian miller migrated to this country as a youth. His interest in aviation dates back to his childhood when he discovered certain aeronautical principles in flying a kite. In this country he became associated with the Wright Bros. Aircraft Corporation and when they discontinued the building of planes for the building of motors only he left the organization and organized the Bellanca Corporation of America at Staten Island.

Bellanca made the first drawing of a tractor type airplane, also his recommendation for the V-type landing gear was an innovation in aviation.

It was a Bellanca plane upon which all exposed units were first scientifically streamlined to reduce air resistance. The revolutionary airfoil design which pointed the way to increased payloads by more than 100 percent without increasing weight or power was of Bellanca origin. Bellanca is responsible for the introduction of the cabin plane.

225 S-400
LOCATION - - Statewide

Submitted by Wm. H. Connor,

Date August 5, 1936.

Lead for Transportation

In Twentieth Century Transportation, Delaware displays a miniature replica of the scene now common to most of the States-- that is, rail traffic having supplanted water transportation, is giving way stubbornly before increasing motor development, while the latter in its turn is threatened from the air.

Two railroad trunk lines, the Pennsylvania and the Baltimore and Ohio, cross the narrow northern sector, and the Delaware Railroad, a subsidiary of the Pennsylvania, passes through the State from north to south, with branches in Sussex County to serve the eastern and western sections. The railroads were dominant factors in developing the industrial north and the agricultural south of Delaware during the period from 1840 to 1870.

The highways, following the same general pattern as the Delaware Railroad in providing north and south arteries of travel are now developed into an extensive system including chief and alternate routes. The main arteries, now wide and from north to south double, are utilized not only for ordinary purposes of travel in private cars and buses, but fleets of motor-trucks carry the produce of the Del-Mar-Va Peninsula over them to metropolitan markets.

Water transportation remains an appreciable factor, as may be presumed from the geographical position of the State with

Page No.2 - Land for Transportation.

eastern boundary that of river, bay, and ocean. Wilmington operates a Marine Terminal at the mouth of the Christiansa, and numerous vessels ply that stream and the Delaware River. A steamboat line furnishes regular passenger and freight service between Wilmington and Philadelphia, and ferry-lines function from Wilmington and New Castle to the New Jersey shore. Along the eastern shore-line, the rivers and creeks are used for short distances by vessels to the towns at the head of navigation, and support much of their commerce, while the Nanticoke River and its tributaries serve Seaford, Laurel, and other towns in western Sussex.

The Chesapeake and Delaware Canal is a sea-level project, toll free, which unites the Chesapeake and Delaware Bays, and, under Government ownership forms an important link in the Atlantic Inland Waterways System. The commercial traffic in 1935 exceeded a million tons, in addition to a thousand pleasure craft.

No commercial airlines make stops in Delaware, but there are several airports and landing-fields under private control. They include the Bellanca Field, Wilmington Airport, at New Castle; the duPont and Skycroft Airports and Biggs Field in and near Wilmington, and the Dover and Rehoboth Airports. Planes may be hired at Bellanca Field to meet commercial lines. Emergency landing fields are maintained by the Federal Government at Biggs Field and For Du Pont.

The story of transportation in the Diamond State is fascinating since it begins with the sturdy ships of the Dutch

Page No. 3 - Land for Transportation

and Swedish settlers, the Indian trails they found, and the rude cart-roads they built, and it carries on for nearly three hundred years through fast river-steamers and streamlined trains to the cement roadways of today that penetrate all sections of the State, while birdmen skim the skies.

Trails gave way to cart-roads, the latter to King's Highways, and these in turn to turnpikes, over which Conestoga wagons carried abundant produce. Wheat was transported from Lancaster County, Pennsylvania, to Newport, to stimulate an early rivalry with Wilmington and its extensive flour-mills. At the water-side, New Castle was in the heyday of its commercial importance, for it was a terminus of the New Castle and Frenchtown Turnpike, and a little later, a terminus of the first railroad of the State, the New Castle and Frenchtown, and it is possessed of a fine natural harbor. Towns like Odessa, named for the great grain-port of Russia, Frederica, Hilton, Leipsic, and others had developed aspirations to leadership and the new village laid out at the Delaware end of the Canal, flamboyantly assumed the title of "Delaware City." But water transportation made them what they were, and railroad transportation soon set them far back again.

In the beginning, New Castle held first place by virtue of the narrowness of the land between the two bays and because of its position on the route of travel from Philadelphia to Baltimore, by the river to New Castle from there by land. Control of the first railroad failed to save New Castle, for within five years the Wilmington and Susquehanna Railroad, speedily united with the

Philadelphia, Wilmington, and Baltimore Railroad, cut sharply across the northern sector, placed Wilmington on the direct line between north and south, and changed it into a metropolis.

Afterwards, the building of the Delaware Railroad in the late fifties opened up the granary and orchard to the south, and the once-thriving river towns slipped back while new towns on the railroad flourished. In time, political maneuvering became a necessity to the railroad, and control of the Legislature was sought successfully for a generation or more, with the intention of warding off unfriendly legislation and possible muddling about with freight-rates. The Pennsylvania Railroad held its bloc intact for many years.

The Pennsylvania tracks were paralleled in 1886 by those of the Baltimore and Ohio Railroad in the north. The total railroad mileage in 1900 was 348.82 miles. Small lines as feeders to the larger ones began to operate in various sections of the State.

The scene has changed with the coming of the motor-car and with the advent of well-paved roads. In Delaware, as everywhere else, the railroads have met keen competition in the carrying of passengers, not only through private cars; but also through motor-buses; eventually, the fleets of motor-trucks that line main Delaware highways and carry great quantities of produce from the Peninsula straight to city markets cut directly into freight income for other carriers.

General railroad service in the State had been adjusted

Page No. 5 Lead for Transportation.

to meet the competition of the motor-car and bus, fewer trains are run, small feeder lines have been discontinued, and expenses cut. The State Highway has become the main artery of commerce, and it parallels the Delaware Railroad. If pattern can be said to exist in Delaware transportation, it is geographical, in that the scheme of the King's Highway running down the State was first duplicated by the Delaware Railroad, and later followed by the State Highway.

Undoubtedly the various modes of transportation have tapped the main reservoir of trade, making for a larger share of income for the Delaware farmer. Self-sufficing communities, perhaps little affected by the railroads, have now been influenced, particularly in the southern sections, by the new and improved highways, and brought more into the circle of social change. Lower Delaware is assuredly less insular than it was because of the roads, although the radio and the newspaper must be granted a share of responsibility for the change. No community in Delaware now lives wholly to itself; there has been broadening of viewpoints, assimilation of progressive tendencies, and a better understanding of the problems that are common to all sections of the State. At present, the State has 1,076 miles of improved highways in a total of 3,849.9 miles.

A new revolution of Delaware transportation through the air seems improbable at the moment, since small areas like Delaware play little part when the continent can be spanned in

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Lead for Transportation.

a day. The airlines follow the general direction of the trunk line railroads and pass through the diminutive northern sector; it may be that at some time the proximity of Delaware to the bay and ocean may fit in with a new general scheme, but as it stands at present, transportation in Delaware is dominated by the motor-cars and the railroads.

Gordon Butler,

July 31, 1936.

(E.E. 6-18-36 p.11)

Transposition
Folder: Air
(10 - 12 Port Folder)

Among the private airports in Delaware is the Du Pont airport in Wilmington. The field is rated as a commercial field, but is privately owned by Henry B. DuPont. It is believed to be the most completely equipped individually owned field in the country.

Located at the junction of the old Baltimore Pike and Lancaster Pike just beyond the western limits of the city.

The field was opened in 1927 then consisting of about 45 acres, adjoining property was added to complete the present 100 acre field which measures 2,600 feet by 600 feet and has runways of that length. It has two main runways for planes, one 2,600 feet long and the other 2,100. The entire field is available for taking off or landing and it has a larger space for six to eight planes, and can accommodate three visiting planes.

The name "Du Pont" appears on the roof of one of the buildings and "Wilmington" on the other.

The field is fully equipped with night flying lights about 100 boundary and obstruction lights border the field also the approaches to the runways are lighted with green lights. In addition the field is equipped with two 100 kilowatt flood lights.

The entire lighting equipment can be operated by remote control from a panel in the hanger or another on the wall of the hanger at the field. A green rotating beacon light making six revolutions per minute is operated nightly.

During the past year the Radio Corporation has maintained an experimental high frequency radio station at the port. It is operated on frequencies of 2,200 to 6,600 kilocycles.

In June 1936, a combined radio beacon and broadcasting short wave Radio Station, W.D.U.P. was erected at the airport. The directional beacon and broadcasting aerials, are used strictly in airplane communication and plane directional activities, is built on ground located about one-half mile southwest of the 100 acre airport.

The antenna for the directional beacon and also for the radio broadcasting of voice messages is erected on seven-50 foot high poles.

The station operates on a wave length of 278 kilocycles and has a radius of about 15 miles. The radius of activity of the radio has been purposely limited to prevent interference.

This modern "traffic copy of the air," is operated by remote control from the offices of the modernly equipped hangar of the Du Pont Airport more than one half a mile away.

The radio beacon gives four distinctive radio beats at right angles in such a way that when the aviator is flying towards the field he can determine by the strength of the note and the timing of the beat in what direction he is approaching. When he is approaching in exactly the correct direction the best on his right and that from the left will fit together audibly into one continuous hum.

The directional beacon, operated in connection with an altimeter on the plane adjusted to the field altitude by voice communication will permit the aviator to approach the field with error of less than twenty feet.

The Du Pont Airport is equipped for commercial operation, furnishing instructions to student pilots, servicing and repairing planes, and hangaring transient planes.

Gordon Butler,
August 10, 1936.

(Bureau of Air Com. 1-1-36: 36

Dover -

The Harold E. McMahon Airport is a municipal airport. It is located six-tenths of a mile east of Dover on the State Highway.

This "L" shaped field is of level sod, and has a natural drainage. Two landing strips ^{are} east and west of 1,638 feet and the other north and south of 1,925 feet long.

Submitted by Gordon Butler,

Date August 12, 1936.

Rehoboth Beach

Rehoboth Airport is a commercial field, owned and operated by the Rehoboth Air Service Inc. The 70 acre field was opened on May 15, 1936. The field has the usual service facilities such as; - aviation, fuel, repair and hangar service.

Reference

Mr. L. L. Thompson
Rehoboth Beach

LOCATION - -

Submitted by Gordon Butler,

Date August 10, 1936.

(From Bur. of Air Com. 1-1-36:36)

Bethany Beach - - Airport is an army airport. It is located north of Bethany Beach and west of the Naval Radio Station. The field is cross shaped and has two landing strips each, 1,500 feet long running north and south, east and west. The port is of level sod and has natural drainage. No servicing facilities are available here except aviation fuel during the National Guard encampments.

Bayard Moore of Seaford built airplane models and experimented with them in spite of the ridicule of his fellow citizens who could not vision such a possibility "as flying boats spanning high mountains and oceans."

Air mail week, May 15 to 21, the citizens of Seaford will honor him. A Moore cachet will be used on air mail leaving Seaford during Air Mail week and the Seaford Lions and Kiwanis Club will sponsor a marker for Moore's grave in the Odd Fellow Cemetery in Seaford.

Moore was born in Seaford June 16, 1816 and died Aug. 28, 1891. Had he lived 12 years longer he would have seen his dream realized.

Journal Every Evening. 5-12-38.

AVIATION ACTIVITIES IN DELAWARE

Pamphlet Drawer:

Folder: Progress - July 1936 number.

REFERENCE: - -

Descriptions of Airports and landing fields in the
U.S.

U.S. Depart. of Com. - Bureau of Air Com. Govt. Printing
Office, January 1, 1936.

Airway Bulletin #2 - Page 36

June 1, 1933.

Bulletin #2 - Page 33

Sept. 1, 1934

Bulletin #2 - Page 35.

LOCATION - Wilmington.

Field File

Submitted by Kenneth A. Horner.

Date - March 26, 1936.

Wilmington, Delaware.

Pop. 1930; - 106,597; US 13
E.S.T. -Daylight Saving Time, May to Sept.
Penna. R. R. Co.
B. & O. R. R. Co.
Bus Lines.

Wilmington, the metropolis of Delaware, aptly called the First City of the First State, lies on the Delaware River approximately 70 mi. from the Atlantic Ocean, 28 mi. below Philadelphia. At the head of the rich, fertile farmlands of Delaware, the eastern shore of Maryland and the two lower counties of Virginia, it stands as the gateway to the Delmarva Peninsula.

The Piedmont district, a series of low hills between the Appalachian Mountains and the Atlantic Coastal Plain, occupies the upper part of the State in which the city is located, and as it has been built on rolling lands rising from tidewater to an elevation of 255 feet, with an average of 80 ft., since early times it has been referred to as "The City on the Hills."

Prior to the beginning of the twentieth century it was one of the foremost industrial communities of the Nation. Its location at the confluence of the Brandywine Creek, Christiana and Delaware Rivers, providing ample water communication; the railroads which traverse this section with Wilmington as a center, the highways leading from it in all directions; its close proximity to the Atlantic Ocean and various rivers and bays; a location that permitted it to escape the extreme vigors of hot summers and cold

winters, an ample rainfall and absence of hurricanes, floods, and the acts of ~~an~~ unrestrained nature, make it a natural industrial center, appreciated and inviting to its inhabitants.

The same rainfall and the nearness to large bodies of water, however, is responsible for a very disagreeable humidity, which sometimes makes the warm days of summer and the cold days of winter extremely unpleasant, despite the fact that the thermometer seldom rises to more than 90 degrees in summer or falls much below the freezing point in winter.

In later years many of the large manufacturing industries which formerly employed thousands of mechanics and laborers either discontinued business or moved to other localities and new industries have not arrived in sufficient numbers to take their places.

The growth of the large powder companies whose executive offices are located in the city brought about the erection of several large office buildings and gave employment to clerks, bookkeepers and a large number of "white collar" workers.

Quite recently the city attracted the executive offices of a number of other corporations whose officers and clerks took up residence and brought about the erection of many fine homes and apartment houses.

The absence of slum districts cleanliness of streets, educational facilities, splendid water, fire and police protection were among attractions that brought new residents to the community for years. But like many other industrial communities, Wilmington suffered from the disastrous effects of the financial depression.

Lack of employment, low wages and long hours of labor for those fortunate enough to be employed, created class distinction, pauperized thousands, curtailed opportunity for youth and business men and completely changed the economic status of the inhabitants.

As a result the city, with the exception of the newer sections, has become unkempt, squalid, and uninteresting, unless views of slums, rows of unkempt, dirty brick houses, and the knowledge that persons are compelled to live amid such surroundings can be called interesting. Occasionally groups of citizens motivated by sincere desires to improve the city's appearance and provide proper shelter for unfortunates formed better-housing committees, held meetings, passed resolutions and announced "clean-up" campaigns, but they soon tired of their efforts and the slums remain. All attempts to eradicate them have been frustrated by owners and mortgage holders, as generally, rents for such dwellings are high and are collected by the week, providing rich profits to the lessors.

ARCHAEOLOGY:

The city covers land occupied before the coming of the Europeans by the Lenni-Lenape Indians. That lying between the Christiana River and the Brandywine Creek, was the site of an extensive village known as Hopokohacing. Chikihoki, another village, lay at the junction of the Delaware and Christina Rivers where the Marine Terminal and adjacent manufacturing plants are located.

About thirty years ago a number of implements, arrow-heads and artifacts, were dredged from the river muck about twenty feet below the surface near the mouth of the Christiana River. The find occasioned much interest among archaeologists who were of the opinion that they evidenced occupation by pre-historic inhabitants. It is now believed, however, that the site did not date back more than a few hundred years, and that the finds were deposits that had been covered by former dredging and filling operations. Most of the relics found are now in the Peabody Museum University, but several are in the hands of local collectors.

INDIANS:

A description of the Indians who inhabited this section, will be found under "State" file.

HISTORY:

Wilmington's early history goes back to the year 1638 when in late March a Swedish expedition landed at "The Rocks," on the Christiana River near the foot of Sixth Street.

The expedition consisted of two ships, the "Kalmar Nyckel" and "Bird Griffen", under command of Peter Minuit, who from 1626 to 1632 had been governor of New Netherlands, the territory in America claimed by the Dutch. Minuit had fallen into disfavor with the directors of the Dutch West India Company, under whom the post at New Amsterdam (now New York City) had been established and, four years later, had transferred his services to Sweden.

In the early seventeenth century Sweden, under Gustavus Adolphus, had become the foremost nation in Northern Europe.

Following this monarch's death in 1632, Sweden's importance was continued under Chancellor Axel Oxenstierna. Seeking new markets for its copper and noting how Spain, following the discovery of America by Columbus, had enriched its treasury with gold and precious metals from the new lands, and how Holland, then the foremost mercantile nation in Europe, had established trading posts throughout the then known world. Sweden determined to follow the example set by them.

The Swedes built a fort, which they called Christiana Skauts, and back of this a small settlement, called Christinahamn. This was located approximately half way between the Seventh and Third Street bridges on the north side of the Christiana where the neck of land between the Brandywine Creek and the Christiana River is narrowest. Marsh lands nearly surrounded it and the waters at front and back gave them protection from wild beasts and Indians should the latter prove warlike.

Here the Swedish colonists held religious services, dispensed rude justice, and nearby began tilling the soil, and established the first permanent settlement in the Delaware River Valley on the site now covered by the City of Wilmington.

In 1651 the Dutch who from their New Amsterdam colony had looked upon the Swedes as intruders and who had fought them economically, erected a small fort or outpost at Fort Casimir (New Castle). Johan Casson Risingh, a newly arrived, then-Swedish Governor captured the fort on Trinity Sunday, May 21, 1654, (which brought upon the Swedes the wrath of the Dutch, who a year later the Dutch recaptured Fort Casimir, and took Fort Christina, which they named Fort Altena.

The control of the community by the Dutch continued until 1664 when it was taken by the English under the Duke of York, and Altena was permitted to go to ruin.

In 1673, the Dutch again came into possession of the land, but under the treaty of Westminster, February 19, 1674, the land was returned to the English.

Under English rule the inhabitants of all Dutch and Swedish lands were asked to file claims for the land they occupied; submitting proofs of ownership or occupancy. Due to hardships and privations many of the owners had moved away and only a few persons claimed ownership of lands. The territory now embraced in the limits of Wilmington was mostly in five large tracts that came into possession of Johan Anderson Stallcop, Dr. Tyman Stidham, Jacob Vandever, Jean Paul Jacquett and Peter Alrich.

It is related that Stallcop came from Holland as a cook aboard a vessel. His habit of wiping his greasy hands upon his cap giving it the appearance of steel earned him the nickname of Stael Kappe or Stallcop. In the deeds which he executed he signed his name Johan Anderson, and later Johan Anderson Stallcop, which his descendants adopted as a surname.

Stallcop's land, roughly, covered most of Wilmington south of about Seventh Street to the Christiana River. Stidham owned the land north of Seventh Street to the Brandywine Creek, Vandever the land north of the Brandywine and the Section over the Church Street bridge. Jacquette's land extended south of Market Street bridge, upon which he built his home, "Long Hook," one mile south of the bridge on the duPont Highway.

Alrick owned much of the section on the south side of Third Street Bridge.

A portion of Stallcop's land was sold and came in possession of Charles Pickering, and later in the hands of the congregation of Old Swedes Church, who in 1736, appointed Charles Springer trustee. He with Jacob Stilly and Garet Garrison and their successors, were granted power to "lease and demise for a term of years or forever, in small lots, any part of said church lands."

Another portion of Stallcop's land eventually came into possession of Thomas Willing, who had married Catherine Justis, a daughter of one of the Swedish settlers. Willing laid out a town on land near the foot of Market Street along the Christiana River. He called it Willingtown. Here, from Ridley, Pennsylvania, in 1735, came William Shipley, a Quaker, the "Father of Wilmington," who purchased small tracts of land from Willing and others.

With the coming of the Shipleys began the growth of the community. Their influence brought other Quakers who purchased land, erected dwellings and small factories, a Meeting House, and entered generally into the social and economic life of the town. Here for the first time is noted such well known personalities as David Ferris, Joshua Way, Thomas West, Edward Tatnall, Joseph Mendenhall, Samuel Pennock, Thomas Hollingsworth, Robert Read, and others which stand out in the history of Wilmington and Delaware.

Shortly after his arrival, William Shipley erected a market house in the bed of Fourth Street near Market. This was an economic advantage to those living in that vicinity, but met with the disapproval of those who had planned to have the market house erected at Second and Market Streets.

The resultant controversy which lasted for four years led to a request on the part of the inhabitants for a Borough Charter and a change of name for the community. The petition was granted by the Governor of Pennsylvania, November 16, 1739 which gave the inhabitants permission to erect another market house at Second Street, and provided that the market days should be decided by vote. A compromise evidently was effected, as it was determined to have two market days, one to be held on Wednesdays and the other on Saturdays. That custom so early begun continues to this day.

The Governor gave the name of the borough, Wilmington, in honor of Sir Spencer Compton, Earl of Wilmington, through whose patronage he was indebted for his position.

The charter also permitted the election of a chief burgess and burgesses. The first chief burgess was William Shipley, who received sixty-one votes. The borough contained about 120 families, or approximately 600 inhabitants. Five years before the number of families had not been more than thirty.

The charter granted the burgesses authority to "arrest and punish rioters and other disorderly persons breaking the peace," and the first ordinance passed provided for the purchase of land, erection of stocks, a whipping post and cage. The cage or jail house was erected on the northwest side of Market Street a few doors above Third Street. In front of the "cage" at the outer edge of the pavement, stood the stocks, "in which was often seen some unlucky vagabond, who thus paid the penalty of his transgressions."

The penalty consisted not only of public exposure, and the cramped position of legs and arms, but also in the gratuitous infliction of divers punishments, i. e., not mentioned in the statute. They were inflicted by the rude spectators of his confinement, of their own mere motion and desire to aggravate the miseries of the culprit. He was often covered with the contents of rotten eggs and other offensive materials, designed to cause him to keep out of the clutches of a law which exposed him to such odious infliction. In addition to such punishment he was sometimes "drummed out of town."

In defense of the community it is only just to remark that the rivers and creeks nearby ^{afforded} ~~provided~~ excellent spots upon which pirates and smugglers could land their cargoes without coming in contact with or paying the duties imposed by the authorities at Philadelphia.

Several inns and taverns provided places at which the sailors could quench their thirst, and drunkenness and disorder often led to arrest and punishment.

Religion was of prime importance to the inhabitants of the village. The Swedes early had erected a church at Crane Hook, near the present Marine Terminal, which had been replaced by the Old Swedes Church at Seventh and Church Streets.

The Quakers had held their meetings in the home of William Shipley and in 1738 erected their first meeting house at Fourth and West Streets. Two years later the first Presbyterian Church was built near what is now Tenth and Market Streets on a site now occupied by the Wilmington Institute Free Library.

The community gradually increased in size and importance but being off the beaten track, away from the main arteries of travel, there was little except the waterways to attract new settlers, and for a century it had a slow growth.

Despite its size, however, the descendants of the Quakers Scotch Irish and Swedish were thrifty, industrious and zealous for the public welfare. The practice of baking bread and offering it for sale was an early one and some of the bakers evidently were guilty of profiteering. In order to protect the citizens against exorbitant charges and short weights, in 1744, an ordinance was passed regulating the size of the loaves of bread and the price to be paid for it. This ordinance might prove rather naive to the individualistic-minded twentieth century economist, as it prohibited price raising, but took care of the baker by permitting him to increase or decrease the size of the loaf depending upon the price of wheat.

Three kinds of bread were sold: white, wheaten and household. The price of each was a penny a loaf. With wheat selling at three shillings the bushel, the white bread must contain eleven ounces; the wheaten bread 17 ounces, and the household bread 25. ounces 4 dwt. When wheat increased in price to six shillings six pence, per bushel the size of the loaf decreased to 5. ounces 5 dwt for white bread, 9. ounces 15 dwt for wheaten and 13. ounces 3 dwt for household bread.

Troy weight was used. For those who were in the habit of using avoirdupois, the law specified the size of loaves in that measure also, hence the reference to pennyweights in the avoirdupois measurements.

A circulating library was established about 1754.

REVOLUTIONARY WAR:

The inhabitants of the village viewed the Revolutionary War with mixed feelings.

The Quakers opposed it but others enthusiastically joined the ranks of the army and navy along with other Delawareans.

Dr. John McKinley, the first President of Delaware was appointed a Brigadier General. Gunning Bedford was a Lieutenant Colonel, and James Tilton was appointed a surgeon, later in the war of 1812 becoming Surgeon General of the Continental Army.

The first naval engagement of the war was fought off the mouth of the Christina River. Two English frigates, the "Roebuck," and the "Liverppol," engaged in battle with the Continental Navy under Captain Houston, a Philadelphian, which consisted of a number of long boats or row galleys. The fight continued May 8th, 9th and 10th, 1776, when the English frigates retreated down the River.

When Lord Howe decided to attack Philadelphia, having disembarked at the head of Chesapeake Bay, Washington started south. He halted for a short time in Wilmington and encamped on the high ground in the western part of the city. He made his headquarters at the "Happy Return," on Market Street near Third. After the battle of the Brandywine, in which the Continental forces were defeated, the British sent a detachment of troops to Wilmington, September 13, 1777. The leading Whigs and patriots of the town, who were pointed out by the local Tories, were made prisoners, among those taken being Dr. John McKinley. The British made their headquarters in the old Abijah Dawes home, Market Street above Sixth, and some of the soldiers were quartered in the Old Swedes Church.

In 1739 the population of the community was 610.

At the opening of the Revolutionary War it had increased to 1172 whites and 57 colored. The census figures of 1790 showed a population of 2335. An insurrection of negroes in San Domingo 1791 drove hundreds of the French families from the island to the United States, a number of them settling in Wilmington. The population was further increased in 1793 when refugees fleeing from the yellow fever plague in Philadelphia found homes in Wilmington. In 1795 and 1796 and again in 1798 Philadelphia had a recurrence of the disease and some of the refugees coming to Wilmington brought it with them, which occasioned great suffering and many deaths among the inhabitants.

In 1798 a city hall which is still standing was erected on Market Street between Fifth and Sixth. In 1809 the boundaries of the city were extended by legislative enactment to include the land lying between the Christiana River and the Brandywine Creek and extending out the Brandywine to the Old Ford which crossed at Adams Street.

The western boundary followed the Old King's Highway which crossed the city in a southwesterly direction from Adams Street to Lancaster Avenue near Broom.

In 1800 the population was 3,241; in 1810 it was 4,416; in 1820 - 5,258; in 1830 - 6,628 and in 1840, 8,452. It was now an incorporated city, having received a charter in 1832. Railroads had come into existence and Wilmington was an important depot. Steamboats were competing with sail.

The Friendship Fire Company had been instituted in 1775, and they perhaps were responsible for the passing of an ordinance to prevent chimney fires dated September 7, 1793.

The ordinance provided that if a chimney caught fire within thirty days after being swept, the sweeper was to pay one dollar to the Friendship Fire Company.

"And be it further enacted and ordained that no person shall exercise the business of a chimney sweeper, until he shall be approved, and be licensed by the aforesaid fire company, nor shall any such sweep charge more than thirteen cents for sweeping a two-story chimney, nor more than nineteen cents for sweeping a three-story chimney."

On October 1, 1809 an ordinance was enacted providing a fine of fifty cents for each swine running loose in the Borough of Wilmington, and on April 8, 1822, it was provided that "swine must be ringed and yoked if at large in Borough." Seventy Five cents was the fine if the swine weighed more than fifty pounds, and twenty-five cents if under that weight. Swine not ringed and yoked were to be taken into custody, after which the bellman should "ring the bell and announce the sale." After three hours should the owner fail to appear the swine were to be sold. This ordinance was dated May 3, 1824,

In the year 1845, the growth of the city having materially increased "more than three hundred houses having been built during the past few years," a special census was taken by the city authorities, which showed that the population was 10,639, of which 1,815 were colored. It was an important shipping point and boasted of 2,500 tons of shipping. The principal article of export was flour, although cotton, wool, paper, iron castings and powder were manufactured and shipped.

Within ten miles of the city were at least 100 important manufacturing establishments making it "the largest manufacturing district on the Atlantic seaboard south of Philadelphia."

From this time on Wilmington was to become an important manufacturing community, and the products of its factories and iron mills were to be found in every part of the United States as well as foreign countries.

"There were four printing offices, publishing four newspapers, three semi-weekly and one weekly.

There were seven volunteer fire companies. Sixteen hotels, one a "temperance hotel," catered to the travelers and the general public. The Railroad Hotel (opposite the depot) informed all and sundry that "meals will be provided for their accommodation on the arrival of each train of cars." The Indian King Hotel, on Market Street between Front and Second, advertised that "stages leave daily except Sunday, for New Castle, St. Georges, Cantwell's Bridge, Smyrna, Dover, Milford and Georgetown." The Lafayette Hotel, formerly the old Black Bear, was located on Ninth and Shipley Streets, where the old post office now stands.

Sixteen churches provided for the religious needs of the community; three Methodist, two Friends, three Protestant Episcopal; two Baptist; two Presbyterian, one Catholic and three colored.

Thirteen physicians had established themselves in the city, of whom two were Homeopathic, and one Botanic, and there were, in addition, three "cuppers and leachers," of whom two were women.

There were eleven lawyers, two judges, the Honorable Willard Hall, U. S. District Judge, and Honorable John J. Milligan, Associate.

David C. Wilson was Mayor, Wm. G. Whitely, Alderman and George Buzine, High constable. There were four city constables.

The city contained five wards, and three councilmen from each ward were elected. The Board of Health consisted of twelve members in addition to Dr. Lewis P. Bush, Port Physician, and T. Booth Roberts, Secretary of the Board.

The Custom House was located on Water Street between Market and King. The Postoffice was on Third Street between Market and Shipley and the U. S. Arsenal on Pasture (Washington) Street between Eighth and Ninth.

Of interest are the occupations of the inhabitants. In addition to those of today, we find that a century ago employees earned their living by being employed as Iron founders, potters, cordwinders, (there were a number of these) melters, watermen, coopers, chair painters, millers, pilots, victuallers, tinman, basket-makers, tanners, cotton spinners, carpet weavers, toll keepers, carters, turners, coach trimmers, bellmen, express riders, drovers, mantumakers, saddlers, white-washer and chimney sweep.

Abraham Alderdice was listed as a wire weaver, fan factory, flour store, Front and Orange Streets.

L. S. deBebary, historical portrait painter and engraver, Seventh Street between Lombard and Pine.

Stephen Boddy, Justice of the Peace and Saddler, King and Fourth Streets.

Here we read for the first time in Delaware history of "Patent Medicine," was dispensed by Dr. Simm, botanic doctor, no charge for office advice, and John Yphs, boot manufacturer, advertised "Terms liberal", Was he the forerunner of the "Easy Payment Plan," which increased the purchasing power of the American public by billions of dollars in the years prior to 1929?

The old method of locating places of business and residences until March 24, 1859, although on December 31, 1835, by city ordinance the names of the streets had been changed.

Under the ordinance,

High Street was changed to Fourth

Queen Street to Fifth Street.

Hanover to Sixth Street.

Broad to Seventh Street.

Kent to Eighth Street.

Wood to Ninth Street.

Chestnut to Tenth Street.

Elizabeth to Eleventh Street.

Dickinson to Twelfth Street.

Franklin to Thirteenth Street.

Washington to Fourteenth Street.

Stidham to Fifteenth Street.

March 12, 1846 Pasture Street was changed to Washington Street.

July 24, 1862 Mill Street was changed to Sixteenth;
Franklin Street between Front and Second Streets and between Jefferson and Madison Streets was changed to Christiana Street.

January 18, 1866, Marsh Road running from the
Wilmington-Philadelphia turnpike to Shellpot Dam was changed
to Vandever Avenue.

The numbers on Market Street run as follows:

Water to Front,	1 to 12 inclusive,	
Front to Second	13 to 36	"
Third to High	37 to 64	"
Fourth to Queen	65 to 110	"
Fifth to Hanover	112 to 128	"
Sixth to Broad	129 to 158	"
Seventh to Kent	159 to 185	"
Eighth to Wood	191 to 214	"
Ninth to Tenth	215 to 230	"

230 is the highest number listed in the 1814 directory.
This was called the decimal or block system.

Wilmington in 1875.

By 1875 Wilmington had grown to a community of 35,000 persons. Joshua L. Simms was the mayor and there were ten wards, two councilmen being chosen from each instead of the three mentioned in 1845. The city then had a Chief of Police, two special policemen, two sergeants, one for the Western and one for the Eastern districts, and 18 policemen, three for each of six districts. They were appointed by the mayor.

There were 8 volunteer fire companies, 17 public schools, 4 daily newspapers; the Daily Commercial, at 5th & Market Streets; the Delaware Gazette, at 416 Market Street; Every Evening, 510 Market Street; Delaware Republican, at Third and King Streets. The Weekly Advertiser, the Delaware Pioneer, the Wayside, Delaware Tribune and Delaware State Journal were published weekly.

A stage route still ran to New Castle, leaving Grubbs Hotel at Front and Market Street daily. The steamer Felton left French Street wharf, one trip daily, to Philadelphia, stopping at Marcus Hook and Chester. Boats of the Wilmington Steamboat Company left Wilmington for New York, three days each week, returning the following day.

There were 4 national banks, one state bank, and 2 savings banks. Forty-two churches looked after the religious needs of the city. Five Baptists, 5 Catholic, 5 Episcopal, 9 Methodist, 2 Friends, 1 Lutheran, 1 Swedenborgian, 1 Unitarian and 6 colored.

Lodges and secret organizations flourished. The city directory of that date numbers many such fraternities, several pages being required to list them.

There were 37 lawyers, 4 auctioneers, 6 basket makers, 2 bell ringers and bill posters.

Three large market houses were located downtown, one at Second Street between Market and King; another at Third and King Streets and the third at Eighth and Orange Streets. Forty-two butchers had stalls in the first; twenty-three in the second and twenty-five in the third.

The manufacture of carriages and coaches flourished, the directory listing seventeen manufacturers; fifteen blacksmiths shod horses and repaired wagons; there were thirty-two hotels, and although the teaching of temperance and the formation of temperance societies had been encouraged since the city had come into existence, in 1875 there were 131 liquor and lager beer saloons doing business.

Those were the days when women wore long dresses and several petticoats. Seventy dressmakers are listed in the 1875 directory, and 42 dry goods stores catered to their needs. Seven firms sold sewing machines. There were eleven rag and junk dealers; seven persons engaged in the whitewashing business, four sold lamps and oils.

There were 21 music teachers. Of 49 physicians, 29 were Allopathic, 3 Electric, 10 Homeopathic, 6 Hygienic and one Indian. The Western Union Telegraph office was at 300 Market Street and the Atlantic and Pacific at Fourth and Market Streets.

Wilmington in 1890

The growth of the city had been so extensive during the decade of 1880-1890 that the newspapers of the day freely predicted that the census figures would show a population of at least 68, or 69 thousand. Estimated figures were 68,543, and the "city boosters" were chagrined to learn later that the actual count showed only 61,431.

Nevertheless it had been a fast-growing community, new streets had been opened, the city limits extended, rows upon rows of brick houses had been built to provide living quarters for the thousands of iron workers, car and shipbuilders that had come to the city. In the year 1889 alone 519 houses and other buildings had been erected.

There were then 25 public schools, 60 churches, an increase of 31 during the preceding decade. The value of real estate for assessment purposes had increased 10 millions of dollars - from 20 million to 30 million. Fire alarm boxes had been placed at strategic places and a test signal was sounded every morning at 9:00 A. M. (This was later changed to 8:45 to enable school children to arrive at their desks on time). The city now had 12 wards and one member was elected to Council from each. Members were paid according to the number of meetings, regular and committee, they attended. During the month of December, 1889, some of the members attended as many as 36 meetings. Austin Harrington was mayor. Nineteen letter-carriers were employed to provide satisfactory postal service, and the post office opened at 6:30 A. M. for all business.

There were 117 boarding houses listed in the 1890 directory, and 32 hotels did a flourishing business. Saloons had increased to 147, and one man advertised that he sold typewriters and did typewriting.

The making of milady's garments still remained an arduous task and 234 women were engaged in that business. Dry-goods stores had increased to 122. There were even four ladies hairdressers, and three persons dealt in human hair. Eight stores sold ice cream. Although there were 17 undertakers (cabinet-makers) there were also three layers-out-of-the-dead. There was one oculist and five opticians; twenty-seven milliners, 59 lawyers, and 11 artists.

There were 13 harness and saddle makers, 9 hay and straw dealers.

Foo Laon, Ham Loo, Hing Hong, Lee Ho, Key Wah, Lee Hing, Lee Ho, Lee Hop, Lee John, Lee Sing, Lee Lue, Lee Tom, Quong Sing, Sing Sam and Wah Hong took care of the heavily starched stiff bosom shirts, removable cuffs and collars of the thousands of workers.

There were four daily newspapers and two Sunday papers. Five weekly and monthly publications were in existence.

The new fangled telephones were beginning to be used and the Delaware and Atlantic Tel. and Tel. Company had its exchange at Fourth and Market Streets. People were beginning to "take" to the electric trolley cars, although the overhead wires which were beginning to appear throughout the city were the objects of complaints. An editorial in the Every Evening in 1890, remarked, "The overhead wire nuisance still continues but there are indications that its days are numbered.

The financial depression of 1893 marked a reaction in the development of the city, but the turn of the century witnessed its industries operating at full capacity, rolling mills, iron foundries, shipyards, car building establishment and many others employing thousands of workers. Its growth continued until 1921 when the depression of that year again caused a halt, and was the beginning of a transformation, which excepting the World War years, has completely changed the completion of the city from one primarily industrial to one that is a mixture of industry, the professions and trade.

The 1930 census shows that 47,270 persons were gainfully employed. Of these less than 25%, or 11,500 earned their living in industry proper. Domestic and personal service accounted for approximately 6,000, 5,500 were employed as clerks, agents, stenographers, bookkeepers, etc. The classifications of major importance were as follows:

Total gainfully employed	47,270
Industry	11,500
Domestic and personal service	6,000
Clerical	5,500
Agricultural	588
Transportation, water and rail	3,586
Road and street work	1,328
Trade, wholesale and retail	6,805
Public Service	1,170
Professional service	3,503
Foremen and overseers, managers and officials	1,187
Contractors and others affiliated with bldg. trade	4,554
Printing	562
Miscellaneous	1,187.

POPULATION - Wilmington.

At the time the borough charter was granted to Wulmington in 1739 the population was estimated as 610. In 1775, thirty six years later, the population was stated to be 1,229. The first national census in 1790, showed a population of 2,335. During the next fifty years, the community grew slowly the figures for 1840 being 8,369.

From this year on. the city showed remarkable growth. During the decade of 1840-1850 nearly 5,000 inhabitants came into the community, the figures for 1850 being 13,979. A further growth of more than 7,000 was made in the next decade, a similar growth continuing until 1920, as will be noted by the following table:

185013,979
186021,258
187130,841
188042,478
189061,431.
190076,508
191087,411
1920110,168
1930107,597.

George Donald Crowe
April 5, 1938

(4p.)

corrected May '38. 261 Higgins
Toms -
Buckner

THE SHORT LINE

Short Line buses from Philadelphia enter Delaware on State Highway #13 near Naaman's, and continue on this route to Wilmington and Dover. Thence on State 113 to Milford, State 14 and State 5 to Milton and Harbeson, State 18 to Lewes. Thence by secondary road known as the "back road" to junction with State 14, then by State 14 to Rehoboth Beach.

RED STAR LINE

From West Chester, Pennsylvania, Short Line buses follow State 202 to Wilmington. From Kennett Square, Pennsylvania, one branch of the Short Line follows State 52 and another, State 48 to Wilmington.

Red Star buses from Philadelphia follow State 13 from Naaman's to Odessa, via Wilmington, State 4 to Middletown, State 71 to junction with 13 near Blackbird, thence by 13 to Harrington, Bridgeville, Seaford, Delmar, and on to Salisbury, Maryland. At Bridgeville, connections may be made with other Red Star buses for Cambridge and points in Maryland via State 18 in Delaware.

In the early part of June 1938, the Red Star Line proposes to run buses between Rehoboth Beach, Delaware and Matapeak, Maryland. The route followed from Rehoboth Beach will be, State 14 to junction with State 18. State 18 to junction with State 5 at Harbeson. State 5 via Milton to junction with State 14 near Waple's Pond. State 14 via Milford and Harrington to the Maryland Line. Thence by Maryland Highways to Matapeak.

GREYHOUND LINE

Greyhound buses from Philadelphia to Baltimore, follow

State 13 from Naaman's to State Road Station via Wilmington.
Then State 40 to the Maryland Line.

INSERT

INSERT

Greyhound buses from Philadelphia to Norfolk, Va. follow
State 13 from Delaware State line near Naaman's, via Wil-
mington, Dover, Bridgeville, and leave the State at
Delmar.

to Selbyville, where connections may be made with MARYLAND-DELAWARE
STAGES, INC., for Pocomoke and other points in Maryland.

SAFEWAY TRAILWAYS.

State 13 from Naaman's to State Road Station via Wilmington.

State 40 from State Road Station to the Maryland line.

DIAMOND STATE BUS LINES. (Ardon Branch)

Washington street extension to Marsh Rd., west on Marsh Rd., to Forwood Crossroads. From Forwood Crossroads, east on Silverside Rd. to Veal Rd., east on Veal Rd. to Grubb's Rd., west on Grubb's to Faulk Rd., north on Faulk Rd. to Naaman's Rd., east on Naaman's Rd. to Marsh Rd., south on Marsh Rd. to Grubb's Rd., east on Grubb's Rd. to Veal Rd., west on Veal Rd. to Marsh Rd., south on Marsh Rd., to Washington street extension.

(Delaware City and Fort du Pont Branch).

State 13 to Tybout's Corner, east on Tybout's Corner Rd. to River Rd., south on River Rd., to Delaware City and Fort du Pont.

DELAWARE BUS COMPANY. (Newark Line).

Starting from Pennsylvania Railroad Station in Wilmington, buses on this line proceed north on French street to Eleventh, then west on Eleventh to Delaware Avenue, west on Delaware Avenue to Pennsylvania Avenue (State 52), west on Pennsylvania Avenue (State 52) to junction with Union street (State 2), south on Union street (State 2) to city line, thence by State 2 to Newark.

(Marshallton Line).

Following the same city streets and State highways as the Newark line, buses on this line terminate their south run at Marshallton and return to Wilmington by the same route. Alternate buses on this line leave State 2 at Price's Corner and follow the Greenbank (Work-house) Rd. to junction with Fibre Mill Rd., south on Fibre Mill Rd., to Marshallton and return the same route.

(Stanton Line)

One of the Marshallton buses ~~will~~ continues on from the present Marshallton terminus every hour to Stanton. The route ~~is~~ ^{is} over the Limestone Road. It does not affect the 20-minute basic Marshallton schedule or the Newark schedule.

(New Castle Line)

State 13 to Roger's Corner, east on Roger's Lane to River Rd., south on River Rd. to New Castle. Thence south on River Rd. to Dobbinsville and Deemer's Beach. Return via same route. Alternate buses on this line follow State 13 to Lander's Lane, east on Lander's Lane to River Rd., south on River Rd. to New Castle, Dobbinsville, and Deemer's Beach. Both return by same route.

(Wilmington, Chester, Darby, and Philadelphia Line)

From 5th and Market Streets in Wilmington, east on 5th to French, north on French to 16th., west on 16th. to Market, north on Market to State 13, State 13 to Pennsylvania State Line near Naaman's, and on to Chester, Darby, and Philadelphia via Pennsylvania highways. The same route is followed on the return or south run, except that when 5th and French streets in Wilmington is reached, the buses continue south to 4th street, ~~then west on 4th street~~, then west on 4th to Orange, north on Orange to 5th., east on 5th to Market Street, (the end of the line).

LOCATION - Statewide

Submitted by - Kenneth A. Horner

Date - February 4, 1936.

Laws regarding Highway Traffic.

The motor vehicle laws of the State of Delaware have been enacted to protect the lives of citizens and others who use the roads, to prevent accidents and safeguard pedestrians as well as car drivers. They are not drastic and anyone using due caution and courtesy will have no trouble driving in the State.

Delaware laws differ in some regards from those of other States, and all drivers who intend to remain in Delaware for any length of time should familiarize himself with the laws by securing a copy from the State Highway Department, located at Fourteenth and Market Streets in Wilmington, in Dover, at the State House, and in Georgetown in the Highway Building. Copies may also be obtained from any of the Police Departments on the highways.

Delaware laws do not permit the overtaking and passing of vehicles on the right, or trolley cars on the left. "Stop" signs must be fully observed and a full stop must be made when entering a through highway from any side road or lane. Otherwise the Delaware laws are very similar to those of other States. Non-residents may use their cars in the State for a period of thirty days without securing a Delaware license.

The following brief summary of the laws may be found helpful to non-resident drivers as well as those of locally owned cars:

Vehicles approaching from the right have the right of way.

Vehicles approaching a Stop-Intersection or Thru-Traffic-Stop Highway must be brought to a complete stop and shall yield the right of way to all vehicles approaching in either direction.

Pass to the left of automobiles - to the right of trolley cars - making certain of an assured clear distance ahead; signal the following driver, if any; give audible warning with the horn to operator of the overtaken vehicle, pass at a safe distance to the left. Do not pass when approaching the crest of a grade, except on dual, one-way roads, or on a curve except where an unobstructed view of the highway exists for a distance of at least 500 feet.

When being passed by a vehicle, give way to the right. Do not increase speed until passing has been completed by the overtaking vehicle.

Pass street cars only when they are in motion. When car stops to discharge or take on passengers, stop at least ten feet to the rear. At safety zones cars may proceed past trolley cars at a speed not greater than 10 miles per hour, with due regard for the safety of passengers.

Police and fire department cars and ambulances have the right of the highway.

All other cars shall drive to the right hand edge or curb of the highway and remain there until such approaching vehicle shall have passed.

Do not leave the scene of an accident. Stop, give name and address to the driver or occupants of the car collided with, render any assistance to injured persons within reason and within 24 hours report the accident to the nearest Highway Police Station; or in Wilmington to the Department of Public Safety.

All cars must be equipped with good brakes, lights, horn, mirror muffler, windshield wiper. Tires and steering-gear must be in good condition.

Speed Limits.

25 miles in cities and towns; 45 miles on roads. However, the rate of speed shall not be greater than is reasonably proper, having regard to the use of the street or highway, weather conditions, weight of vehicle, condition of brakes, etc. Operating a vehicle with disregard for the rights or safety of others as to endanger life or property is considered "reckless driving" and is subject to fine or imprisonment.

Lights:

Two white head lights and one rear red light for motor vehicles and one white head light and one red rear light for motorcycles, are minimum. Side lights on trucks and busses are green.

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Registration card should be in possession of the person operating the card.

License plates must not be transferred from one car to another without approval of the Motor Vehicle Department.

Operators licenses will not be issued to an epileptic, to a person under 16 years of age; to the insane, to a person unable to operate a car because of some physical disability, or to an habitual drunkard.

Persons over 75 years of age must take an examination every year.

Licenses for cars expire December 31, of each year, operators' and chauffeurs' licenses expire on the last day of February.

A Stop Sign means "stop."

No person shall be permitted to operate a car without a driver's license. Before being granted a license, applicant must pass an examination, which is held at the direction of the Commissioner of Vehicles and given by employees of the Motor Vehicle Department.

Motor Vehicle Laws - Trucks.

Size of Vehicles and Loads

No vehicle, including load, shall exceed eight feet in width, excepting farm tractors which may have a width of nine feet, or exceed a height, with load, of more than 12 feet 2 inches. The length of a single vehicle shall not exceed thirty-three feet, and a combination of vehicles, coupled together, shall not exceed sixty feet.

Solid-tire vehicles, including load, shall not exceed 22,000 pounds. pneumatic-tired vehicles shall not exceed, including load, 26,000 pounds for four-wheeled vehicles, or 36,000 pounds for six wheeled vehicles. Trucks or tractors with semi-trailer are limited to a combined gross weight of 40,000 pounds.

Loads are limited to 700 pounds per inch in width of tire, measured between the flanges for solid tires and greatest width of casing for pneumatic tires. Vehicles are limited to an axle load of 16,000 pounds, except that four-wheel vehicles and semi-trailers equipped with penumatic tires may have an axle load of 18,000 pounds. It is lawful, however, for a vehicle equipped with power brakes to contain a gross weight of not more than 38,000 pounds.

No trailer shall have a carrying capacity of more than 10,000 pounds and the combined weight of trailer and load shall not exceed 22,000 pounds.

Any uniformed police officer may require that vehicles be weighed.

Passenger vehicles shall not carry any load extending beyond the line of fenders on the left, or more than six inches beyond the line of the fenders on the right.

Permits to operate a ~~vehicle~~ of greater loads than those specified above may be secured in special cases from the State Highway Department, or local authorities in their respective jurisdictions.

The Highway Department is permitted to restrict the use of roads and weights of vehicles for certain periods, when in their opinion deterioration of roads, by rain, snow or other climatic conditions may result.

Coasting is prohibited at all times.

Speed Limits for Trucks.

The maximum speed allowed when a trailer is not equipped with brakes operated by the driver is ten miles per hour if the trailer or semi-trailer exceeds 4,000 pounds in weight. Commercial vehicles not equipped with pneumatic tires must not exceed twenty miles per hour, and eight miles on any movable bridge.

Commercial vehicles with gross weight varying from 6,000 to 24,000 pounds are allowed a speed of 40 to 25 miles per hour, the speed decreasing as the gross load weight increases. In towns the same vehicles are permitted to travel 20 to 15 miles per hour.

Flares or signal lights at night

A flare or signal light shall be placed at a distance of approximately 100 feet at the front and at the rear, and a third light shall be placed on the roadway side of vehicles, when for any reason a truck or motor bus is stopped on the highway at night.

Clearance Lights

Additional lights must be placed on motor vehicles of excess length or width to serve as a warning that such vehicles should be approached with caution. On vehicles exceeding 33 feet in length, green lights should be placed on the sides at intervals of ten feet beginning at the front part of the body or such truck or trailer. Vehicles exceeding 80 inches in width at any part shall display one white light on each side at the front, visible from a distance of

500 feet, and one red light on each side visible
from the same distance.

Motor Vehicle Laws of the State of Delaware, 1935

Dover, Delaware.

Morning News, 2/26/1936:

"ANOTHER FIRST FOR DELAWARE

"Once more Delaware has scored against all the other states in the Union.

"This time it has to do with the free ~~treatment~~ of care and treatment of all men, women, and children *** who have been injured on the Delaware highways.

"No other state is similarly equipped. Every police station is an emergency hospital. Every state highway truck *** are ~~equipped~~ mobile first aid stations, subject to public call at any time and in any place where they may be encountered.

"Those trucks carry with them full equipment for dealing with emergency cases. The men employed on the trucks are certified as first aid emergency workers. ***

"In addition 35 members of the state highway police force have been granted first aid certificates after having taken the prescribed courses and passed the tests.

"All this has been brought about by hearty cooperation between the State Highway Department and Delaware Chapter of American Red Cross."

Hanslett

274 State Indus.
Transportation
Highways

THE STATE HIGH DEPARTMENT, Tenth & King, stated that the State Department has no control of property outside its right of way. The chief of the Wilmington Office said that any sign board erected within the right of way is taken down immediately upon discovery. There is no law in effect that empowers the Highway Department to purchase the land upon which any bill boards may display any advertisements - objectionable or otherwise. It is possible that such a bill may have reached the Assembly calendar but he said it never passed - has never been enforced. In fact there is no such provision on the list governing the conduct of the State Highway Department.

Hauslett

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Year 1929.

State Drawer
Transportation: Highways

Laws of Delaware

5759. Sec. 40. Timber Lands Adjacent to Highways; Purchase of; Payment: The Department is hereby invested with full power and authority to acquire for the State, by gift, devise, grant or purchase, for public use, timberlands adjacent to highways in this State, as now existing or as hereafter laid out or constructed, as may be determined by the Department, or its successors in power, the land so to be acquired to lie within a line parallel to and not exceeding five hundred feet from the center line of any such highway.

The said timberlands, when acquired shall become a part of the State Highway system of this State and shall be under the supervision and control of said Department, or such other body as may succeed the said State Highway Department.

NEW CASTLE AND FRENCHTOWN RAILROAD

Submitted by: Margaret Moor

An act was passed in the December session 1827, to authorized the New Castle and Frenchtown Turnpike Company to make a railroad from Frenchtown on the Elk River, to the Delaware line in a direction towards New Castle.

The President and Managers shall provide for an open book to receive subscriptions for such increase to the capital, stock of the said Company, in shares of twenty-five dollars each. The limit to be subscribed for was two hundred thousand dollars.

The rates of tolls: not exceeding three cents per ton per mile, for the transportation of passengers, not more than twenty-five cents each for the whole distance, including customary baggage, not exceeding one hundred pounds weight for each, for transporting the whole distance any trunk, box, bale, basket or package, not being the baggage or part of the baggage of a passenger, and not exceeding one hundred pounds weight, twelve and a half cents.

In 1833 - Tolls - For every passenger, including customary baggage, not exceeding one hundred pounds, ten cents per mile.

For dry goods ect. six cents per cubic foot

For flour, fifteen cents per barrel.

For coffee, twenty " " " and fifteen per bag.

For figs, five " " "

For indigo, seventy-five " box

For lemons, or oranges, large or round top box, 20¢.

For paper, ten cents per ream.

For raisins, four cents per box, and twelve cents per keg.

For segara, six centax per box

For wood, one dollar per cord

For wood-ware, sixteen cents per dozen pieces

For specis, at the rate of fifty cents for every thousand dollars in value.

For all other articles not before mentioned, one cent per mile for every hundred pounds, etc.

LOCATION - Delaware

Submitted by: Jerry Sweeney

Date: June 29, 1936

Subject: Roads

Like all other colonists in America the earliest settlers in Delaware chose to establish themselves near navigable waters. Thus they were less exposed to attack by the Indians and better able to receive the new colonists and supplies as they arrived from Europe. Furthermore for thirty-three years after a permanent settlement had been established all transportation had been effected chiefly by means of waterways and to a small extent by means of trails or pathways.

Conception of the geography of the country was vague among the early writers and names were changeable but there is evidence that before the arrival of the Europeans four Indian trails ran through this territory. One extended from the present site of Lewes, where the Dutch made their first settlement, northwest across the peninsula to the Chesapeake. Another ran across from the site of the present Odessa, on the Appoquinimink Creek, to some upper arm of the Chesapeake. A third trail lay between the Susquehanna River and Christiana Creek, and it was known as the Minquas Road when Governor Printz of the Swedish settlement, Christiana, now Wilmington, reported to Sweden that he had built trading posts on it to catch the trade of the Minquas Indians. The fourth trail ran down along the western bank of the Delaware River from above Philadelphia to Christiana Creek.

The Dutch and Swedes followed these trails on their visits to the Indians in search of trade and soon after founding Fort Christiana the latter undoubtedly made pathways from there to Fort Casimir, New Castle, and the Swedish capital at Tinicum, now Chester. At least one is known to have been in existence between Forts Christiana and Casimir in 1655.

The first road in Delaware of which anything is now known was cleared in 1671 between Augustine Herman's plantation, Bohemia Manor, on the Bohemia River, Maryland, and the town of New Castle. It was proposed by residents of the plantation and one-half was cleared by them. The remainder was cleared by the people of Delaware on authority of the Governor, who agreed to the proposal that the undertaking should be divided between residents of both the plantation and Delaware. As this road was made without specifications it was little more than a path. Yet it was the first vehicular trade route across the peninsula.

Four years later, in 1675, the court of New Castle acknowledged the Governor's wish for highways through his domain by appointing overseers and ordering them to make a twelve-foot wide road from New Castle to Appoquinimink Creek via St. George's. The overseers were given authority to compel one male member of each family in the districts along the proposed road to work on the project under penalty. Nevertheless the road was not constructed at that time. The law concerning it is important inasmuch as it contained the first specification for the building of a road in Delaware.

In 1679 orders pertaining to roads which were not built in the prescribed time were incorporated by the court of New Castle in a law relating to a new system of projected highways. This law contained definite specifications for a uniform method of construction, namely: roads should be not less than ten feet wide, provided with necessary bridges, all trees and shrubs on the route should be cut at ground-level and removed, and trees on both sides of the finished roads should be marked every year. In addition the law provided for a fine of 1,000 pounds of tobacco to be imposed on the overseers if they failed to execute their part of the order between December and March, and any other resident who refused to work on a project as required by law was subject to a fine of 400 pounds of tobacco.

The roads as then laid out were to extend from the Boght, or present Bellevue, to Duck Creek, now Smyrna, via Christiana, Crane Hook, New Castle, Red Lion, St. George's and Appoquinimink; crossing Christiana River and Duck Creek, now Smyrna River, by means of bridges. There is evidence that they were completed soon afterwards for two years later the court appointed overseers to keep them in repair.

In 1680 the inhabitants of the central part of the State petitioned the Governor to establish a court at St. Jones' Creek, now Kent County, because the roads leading to the Hoerckill Court were impassible and dangerous. As a result the southern roads were gradually improved and connected with those of New Castle County. These routes

are vague, however, and as the court records were lost for a considerable period following 1691 little more can be learned of Delaware's roads until 1752, when an act of Assembly gave the justices of the Quarter Sessions responsibility for the making of roads, and specified that King's highways be forty feet wide, common roads thirty, and that all except ten feet of the total width of every road should be cleared. From that year until 1793 a Levy Court, consisting of the justices of the Quarter Sessions and eight members of the grand jury, established a number of new roads.

In 1761 the Assembly passed an act to legalize some roads which had been constructed as King's highways under the act of 1752. The highways thus legalized extended from Duck Creek, now Smyrna, to the southern State line via Dover and Lewes.

In the following year, 1762, the Assembly ordained that the following roads should be sixty feet wide and have a cleared width of forty feet: The road from the State line, near Naaman's, to the ford of Brandywine Creek-near the present Adams Street, Wilmington. Thence the road to Duck Creek, now Smyrna, via Christiana Ferry, New Castle, Red Lion, St. George's, Appoquinimink and Blackbird Bridges. Thence also the road to Blackbird Bridge via the northwesterly part of Wilmington, through Newport, Christiana Bridge and Red Lion. The same act provided for a highway from New Castle to Christiana Bridge.

The north and south roads through Kent and Sussex Counties were straightened in 1796 to form the old State Road,

which was the only highway extending through the entire length of the State prior to completion of the duPont Boulevard.

That the roads of Delaware were still very poor at the beginning of the nineteenth century was chiefly due to a lack of systematic construction and a lack of interest in roads on the part of the farmers, who were still the predominant class in the agricultural State. Even when the first revolutionary improvement of the road system, the establishment of turnpikes, was started in New Castle County the farmers fought the toll roads, although it is doubtful if without these privately owned and operated thoroughfares anything so good would have been undertaken publicly.

The Newport and Gap Turnpike was the first of its kind in Delaware. Having been proposed in 1807 by the State of Pennsylvania as part of a turnpike between Gap, Pennsylvania, and Newport, Delaware, it was authorized in the following year by the Delaware Legislature and constructed from Newport northwest to the State line.

The specifications of the Legislative act regarding this turnpike were the same as those of all ensuing acts, to wit: The road should not be more than one hundred feet wide and twenty feet of this should "be bedded with road-stone, gravel, clay or other proper material, compacted together a sufficient depth to make a solid foundation, and faced with ^{clay} ~~sally~~, gravel or stone, in such manner as to secure a firm and even surface, rising toward the middle by a gradual arch." Another clause provided that people whose travel on the turnpike was necessitated by attendance

at church services or funerals would not be required to pay tolls.

Soon a new system of roads radiated from Wilmington and New Castle into Pennsylvania and Maryland. The New Castle Turnpike, from New Castle to the present Hare's Corner, was completed in 1813 and shortly afterwards extended westwards to the State line in the direction of Frenchtown on the Elk River, Maryland. The Kennett Turnpike also was completed in 1813; the Lancaster Turnpike in 1817; the Concord Turnpike in 1818; the Wilmington and Christiana Turnpike, via Newport and Stanton, in 1821; and the Philadelphia Turnpike, from Wilmington to the State line via Claymont, was completed in 1823.

These turnpikes served their purpose well, and despite the coming of the railroad most of them were successfully operated by the chartered companies throughout the century - the Concord and the Philadelphia Turnpikes were still under private management in 1911, when they were acquired by the Levy Court of New Castle County and made free roads, and the Kennett Turnpike was still a toll road as late as 1919, when it was purchased by Pierre S. du Pont who paved it with concrete for the use of the public. Being a great improvement over the old system of roads they caused most of the traffic between Philadelphia and Baltimore to pass through Wilmington. Consequently the population of New Castle County increased until it almost equaled that of the much larger area of the two other counties.

Kent and Sussex lay off the beaten track and as the inhabitants thereof were opposed to spending much money on the construction of roads, the old State Road and its accessory branches were in almost the same condition in 1900 as when they were laid out.

In 1903 the State rendered its first financial aid to the counties for the making of roads, and provision was made for the appointment of a State highway commissioner in each county. Furthermore, county roads built with State aid had to be constructed upon agreement between the State highway commissioners and the Levy Court of each county as to location, materials, and other technical matters. A later State law required the appointment of a qualified road engineer for each county.

In New Castle County road supervisors were employed who were responsible to the engineer and a marked improvement of roads was effected. In Kent and Sussex Counties the Levy Courts still conducted road work through the old method of overseers, and even after county engineers were appointed little improvement was made.

Following the advent of the automobile there was a growing feeling in Delaware that some State-wide method of road improvement should be undertaken. This feeling cannot be attributed to any one person, but it had a very marked impetus from T. Coleman du Pont's persistent advocacy of better roads. Owing to the shape and position of the State it was obvious that the nucleus of any State-wide system should be a main trunk-line from the northern to the southern boundary. The Legislature was not yet prepared for such an extensive undertaking, however, so Mr. du Pont took the initiative by proposing to construct a modern highway from the northern to the southern boundary and present it to the State, if the latter would accept and maintain it.

The proposal was formally made to the Governor in February 1911. In the following month the General Assembly passed the Boulevard Corporation Act which authorized private citizens to incorporate for the purpose of building a state road, on condition that all, or any section not less than ten miles long, of such road should be turned over to the State for perpetual maintenance when completed.

Soon after the passage of this act the Dupont Boulevard Corporation was formed and work on a projected State-long highway was begun. At a cost of \$300,000, which was met by Mr. du Pont, a fourteen-foot wide paved highway was made from the southern State line, near Selbyville, to a point within six miles of Milford, the last section of which was completed and presented to the State in 1917.

The Federal Government passed a bill in 1916 which authorized the appropriation of Federal funds to aid the states in road building, and by this time state highway departments were efficiently handling the task of road construction in other states. The fact, together with the support given by the people of Sussex County to the new highway, the possibilities offered by the finished section thereof, and the need of modern highways which was created by the World War, prompted the General Assembly to establish a State Highway Department. This was done in 1917. Therefore the president of the Boulevard Corporation, Mr. du Pont, fearing that the highway he had projected would not be in accord with the plans of the newly created department, formally proposed to stop construction and let the State Highway Department complete the remainder of the projected highway at his expense under the following conditions:

the department should construct the highway over the remaining six miles northwards to Milford under the same specifications as were used for the completed part, and should also continue the trunk-line from Milford to Wilmington under its own plans. A third requirement was that the two preceding projects should be the first work of the department, but that was waived by Mr. du Pont after the declaration of war.

The proposal was accepted and the remainder of the du Pont Highway, or Boulevard, with its original width of sixteen feet was paved with concrete to Wilmington and paved with brick thence to the State line along the bed of the old Philadelphia Pike.

Thus in 1919 the fundamental trunk-line through the entire length of the State had been established, and with increased appropriations from both the State and Federal governments the State Highway Department proceeded rapidly with the road building program that now has resulted in a system of roads which are equal, if not superior, to those of any other state.

U. S. 13 from Dover ^{Southwards} southwards to the State line via Seaford, Laurel and Delmar was opened to traffic in 1923. It was then sixteen feet wide. ^{Ten Years} Ten years later a four-foot widening was completed, giving the highway its present width of twenty feet.

That part of the du Pont Highway north of Wilmington, U.S. 13, which is still commonly called the Philadelphia Pike, was paved with concrete to its present width of forty feet by 1929. The du Pont Highway, or Boulevard, or U.S. 13, from Wilmington to Dover via State Road, St. George's, Odessa, Blackbird and Smyrna is a paved dual road and was completed in its present

form by 1935.

On July 1, 1935 the State Highway Department secured control of all the county roads which had formerly been under the jurisdiction of the Levy Courts. Rapid progress continued on the paving of the lateral roads, including the dual highway U. S. 40 from State Road to the State line, in the direction of Elkton, Maryland. On December 31, 1935, out of a total 3,995 miles of public roads, there were 1,275-1/5 miles of modern highways in Delaware.

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Allen, James R.
6-24-36.

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RAILROADS IN DELAWARE

The history of railroads in Delaware had its beginning in December 1827, when the General Assembly of Maryland granted authority to the New Castle and Frenchtown Turnpike Company, - A Delaware Corporation chartered in 1811 - to build a railroad along or near the turnpike, and in February 7, 1829, a similar bill passed the Delaware Assembly, also increasing the capital stock to \$200,000, and changing the name to New Castle Turnpike Railroad Company. On January 16, 1830 the Delaware Assembly authorized the union of the New Castle Turnpike Railroad Company and the New Castle and Frenchtown Turnpike Railroad Company as the New Castle and Frenchtown Turnpike and Railroad Company.

The railroad which was seventeen miles long was built nearly parallel with the line of the pike, and terminated at a commodious wharf on Elk River below Frenchtown, and was completed in 1831. It was equipped with cars having a capacity for ten or twelve passengers, and drawn by one horse. The traveling time was one hour and thirty-five minutes including change of horses. Bear and Glasgow were relay stations.

EARLY DESIGN OF TRACK: The rails, according to Johnson's History of Cecil County," were placed about the same distance apart as modern rails, but instead of being placed on sleepers (cross ties) were placed upon blocks of stone ten to twelve inches square. These stones had holes drilled in them in which a wooden plug was inserted and upon these were laid wood rails twelve feet long. A flat piece of iron bent to an "L" shape was used to hold the track to the stones. A spike was driven through a hole in one end into the plug and through a hole in the other end into the rail. Pieces of flat iron were spiked on top the rail for

Scharf's
History
of Del.
1:426

Johnson's
History
of Cecil
County.
Chap. 25,
P. 426.
1881.

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Railroads in Delaware.

for protection. The stones were set about three feet apart. This construction served very well with the horse drawn coaches, but after locomotives were purchased and put into use this type of construction was undesirable and the entire track was relaid on wooden sleepers and the rails spiked to ~~the~~ the sleepers. It was said the locomotive jarred the plugs loose from the stones and caused the track to spread,

The locomotive was imported from England in late 1832 and put into service on the road, It was named "Delaware". After the first trip the time was reduced to one hour. Other locomotives were added to the rolling stock, and the novelty of steam as an advertising agent was exceedingly unsuccessful. The road continued in active operation for twenty years, in connection with a line of steam ships from Frenchtown to Baltimore.

WILMINGTON AND SUSQUEHANNA RAILROAD: This railroad company was chartered by the Delaware General Assembly January 18, 1832, with \$400,000 in capital stock to build a railroad from the Pennsylvania line through Wilmington to the Maryland line. The first meeting of the company was held in Wilmington, November 29, 1834 and the city of Wilmington appropriated \$300 towards a survey. A report of a survey by one William Stricklin showed the proposed twenty seven miles would cost \$525,000. The road was commenced on June 27, 1835 and on May 25, 1837 a trial excursion was given from Wilmington to the Susquehanna, and the road was formally opened on July 19th. On July 31st the first train ran through from Baltimore to Wilmington, being ferried over the Susquehanna. The Company's right-of-way from Wilmington to the Pennsylvania line which had been merely located, was ceded to the Philadelphia, Wilmington and Baltimore Railroad, November 11, 1837; the road was completed without delay, and opened to Wilmington on January 15, 1838, per-

charf's
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Railroads in Delaware

fecting an all rail route from the Schuylkill to Baltimore, excepting ferriage over the Susquehanna.

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424. The Philadelphia, Wilmington and Baltimore Railroad was chartered February 5, 1838, under Pennsylvania Laws, as a merger of four separate roads - being formed of the Baltimore and Port Deposit, the Delaware and Maryland, the Wilmington and Susquehanna, and the Philadelphia and Delaware County Companies, - all of which formed the route from Philadelphia to Baltimore.

The Baltimore and Port Deposit, and the Delaware and Maryland companies were chartered by the Maryland Legislature on March 5, and 14, 1832, respectively. The former road (capital one million dollars) to construct a railroad from Baltimore to some point on the Susquehanna River, and the latter (capital three million dollars) to construct a railroad from the Maryland Delaware line to the Susquehanna River. The Philadelphia and Delaware County Railroad was chartered by the Legislature of Pennsylvania, April 2, 1831, (capital two hundred thousand dollars) to construct a railroad from Philadelphia to the Delaware line.

The Philadelphia, Wilmington and Baltimore Railroad continued to operate as an independent road until 1881. During this time the road had acquired by purchase or lease practically all the railroads on the peninsula and in southern Pennsylvania. The Pennsylvania Railroad - after some difficulties with the Baltimore and Ohio Railroad which had used the road jointly between Baltimore and Philadelphia - purchased the majority of the stock in 1880, and on July 1, 1881, formally took possession of the road.

The roads leased or owned by the Philadelphia, Wilmington and Baltimore Company were as follows:-

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429 The New Castle and Frenchtown Railroad purchased controlling stock in 1839. The New Castle and Wilmington purchased in 1876.

The Delaware Railroad first leased May 4, 1855, for twenty-one years, and the lease renewed for a like period in 1876, and later renewed for ninety-nine years and four months on March 1, 1910.

The Newark and Delaware City road purchased in 1881, and the Newark and Pomeroy purchased the same year.

The Cambridge and Seaford road purchased in 1883, and the Delaware and Chesapeake and the Queen Anne and Kent roads leased the same year.

The Delaware, Maryland and Virginia as part of the lease of the Delaware Railroad, and comprised the Junction and Breakwater, the Breakwater and Frankford, and the Worchester railroad.

The Delaware Railroad was chartered by the General Assembly of Delaware, June 20, 1836, to build a railroad "from any point on or near the Wilmington and Susquehanna Railroad, or the New Castle and Frenchtown Railroad, to the southern line of the State, in a direction towards Cape Charles, with full power to construct lateral branches to Lewes, Seaford, or other points or places with the limits of the State of Delaware." A survey was made, but the enterprise failed because of lack of finances, and the charter was forfeited to the State. There was nothing done towards building of the road for several years.

Railroads in Delaware.

Special provisions in the First Charter of the Delaware Railroad.-

The first charter granted to the Delaware Railroad, by the Legislature, gave it many privileges not enjoyed by any other corporation before or since that time. Among some of the very liberal provisions are the following:

"That the company should be free and exempt from all manner of taxation for any stock, tolls or other property whatsoever, for a period of fifty years, from the passage of this Act."

The most ample and summary powers were given for condemning lands necessary for said railroad. On paying of damages assessed, the road became vested with the lands forever.

A further provision gave the corporation power to receive grants of land from persons for right-of-ways, and donors of the land would have an area adjoining the railroad - not greater than five times the amount given - forever free from taxation. But the company was given authority to determine how much land ought to be set apart under the claim.

The railroad became the owner of all lands ceded to it, and which was tax free for fifty years.

Section 21, of the charter, provided for defraying the expense of a reconnoissance and a survey of the best route for the railroad, and an estimate of its cost, with a full report to be published detailing the advantages of the road, and every expense preparatory to the actual organization of the company is borne by the State, even to the payment for the subscription books, and compensation of the agents employed to procure the stock.

The Twenty-Third section directed the State treasurer to subscribe for in behalf of the State, the sum of \$25,000 in the capital stock of the company.

It is said, that this charter confers benefits on this company which are unexampled in the history of public improvements in this country.

Bibliography: Delaware Register. August 1838 to Jan. 1839, page 80-81 by William Huffington, 1839.

A modified charter was revived in 1849, but nothing was done until 1852, when the State conditionally subscribed to five thousand shares of stock to be paid for out of the revenues derived from the New Castle and Frenchtown Railroad. The Company was organized

in May, 1852. In 1853, the Philadelphia, Wilmington and Baltimore Railroad became interested in the proposed road, and a re-organization was effected and three persons representing Philadelphia, Wilmington and Baltimore Railroad, and one representing the Wilmington and New Castle Railroad were added to the Board of Directors. Work was begun at once from a junction on the New Castle and Frenchtown Railroad and was completed, after considerable difficulties by high damage suits in New Castle County, to Middletown in August, 1855, and traffic was opened between Wilmington and Middletown by way of the Wilmington and New Castle Railroad and the New Castle and Frenchtown Railroad to the Junction of the Delaware road.

On May 4, 1855, the road was leased to the Philadelphia, Wilmington and Baltimore Company for twenty-one years, with option of renewal, afterwards consummated for a like period, at six percent on the capital stock and bonds and one half net profits over that amount. In January, 1856, the road was opened to Dover, and on December 11th. to Seaford. In 1856, the road was extended to Delmar to connect with the Eastern Shore Railroad from Delmar to Salisbury. In November 1856, the Philadelphia, Wilmington and Baltimore Company took formal possession under lease, and the Delmar extension became part of the lease.

The Treasurer's report for January 1857, showed that \$1,146,310 had been expended towards which subscriptions had been made as follows: - By the State \$170,000; by corporations, \$62,500; by citizens of Wilmington and New Castle County, \$27,725; by citizens of Kent County, \$44,750; by citizens of Sussex County \$35,875; by contractors \$10,000; and by citizens of other States \$6,525.

The Wilmington and New Castle Railroad was chartered by the Delaware Legislature, February 19, 1839, to build a railroad between Wilmington and New Castle. It was opened for traffic December 16, 1852,

charf's in connection with New Castle and Frenchtown Railroad. The
story year (1855) it was used in connection with the Delaware Railroad
ol. 1 for traffic between Wilmington and Middletown. It later became
.432 part of the Philadelphia, Wilmington and Baltimore Railroad.
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The depot for the Wilmington and New Castle Railroad was located south of the Christiana River on or near the property of the Warner Company. Passengers for the city and for the P. W. and B. Railroad were ferried across the river at a point near the foot of Shipley Street. The Depot was used jointly by the Wilmington and New Castle Railroad and the Wilmington and Western Railroad from 1872 to 1876. In the later year the Philadelphia, Wilmington and Baltimore Railroad purchased the Wilmington and New Castle Railroad and extended the line to a point on the Philadelphia, Wilmington and Baltimore Railroad west of Wilmington, which they called Delaware Junction. The depot on the southside was sold to the Wilmington and Western Railroad. Although the Wilmington and New Castle Railroad ran through seemingly level country, it had, however, very heavy grades; from Wilmington to the "Dyke" the elevation was 41 feet to the mile, and from the "Dyke" to New Castle the elevation was 30 feet to the mile. The road was rebuilt in 1899, many of the curves were eliminated, the heaviest grades were reduced, and in some places the track was entirely relocated and made necessary the removal of some of the depots along the line.

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The Junction and Breakwater Railroad was begun through legislative aid in 1865 and completed in 1869. The road extended from Harrington east to Milford thence south to Georgetown and easterly

to Lewes near the Breadwater, and later extended to Rehoboth.

In 1866, the Delaware road built a branch from Clayton to Smyrna, and from Townsend to the State line and after extended to Massey's Cross Roads, where it joined the Queen Anne and Kent Railroad, and in 1867, built a branch from Seaford to the State line to meet the Dorchester and Delaware road, and loaned the latter sufficient money to complete its road to Cambridge. In 1869, the Maryland and Delaware was completed from Clayton, Delaware to Easton, Md., and all the foregoing became part of the Delaware System.

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The Delaware and Chesapeake road, fifty-five miles from Clayton, Delaware to Oxford, Maryland was chartered May 10, 1854, as the Maryland and Delaware Company and completed in 1857.

The Queen Anne and Kent Railroad extends from Massey's Cross Roads to Centerville, Maryland, and was chartered March 8, 1856, and opened to traffic in August 1869.

The Cambridge and Seaford Road, twenty-seven miles from Oak Grove to Cambridge, Maryland was chartered as the Dorchester and Delaware Company, February 6, 1866.

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The Pomeroy and Newark Railroad from Delaware City to Pomeroy, Pa., was originally chartered in 1857, as the Delaware and Pennsylvania Railroad. The road was built soon after the Civil War, and operated by its stockholders until sold on foreclosure in 1879. The original road crosses the tracks of the Delaware road at Porters; The Pennsylvania and Baltimore and Ohio at Newark, and the old Baltimore Central division of the Pennsylvania R.R. at Chatham, Pa. It was re-organized in 1881 and operated by the Pennsylvania under lease until 1917. On September 29, 1928, passenger service was discontinued on the road between Newark and Pomeroy

and the Pennsylvania Company announced that the road would be used as a freight cut off between its main line at Pomeroy and the Peninsula and Baltimore Divisions. The passenger service was continued from Newark to Delaware City.

The Delaware Railroad Company was incorporated under the laws of Delaware and Maryland on January 23, 1899, as a consolidation of the Delaware Railroad, the Cambridge and Seaford Railroad, the Queen Anne and Kent Railroad and the Delaware and Chesapeake Railroad. The Company purchased the property of the Baltimore and Delaware Bay Railroad Company.

The Baltimore and Delaware Bay Railroad extended from Pierson's Cove, Delaware to Chestertown, Maryland, with a branch of ten miles, from Wooten Junction to Nicholas, Maryland. This line was a consolidation of the Smyrna and Delaware Bay Railroad, chartered and built in 1873, and the Kent County Railroad, chartered in 1867, and completed in 1870. The road was sold under foreclosure and re-organized in the interest of the Southern Railroad of New Jersey. In 1902, the property was purchased by the Delaware Railroad Company.

The Delaware, Maryland and Virginia Railroad Company was incorporated under the laws of Delaware, Maryland, and Virginia on May 31, 1883, as a consolidation of the Breakwater and Frankford Junction and Breakwater and the Worcester Railroad. On August 1, 1885, operations were begun by the Philadelphia, Wilmington, and Baltimore Company, as agents, the rental being net earnings. The rights and duties under lease were transferred to the Pennsylvania Railroad Company on January 1, 1918. January 1, 1921, an agreement was made for operation at cost. The road extends from Harrington to Rehoboth, Lewes to Frankford, and from Georgetown to Franklin City, Virginia, a total of ninety eight miles.

The Philadelphia, Baltimore and Washington Railroad Company was incorporated under the laws of Pennsylvania, Delaware and Maryland, September 15, 1916, as a consolidation of the Philadelphia, Baltimore and Washington Railroad (formed in 1902 by consolidation of the old Philadelphia, Wilmington and Baltimore Railroad and the Baltimore and Potomac Railroad, to which the South Chester Railroad was added in 1906) the Philadelphia and Baltimore Central Railroad, Elkton and Middletown Railroad, of Cecil County, and the Columbia and Port Deposit Railway companies. On March 1, 1910, it leased the entire property of the Delaware Railroad Company for ninety-nine years and four months rental being interest on bonds, 8% on stocks, taxes and expenses. On November 12, 1917, the Company acquired the property of the Chester Creek Railroad. On December 14, 1917, acquired the property of the Pomeroy and Newark Railroad, and on January 1, 1919, the property of the Baltimore and Sparrows' Point Railroad. The Company was formerly independently operated, but on January 1, 1918, was leased to the Pennsylvania Railroad for 999 years, at a fixed rental covering all interest on funded debt, taxes, organization expenses and 6% of the capital stock. All outstanding stock owned by the Pennsylvania Railroad and its Trust Fund. The lines of the Philadelphia, Baltimore and Washington Railroad Company on December 31, 1934 comprised 408 miles.

The Pennsylvania Railroad Company was incorporated April 13, 1846, under Pennsylvania Laws. The original line extended from Harrisburg to Pittsburgh. Many other lines have been acquired at various times in building up the system throughout Pennsylvania and adjoining States including Delaware, in which State it operates

a large portion of the railroad mileage.

The Maryland and Delaware Seacoast Railroad Company, was incorporated in Maryland, May 9, 1932 to acquire at foreclosure sale and operate properties of the former Maryland and Delaware Coast Railway Company (which had acquired its properties at sale of Maryland, Delaware and Virginia Railroad Company in 1924). The former road acquired its property on May 14, 1932.

The line extends from West Denton, Maryland to Lewes Delaware approximately 38 miles all in Caroline County, Maryland and Kent and Sussex County, Delaware. It connects with the Pennsylvania Railroad at Greenwood, Ellendale and Lewes, and with the Baltimore and Eastern at West Denton, Maryland for interchange of traffic. On August 16, 1934 the Interstate Commerce Commission authorized abandonment of the line of road between Greenwood and Ellendale, and between Milton and Lewes in Sussex County; and also authorized acquisition and operation of part of the line in Caroline County, Maryland, by the Baltimore and Eastern Railroad, and acquisition by Delaware, Maryland and Virginia Railroad, of part of the line in Sussex County, which will be operated by the Pennsylvania Railroad.

The area served is estimated to be 442 square miles, and more than 19,000 population. Principle industries in the area served are truck farming, canning and retailing. Values of properties connected with truck farming and canning have risen (from 1900 to 1930) 95% in Delaware and 103% in Maryland.

The Wilmington and Northern Railroad Company which extends from Wilmington to Birdsboro, Pa., with a branch to Reading, was a result of a consolidation of the Berks and Chester and Delaware and Pennsylvania Line Railroad Companies in 1866. It was opened from Wilmington to Birdsboro in 1870, and to Reading in 1874. In

1876, after absorbing the Baltimore, Philadelphia and New York Company was re-organized under title of Wilmington and Northern. The latter company was chartered under the laws of Delaware and Pennsylvania April 3, 1877 as a successor to the Wilmington and Reading Railroad Company. Leased to the Philadelphia and Reading Company for 999 years from February 1, 1900, at a yearly rental equivalent to the interest on the bonds, $3\frac{1}{2}$ percent in the capital stock, and \$1,000 for organization expense and taxes. Lease assumed by the Reading Company, December 31, 1923, upon merger of the Philadelphia and Reading Railroad. Line extends from Wilmington to High's Farm, Pa., and branches totaling 86 miles. In a modified plan of consolidation of eastern railroads, announced in July 1932, the Interstate Commerce Commission allocated the Reading Company to System No. 5. Baltimore and Ohio Railroad.

The Reading Company serves the manufacturing, mining and agricultural regions of New Jersey, Pennsylvania and Delaware. The Wilmington and Northern Railroad makes a direct line for shipping of anthracite from mines in Pennsylvania to Wilmington and tidewater points.

The Wilmington and Western Railroad was commenced on July 8, 1871, and the road was opened to traffic as far as Landenburg, Pa., in October 1872. The Wilmington and Western crosses the Christina River in the suburbs, then follows the valley of Red Clay Creek, past all its mills and local improvements, sends visitors to Brandywine Springs, and passes the birth place of the inventor, Oliver Evans. It passes through a very rich region, and is an artery for various mines and quarries.

The road was re-organized in February 22, 1877 as the Delaware Western Railroad, and acquired by the Baltimore and Philadelphia Railroad Company on January 31, 1883. It is now part of the Baltimore and Ohio System and is used only for freight service, passenger service having been suspended in 1934.

The Baltimore and Philadelphia Railroad was built by the Baltimore and Ohio Railroad Company to secure an independent road to New York. In 1880, the use of the Junction Railroad in Philadelphia, by the Baltimore and Ohio Railroad was denied, excepting under an arrangement that was not acceptable to that Company. The Company sought to purchase a controlling interest in the stock of the Philadelphia, Wilmington and Baltimore Railroad, and in February 1881, announcement was made to that effect. But the Pennsylvania Railroad, however, offered a higher figure for the stock and obtained a majority at 80 dollars per share.

The Philadelphia, Wilmington and Baltimore Railroad had been used jointly by the Pennsylvania and the Baltimore and Ohio Company prior to 1880. In order not to be at the merch of its powerful rival, the Baltimore and Ohio Company then decided to build a line of its own to Philadelphia where an outside connection to New York could be obtained by way of the Philadelphia and Reading and Bround Brook Roads. The Baltimore and Philadelphia Railroad was organized for this purpose on January 31, 1883, and was completed and opened to traffic on September 19, 1886, and is operated as the Philadelphia division of the Baltimore and Ohio Railroad Company. It parallels the Pennsylvania Railroad from Baltimore through Wilmington Philadelphia, and about a mile apart.

OUR RAILROAD MILEAGE:- The government has issued a report giving railroad statistics for all the States since 1860, in which Delaware mileage was as follows:

At the end of the year 1860, 127 miles; 1870,- 197 miles, 1880, 275 miles; 1890, 314.95 miles; and 1900, 348.62 miles.

The peach growing industry along the peninsular was a source of considerable revenue to the railroads, and in 1876, this class of freight aggregated 4,536,751 baskets, or 9,072 car loads.

Great improvements in farming were made about this time; gypsum or plaster of paris was coming into use as a fertilizer and was shipped to Wilmington from the coast of Maine. Clover and timothy took the place of the native grasses and wheat was cultivated in the place of rye and barley. The land about the town which had been unproductive was converted into fields of grain, and the hillsides were covered with sheep and cattle. The raising of sheep in particular, was an important industry, and under the stimulus given by the proprietors of the woolen mills, and the development of better transportation.

In the earlier times the bulk of freight traffic moved along the waterways and along these routes towns, as trading centers, began to spring up. When the territories some distance back from the rivers began to be pierced with railroad lines it opened up new areas that would possibly never have been developed and would have been penetrated only by a few pioneers, seeking solitude or in search of game.

The New Castle and Frenchtown Railroad was built with the view of having a connection between the Delaware River and the Chesapeake Bays but it had not been in operation long until it was demonstrated that the road was a contribution to a new era of prosperity.

The farmers along the route began to ship their products to the bay shore and Frenchtown and Delaware City became thriving trading points. Prior to the development of the railroad the farmer did not go to the towns any oftener than necessary because of the inconvenience, long distance, and time taken away from his work, but with a new system of transportation being developed in his community he could get his products to market and not neglect his farm operations. While this railroad was a crude affair, compared to modern times, it furnished the impetus that lead to railroad development in the State.

Wilmington had been developing very rapidly as a trading center because of its position on the rivers. The depth of the channels allowed most all crafts in service at that time to come to its wharves, but as vessels were being built larger and having deeper draft which made it impossible for some vessels to come to the city, its importance as a trading center began to wane, when about this time the railroads began to pierce the city and a new era of development and prosperity ensued.

"With the development of its (Wilmington) iron manufactures," says Harkness Magazine "The necessity of other connections became pressing and the Wilmington and Northern Railroad was opened in 1869 to the coal regions at Reading." This was an example of the importance of railroad facilities to the development of a city's industries, and adjunct to the city's prosperity. The long round-about way that coal had been shipped had increased the cost of the coal, and the resultant finished products, as well as retarding industry.

It took considerable time to acquaint the people with the advantages and necessity of the railroads. This is obviously portrayed in the endeavor to build the Delaware Railroad. It was chartered in 1832 but financial aid could not be obtained and therefore the project was abandoned and the charter forfeited. It was nearly twenty years later that an effort to built the road was terminated in success.

There was considerable contrast with the first adventure and the later successful attempt. In the former money could not be secured, while in the latter all stock was subscribed, and "within one half hour after the books were closed," according to "Scharf's History in Delaware," the stock was selling at four dollars per share above the purchase price."

The railroads while aiding development of the regions they penetrated, likewise, changed the environment of the districts and in some instances resulted in decline in importance of some towns and villages. An obvious example of railroads affecting the growth and decline of towns may be seen in the case of Odessa, an old and thriving town in Lower New Castle County. The town was formerly named "Cantwell's Bridge," but in 1855, on account of being a noted grain shipping point, the name was changed to Odessa, because of a leading Black Sea grain port by that name. "But endeavoring to shut out anything that would affect the American Odessa's preeminence, as a shipping port," says Bevan's "History of Delaware," "the villagers shut their eyes to the evolution of transportation. They refused to permit the railroad to pass through the village. So the steel road was diverted to Middletown; and to that place eventually went the traffic that formerly had been brought

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to the Wharves of Odessa. Thus the village became literally "The Deserted Village," that Goldsmith pictured so vividly. Its wharves rotted, and its business houses lost their bustle of business." New Castle, the first capital of the State and a terminus of the first railroad in the State, might have become the most important city of the State if it had developed the facilities that had been so generously placed at her disposal, but probably by lack of foresight it had let opportunity pass by un-noticed. Located as it is on the Delaware River, where piers could have been built to accommodate shipping, it would have been an ideal railroad center; when it was proposed to build a railroad lengthwise of the State the town would have been a proper northern terminus. It failed to develop its facilities, and the arteries of transportation passed through Wilmington from where short feeder lines were eventually constructed, and thus New Castle lost much of its early prominence. The railroad was later constructed into

evan New Castle but traffic of importance had found better facilities else
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The penetration of the railroads in the lower counties of the State not only opened that section of the State to better transportation facilities, but resulted in new settlements and increased population. In 1840 the population of Sussex County was 25,093, and in 1850 was but 25,936 an increase in population during the decade before the penetration of the railroads of only 843. In 1860 after completion of several railroads during the 50's the population was 29,615, an increase of 3,979 for the ten year period, or 3,136 over the decade prior to railroad facilities.

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LOCATION - Wilmington.

Submitted by - Jerry Sweeney,
Rewrite - Lucile Anderson.

Date - April 9, 1936.

ROADWAYS.

U. S. No. 13 is the most important of two national highways which connect with Wilmington. North of Wilmington, it is the Philadelphia Pike and South the duPont Boulevard. The Philadelphia Pike runs from the city line on north Market Street to Philadelphia. DuPont Boulevard runs from the city line at South Market St. ^{South} thru the state.

Northeast Boulevard runs through the eastern section of the city utilizing the Eleventh and Third Street bridges and Church Street to shut ^{off} heavy traffic off the principal streets. It comes in from the south off the duPont Boulevard at Rogers Corner and leaves the north city line at 36th Street, running along the Delaware River shore to Claymont where it connects with the Philadelphia Pike, US 13.

Concord Pike, U.S No. 202 goes from B. & O. Bridge over Concord Avenue north to West Chester, crossing US 1 near the state line.

Kennett Pike, State Highway No. 52, leaves Pennsylvania Avenue and Rising Sun Lane and goes northwest thru Centerville and across the state line to U S I.

Lancaster Pike, an improved county road, goes from Lancaster Avenue and Dupont Road, northwest through Hockessin to US I.

Lincoln Highway, State Highway No. 2, runs from southern end of Union Street thru Elsmere, Marshallton, and Newark, and continues south thru Elkton to Baltimore.

The Newport Road leaves the city at Ninth Avenue and Maryland Avenue and continues in a SW direction through Richardson Park, Newport and Stanton, to Christiana and Cooch's Bridge.

State Highway No. 48 and the road to New Castle begins at the first junction across Third Street bridge. No. 48 goes from east end of Christiana Avenue to the Marine Terminal and to the dock of the Wilmington, -Pennsgrove Ferry. New Castle road runs south ^{on} from New Castle Avenue to New Castle, *and on to St. Georges.*

LOCATION - - Delaware

Submitted by Jerry Sweeney,

Date July 24, 1936.

Reference
to State

HIGHWAYS

Like all other colonists in America the earliest settlers in Delaware chose to establish themselves near navigable waters. Thus they were less exposed to attack by the Indians and better able to receive the new colonists and supplies as they arrived from Europe. Furthermore, for thirty-three years after a permanent settlement had been established, transportation had been effected chiefly by means of waterways and to a small extent over trails and pathways.

Conception of the geography of the country was vague amongst the earliest writers and names were changeable, but there is evidence that before the arrival of the Europeans several Indian trails ran through this territory. One extended from the present site of Lewes, where the Dutch made their first settlement, northwest across the peninsula to the Chesapeake. Another ran across from the site of the present Odessa on Appoquinimink Creek to some upper arm of the Chesapeake. A third trail, called the Minquas Road, lay between the Susquehanna River and Christiana Creek which being joined by a trail running northward along the watershed of the peninsula from the Choptank River, Maryland, continued down stream along the creek to Fort Christina. A fifth trail ran along the western bank of the Delaware River from above Philadelphia to the Christiana.

The Dutch and Swedes followed these trails on their visits to the Indians in search of trade, and soon after founding Fort Christina the settlers are supposed to have made a pathway from there to the Swedish capital at Tinicum, now Essington, Pennsylvania. Forts Christina and Trinity, or Casimir, were connected by a pathway after their capture by the Dutch, in 1655.

The first road in Delaware, of which anything is now known, was cleared about 1671 between Augustine Herman's plantation, Bohemia Manor, on the Bohemia River, Maryland, and the town of New Castle. It was proposed by residents of the plantation and one half was cleared by them. The remainder was cleared by the people of Delaware in compliance with the order of their commander, Captain John Carr, who had the approval of Governor Lovelace for the undertaking. This primitive road was the first vehicular trade route across the peninsula.

The second official attempt to lay out public roads was made by the court of New Castle in 1675, in obedience to an order of Governor Andross. The court appointed an overseer and surveyors to make a twelve-foot wide roadway from New Castle to Appoquinimink Creek via St. George's, and gave the overseer authority to compel a male member of each family in the districts along the proposed road to work on the project under penalty. Nevertheless, the road was not made at that time. The law concerning it is important inasmuch as it contained the first specification for the building of a road in Delaware.

In 1679 orders pertaining to roads which were not built in the prescribed time were incorporated by the court of New Castle in a law relating to a new system of projected highways. This law contained definite specifications for a uniform method of construction, namely; roads should be not less than ten feet wide, provided with necessary bridges, all trees and shrubs on the routes should be cut at ground-level and removed, and trees on both sides of the finished roads should be marked every year. In addition, the law provided for a fine of 1,000 pounds of tobacco to be imposed on the overseers if they failed to execute their part of the order between December and March, and any other resident who refused to work on a project as required by law was subject to a fine of 400 pounds of tobacco.

The roads as then laid out were to extend from the Boght, or present Bellevue, to Duck Creek, now Smyrna, via Christiana, Crane Hook, New Castle, Red Lion, St. George's, and Appoquinimink; crossing Christiana River and Duck Creek by means of bridges. There is evidence that they were completed soon afterwards, since two years later the court appointed overseers to keep them in repair.

In 1680 the inhabitants of the central part of the State petitioned Governor Andross to establish a court at St. Jones' Creek, now Kent County, because the roads leading to the Hoerckill Court were impassible and dangerous. As a result, the southern roads were gradually improved and connected with those of New Castle County. Their routes are vague,

however, and as the court records were lost for a considerable period following 1681, little more can be learned of Delaware's roads until 1752, when an act of Assembly gave the justices of the Quarter Sessions responsibility for the making of roads, and specified that King's highways be forty feet wide, common roads thirty, and that all except ten feet of the total width of every road should be cleared. From that year until 1763 a Levy Court, consisting of the justices of the Quarter Sessions and eight members of the grand jury, established a number of new roads.

In 1761 the Assembly passed an act to legalize some roads which had been constructed as King's highways under the act of 1752. The highways thus legalized extended from Duck Creek, now Smyrna, to the southern State line via Dover and Lewes.

In the following year, 1762, the Assembly ordained that the following roads should be sixty feet wide and have a cleared width of forty feet; the road from the State line, near Hauman's, to the ford of Brandywine Creek-near the present Adams Street, Wilmington. Thence the road to Duck Creek, now Smyrna, via Christina Ferry, New Castle, Red Lion, St. George's, Appoquinimink and Blackbird Bridges. Thence also the road to Blackbird Bridge via the northwesterly part of Wilmington, through Newport, Christiana Bridge and Red Lion. The same act provided for a highway from New Castle to Christiana Bridge.

The north and south roads through Kent and Sussex Counties were straightened in 1796 to form the Old State Road,

which was the only highway extending through the entire length of the State prior to completion of the duPont Boulevard.

That the roads of Delaware were still very poor at the beginning of the nineteenth century was chiefly due to a lack of systematic construction and a lack of interest in roads on the part of the farmers, who were still the predominant class in the agricultural State. Even when the first revolutionary improvement of the road system, the establishment of turnpikes, was started in New Castle County the farmers fought the toll roads, although it is doubtful if without those privately owned and operated thoroughfares anything so good would have been undertaken publicly.

The Newport and Gap Turnpike was the first of its kind in Delaware. Having been proposed in 1807 by the State of Pennsylvania as part of a turnpike between Gap, Pennsylvania, and Newport, Delaware, it was authorized in the following year by the Delaware Legislature and constructed from Newport northwest to the State line.

The specifications of the act regarding this turnpike were the same as those of all ensuing acts, to wit: The road should not be more than one hundred feet wide and twenty feet of this should "be bedded with road-stone, gravel, clay or other proper material, compacted together a sufficient depth to make a solid foundation, and faced with clay, gravel or stone, in such manner as to secure a firm and even surface, rising toward the middle by a gradual arch." Another clause provided

that people whose travel on the turnpike was necessitated by attendance at church services and funerals would not be required to pay tolls.

Waterways were still the most practicable channels for the transportation of freight at that time and Newport, located on the navigable waters of the Christiana River, was the most convenient port to the fertile farms of Lancaster County, Pennsylvania. The Newport and Gap Turnpike met all the needs of the extensive wagon traffic which was then operating between these two points. Therefore widespread interest in that method of road construction was aroused, and soon afterwards a system of turnpikes radiated from Wilmington and New Castle into Pennsylvania and Maryland.

The New Castle Turnpike, from New Castle to the present Hare's Corner, was completed in 1813 and shortly afterwards extended westward to the State line in the direction of Frenchtown on the Elk River, Maryland. After the extension was completed, both sections were known as the New Castle and Frenchtown Turnpike. The Kennett Turnpike was also completed in 1813; the Lancaster Turnpike in 1817; the Concord Turnpike in 1818; the Wilmington and Christiana Turnpike, from Wilmington to the Northern State line via Claymont, was completed in 1823.

These turnpikes served their purpose well, and despite the coming of the railroad most of them were successfully operated by the chartered companies throughout the century--the Concord and Philadelphia Turnpikes were still under private management in 1911, when they were acquired by the

Levy Court of New Castle County and made free roads, and the Kennett Turnpike was a toll road as late as 1919, when it was purchased and paved with concrete for free public use by Pierre S^{du} Pont. Being a great improvement over the old system of roads, the turnpikes caused most of the traffic between Philadelphia and Baltimore to pass through Wilmington. The population of New Castle County increased until it almost equaled that of the much larger area of the two other counties.

Kent and Sussex lay off the beaten track and their inhabitants were opposed to spending much money on the construction of roads; therefore the old State Road and its accessory branches were in almost the same condition in 1900 as when they were first laid out.

State aid to the counties for road improvement was originated in 1903 by an act of the Legislature, and a State Highway Commissioner was appointed in each county. Clauses of this act provided that projects approved by both the State Highway Commissioner and the Levy Court of a particular county were ^{entitled to receive such amount} ~~receiving~~ of State aid, ^{as was} ~~while~~ available, ~~on~~ ^{on the} basis that the county concerned paid one-half the cost of such undertaking.

Four years later the Legislature passed another act to regulate methods of road improvement in New Castle County. Accordingly, a qualified engineer was appointed to fill the office of New Castle County Road Engineer, the office of overseer was abolished, and that of supervisor substituted. The supervisors were responsible to the engineer and a marked

improvement of roads resulted.

For several years afterwards the Levy Courts of Kent and Sussex Counties conducted road work through the centuries- old system of overseers, and even after county road engineers were appointed little improvement was made.

Following the advent of the automobile, there was a growing feeling in Delaware that some State-wide method of road improvement should be undertaken. This feeling cannot be attributed to any one person, but it had a very marked impetus from Coleman du Pont's persistent advocacy of better roads. Owing to the shape and position of the State it was obvious that the nucleus of any State-wide system should be a main trunk-line from the northern to the southern boundary. The Legislature was not prepared for such an extensive undertaking, however, so Mr. du Pont took the initiative by proposing to construct a modern highway through the entire length of Delaware, from the northern to the southern boundary and present it to the state, if the latter would accept and maintain it.

The proposal was formally made to the Governor in February, 1911. In the following month the General Assembly passed the Boulevard Corporation Act which authorized private citizens to incorporate for the purpose of building a state road, on condition that all, or any section not less than ten miles long, of such road should be turned over to the State for perpetual maintenance when completed.

Following the passage of this act the Dupont Boulevard

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Corporation was formed and work on a projected State-long highway was begun. At a cost of \$800,000. which was met by Mr. du Pont, a fourteen-foot wide paved concrete highway was made from the southern State line, near Selbyville, to the Apenzoller Farm, which is within six miles of Milford. This highway was completed and presented to the State in 1917.

The Federal Government passed a bill in 1916 which authorized the appropriation of Federal Funds to the States for road improvement, and by this time some state highway departments were efficiently handling the task of road construction. These facts, together with the support given by the people of Sussex County to the new highway, the possibilities offered by the finished section thereof, and the growing need of modern highways [which was created by the World War] prompted the General Assembly to establish a State Highway Department. This was done in 1917. Therefore, the president of the Boulevard Corporation, Mr. du Pont, ~~saying~~ desiring that the highway he had projected should not be in accord with the plans of the newly-created department, formally proposed to stop construction and let the State Highway Department complete the remainder of the projected highway at a cost to him not in excess of \$44,000. per mile under the following conditions: That the department should construct the highway over the remaining six miles northwards to Milford under the same specifications as were used in the completed part, and should continue the trunk-line thence to Wilmington under its own plans. Another requirement was that the two

preceding projects should be the first undertakings of the department, but that was waived by Mr. du Pont after the declaration of war.

The proposal was accepted and the State Highway Department began construction in the summer of 1918. Before the year closed the Philadelphia Pike from Wilmington to the northern State line had been paved with brick, and during the ensuing five years the remainder of the concrete du Pont Highway or Boulevard, was completed as was also the original concrete highway from Dover to the southern State line via Seaford, Laurel, and Delmar.

The highway or boulevard, which is named for Mr. du Pont cost him \$3,925,000. Its formal presentation to the State, on July 2, 1924, was marked by one of the most colorful ceremonies in the history of Delaware. In just consideration of its usefulness and cost it has been termed, "the most colossal gift of its kind in history."

The preceding highways provided the State with ^{main} ~~the~~ ~~trunk~~-lines and set a standard for future road construction. With increased appropriations from both the State and Federal governments, the State Highway Department proceeded rapidly with a road improvement program that now has given Delaware a system of modern highways which ranks as one of the finest in the country - - although the opposite was true twenty-five years ago.

Three sections of the original trunk-lines are now officially known as U.S.13, namely, the Philadelphia Pike

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File S-413

from the northern State line to Wilmington, the du Pont Highway or Boulevard from Wilmington to Dover, and the highway thence to the southern State line via Seaford, Laurel and Delmar. The remaining portion of the du Pont highway from Dover to the southern State line via Milford, Georgetown, and Selbyville is officially designated as US 113.

The first of the preceding sections of US 13 was extended by two concrete shoulders to its present width of forty-feet in 1918; the third sixteen-foot wide concrete section south of Dover was made four feet wider in 1933, and the transformation of the section, from Wilmington to Dover, into a splendid dual highway was completed in 1935.

On July 1, 1935, the State Highway Department took control of all the public county roads which had formerly been under the jurisdiction of the Levy Courts. Rapid progress continued on the concrete surfacing of the lateral roads, including the conversion of US 40 into a dual high-way, from State Road junction westward to the State line in the direction of Elkton, Maryland. On January 1, 1936, out of a total 3,849.9 miles of public roads 1,675 miles, or 43.5 per cent, had been improved. Although these figures seem to indicate that much improvement remains to be made, the modernized roads have been carefully located to serve the immediate needs of the three counties. In the meantime, Delaware is receiving more generous Federal aid for road improvement, the mileage of modern roads is being increased faster than ever before, and the tasks of avoiding railroad crossings and dangerous curves

goes on unabated.

The State Police patrol the highways of Delaware day and night, and render ordinary police service to all parts of the State except Wilmington. Since its organization, in 1923, this department has increased in personnel from five to sixty-four men. Its expenses are defrayed by the State Highway Department. Of the five police stations one is located on US 113 at Georgetown and the others on US 13 at Bridgeville, Dover, State Road, and Penny Hill, (just north of Wilmington), respectively. Through the co-operation of the Delaware Chapter of the American Red Cross and the Delaware Safety Council each of these police stations is equipped and manned as a first-aid station and each State highway patrolman is trained and equipped to render free first aid to all persons injured on the State highways.

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State - Y - awer
Transportation:
Highways

STATE HIGHWAYS AND BY WAYS
(Highways)

Probably the most notable feature of the "Diamond State", and the one longest remembered in the mind of the visitor, is the stretch after stretch of perfect highways extending in a veritable network throughout the State, and providing the motorist with a good road to almost anywhere he desires to go. There is also, probably, nothing more in the State of which the average Delawarean is more proud than the state-wide expanses of concrete upon which pass cars from all parts of the Americas.

The early roads, turning and twisting and oftentimes turning back upon themselves so that they might reach some important land owners' home which was not situated in the general direction of the road, are far-cries from the modern hard surfaced ones in which nearly all of the curved portions have been either deleted entirely or which sweep in a smooth path which is almost unrecognized by the driver as a turn. It is such a decided contrast between Delaware Highways of today and the often impassable roads and wagon paths of yesterday that comparison is a hopeless possibility, as well as a useless one.

Railroad crossings, long the most important fear of the highway patron of the United States, have been almost entirely eliminated.

Interest aroused in Delaware minds through a series of several, very tragic accidents from this point, has carried the citizens of the state to the point where they will not feel secure again until the last of these menaces are obliterated. As fast as money is available, the Highway Department is removing these sources of potential death, by constructing underpasses and overpasses, and any other means whereby the grade crossing is eliminated. The few main crossings as yet untreated are usually well protected with warning-light blinkers, conspicuous signs, or the conventional bell and crossing gates. It will be a matter of only a few years, at the present rate of elimination, before the grade crossing, where the steel rail crosses the concrete one, and whose occupants often argue disastrously for first rights, will be a thing of the past.

Delaware Highways have several noticeable features which never fail to draw comments and pleased exclamations from the users, and they are representative of the main ideas of safety, namely: - width, safety construction, lack of dangerous curves and unnecessary shifting of gears due to steep grades. Wide shoulders have been provided where ever possible so the motorist may park along the main thorough-fare in safety and be entirely off the concrete surfacing.

These networks of roads connect the main city of Wilmington with many of its distant neighbors making freight service by motor truck to places 150 miles and more distant, a daily occurrence.

There are several motor truck companies handling freight who maintain daily schedules to these distances.

Freight vehicles and their drivers have recently come into contact with the law because of several serious accidents on the highways in which the death toll was more than necessary, the accidents being caused by drivers who had been over worked, and were in too sleepy a condition to operate their charge. Legislation was immediately put into effect with the result that each driver of a freight vehicle was required to sleep two hours after each eight of driving, and no driver was permitted to handle a motor vehicle carrying freight more than sixteen hours in any twenty-four. The first day the law was in effect caused much wonderment among visiting drivers of pleasure cars to see many trucks pulled up at various points along the way of travel with the drivers of the trucks deep in sleep on the cushions or in the back of the truck. Since then, there has been little trouble from the sleepy driver.

Fine roads, placing the City of Wilmington within easy reach for agricultural residents have greatly enlarged one point of interest to the visitor from out of state, and that is the Public Curb Market. Farmers may come to the city twice a week, or even more, with ^{an ease never before realized, to display their wares} ~~an~~ sale. Every Wednesday and ^{and produce for} Saturday, and sometimes on Tuesdays and Fridays, farmers and families, big farmers and small, truck-patch farmers, travel miles unthought-of twenty-five, or even ten years ago, to King, Madison or Lincoln Street markets, to place their products before the eyes of the city people, where the average

Wilmington housewife may obtain for a reasonable price, any type of edible food being produced at that time in the State or Region. It is also possible, due directly to the good roads, for dealers to purchase fish at the fishing hamlets of Bowers or Little Creek at let us say four o'clock in the morning, almost as soon as they are caught, and be handing them to their customers and the waiting housewife as early as eight or nine o'clock in the very same morning. Delaware roads have made this possible, and new residents to the city marvel at these facilities for the procuring of food which native Delawareans accept as an every day occurrence.

Delaware has more hard surfaced road per square mile than any other state, the Highway Department having and maintaining more than 1,239 miles of trunk and connecting roadways. State improved roads radiate from the larger towns and villages, and every small village may now be reached by at least one good road, and often ^{by} more than one. No house in Delaware is situated more than four miles from a hard surfaced road. As far as the "First State" is concerned, the day of mile after mile of road marked "passable in fair weather", is very definitely left only as a point and subject ^{for} ~~as~~ reminiscences.

For the visitor and passer-by, the highways, both United States and State are extremely well marked and there will be little trouble experienced in finding his way about.

For the stranger who does get lost, there are State Police Stations, five of them, situated in such a manner, that at no time is the motorist more than twenty miles from the service of one of the stations, thus, beside being a source of informative help, the State Police also form an unusually protective body to the life and property of the agricultural population. There is an extensive patrol maintained of all state highways, and there is always police service available to all parts of the state at all hours of the day and night. It would have been years before safety on the roads of Delaware has reached its present peak had it not been for the attention devoted to it by members of the State Police and interested individuals and groups.

The average motorist may pass completely through the State from its northern to its southern boundaries in less than four driving hours, but the one who does this is missing much of the beauty of the Delaware country side and hospitality. Also the speedster who attempts to set a new record for the traversing of the state may be invited by one of the eagle-eyed, highway patrolmen to watch the executing of justice in the "First State" with himself as the chief participant. Information thus obtained may prove more costly than it is worth to the guilty one. However, lawful contacts with the members of the patrol will leave the individual with a very favorable impression. Every courtesy of the Police Department is freely given, and much additional help is given wherever necessary, often far beyond the so-called line of duty, leaving the inquirer with a real appreciation of the efforts of the upholders of law and order.

Therefore, if the motorist will occasionally see that his speedometer checks with one of the many roadside notices, and drive with a reasonable respect ~~for~~^{for} the rights of other users of the road, he will retain only the most pleasant memories of Delaware in connection with its roads.

In the year 1934, according to the records of the Highway Department, there were 69 deaths on the highways of the State, a decrease from 70 in 1933, and from 72 in 1932, which arouses hope that there may come a time in the near future when unnecessary deaths by the roadside may be reduced to an absolute minimum.

A few facts about the road system of Delaware have been included for the benefit of those interested in figures. According to the Annual Report of the State Highway Department of the State of Delaware to the end of the year 1934, the State could boast of a grand total of 1,239.23 miles of hard-surfaced roads. This makes a delightful comparison with the year 1915, when there were just 11.4 miles of hard road, and in 1930 with 825.98 miles of this type roadway. Comparing figures for the four-year period (1930-1934) an average of over 103.31 miles of new road have been constructed and placed under maintenance by the Highway Department each year. This is an item worthy of consideration when one considers the size of the State of Delaware.

During the past year or more there has been an intensified interest ^{shown} among the people owning property adjacent to the main highways, and various private and civic-minded individuals and groups, in the beautification of the roadways. State Forester W. S. Taber has placed the services of his department and the experts in it at the disposal of the State and its residents to advise and help plan improvements to the appearances of properties fronting on the main trunk roads. With this work on the part of the people and the help planned by the State, Delaware will also be in a position to claim first place for roadside beauty, along with its present claims for beautiful roads. An illustration of impressive beauty and charm may be found anywhere along the new dual highway from Wilmington to Dover. In the strips of ground between the two sections of road, there has been much done in the form of planting of trees and shrubs, sodding, planting of grass and grading. Constant care and co-operation, that ^{on} is usually helpful, from the highway users has kept this work in a good state and has left more time for the creating of better layouts elsewhere along the right of way, instead of necessitating the division of the workers for the purpose of repairing the damages wrought by thoughtless persons. A few striking instances of successful efforts to create a perfect reproduction of the "Highway Beautiful"

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may be seen at the following places in particular:-

U. S. Route #13, through Smyrna, the Lockerman Street extension to meet the Dover By-Pass on U. S. Route 113, at Dover, and the expanse of road between Dover and Smyrna on U. S. Route #13.

///

LOCATION: Statewide

State

Information from John H. Cosby,
Secretary of State Highway Department.
In reply to letter from Writers' Project, W.P.A.

Date - Replied June 20, 1936.

Paragraph 1: Yes, since July 1, 1935. The State Highway Department now is responsible for the maintenance of all the old county roads in New Castle, Kent and Sussex Counties.

Paragraph 2: The duPont Boulevard runs from Selbyville to the Pennsylvania Line, however, I assume that you refer to the dual road from Dover to Wilmington, the last section of which was completed in 1935. Both lanes are 20 feet wide.

Paragraph 3. The dual section of U.S. 40 is not completed. The specifications used on U.S. 40 and the duPont Boulevard, dual, were practically the same. The width of both lanes on U.S. 40 are twenty feet.

Paragraph 4: The width of the Philadelphia Pike is forty feet, the first section being built of brick in 1918. The concrete widening was completed in 1929. U.S. 13 from Dover to Delmar was completed in 1923, the first section was sixteen feet. In 1933 four foot widening was completed, making a total width now of twenty feet.

Paragraph 5: The total mileage of paved roads at the close of the year 1935 was 1273.2 miles.

Original of letter of query and reply in letter file.

Susquehanna Ice Once Used as Railroad Bed

HISTORIANS tell us that although there was railroad connection between Wilmington and Baltimore, as well as between Wilmington and Philadelphia, as early as 1837, the Susquehanna River was not bridged between the two sections of the railroad until 1866. Until the latter year passengers and freight were ferried across the river between Perryville and Havre de Grace.

It is a matter of record also that there was one year, 1852, when the ferry could not operate for several weeks because of the ice. The railroad management proved its resourcefulness by laying rails on the ice over which cars were hauled across the stream.

This program was followed regularly from Jan. 15 to Feb. 24, 1852. There was an interruption of two days in order to change the line of part of the track on the ice, perhaps for safety reasons. When a thaw began to develop the rails were taken up. A few days later the ice began to break and move down the river. It is probable that ferry service soon was resumed.

Historic Picture

Just how the ice railroad was utilized is shown in a large and rare etching of the scene which is one of the cherished historic relics owned by John H. Turner, Jr., of 2301 West Twelfth Street, Wil-

mington. The picture originally was owned by Mr. Turner's father, the late John H. Turner, a retail coal merchant, who kept it for many years in his office, which was on the south side of Water Street between King and French Streets. It is an enlightening portrayal of the operation of the unusual enterprise on the Susquehanna River.

The picture evidently was one of many issued subsequently by the Philadelphia, Wilmington and Baltimore Railroad Co., the name of which appears thereon. It shows the iron rails resting on the ice along curved lines. Cars are on the tracks, evidently being moved from one side of the river to the other side. The locomotive is some distance ahead of the cars. A long chain or cable connects the engine and cars. This arrangement avoided concentrating the weight of the train in one place. The ferryboat is seen in the distance ice locked in its slip.

Venture Was Safe

Descriptive notations under the picture give information showing how the project worked and giving an illuminating idea of the extent of its usefulness. The fact is noted that during the period in which the ice railroad was used "over 1,378 cars, loaded with mails, baggage and various kinds of merchandise" made the crossing and that "all passed over without injury to person or property."

Each of the cars was an eight-wheel vehicle. The locomotives were much

smaller than those of today but probably of regulation size for that period.

Nothing is said in the descriptive matter about passengers, but they evidently were carried in the same manner as freight. People can be seen as if they were walking from the cars after reaching the end of the ice rail line. Some others are shown on the ice on foot, indicating that they were walking. A large sleigh filled with people also is in the picture, evidently about to start across the river.

The combined weight of locomotive, cars, sleigh and people indicates that the ice was thick and firm.

The Bridge Project

The 1852 freeze may have hastened the bridge project. According to J. Thomas Scharf's history, efforts to obtain legislation to construct a bridge—obviously from the Maryland legislature—proved abortive until May 12, 1857, when the move was crowned with success. There was, however, a condition. That was that the railroad company build a branch line from Perryville to Port Deposit. When a bridge first was proposed Port Deposit was suggested as the terminal on the north side of the river. Perryville finally was decided upon.

The bridge was built in 1866, and during that year was placed in service. Prior to its completion it was partly wrecked by a wind storm. This caused some delay, not, however, of great moment.

A. O. H. G.

May 5, 1936

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Transportation

Mr. M. J. Myers
National Communications Asscn., Inc.
707 Twentieth St., N.W.
Washington, D. C.

Dear Sir:

Your letter of April 9th required considerable research work which is responsible for the delay.

We have found very little in the way of pictures of the New Castle and Frenchtown Turnpike and Railroad Company or of the Delaware and Chesapeake Canal of the same period.

The Chesapeake and Delaware Canal is, of course, still in use. It was made a sea level canal in 1927 and belongs to the U.S. government.

In 1854 the New Castle and Frenchtown Railroad united with the Delaware Railroad and the junction point was about half way between New Castle and Frenchtown. It is probably that the railroad was abandoned about that time. You can undoubtedly get a full history of all these railroads at the Bureau of Railway Economics in Washington.

There is no history of locomotive building in Delaware. Scattered references may be found to the building of locomotives by Bonney and Bush, Harlan and Hollingsworth and Betts Machine Company.

You may get information relating to the New Castle and Frenchtown Railroad in the following books, all of which ought to be found in the Library of Congress.

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Powell, Walter History of Delaware. 1928 p 367-70
Johnston, George. History of Cecil County, Md. 1881 p 425-28
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Pictorial Material

Much of this also ought to be in the Library of Congress.

Ancient view of canal, showing mule-drawn ship. Copy of an original drawing. in Sunday Star (Wilmington) Oct. 21, 1934.

Diving bell used when old canal was built. In Delaware Magazine (Wilmington) 1:47 June 1919.

Oliver Evans' Oruktor Amphibolos. In Keir, M. March of commerce p 30 (Pageant of America v.5)

Old Locks of the original canal. In Evening Journal (Wilmington) Feb.13, 1924.

Old stage coach. In Scharf, T. History of Delaware 1:422

Porter advertising passenger car service between New Castle and Frenchtown. June 1, 1833. Printed by Young of Philadelphia and illustrated by cut of two cars and a locomotive.

Ticket office of New Castle and Frenchtown R.R. at New Castle, built 1831, later used as crossing watchman's shelter and still standing. In Sunday Star (Wilmington) Nov.4, 1923 and Nov.23, 1930.

Monument built from the stone sleepers used on the old Frenchtown R.R. erected by Commissioners of New Castle Courthouse in 1915. In Sunday Star (Wilmington) June 21, 1931.

Types of cars built by local company in 1836 and 1840.
In Semi-centennial memoir of the Harlan and Hollingsworth Co., Wilmington. 1886 p 195, 195

Janvier's "Stories of Old New Castle" says "Cars of New Castle and Frenchtown R.R. were secured from Steevers of Baltimore". Scharf's "History of Delaware" says "they were designed by Imlay of Baltimore". There is a description of Imlay's cars given in Peale, L.T. History of the American locomotive. 1887 p 84-5. It corresponds to the picture on the Frenchtown poster and on the Philadelphia and Germantown R.R. poster illus. in the Harlan and Hollingsworth memoir. See also the illus. of cars of this period in Keir's "March of Commerce". 1927 p 110-111 and 130.

Passenger station at Wilmington showing incoming train, also engine house and machine shops at Wilmington.

Round house at Wilmington, erected 1876. In Brown, A.S. Guide book of P.W. & B.R.R. West Chester, Pa. 1877

Mr. Walter Bush of Wilmington has envelopes showing cuts of the old wood-burning locomotives, also a lithograph showing trains crossing on the ice at Perryville or Havre de Grace.

Very truly yours,

Arthur L. Bailey,
Librarian.

A HISTORY OF TRAVEL IN AMERICA

by Seymour Dunbar
4 Vols. (Vol.3 page 1028)

"The first brakes on the cars were identical in principle with those that had long been used on stage-coaches. They consisted of stout blocks of hardwood, brought in contact with the wheels by means of levers operated by foot power. On the Newcastle and Frenchtown road, in Pennsylvania, the prompt halting of its first steam train was achieved in a manner still more archaic than this. When the locomotive was approaching a point at which a stop was necessary the engineer then shut off the power and sent a signal down the track by permitting steam to escape from the safety valve. Whereupon the negro roustabouts at the station would rush forward, seize hold of the engine and train with their hands, lean backward and dig their heels into the earth, and the station agent would thrust a fence rail between the spokes of a locomotive wheel. In that manner they could bring the train to a pause within a few yards."

V.F.

Submitted by Donald Crowe.
January 25, 1937.

Transportation
Contemporary Scene

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New York, Philadelphia and Norfolk
Railroad Company.

Reference
to State
Folder: Trans. R.R.

Incorporated September 19, 1882; under the laws of Maryland and Virginia, as a consolidation of the Peninsula R. R. of Virginia and the Peninsula R. R. of Maryland. Controlled by Pennsylvania R. R. Co., through ownership of entire capital stock. The stockholders approved a lease of the property to the P. R. R. Co., effective from July 1, 1920, for 999 years, rental being equivalent to fixed charges, taxes and 12% on stock. Perishable freight constitutes the most important traffic originated on the line and non-perishables make up more than 75% of freight received from connections.

Owms 125.61 miles of track as follows: Delmar, Del., to Cape Charles, Va., 95 miles; Crisfield Branch, Kings Creek to Crisfield, Md., 17.00 miles; Cape Charles Branch, Cape Junction to Kiptopeke, Va., 9.57 miles; other tracks in Portsmouth, Norfolk and sidings, etc. Also operates New York, Philadelphia, and Norfolk, R. R. Ferry Co., which company has ferries operating over 36 miles of water line between Cape Charles and Norfolk, Va., and 24 miles between Cape Charles and Little Creek, Va.

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State Drawn
File No. 414

Location - Wilmington

Submitted by - John F. Cunningham

Date - January 30, 1936

(1c in lib. drawn
Transp. : R.R.)

RAILROAD STATION LOCATIONS

The Pennsylvania Railroad Station is located in the southern part of Wilmington, on the southeast corner of Front and French Streets. It is reached from the center of town (Rodney Square) by going south on Market Street for ten blocks, then turning left on Front Street for two blocks. Frequent ⁺trolley service makes the station quickly accessible to all parts of the city. From Rodney Square to the Station is ^{about} seven minutes by trolley; ^{about} 15 minutes on foot. The fare is 8¢ by trolley, 25¢ by taxi.

Over one hundred and twenty-five local and express passenger trains make stops here every twenty-four hours. For the benefit of the thousands of travelers and commuters who use this station, many facilities are provided. The Travelers' Aid Society has a branch here. There are two large news stands one having a light refreshment counter, serving hot coffee, soft drinks, sandwiches, cakes, etc. A large and well-appointed barber shop with three chairs is maintained; also a shoe shine parlor. There is a Western Union Telegraph Office and twelve public Bell Telephone Booths. A baggage transfer office is operated, also a baggage check room, and twenty-four steel lockers for checking parcels. The American Railway Express Company maintains an office and handling rooms, open twenty-four hours a day.

The waiting rooms and facilities of this station are also used by two bus lines, the Greyhound and the Red Star Lines. Also the buses of the Delaware Bus Company's branch running between the B. & O. station and the Marine Terminal (Penns Grove Ferry) make stops here. There is no Post Office substation in this station.

The Baltimore and Ohio Railroad Station is located in the northwest part of Wilmington in the central part of the Western residential section on Delaware Avenue at duPont Street. It is reached from Rodney Square by traveling west on Delaware Avenue for sixteen blocks. Frequent trolley service is maintained. Walking time from Rodney Square to this station is thirty minutes; by trolley, ten minutes. The trolley fare is 8¢, taxi fare 25¢. The Delaware Bus Company operates a bus service between the Baltimore and Ohio Railroad Station and the Penns Grove Ferry at the Marine Terminal. The buses leave the B. & O. station every hour at five minutes of the hour; the fare is ten cents. The route is via duPont Street to Front Street, then left past the Pennsylvania Railroad Station.

The Baltimore and Ohio Railroad station has the following facilities: Western Union Telegraph office, three Bell Telephone booths, news-stand, shoe-shine stand, taxicab stand, baggage check room, and American Railway Express office. There is no lunch room or refreshment stand in the station, but several restaurants are operated nearby on Delaware Avenue. There is no Post Office Substation nor Travelers' Aid Office in this station.

The Philadelphia and Reading Railway Station on Water Street near King is closed, since the Reading Company has discontinued passenger service into Wilmington.

Location - Wilmington

Submitted by - John F. Cunningham

Date - February 14, 1936

FREIGHT TERMINALSR. R.

Wilmington is served by three railroads: the Pennsylvania, the Baltimore and Ohio, and the Reading. These carriers, either directly with their own rails or through connecting lines, link Wilmington very closely with all the producing and consuming points in the country. They have in Wilmington, main tracks and sidings totaling 200 miles, serve 114 industrial private sidings, have storage capacity for 7,000 cars, and serve 35 public team tracks having storage capacity of 400 cars. Each road has classification yards adjacent to the port area, enabling them to handle freight traffic expeditiously. Reciprocal switching agreements in effect place all industrial sidings within the switching area on either of the railroad lines. Through such reciprocal switching, industries with private sidings, regardless of the railroad with which it connects, can ship directly over the three railroads serving Wilmington on the flat Wilmington rail rate without additional switching charges.

Four carloading corporations operate to and from Wilmington and many points in the country, consolidating less carload shipments into carloads, thereby saving time in transit and in many instances reducing freight charges. Rates charged for this service include store-door delivery and pick-up service.

Collection and delivery service is maintained by the Pennsylvania Railroad between Wilmington and all points on the Pennsylvania Railroad, and a number of points on connecting lines, as a permanent service.

The Reading Transportation Company, a coordinated truck service, operated in conjunction with the Reading Company, furnishes daily pick-up and delivery service between Wilmington, Philadelphia, and the Metropolitan District of New York, as well as numerous points on the Reading System.

The freight terminal of the Pennsylvania Railroad occupies the block between Third and Fourth and Pine and Spruce Streets. A branch is located at Front and Justison Streets.

The Reading Railroad freight terminal is at Market Street below Front. From this yard, a connection is maintained to a pier on the Delaware River, known as Pigeon Point Pier, from which daily carfloat service is operated to plants in New Jersey. The Reading Company also has a freight yard at Maryland Avenue and Monroe Streets.

The Baltimore and Ohio Railroad uses the freight terminal and yards at Market Street below Front in cooperation with the Reading Company.

The three railroads provide ample warehouses, loading platforms, and are equipped with cranes to handle large shipments.

Reference: An Industrial Survey of Wilmington by
Chamber of Commerce-Wilmington-1935

Our Early Railroads Changed Their Names

RECENTLY, in writing about changes in Wilmington's skyline during the period of my observance—and that covers a span of more than 60 years—I was reminded of another type of changes during the same period. In describing the three stations I have known at Front and French Streets I recalled that the railroad responsible for these stations has changed its name, as have also the other early railroads serving Wilmington.

The one whose center of local passenger transportation and administrative activity has been and still is at Water, Front and French Streets first was known as the Philadelphia, Wilmington and Baltimore Railroad. It passed to the control of the Pennsylvania Railroad and the name was changed to Philadelphia, Baltimore and Washington. It is referred to by the railroad people as the Maryland Division of the Pennsylvania System.

The Delaware Railroad, an affiliate of the P., W. & B., and operated as part of the Pennsylvania System, became known as the Delaware Division. It now is part of what is the Delmarva Division of the Pennsylvania System. The other part of the Delmarva Division, that is, the part from Delmar to Cape Charles, Va., formerly was known as the New York, Philadelphia and Norfolk Railroad.

Wilmington and Northern

As for the other railroads entering Wilmington the one originally named Wilmington and Northern, with Reading, Pa., as its northern terminus, is now part of the Reading (railroad) System, and its original name has been discarded.

The Wilmington and Northern Railroad was built and operated between Wilmington and Birdsboro, Pa., in 1870. Four years later it was extended to Reading, nine miles away.

Wilmington and Western

What originally was the Wilmington and Western Railroad, with Landenberg, Pa., as its northern terminus, later became the Delaware Western Railroad. It now is part of the Baltimore and Ohio System, its legal name being the Baltimore and Philadelphia Railroad. It was acquired by the Baltimore and Ohio Company in 1883 in connection with the building of the company's line from Baltimore to Philadelphia.

I have understood that when the Wilmington and Western Railroad project was proposed the hope was to

main station was at Water and King Streets.

For a long time the main passenger station of the Delaware Western Railroad was at Water and Market Streets.

Wabash Report

Some time ago it was reported that the Wabash Railroad Co. was considering a terminal on the Delaware River, probably near Wilmington. I made inquiry of the company at the time but was unable to obtain any authentic information that would confirm the rumor.

The story was widely circulated, however, and caused much speculation regarding the possibilities of such a venture.

Street Railways

Returning to the changing of names of transportation utilities, it may be of interest to note that when I first knew anything about our street car service the only system in operation was that of the Wilmington City Railway Co. The only line was on Delaware Avenue, Market and East Front Streets. It was, of course, a horse car line. At first it was a strictly local enterprise.

Subsequently the company was known as the Wilmington and Philadelphia Traction Co. It then operated the Wilmington and Chester railway systems and that line from Wilmington to Darby, where there was connection for Philadelphia via the Philadelphia Rapid Transit Co. system.

Long Trolley Ride

Incidentally, during much of the time while the Darby line was in service one could ride by trolley all the

way from Delaware City to Delaware Water Gap, Pa., via the Delaware River Valley route north from Doylestown, Pa. Most of the rural section of this delightful railway ride, as well as some of the urban part, is a thing of the past. Trolleys have been abandoned for other means of transportation.

In recent years what once was known as the Wilmington City Railway has undergone changes of name. During the waning period of the electric railroad it was known as the Delaware Electric Power Co. Now that trackless trolleys have replaced those which required rails the name has been changed to Delaware Coach Co.

The original West Front Street railway—that is, through the horse car era—was styled the Front and Union Street Railway. This name, of course, was discarded after the City Railway Co. took over the Front Street line and made it part of the trolley system.

When the West Eighth Street Railway was constructed it was known as the Fifth and Union Streets Railway. The western terminus was at Fifth and Union Streets, where there was a car barn.

The People's Railway Co., which had a network of lines in the city, was the outgrowth of the Wilmington and Brandywine Springs railway project, which began to function about the turn of the century. The system lost its identity about 25 years ago when it was taken over by the Wilmington and Philadelphia Traction Co.

A. O. H. G.

it a connection between the Delaware River and what was known as the West, presumably chiefly western Pennsylvania and contiguous territory.

Station Changes

It may be of interest to mention the fact that the first passenger station of the Wilmington and Northern Railroad was at the southeast corner of Front and Madison Streets. Subsequently the main station was at Water and French Streets, for several years in the United States Hotel building which then stood there and which was razed to make way for the Pennsylvania elevated line through the city.

The Wilmington and Northern had what were known as "way" stations at Madison Street and Sixth Avenue, which were convenient for commuters living near these stations. Later the

J. F. Pote,

February 15, 1937.

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Conner

The Dulany Railroad - This railroad which is eight miles in length, is now completed from Dulany Manor, on the lower edge of New Castle County, near the Maryland Line, to the Brick Store Landing, on Ducks Creek near the Smyrna Landing. It is of wood, and costs \$7000. It was built for Mr. Grafton L. Dulany, of Baltimore, by Mr. Benard. The money that built this railroad was fished from the wreck of the San Pedro, a Spanish man of war, that was wrecked with the Spanish military chest on board, some 60 or 70 years ago, in South America. Mr. Dulany being one of the principal stockholders in the vessel, fitted out from Baltimore for that purpose, which proved so successful.

The Dulany Manor contains about seven thousand acres, five thousand acres of which is woodland. It originally belonged to Major Dulany (the father of the present Grafton L. Dulany) a half pay British officer. David Stout, Esq., who was formerly judge of one of our courts, who is now between 80 and 90 years of age, when a young man, surveyed the Manor, and had large stones laid to mark its boundaries, which took twenty men to move. On each stone was cut "M.G.L.G.," which meant, "My Gracious, Lord's Gift." The manor was then a dense wilderness, only a few huts being seen, the best house there was built of clap boards and logs, with a chimney of loose stones and dirt, owned by Mr. Heverin, the father of the present Heverins, of Jones' Neck. A circumstance occurred there that was considered somewhat singular, there was a cow that was fattened entirely on acorns. She was killed and the meat proved remarkably yellow and sweet, at that time too, immense flocks of wild turkeys were constantly flying over. What a change is now presented in the appearance of that country.

(Blue Hen's Chicken. Dec. 10, 1847)

State House
Huron
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FIRST FOREST LAW

1654 (55) An Ordinance Concerning People, Land and Agriculture, Forestry and Cattle, Given in New Sweden in the year 1654 (1655) etc.

III - ^{Conserving} ~~Conserving~~ Forestry.

I. No one shall cut down, destroy or ruin on his own clearing, plantation or anywhere else any useful large fine tree or pine or oak tree, from which wainscot, planks or anything else useful can be made, unless he makes it known either to the governor or other person appointed for that purpose; in order that such trees, which are at this time the treasure of the country, may not be wasted but used for the best purpose. If he makes his intentions known in time and he is not supplied (with information) and ordered (what to do) by those whose business it is to see to it, he shall be without blame, etc.

2. Whoever manufacturers, cuts or saws, planks clapboards, timber, wainscot, or whatever wood material it may be, that can be exported manufactured, cut or sawed, he shall offer it, first to the company or the one owning the land, for a reasonable price and then he is free to try his best (to sell it elsewhere), etc.

Source: Lindestrom's Geographia America, Johnson.

J. i

Williams

Location - State Wide

Assigned to - Muriel B. Hull

Date - January 22, 1936

17C State Range
FloraTHE FORESTS OF DELAWARE

Of the 1,250,600 acres which comprise the State of Delaware, it is estimated that not more than 350,000 acres are still covered with forest growth. And of the original forest stands, the Brandywine Forest, on the Piedmont Plateau in Newcastle County, the Ellendale Forest in the Coastal area of southern Kent and Sussex County, and the Cedar or Cypress Swamps of southern Sussex County are the most arresting.

Delaware, while it possesses the least elevation above sea level, the highest point being about 440 feet, yet shows a surprising divergence in physical development, and even with the varying changes of time and civilization, it still produces a rich and varied fauna and flora. There is every indication that the State was originally heavily forested, for a very few venerable and decrepit trees, probably second growth of a remote virgin forest are still standing.

There are three distinguishable forest areas in the State, and three distinct types of growth indigenous to each. The hardwood area on the higher Piedmont Plateau is identical on the map with the Archean geologic formation. Not more than fifteen per cent of this area is still wooded. This wooded area is situated on steep slopes and along water courses in places difficult of agricultural development.

About one fourth of New Castle County lies on the Piedmont Plateau and the remainder in the Atlantic Coastal Plains. The largest portions of the woodland in the County, an estimated

area of about 40,000 acres, are on Chestnut and Iron Hills, near Newark, and in the southwestern part of the County from Townsend, Delaware, to Massey, Maryland, bordering the railroad branch. Another area of woodland lies between Kirkwood and Glasgow along the sources of the Belltown Run. Each of these form several hundred acres of continuous forest. Aside from these, there are no wooded tracts in the County over one hundred acres in size and the majority are less than twenty acres.

The remains of the Brandywine Forest, with some interruptions, borders the Brandywine Creek from within the city limits of Wilmington, to the Pennsylvania line, about seven miles. The strip of forest varies in width, the widest being about one mile. It follows the banks of the stream, and the hilltops and ravines of tributary streams, and covers the steep and rocky slopes, ranging in elevation above sea level of from twenty-five to four hundred and eight feet. Most of this wooded area has never been cleared. Very little cutting has been permitted for over fifty years, and virgin conditions are said to exist here more nearly than in any other section in the State. The principal variety of trees in this locality are oaks, chestnut, tulip poplar, beech, hickory, ash, maple and walnut.

On the Coastal Plain of the hardwood region there are few tracts of woodland over one hundred acres in extent. The principal growth of this region comprises tulip poplar, chestnut, white, red and black oaks, hickory and maple.

The Ellendale Forest is the largest densely forested area in the State. This extends south of Felton in Kent County and spreads over approximately 245,000 acres, covering much of Sussex County. While originally chiefly hardwood, there is now

considerable pine. The species vary from pine, or mixed pine and oak to hardwood, including oak, maple, tulip poplar. There is also sweet and sour gum and holly, with an undergrowth of magnolia, clethra, vaccinium, and dogwood.

In the far southern part of Sussex County, is the tidal basins bordering the Delaware River and Bay. Here are the sand dunes and salt marshes adjacent to the Atlantic Ocean and at the south central extremity is the large area covered by the "Cedar" or Cypress Swamps, famous for abundance of growth and inaccessibility.

Practically all of the forest growth in Delaware of importance is composed of second growth stands less than sixty years of age. The original stands of commercial value have long since been removed. Forest growth all over the State, excepting in portions of the extreme north, is very rapid and the trees reach a merchantable size at a comparatively early age. Very little pine is permitted to reach the age of fifty years and it is usually cut before it is forty.

LOCATION * - State wide.

Submitted by - Franklin Gote.

Date - June 10, 1936.

State Societies for Experimental
Purposes.

State Forest Tree Nursery.

The State Forest Tree Nursery situated on the Dupont Highway about five miles south of Milford has about one-half of its four acres devoted to the production of forest planting stock. Only a few citizens are taking advantage of the complete tax exemption for a period of thirty years, on reforested lands of five acres or more; though State-grown planting stock is offered at \$2.50 to \$5.00 per thousand trees.

Experiments are conducted in soil treatment and fertilizing. Endeavor to overcome diseases and insects that attack the trees is being rewarded with some degree of success.

On the north side of the Georgetown-Bridgeville Highway near Cokesbury Church a one hundred foot strip of woodland has been thinned and pruned under directions of State foresters, as a demonstration plot to show the improvement so easily obtained.

Delaware Agricultural Experiment Station.

By the Hatch Act of 1887, the Adams Act of 1906 and the Purnell Act of 1925, the Delaware Agricultural Experiment Station at the University of Delaware, receives \$90,000 annually, from Federal funds. State appropriations vary from year to year.

For forty-seven years farmers of the State have been afforded an ever increasing service of the highest caliber in the selection, planting, care and harvesting of their crops. Ten thousand farmers now take advantage of this service.

The station "is carrying on investigations in field crops, soils, plant diseases, animal diseases, animal production, fruit culture, vegetable culture, soil bacteriology, plant breeding, agricultural chemistry, the physiological reactions of plants, and agricultural economics."

A farm of two hundred acres was purchased April 8, 1907. It is just one mile south of the campus.

Some of the more significant accomplishments are:

1. Methods of the control of apple scab.
2. The use of crimson clover as a soil improver.
3. Home preparation of miscible oils used in the spraying of fruit trees.
4. Selection, variety testing, inoculation and fertilizer investigations in soybean culture.
5. Production of a successful vaccine for Anthrax disease.
6. The use of quickly available nitrogen for successful fruit culture in state orchards.
7. In sweet potato culture a high potassium fertilizer derived from muriate or sulphate of potash has been shown to increase yields about ten per cent and decrease storage rot about fifty per cent as compared to potassium fertilizers derived from Kanit or manure salts, which were commonly used.
8. Losses of from fifty to eighty percent have been avoided from diseases of cantaloupes, by dusting methods, and an improved quality of the product has resulted.
9. A spraying program for over wintering and dissemination of grape diseases.
10. Fundamental researches in jelly making.

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The Extension Department brings the Station in closer contact with the individuals.

Bibliography.

Annual Report of the State Forester, 1934, 37 pages.

Bulletin of the University of Delaware.
Vol. 29, New Series Number 1.1934 - 240 pp.

Wm. Conner, Article in ^{NINE} Every Journal on Agricultural
Experiment Station, University of Delaware.

Butler, G.
8-25-36

Lumber in New Castle Houses.

250

Many of the old houses in New Castle, were constructed entirely of local materials. The floors were usually side doubled, counter sunk and pegged down, later screws were used. The floors were made of a variety of woods including native pine, white, black and Spanish oak, poplar and chestnut, some of which were found to include all of those materials and of different widths when recent restoration was made, However, they were usually six to eight inches wide. The joist and stringers were mostly of chestnut, many of which are hand sewn. The trimmings, were, as a rule, white pine and the hand railings of black walnut. Some of the studdings and rafters were found to be of hand hewn poplar. The roofs and sides of many of the old houses were covered with cypress shingles, 30 inches long, also hand hewn.

Reference: Donald Banks, Elaison Lumber Company, New Castle. Cal.

Horner
2-28-36

State Drawer:
Flora

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Ellendale Forest

The largest densely forested areas remaining in Delaware are located in Sussex County. South of Ellendale and lying on both sides of the du Pont Boulevard is the Ellendale Forest with less than five percent of its area cleared, most of the cleared portions narrowly following the main roads. The forest varies from pine, or mixed pine and oak, to pure hardwood, its trees in their apparent relative abundance consisting of pine, oak, maple in the order named; sweet gum, black gum, yellow poplar, and holly being abundant and of lesser growth. Magnolia and Aralia, Clethra and Vaccinium form a large part of the prevailing undergrowth.

Over most of this area, cutting has been intermittent and selective rather than complete, and hardwood trees of 75 to 100 years still remain. The forest is penetrated by natural streams and by some artificial drainage.

Locality - FAIRMOUNT, Sussex Co.

Submitted by George R. Carey

April 21, 1936

Topic - CHARCOAL INDUSTRY

Charcoal, once a leading product of the rural woodland areas of Sussex County, is being revived to its former strength among the farmers and woodsmen of this section. Many of those now carrying on the industry are the descendants of the first charcoal burners who started the work in the days before the Civil War.

The original operator of this industry in Sussex County was Daniel C. Townsend, a resident of May's Landing, New Jersey. Mr. Townsend had heard of the vast tracts of virgin pine timber by the tales of seamen who sailed through the Rehoboth Bay Inlet into Indian River in their flat-bottomed schooners. In 1861, he made his first trip to southern Delaware and found that there was so much woodland that the inhabitants were cutting and burning the timber in order to clear the land for farming.

As all persons who were not born and raised in this section were considered foreigners, he has much difficulty in obtaining enough wood to start his work. The first tract was bought near St. George's Chapel, 2 miles from Angola, at \$5.00 an acre, and then his troubles began. Even though the people were in dire need of employment they would not work for a "foreigner" nor would they sell him any team or equipment. He was forced to send to New Jersey to have teams and wagons ferried across to Philadelphia and driven to his location in eastern Sussex. After the people saw that, "the foreigner", was there to stay and that his intentions and money were good, they readily co-operated with

him by receiving employment and selling their uncleared land. His next problem was teaching them to produce charcoal from the timber which he had purchased. From this beginning, Mr. Townsend consequently built up a big industry which was taken over in 1906 by his son-in-law, Harry J. Anderson, who still maintains it at Fairmount, Delaware.

-CHARCOAL BURNING-

Charcoal is produced by cutting wood in four foot lengths, (never split), piling it in the form of a pyramid leaving the center hollow and covering the pile with pine needles. An average of from five to eight cords are placed in the pit, the name given the pyramidal form. A shallow trench is dug around the pit, the clay being used as a blanket, according to the size of the pyramid. Everything is covered except a small portion at the top. Ignited sticks are dropped through this hole and the fire started, the opening being then closed. Small holes are punched through the sides of the form to supply oxygen to the smouldering fire. Attendants must keep careful watch that the fire does not burn too fast or break out through the covering. After about six days or a week, the clay is removed and the charcoal drawn. It is piled about the pit and the fire is quenched. It is then ready for shipment to the loading shed at the nearest railway station.

-USES OF CHARCOAL-

Charcoal is used in ship building and tool making for temperature tempering steel as its heat is steady and intense. It has been found to be the best filter for sugar and rum. Many car-loads are used yearly by companies making batteries for lightening purposes.

During the time of prohibition, bootleggers paid good prices for charcoal to age their liquor and were sure of their dealer's when they over-paid him. Restaurants and hotels use charcoal for roasting and broiling as there is no smoke given off, and for its even temperature. In the days past, many people used it as a whitener for their teeth and to purify the water in their wells. It has also been found to be healthful for chickens when mixed with their feed.

In Mr. Townsend's time, charcoal was sold at about \$90 per car load. It has reached the height of \$550 but \$250 is the average price at present. Sixteen hundred bushels are considered a car load. Hundreds of loads of charcoal are shipped out yearly and Mr. Harry Anderson of Fairmount, Delaware, has had as many as sixty pits burning at one time.

Burning pits of charcoal may be seen along many of the highways of eastern Sussex, especially on highway No. 24, south of Angola, Delaware.

REFERENCE

Harry J. Anderson, Fairmount, Delaware.

Cheney
Aug. 18, 1936

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State Printer
Flora

Delaware's Egyptian Lotus

The St. Jones River, formerly navigable to Dover, offered hospital anchorage for a large group of Egyptian Lotus which in July and August almost obliterated the course of the small waterway. The flowers, tradition declares, were brought from Egypt by returning missionaries and planted in a protected basin-like cove where they have bloomed for a century or more. Tradition also explained that at Woodstown, N.J. and in the St. Jones River were the only places wherein the Egyptian Lotus could be grown in this country. The fronds of the lotus almost entirely cover the surface of the stream near Dover while the yellow flowers stand majestically far above the rides. With a slight breeze, which gives a rocking movement to the flowers and the huge light green leaves, bring to thought the fairy land scenes with which children are delighted.

Dover traditions, long current and generally accepted, declare that the yellow lotus was brought direct from the River Nile and that all efforts to propagate them, except in Delaware and New Jersey, have been entirely unsuccessful but the records of horticulturalists have hinted that the stories are apocryphal, which conclusion was reached many years ago.

An eminent authority on the yellow lotus states that it is grown in many states and in Canada, through the South and West. It is also declared that the same flowers were cultivated by the Indians four generations before the discovery of America. They grew in Tennessee and Cumberland Rivers and in some of the estuaries of the Mississippi. It is also authoritatively stated in print that the yellow lotus was first cultivated by E.J. Sturdevant at Bordentown, New Jersey who obtained the bulbs from the famous Kew Gardens, England. Planting them in shallow water in a protected spot, they flourished amazingly. Mr. Sturdevant

declared the yellow lotus to be hardy and could be grown in all parts of the United States. An equally worthy authority insists that the yellow lotus grows almost everywhere in the United States, and that at one time in the last century they glourished in the Delaware River and spread so rapidly that there were apprehension among shipping circles lest they eventually impede navigation. The conclusion reached by horticultural authorities confirms the conclusion Dover florists reached long ago - that the Yellow Egyptian exotics grow almost wherever intelligently planted.

References:

Illustrated World, Sept.1922, Chicago.
Bailey's Encyclopaedia of Horticulture. 4:2421; 6:2217
New York, The Macmillan Company, 1916.

Lotus Lilies

Reference:

"Lotus eaters' report not local flora, after all.
S. S. 9-2-1934:3

Horticulturist brands St. Jones
Legend just folklore.

"Thus is set aside one of the cherished legends of the Dover folk, who have been taught for two or three generations: that the lotus flowers that grow and blossom every summer in the St. Jones River, a mile or more below the State Capital, cannot be grown - with the single exception of a place of south Jersey - in any other part of this country.

The age-old story that has been handed down from one generation to another says that those flowers, whose natural habitat is the Nile River and its tributaries, were brought to this country more than a century ago by some tourists returning from the Far East to Dover. One or two members of the touring party resided in a south Jersey town and they also brought cuttings or roots from the same plants from Egypt. One part was set out in New Jersey and the other was thrown in the St. Jones River. Both took root and flourished and have spread until, in the St. Jones, they have choked the waterway that formerly was deep enough for the passage of passenger and freight carrying steamboats. Each year in ~~the~~ August, the flowers in the lotus beds in the Kent county stream are hawked about the streets of Dover and find their way into neighboring towns.

It has been told frequently that efforts innumerable, ^{re-} to produce the Dover-New Jersey varieties of the lotus have proven that they cannot be grown elsewhere in this country. It is intimated that the try-out to reproduce these beautiful yellow flowers - kindred of the water lilies - have been made in practically every section of the United States, and not one has succeeded."

"Now comes an authority on floriculture whose prominence in the profession gives him the voice of authority on matters pertaining to the cultivation of plant life. He further asserts that he lived in Dover about two decades, yet he never heard the legend of the of the flowers in the St. Jones River and he draws the conclusion that it was not regarded as other than a pleasant bit of make-believe. Perhaps it was not repeated seriously to serious people. He declares that if the Dover variety of lotus was "worth while," conditions could readily be made to grow it in almost any part of the country and Europe, where report said it could not be reproduced. No provision has been made to grow it at Longwood (Gardens).

It is an unpleasant undertaking to unmask such a pretty legend .. It is not improbable that the same kind of flowers that have attracted hundreds of lovers of nature's beauty and eccentricity may be flourishing in other sections of the country. If not it may be considered that they are not worth the candle since their physical demands may readily be met almost anywhere in these days of knowledge and skill in floriculture."

"American Lotuses - yellow flowers - grow in Mass. & elsewhere in N.E."

acc. to New International Encyclopedia, the lotus flower that is venerated along the Nile & used in their symbolic designs is the large white Nile lotus flower. V.T.

Large Trees in the State

At the entrance of the Wilmington and Brandywine Cemetery stands the Cedar of Lebanon, rare in this part of the world; planted about 1850 by the late Edward Tatnall the records show that in 1900 it measured seven feet nine inches at five feet from the ground. It bears staminate blossoms in abundance but very few cones have appeared upon it.

The Council Oak still stands at the site of the old hotel at Brandywine Springs perhaps 20 feet in circumference at the base and worthy in grandeur of the conferences which, tradition says ~~was~~ held under it by Washington and his generals after the landing of the British troops at Elk Neck.

Two Delaware trees were admitted to the "Ancient and Honorable Order of Penn Trees". One is a white oak at McClellandsville School, near Newark while the other is a Beech at "Haldeand" home of Frederick C. Ziesberg, Weldin Road, near Blue Ball, north of Wilmington. It is 8 ft. 6 in. in diameter. (Sunday Star 8-9-36)

"Penns Woods" gives a systematic list of some of the larger trees of each species. Among them is a beech near Cannon in Sussex County measuring 15 ft. 10 in.

The largest white oak in Delaware is $3\frac{1}{2}$ miles ~~from~~ east of Frederica and is 22 feet in circumference.

Near Marshallton there is a tulip poplar 16ft. 7 in. and at Guyencourt a sugar maple 11 ft. 8 in.

cNominations of Penn tress (trees over 250 years old) in Delaware include a sassafras, 9 ft, near Milton on the Milton Ellendale highway, white oak, 20 ft. twins with spring beneath, near Marshallton; "An Ancient Oak" referred to in 1790 in a deed, $\frac{1}{4}$ miles south of Cooch's Bridge, Newark; other white oaks, one

Large Trees in State

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near Brandywine Springs; one at St. Ann's Church, Middletown; one at Welch Tract Baptist Church; one mile south of Newark. Pencader Presbyterian Church at Glasgow; "Rodney Oak" near resevois, Wilmington; one on the Wilson farm south of Newark; One at Union School, Corner Ketch, six miles south of Newark and another white oak at Eastburn Heights.

On West 2nd St. in Milford stands one of the largest and strangest varieties in the State. It is a tree that grows universally throughout Delaware, yet, is little known by name--an Ailanthus tree. Known as the Tree of Heaven, it is a native of China, but has made itself perfectly at home in Delaware. The Milford species stands on the property of Miss L. A. Abbott and measures 15.6 feet in circumference, the 6th largest tree in the State. At Cannon, in front of the home of Senator Roy Cannon, is an American beech that is an inch or two larger--taking fifth rank.

A black walnut at the home of Chancellor Josiah Wolcott has a trunk measurment of 12.4 feet.

There is a huge red gum near Thompsonville 14.6 feet and owned by Alexander Kirby.

On the west bank of the Nanticoke River, below Woodland is a loblolly pine 14 feet in circumference.

A tulip tree located on the Reeves School road near the Dover-Harrington highway measures 15.5 feet. Close behind it is a White oak on the estate of Julian P. Murray of Hockessin. Another in this section is a fine old fringe tree located near the Mill Creek hundred line. On the west bank of the Indian

Large Trees in the State
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River at Millsboro is a bald cypress of ample proportions. Another giant is the southern red oak west of Portsville on the south bank of Broad Creek. Between Ellendale and Milford on the north side of the highway is a sassfras recorded as 11 ft. through.

Delawares largest tree is a mamoth white oak on the farm of S. W. Hall of Dover. It measures 22 ft. in circumference $4\frac{1}{2}$ feet from the ground is 78 ft. high and has a spread of 129 ft. It stands in Frederica Neck, some three miles east of Frederica. It is thought to be the oldest tree in the State.

Little is known of this trees history but it was a grown tree when Penn chartered Dover as Canterbury. The title of Frederica oak is conceded a natural one in view of its species.

The championship of Frederica oak was acquired by a nip and tuck engagement for on the Spencer Farm near Rising Sun, close to the end of Voshells Pond, stands a giant elm that is almost as large. Its circumference is 21.9 ft. or but a scant two inches less than Mr. Halls titleholder.

Next is a fine old sycamore tree located below Woodland on the lands of H. C. D~~atey~~^{16 ft. 9 in C.B.H.} which reaches a width of ~~16.7~~ ft. This besets closely a beautiful willow oak 16 ft. in circumference on the Wm. Knight farm east of Dover.

One half mile from Cowgill's Corner, near Dover is a tulip poplar 22 ft. 6 in. around.

A tulip tree near Red Clay Creek Church measures 16.7 around the trunk $4\frac{1}{2}$ ft. from the ground.

Large Trees in State

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Hanging over a well curb on the lawn of the Grubb Homestead near Grubb's Corner, Brandywine Hundred, Del.--and that is a proper location for an American tree of the old stock--stands a great flowering catalpa that has had its honorable part in our history. It marks a Revolutionary anniversary, for it was planted on the day that the Battle of Brandywine was fought at Chadd's Ford, September 11, 1777.

Mr. Grubb thus tells the story to a visitor:

"Isaac Grubb, my great grandfather, had been out riding that morning, and riding hard, like almost everyone else, for the whole countryside was aroused. His horse, however refused to get excited and lagged, so he stopped by the roadside and tried to break off a green switch. But instead of breaking the little sapling he pulled it up by the roots. He carried that switch with him all day, and when he reached home at evening he planted it beside the well as a memorial."

The catalpa thrived so vigorously that it measures almost twenty feet in circumference now, but it has had to be protected from souvenir hunters.

If trees could only talk, the venerable giant sycamore standing in the farm yard of John S. Cooper, four miles west of Delmar would be able to enlighten residents of that section concerning many historical episodes and occurrences now probably long since forgotten. The sycamore is 90 feet tall 36 ft. in circumference at the base and about 200 years old. Mr. Cooper, who is now 70 years old is one of 13 children of which which one other is now living, tells how Zaccheus climbed the sycamore tree.

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Large Trees in the State

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The famous Biblical story has its counterpart here. Zaccheus being represented by a slave of the Cooper family bearing the same name, hurriedly climbed the tree upon order of his master to win a small bet.

Evening Journal 9-20-33

Flora.
Articles by Project Writers.

Flora. 5p. Horner. Jan. 22, 1936.

The Forests of Delaware. 3p. Hull. Jan. 22, 1936

State Forest Tree Nursery. 3p. Rote June 10, 1936

(First Forest Law. 1p. Extract from Lindestrom. Williams)

Lumber in New Castle houses from native variety. 1p. Butler. 8-25-36

The Big Cypress Swamp. 3p. Higgins. Jan. 28, 1936

Ellendale Forest. 1p. Horner. 2-28-36

(Large Trees in the State - Evening Journal, 9-20-1933. 5p.)

(Trees in Delaware - extract from "Penn's Woods" 2p.)

Charcoal Industry (tracts of virgin pine) .3p. Carey. 4-21-1936

See articles in Progressive Magazines (in pamphlet drawer):

Oct. 1936: Resettlement Administration in Delaware -

"Using lands poor for farming purposes
for tree planting. Also permits recreational
development.

July 1936: The Delaware Cypress Swamp.

Delaware's Egyptian Lotus. 2p. Cheyney. Aug. 18, 1936

(Lotus eaters' report not local flora. 2p. S.S. 9-2-1934:3

LOCALITY -- Sussex County

Submitted by Anthony Higgins

January 28, 1936

Topic: The Big Cypress Swamp (Cedar Swamp)

Of interest to naturalists, foresters, lumbermen, drainage engineers, soil experts, students of history, sportsmen and others is the Big Cypress or Cedar Swamp of approximately 30,000 acres, lying mostly in southeastern Sussex county, Del., and to a smaller extent in northern Worcester and Wicomico counties in Maryland. (Approach from the North: U.S.113 to Millsboro, thence Del.24 to Gumboro, where turn left on slag road to be completed through the swamp to Selbyville, Del.)

This great wilderness, largely wet, is most famed for the layers of cypress and white cedar which underlie the deep muck and rotted vegetation of the swamp bed. Successive fires, burning below the surface often for a year at a time, have destroyed most of the peat containing the mummified logs, but small scattered areas remain. The logs are perfectly preserved by the chemical action of the peat in which they have lain for several thousand years (A)

It was not until about 1850 that the standing bald-cypress and white cedar timber was nearly exhausted, and the raising of the buried logs began. From then until about 1900 shingles were made (by hand, as formerly) from logs raised in winter flood-time. The mining of cypress ceased practically when cheap redwood and fir shingles began to be brought from the far West. (B)

Oxen furnished the power for working the logs out to where men with cross-cut saws could cut them into sections of shingle length. Tools used now look strange, and have stranger names; among them are: the riving frow, bolting frow, riving maul, ramping stick, shingle-horse, besides mauls and draw-knives.

Most of the houses of early colonial times and later, in the central Peninsula, were sheathed and roofed with these hand-riven cypress shingles, ^{often 30 in. long} In Lewes, Millsboro and Georgetown, Del., in Berlin, Md., and the adjacent countryside are houses of great age bearing original shingles from the Big Cypress Swamp. These shingles are worn thin, but show no sign of decay. It is said that their durability is due to their being split (riven), with the grain, and not sawed like modern shingles. (B)

Bears survived in the swamp until about 1840, a century after their extinction elsewhere on the Peninsula. Deer have been seen from time to time in recent years, though the supposition is that they escape from Maryland preserves. All species of local wild life occur here, including snapping turtles of great size and the rare and beautiful wood duck (summer duck). Many species of flora distinctly southern in nature, occur in the swamp, including the southern bald cypress, white cedar, gums, hollies, magnolias, smilax. Huckleberries grow extensively, and are in bearing in July. (C)

As the headwaters of the Pocomoke river, the swamp water until the present has always flowed 75 miles ~~southwest~~ southwest to Chesapeake Bay. In 1936, however, a canal was being dug from the upper Pocomoke to a tributary of Indian River, which flows into the Atlantic Ocean to the northeast, to take advantage of

the 30-foot natural elevation of the swamp floor which was separated from the Atlantic watershed by only three miles of intervening dry land. Whereas the Pocomoke channel was clogged, crooked and narrow, the new outlet will permit the swamp water to fall nearly 30 feet in five miles, and is expected to permit drainage of excess water to such an extent that several thousand acres of peaty soil, very rich, will be made available for agriculture. (D)

(Note to State editors: The addition of information on flora and fauna of the swamp may be secured, probably, from Wilmington authorities.)

REFERENCES

- (A.) W. S. Taber, Delaware State Forester
- (B) N. Jerome Wimbrow, merchant and swamp authority,
Whaleyville, Md.
- (C) Field investigation
- (D) Levy Court of Sussex Co., Del.

The State Forestry Department is organized to advise all

woodland owners on the care and handling of woodlands; grows and distributes at cost nursery stock for reforestation purposes; maintains a thoroughly efficient forest fire protection organization; and manages and operates some twelve hundred acres of State forest property for timber production, demonstration, recreation, and legal public hunting. The State forest properties have, during the past one and a half years, been improved by Civilian Conservation Corps enrollees under the direction of the State Forester. According to data compiled by the Delaware State Forestry Department, 960,000 acres of the State's 1,257,600 acres were originally densely forested with a wide variety of valuable tree species. Land clearing for ~~agriculture~~ agriculture, uncontrolled forest fires, and utilization has reduced that acreage to an estimated 380,000 acres of mature, second growth, cut over, burned over, and restocking forest land, the major portion of which lies in the two southern counties of the State, As is the case in most of the eastern states, much of the forest area in Delaware may be classified as woodlands on farms, but separate holdings of 800 to 1,000 acres and areas comprising 4,000 to 5,000 acres may be found in Delaware. The commercially important forest trees are loblolly, shortleaf and Virginia pine, red gum, white and red oak, and holly. The pines supply piling, mine props and lumber; veneer for baskets and shipping containers is made from the gum; and the holly tree supplies the raw material for Christmas wreaths and sundry Yuletide decorations ~~and~~ manufactured and shipped to all parts of the United State and Canada. As a special inducement to reforestation and timber growing as a business, the State offers tax exemption for a period of thirty years on classified reforested lands. Conditions to the classification are that not less than five acres are satisfactorily reforested either artificially or naturally with suitable timber species, that measures must be taken to protect the area from fire and grazing, and that at the time of application for classification the trees must be less than five feet tall. In industrial importance, Delaware's forests do not rank with those of states farther south in the hard pine belt where operations are on a larger scale.

However, as a study of forest utilization reveals that sustained yield operation is more closely approached here than elsewhere in the region because operations are usually small and conducted with labor otherwise normally employed in agricultural pursuits.

Through the efforts of the Land Utilization Division of the Resettlement Administration, a considerable acreage of marginal and submarginal land has been purchased by the Government in various parts of the State to be used for reforestation, game and game food preservation and conservation, and public recreation.

The Civilian Conservation Corps is actively engaged in ditching our tidal marshes to eliminate mosquitoes. The benefits of this campaign are observed at our shore resorts.

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Trees in Delaware

Source: Penn's Woods (1682-1932)

Edward Embree Wildman, Ph.D.

Phila. Christopher Sower & Co. 1933.

TULIP POPLAR

In lower Odessa is a tulip poplar with a breast high girth of 19 feet 6 inches.

On Dr. Hall's lawn in Dover, there is a great tulip poplar 15 feet, 11 inches in girth at breast high.

One-half mile from Cowgill's Corner, near Dover, is another tulip poplar 22 feet, 6 inches in girth at waist high.

SUGAR MAPLE

At Guyencourt, Del. 200 yards N.W. of P.&R. station is a sugar maple 11 feet, 8 inches in girth at waist high.

BEECH TREE

In Sussex Co., Delaware's greatest beech tree measuring 15 feet, 10 inches is at Cannon.

OAK TREES

Delaware's greatest white oak, 22 feet in girth, stands at Murderkill Neck, $3\frac{1}{2}$ miles east of Frederica. This great tree grows on low ground near the Bay Shore, and hence is not as old as Delaware oaks of less size.

Just outside of Newark there is a white oak 16 feet 9 inches in girth. It is on land once used as a race track.

About nine miles south, past Newark and Cooch's Bridge the village of Glasgow is reached. Here in the yard of Pencader Presbyterian Church there is a white oak which is mentioned in the deed for the land sold by the original grantors, David Evans, Wm. Davies, and Wm. Willis. These three men were granted 30,000 acres in Oct. 1701. This was the "Welsh Tract". This oak has been used as a landmark since 1723. It measures 14 feet, 9 inches.

OVER

One of the oldest trees in Delaware is a white oak which grows the Slaughter farm four miles south of Smyrna. It is 17 feet 3 inches in circumference at breast height.

"Council Oak" at Brandywine Springs is a mile north of Marshallton on Route 41. It is 15 feet, 2 inches in girth. Washington and Lafayette held council here before the Brandywine Battle.

See p. 370

Wm. Allen & Co.
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Submitted by James R. Allen, Education, Religion and Social Life
December 22, 1936.

Social Life in Delaware

The history of Delaware would not be complete if we considered only the industrial, commercial, and historical phases, and ignored the social life of the State. Delawareans may not have claim to any superior rank in its social life and conditions may not be dissimilar to those in other States, but social activities in Delaware cover a wide field, probably paralleling those of her sister States.

The people, as a whole, are sociable and sympathetic toward one another, and the slogan "cold conservative East" can not be applied entirely to the people of the State, although class lines are visible. This, however, is not carried to such extremes as in the caste system in India, or the nobility and peerages of other countries. It probably is not noticeable to Delawareans who are born in its environment, to whom it seems common custom, but it is obvious to the casual observer or to those who come into Delaware in later life from other States.

The social life of Delawareans does not consist wholly of pleasure roles but includes activities in building health and character, and promoting the welfare of the people in general. The branches of social activities range from the care of infants to health and educational centers for adults. The State probably does not offer peculiar social problems or need of social work as to put it in a class by itself, but the people have become alert to the needs of the community and have established such organizations for social welfare as the moral, health, and economic conditions of the community demand.

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On Dr. Hall's lawn in Dover there is a great tulip poplar 15 feet, 11 inches in girth at breast height.

One-half mile from Cowgill's Corner, near Dover, is another tulip poplar 22 feet, 6 inches around, waist high.

Source: Penn's Woods (1682-1932) by Edward Embree Wildman, Phila.
Christopher Sower & Co. 1933.

Social activities in Delaware are not of recent origins although not carried on in earlier times with the precision and magnitude of today, they were present in the very earliest Colonial period. These activities were directed towards relieving suffering among the poor, improving the health of the colonists, and providing recreation. Benevolent societies were formed in the early part of the nineteenth century, and there were societies for the abolition of slavery, and for improving the moral condition of the people. Humane agencies for the protection of animals were also formed at an early date.

During the early period of Statehood many social functions were carried on by the State or its subdivisions, but in later years this work has been shifted to private organizations which are supported, for the most part, by private contributions, although State aid is given in some instances. In the fall months there is usually a series of "money drives" conducted by the various organizations for the continuance of their work. The more extensive activities in social work have been inaugurated since the turn of the century and particularly during and since the period of the World War. The humanitarian rather than the material side of life has received more emphasis in recent years than heretofore. Many conditions exist today which have only recently received notice and efforts begun to correct them. The importing and "farming-out" of children, under conditions almost equal to slavery days, had existed in Delaware for several decades, but it was not until 1916 that a survey was made of such practices, and efforts were made to eliminate the evils.

There may be other attributes which have played important roles in helping to alleviate social conditions in the State. Time and study

have brought changes, thus, a study of economic conditions has developed agitation for legislation which would improve the social conditions of the people, such as regulation of employment of minors, regulation of the hours, and defining the conditions of employment of women, laws for improved sanitary conditions, laws for the prevention and spread of disease, laws against immorality and the like. In some instances, the social work has been taken over by the State with the formation of a semi-public corporation partially supported by public funds. But most of this work is carried on by private organizations; obviously, some of these societies were founded as a result of agitation for reform along particular lines with the hope of keeping legislation off the statute books and the control of such activities in private hands. This might be explained in citing the fact that there are several organizations in the State purporting to be working for the improvement of conditions for children while at the same time certain of these organizations have been lined up with the opposition to child labor legislation and the proposed amendment to the Federal Constitution which would give Congress the authority to regulate, nationally, the employment of children under the age of 18 years. Other organizations, supposedly working for temperance, were supporting those advocating return of liquor by repeal of the Eighteenth Amendment.

The handling of social work by private organizations has some disagreeable features, inasmuch as large contributors occasionally influence the activities of such organizations in a manner not wholly to the best interests of the people. In fact, this sometimes provides a lever for manipulation of these activities for personal gain which, in the case of some educational societies, they were not backward in using. While some of the organizations

have not kept pace with their ideals, social work, in the main, has been carried on conscientiously and energetically by the social organizations.

The social organizations of the State might be classed under five separate groups, namely; vocational, recreational, health, welfare, and educational. The activities of the several societies in the different classifications seldom overlap; they vie with one another within their respective fields but rarely ever compete with societies outside their scope.

The vocational societies consist of art, music, drama, oratory, literature, history, etiquette, and business ethics. These societies, in their respective fields, have provided a medium whereby persons inclined along such lines can give vent to their talents. While a few of the members of these societies may follow some particular vocation as a hobby or for recreation, there are others who have taken advantage of the opportunities offered them to prepare themselves for their life-work. Occasionally the local talent of the club or society is mustered together for exercises or demonstrations of their ability and training; these demonstrations are usually held in the theatres or school lecture-rooms and are followed by luncheons or banquets in the hotels or social centers.

A few of the early vocational activities have almost disappeared in recent years. The debating societies which flourished in almost every community in the latter part of the nineteenth century, have, since the turn of the present century, become almost extinct, their demise having been attributed to lack of interest brought about by the introduction of new and more delightful forms of recreation. While there may be some who bemoan the passing of these legendary old days of oratory, others are just as apt to give

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three whoops of joy and pray for no resurrection. There is nothing that gives a boy or girl more sense of poise than public-speaking, and these declamations have accomplished wonders in the broader phases of education. Nevertheless, it seems that the race of public speakers is dying out in Delaware. The spelling-bee has also gone the way of the debating society, although efforts are made from time to time to revive the ancient diversion.

The societies devoted to art have given much time and energy to depicting the beauties of the State, as well as to the other phases of art, and exhibitions of their work to credit to their sacrifices and efforts. The State should feel proud to acknowledge the talent uncovered. Efforts are now being directed toward the building of an Art Center in Wilmington where our artists will have adequate facilities to develop their talent.

The drama has its organization which sponsor plays for drawing room amusement. A series of performances, has given an opportunity to many to engage in dramas which might otherwise never have been opened to them. The activities of such societies have attained a remarkable degree of success; and it is a source of pride to note that many amateur performers are able to cooperate and do a creditable job in dramatic entertainment.

The history of the State, and of the aborigines, is delved into by historical societies, while geologists endeavor to fathom the mysteries of Mother Earth within the confines of Delaware. The devotees of natural history in all parts of the State have enjoyed botanical hunts and field explorations, as well as the thrill of finding new specimens and species of animals, birds and plants, and of evenings spent in listening to lectures on natural history.

The objects of these societies are to cultivate the study of the natural sciences by establishing and conserving permanent collections

of specimens.

The societies devoted to archaeology have made some interesting discoveries dealing with Indian folklore and their modes of living. The collection of pottery, tools, and works of art of the aborigines, in the possession of the archaeological societies show what degree of civilization was attained by the early inhabitants of Delaware. While some organizations have been devoted to the task of saving the natural specimens of plant and animal life, and works of ancient art, other societies have devoted much time and effort to preserving early land-marks and places where historical events have occurred. These organizations have erected markers or monuments at these historical places commemorating the events and have also placed tablets on ancient buildings with historical background. These tablets and monuments give a brief account of the part such places or buildings played in the history of the State.

The business and professional women in Delaware have begun to vie with the men of recent years in establishing business ethics. Societies and clubs representing the women of the various business and professional pursuits have been organized to exemplify the finer qualities - sportsmanship, zeal, and loyalty - in business women. The fair sex have subdued their feelings of inferiority, and have become engaged in practically every kind of business and profession, thus proving to the world that they are not the frail ladies they were once presumed to be in the days of chivalry. Such business women have devised a code of business ethics that is far superior to those of their masculine competitors, and they have shown a rare spirit of sportsmanship in that they can take their losses without grudges, or jumping out of ten story windows, and their gains without undue elation.

While engaging in an avocation dissimilar to the usual daily routine is sufficient recreation for many persons, to others, such recreation might be regarded just another job, and thumbs would be turned down on any proposal that they participate in such work. The need of changed environment and of periods in which to relax is well recognized by almost everyone, but educating the people to use their leisure time profitably is a problem which society has had to wrestle with for years.

There are many societies and organizations in Delaware which are devoted to recreational activities. Some of these groups have established centers where people of all ages can go for a few minutes of hours and engage in their favorite hobbies or amusements. These centers provide playgrounds, pools, and gymnasiums for those who desire to engage in physical exercise, while libraries are provided for those who wish to spend their time in reading and workshops for those preferring manual employment.

There are also some welfare organizations that include recreation for the children among their welfare activities. These organizations look after the health and physical condition of children of school age, and they see to it that those of less fortunate parents have proper care and that orphans are given good homes or properly cared for in institutions. Camps have been established in different parts of the State where children of less fortunate parents may have from ten days to two weeks' outing in healthful country surroundings. Here they roam the woods and fields in search of flowers or in play and at the same time fill their lungs with fresh pure air and their bodies with renewed vigor and health. Practically all of them are returned to their homes with gains in weight and general improvement is indicated.

The children invited to these camps always profit by such vacation, for they are given the widest opportunity for play, and efforts are made to develop their best qualities. A program similar to the programs in the best camps throughout the country is put into effect, and the boys and girls from such families have the chance to participate in hikes, picnics, swimming and social parties, potato roasts, camp-fires, organized play, amateur dramatics, and other activities which please and enthuse children. In the swimming pool at one of these camps fifty children learn to swim each summer.

Camps are also maintained by organizations other than those provided by welfare societies. Some of these camps are restricted to girls and young women; others to boys and young men; and one society provides a camp for such blind persons of the State, as are not in institutions. Every blind person is given two weeks' vacation, with transportation furnished to and from the camp. Guide-ropes are strung through the woods on two sides of the camp to the veranda to assist the visitors. The change in surroundings so necessary to all is supplied, dependence in getting about is acquired, and increased courage and ambition are gained.

Any community which gives thought to the matter at all cannot escape interpreting its future in terms of its youth. If youth's be neglected, that future is jeopardized. This view prompts Delawareans to contribute thousands of dollars annually for the support of the activities of these organizations. The sympathy and interest taken in these youths reveals to them that they are an important group in the community life, and the habits they form in industry and sportsmanship are the foundation of good citizenship. They are saved from contact with unwholesome influences, and become interested in themselves, in their

own future, and the better things of life. All this builds them and fits them into our community picture.

While we have been discussing the activities of societies in providing recreational facilities for the people, it might be fitting to dwell a little while on other social activities which will show that Delaware has not been lacking in its welfare obligations. The social functions of the State are carried on by several bureaus and commissions which were created to take care of certain specific phases of social work. These activities range from the care of infants and children to the care and pensioning of the aged and infirm. A bureau, established in 1919, is devoted to the care of infant and minor children, whether orphans or those with living parents. The Bureau begins its placement work with children at infancy. Infants are often placed in baby hospitals; in Wilmington, there is one such institution for white and another for negro babies. When such placement is made the infant is given intelligent and loving care during the time it remains there. These institutions generally care for children up to three years of age. Older children are placed in a foster home, which may be either a free or a boarding house, or in the Children's Home, where the child is cared for until it is ten years old, and sometimes to maturity. The importance of the Children's Bureau lies in the human and friendly aid that it gives the children with the aim of eradicating the taint of institutionalism from the life of the child. But rarely is a family broken up, and then only in cases where extreme cruelty is found or necessity demands it. Investigations show that a majority of neglect cases have their underlying causes in drink and immorality. There are, in these days,

very few instances of physical cruelty, particularly when one recalls reports of early societies which, at the beginning of the century, reported cases of children being assaulted on the streets in Wilmington by drunkards, of young girls being brought up in houses of ill-fame, and of brutal beating administered by parents on children.

The "farming-out" of children had grown to such a degree that Delaware was menaced by the practice. The history of the practice showed that, for the last half century, Delaware farmers employed dependent children to work on farms, agreeing to give them proper food, clothing, and schooling in exchange for service. Despite the promises of the farmers to obey the law, they flagrantly violated its provisions. A survey in 1916 showed there were 1037 children engaged by farmers, 660 of whom had been placed in Delaware by 14 agencies outside of the State. The apprentice law was revoked, and the importation of dependent children into the State was stopped. Later, the School Board was given authority to control the admission of dependent children into the State.

The Boards of Education also conduct a social program for promoting hygiene and health among the children in the schools. A nurse in constant attendance at the schools who, with the co-operating clinics, examines the children and reports any defects of the teeth, eyes, ears, or throat to the parents. The children of less fortunate parents are given treatment free of charge by the clinics. When a child is backward in his studies, that child is examined and the cause of its backwardness is soon discovered. The children in poor health or underweight are given milk at school, and in a short time show improvement.

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Family problems are not always solved by concentrating on one particular condition, but are best understood when a survey is made of all phases of the home life. Thus, family social service work is becoming a systematic scientific attack on problems of human relations. Emphasis in social work is shifting to interest in human beings themselves and away from emphasis on material civilization, while private societies, unable to meet the problem of relief, which in turn, is caused by unemployment, are centering themselves on all facts of social relationship. Thus, a new chapter is being written in answer to great social changes. Now we regard family societies as the outposts of a new science in human relations. The problems of family social work are not new, but we are developing new skills in solving them through experience and better understanding of human needs. The philosophy of social work is that the inherent instinct of individualism must be allowed to work itself out, and by helping unfortunate people to maintain their sense of responsibility, a new adjustment of their environment is arrived at.

There is another phase of social work that, for the most part, involves families, and should be considered in family social work. A society devoted to the work of aiding prisoners is established in the State. This organization aids prisoners to obtain employment on their release from prison, and helps their families while they are incarcerated. In addition to this assistance it has also worked for the adoption of such laws and prison methods as will help the prisoners to become useful members of the community, and to assist prisoners in obtaining pardons, commutation of sentences, or legal aid, when necessary. A parole system for dealing with criminals has been established in Delaware.

Under this plan, all prisoners, when they have completed half of their sentence, are eligible for parole, provided the term of imprisonment is for a period of more than one year. The purpose of parole is not only to lighten the sentence that strict justice imposes upon the criminal, but to protect society against a new lapse into crime. At least 95 per cent of the persons paroled since the inauguration of the system in 1923 have been faithful in keeping their agreement. Aside from its kind and humane features, the parole system has a very practical side. If for no other reason than economy, it should have gripped the interest of the State, for surely the maintenance of the system is less expensive than the continued imprisonment of the persons now paroled.

In the old days, Delaware, like many other States, had its hard times. Winter was always difficult for the poor, and when business depressions came and men walked the streets out of work, many families would have been cold and hungry if those more fortunately situated had not come to their assistance. These re-curring periods of business inactivity have made it necessary to provide agencies to aid those who become victims of an unbalanced economic system. A study of conditions proves on good authority, that it is less costly to treat the causes of social ills than to attempt to correct the results. But, until such a time in the future when our economic system is balanced, there will be a need of social welfare work. This need was apparent in the early part of the nineteenth century, when a few public-spirited women organized a benevolent society which furnished employment for mothers with dependent children. In later

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Education, Religion and Social Life

years this branch of social work has been expanded until it takes in practically all classes of unfortunates. In some instances, the State has created special commissions to manage the work of relieving suffering among the destitute, particularly those who have been made destitute through loss of employment.

The laws passed by the General Assembly giving aid to impoverished citizens do not cover all classes, but usually deal with the class known as employables. There are others in destitute circumstances for whom the law does not provide for. Private agencies have been established to take care of this class of people. Several social organizations provide shelter for single men, and provide employment for those who desire to re-establish themselves in society. One of the great problems today is that of employment for unemployables - that is to day, to use profitably men and women who are capable of employment but have no place in the mills or factories. At least one organization has been established for the purpose of dealing with this social problem. The real task of philanthropy is to keep men and women from despair, from the hideous boredom of having nothing to do and from the crushing sense of not being wanted or that their time of usefulness is past.

Other organizations throughout the State have undertaken to care for the aged by the establishment of homes where those who are not able to help themselves and need attention may go and receive attention and friendly associations in the sunset of life.

In the matter of health, Delaware has not been lacking. The socially minded citizens of the State have waged a constant and energetic warfare to establish institutions for the care of persons afflicted with some malady or disease; and for improved sanitary conditions. These organizations look after the health of children

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Education, Religion and Social Life.

of school age, and see that they receive the proper medical attention, and those with contagious diseases are properly cared for in the institutions. The less fortunate families are visited by nurses who take care of the sick, and give friendly and sympathetic advice to the families along the lines of hygiene and sanitation. Delaware is fulfilling its obligations to improve social and economic conditions for its citizens. The task of realizing in our common lives those ideals of personal and social living to which we are committed by our faith as Christians is showing signs of being successfully executed.

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J. Barton Cheyney,

January 13, 1937

Delaware's Distinctive Dialect

Delawareans have a more distinctive inflection in their pronunciations than have the citizens of any other commonwealth; the further South one goes he finds more broad and flat speech, but it is almost the same thing. It is Delaware speech. A Sussex countian, a collegian and head of a big Pennsylvania College, many years an exile from the state, relates that while paying his fare on a Philadelphia street car he spoke but a single word, which caused the conductor to look up and happily remark, "you are a Delawarean." The added word, "yes" identified the passenger as a native of Sussex county-not only that, but the ticket taker further observed "yes" and from West Fork Hundred" which was exactly right. It could not have been guessed or discerned otherwise than from the passenger's pronunciation. Sussex countians impart the most pronounced tone to words but nearly every section of the state the colloquialism and strange freaks of pronunciation are noticeable even among urban Wilmingtonians, who have studied in centres of culture.

Genealogically, the Delaware dialect may be traced back to Colonial days. Up until good roads, and the era of radios brought their broadening influences to the nether regions of the state, portions of Sussex county and even Kent were ridden with habits and customs which smacked of the Seventeenth century rather than of the Twentieth. Delaware speech has been largely traced to English precedents. No state in the union has a higher percentage of Aryan stock. The colonists in the lower county were almost entirely English, and after the first settlement there was scarcely any further

immigration.

Some of the phrases still current in lower Delaware go back to Shakespeare's day, and that Seventeenth Century influence may be noted in the common names in vogue even at the present time. For example, a mill property in Sussex county is known as "Mongs-uns Mill," Oddly enough it dates back almost to founders' day and retaining the name which expresses the fact that it was once held under the ownership of several men, "amongst them,"

There is no such word as is spelled c-o-r-n to Sussex countians nor to the people of Kent county, while rural New Castleans frequently pronounce the grain "karn." "A pound of raound steak" would be ascribed in fiction to New England, but in reality it is a Vermont phrase at all. ~~But~~ it is strictly Delawarean. The complete disinheritance of the letter "h" is another strictly Delaware juggle. Where else, beg pardon, "ware" ^{else} do you hear which pronounced "wich" and the harsh "burr" of the "r" has fortunately abdicated from a place in Delaware diction. An attempt to pronounce the word "born" voice ^s a noise like a rock being tossed into a stone crusher. Delawareans are not buried after death, they are generally "berried," if of good family they may be "burried." If in earlier days one asked to be introduced to the chancellor of the state- Willard Saulsbury - he would meet "Chancellor Saulsbra" if the introduction came through any one in lower Delaware or the Eastern Shore. Harrington natives can and do pronounce the name of the town as having but ~~one~~ one syllable.

Still further under the Delaware code one hears "ginc" for "sink" and thinks that a nice Summer salad is made of "sparrow-grass!" The request for a loan would be expressed, "I would like

-Cheyney

Page No. 3 - ~~Follows~~
Delaware's Distinctive Dialect.

to 'borrie' fie dollahs" and they might explain in Sussex that they bought a farm "off n" their neighbor. Their pronunciation of water is "wawter". A friend would be invited to visit a Sussex countian by "come to ^{'are'} ~~the~~ home." That state wide mispronunciation so obvious sticks persistently.

The most that can be said for the offities of Delaware pronunciations is that it is distinctive, yet the ready correspondents from alien climes, who invade Delaware at times poke fun at the "down homers" drawl while their home cities offers just as many off side expressions that are open to criticism.

Perhaps the variableness of pronunciation from the accepted forms and standards may be traced to the fact of Delaware being the Northernmost Southern State. No doubt but that this lingo especially of the Eastern Shore part on the peninsula was due partically to the circumstances that it was cut off for years from advanced civilization and culture.

So distinctive is the pronunciations of Delawareans it has been facetiously remarked that when greeting a new-comer to say, "you are from New Jersey," (or Pennsylvania) and will be all right after you have gone to night school and learned to speak "Delaware".

Reference; - Newspaper Clipping, *by Dr George Morgan*

Jan
J. Barton-Cheyney,

December 15, 1936.

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Customs
Folklore-"Hoss Doctor",
Gone and Forgotten.

State
Drawn

"medicine man"

The wise individuals who presumed to be horse-wise and prescribed for sick animals in country communities have passed entirely out of the picture to be succeeded by those with diplomas from veterinary Colleges certifying that they are practically expert and experienced in the healing of the ills of all farm stock. The old time "Hoss Doctor," always referred to a young female horse as a filly and to her mother as a mare, and differentiated between a gelding and a stallion. This was supposed to give his patrons assurance that he knew what he was talking about. He discussed and talked "hoss" in season and out, in country smithys or city livery stables, and asserted that his knowledge of horse healing was complete. His pretensions were long accepted as his own valuation before there were colleges teaching veterinary surgery for there was nothing else to do about it.

When it was discovered that a cow of the dairy or steer of the pasture refused to eat, and had either a hot or cold nose, a country "Solomon" was hastily sent for and came speedily. After attempting to diagnose the ailment that had laid out "Bossy" he proceeds to drench her by mixing quantities of drugs and compounds in a huge bottle and forcing it down the throat of the prostrate animal. If the dose did not almost immediately bring forth the result sought, it was followed by a double portion of the same diabolical concoction and if the patient lived over the first week of the heroics of the "medicine man" she was lucky. Unless the cow got back to her feet and feed in that time it was not even a 90 to 1 chance that she would escape whatever haven is provided for defunct cattle. Undoubtedly stock men now declare the fatality of dairies and groups of horses was increased by the old fashioned "Hoss Doctor." With the coming

of graduates from veterinary college the original "medicine man" of the stables and pastures were swept aside and forgotten. He passed on to some other vocation or to idleness, and the fatalities among farmer's stock tumbled because of his exit.

The "Hoss Doctor's" successor, however, met with a set back, with the passing of the horse on the coming of the automobile, but in compensation for that he includes the treatment of dogs as a useful and ^{profitable} ~~moveable~~ branch of his work. The latter is more ^{remunerative} ~~profitable~~ than healing major live stock for the pets have almost all gone thoroughbreds and the sick Pekingese, the affectionate Scottie or Airedale are of greater concern to their mistresses than any other quadruped that breathes and lives, or works at hard labor or gives milk for babies.

The "Old Hoss Doctor" never had an excuse for imposing his lack of knowledge upon owners of live stock except for the most part he made no charges for either diagnosis or the administration of his ~~destructive~~ doses. There were those who found sufficient compensation in the satisfaction that they had been appealed to as the men of their community, while others might receive a small ^{gift} ~~fee~~. There are others, however, who were not without some knowledge of administering to horses and cows, but it has been found in the face of recent scientific disclosures, that they overdosed their quadruped patients until it was impossible to determine whether illness or the medicine killed the afflicted horses and cows. At any rate the old "Hoss Doctor," like his victims exited from the modern picture, never never to come back.

Reference:- Personal Reminiscences.

Jan
J. Barten-Cheyney,

December 15, 1936.

State Prison
Folklore

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The Country Doctor

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There are still many persons who would recall the country doctor back to his rural home to administer to the people of the community. Finding the automobile speeded him about the country among his patients at a distance even more quickly than he could visit them with a horse and wagon, he was taken to the cities and towns from whence he is promptly and quickly accessible through the telephone, *and motor cars.*

The country doctor of the last century was a "mighty" man. In addition to his ministrations on the sick, ^{he} opening the eyes of babies as they came into the world and closing ^{ed} them at the journey's end, he was the confidant of the community. He was called upon for advice on all matters of individual or community concern, financial investments, marriages and divorces, and even to decide upon questions of social propriety. If his remuneration was small it was in a measure compensated for by the gratitude of the patients. He was invited to every feast, wedding or whatever was the function, and his left ear must have burned almost constantly if the old tradition is correct in saying the burning ear denotes that some one is singing your praises.

In the former days the country doctor's horse and carriage was known as it passed by all the people of the neighborhood, and where ever he drove he was greeted with affection and courteous salutations as he proceeded along the roads.

A man of endurance and patience was the rural doctor. Three months of the year the country roads were so deeply buried in mud that it was always a problem if the doctor could "make the grade," and three other months the intense heat made the going severely taxing

on the strength of the driver and his steed. The weather, however, was never too hot, nor too cold, nor the rain or wind, snow or hail too severe, nor the night too black to prevent his answering a call for medical help from whatever source it came. In addition to the exercise of all those humane virtues the country doctor was expected to head every subscription list - for charitable enterprises for church or community for every need.

have The fact that he stood at the very top in the esteem of his neighbors might have been indicated by the fact that if he could be induced to actively enter the political field he might count on the solid backing of his patients and neighbors. It was his selflessness, his love of his brethren, that endeared him to all with whom he came in contact, advised and healed their ills.

There have been numerous appeals for the return of the country doctor, but obviously the responses are few. He has been rendered "obsolete," as stated by the automobile and the telephone, and to an extent by ambulances, even in smaller communities which bring the sick and injured to the doctor and modern nursing, instead of calling the medical helper to the patient and then rushing perhaps miles to the nearest pharmacy to get the medicine called for by the prescription.

The country doctor- not infrequently was good naturedly laughed at by his more sophisticated brethren of the cities. One who has dramatically vindicated the skill and usefulness of the rural medicine man by bringing into the world a quintet of girl babies all of whom survived and are developing wonderfully well after their second birthday despite the insistence of the most prominent members of the medical profession that they could not possibly live- all if any of them - to reach the first anniversary of their life.

*Personal
Recollections*

Yes
J. Barton Cheyney,
December 16, 1936.

State Prison
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Folklore - *Customs*
Village Blacksmith - Gone

There possibly are not more than a half dozen left of the village "smiths" and shoers of horses that formerly abounded in this city and State. The directory for 1935 lists but one little blacksmith shop in Wilmington instead of the score that ~~plied their trade here~~ in the latter days of the Nineteenth century. There are also very few of the ^{country} village smithies still carrying on and they are on the way out. The blacksmith and his co-worker the Wheelwright, have been machincized out of profitable employment and have sought other opportunities to exercise their skill as craftsmen.

The country smith, all have been taught to mentally picture as a mighty man - brawny, strong as an ox, knowing no incapacitation or sickness in his entire life. He often was entirely a different person ^{to} of the smith of prose and verse. After serving an apprenticeship of four years in a ^{shop} smithy, the embryo farrier was ready to establish himself in a business of his own. His preliminary outlay for tools, anvil, bellows, hammers, sledges and vises were comparatively small and the patrons of the smithy who were served at the ~~same~~ shop stuck to him. In earlier days the work was varied, it included in addition to horse shoeing, supplying the iron work for new vehicles built by the wheelwright, sharpening plows and giving points to harrow teeth and a general repair service which might include making a key for the smoke house or rebuilding a threshing machine.

Leather aproned from ankles to neck he stood by his blazing fire of soft coal in a cradle of hard burned clay, while the apprentice lad pumped the leather bellows which kept the

fire in a roaring blaze. The smith took the iron from the fire at intervals of a minute or less to see if it had become sufficiently hot to "work". It soon came ^{forth} from the fire, red hot and was quickly "tonged" to the iron anvil, and hammered by the smith; occasionally the apprentice would be called in to assist in the task with a heavy sledge. The sparks "showered" in all directions, - resembling a cascade of shooting stars. If chemical were used to weld to red hot pieces the red fountain of sparks would be doubly brilliant. One of the ^{mysteries} conditions that the usual spectator to the smithy's fireworks, the lookers on failed to understand was why the pyrotechnics were harmless to bystanders or to their clothing.

The ironing of a fine driving carriage or a sleigh was regarded as a challenge of the smith's handiwork. They were rather difficult jobs with the crude tools and appliances available, four or five decades ago, and the neighbors watched the work with interest as it represented a test of his skill of the man with hammer and anvil.

Upon the smith's horse shoeing his future success was gauged. The work presented a wide variety of difficult problems. Each horse required shoeing particularly with reference to "corns" or otherwise tender feet. Although enveloped by hard hoofs the horse was more than likely to have foot pains or soreness unless the steel shoes were put on just right. The vicious unruly equines presented even more serious problems. The smith's life was in danger if he failed to think straight and act right at the time the obstreperous animal was demonstrating his capacity for what was called "general cussedness." He understood that if the horse ^dmake any protests against the farrier's efforts the latter should hold fast to the foot or leg of the "patient" on which he was working at the time. However, fatal or even very serious mishaps to the farrier were infrequent.

In still earlier days some of the smiths shod oxen with plates to enable them to work in winter over snow or ice, as well as to negotiate steep hills. "Buck" and "Berry" never could be brought to submit meekly to have new shoes nailed to their cloven hoofs, consequently stocks were utilized; into these one of the "yoke" would be driven or tempted by grain. Once within the bars were closed and broad straps placed under the stomach of the animal permitting him to be swung off his feet. The rest was easy. Each hoof, as it was ready for the shoe, was strapped to a beam and the nailing process was quickly accomplished. The narrow shell of the hoof required even grater care and precision than shoeing a horse.

The ox and the stocks have disappeared along ago rejected as arachic until a yoke of cattle drawing a cart is a total stranger to Delaware, and horses now broken to automobiles and steam threshers are overwhelmed with terror should they ^{meet} see their former kindred and farmyard neighbors yoked together on the highway.

The village smith was usually a pleasant, obliging person. When in winter if the cold brought ice and snow and made the roads difficult, the farmers brought their horses from all parts of the neighborhood to have them rough-shod. Sharp steel caulks set into the toe and heels and sharp headed nails driven into the shoe. He might be awakened to begin the roughing before sunrise and possibly would continue through out the day without stopping for food or rest. Every farmer was in a hurry on such occasions.

The man of hammer and anvil was "versatile!" In slack period of the summer he would obligingly help his farmer-patrons get their crops in the Autumn he helped at butchering time. In fact the village smith was indispensable. He was an institution - as was his wheelwright-neighbor - usually located nearby- The blacksmith

and the wheelwright shops in addition to the country store were the centers of all local news and speculation. Neither however, offered very luring accommodation for night forums of discussion. The smithy was unfloored - on the earth - and the wheel wright shop repelled visitors who smoked in fear that sparks might fall among the dry shavings and end the industry in smoke and ashes.

The farrier, these later days, when notified by a patron that the latter's horses need shoeing steps on the gas of his motivated smith shop and proceeds at once to respond to the call. While the blacksmith has witnessed the upset of his vocation and its almost total extinction, by the competing mechanical age he also may recall the development in his own vocation in the last half century, originally he was obliged to make not only horse shoes but even the horsehoe nails. But machinery long ago supplanted the hand made commodities of the smithy not alone in horse footwear, but in almost every article of farm or household use that formerly was wrought on the ringing anvils by village blacksmith.

References:- Personal

J. Barton-Cheyney,

December 15, 1936

Folklore Customs

The Village Shoemaker.

Modern machinery has driven the last of the country cobblers off his low bench into retirement- or into another vocation. There seemed to be one who served every country neighborhood half a century ago where he lived with his wife and children waiting on customers in a small annex to the kitchen. Six or seven decades ago the shoemakers were almost all to the country born. They were among the few humble workers and craftsmen who had semi-social recognition by their farmer neighbors - in days when the aristocracy of the country were landed proprietors.

Just why they turned to making and repairing footwear is not readily understandable for their cobbling was raw, and rough, even though they might have been apprenticed to a Journeyman. It is amazing that the results they obtained were not more crude than ~~if~~ they seemed to have been, these later days when looking backwards ~~in~~ to the cobbler's handiwork of the seventies of the last century.

In cutting leather for shoes this hand manufacturer fashioned his calf skins ^{to} ~~so the shoes would~~ fit either foot equally good- or equally ill. The uppers were staunch, if not attractive, according to modern standards, and they long withstood hard wear, and the elements. They were subjected to sunshine and storm, rain or snow- overshoes then were too cumbersome and rare. However, the shoes may be regarded now, they afforded the owners ²quite as great a degree of satisfaction as does the ~~the~~ possession of the finest artistic foot wear of today. The boots were more difficult to make than shoes, but the country cobbler negotiated orders for the one quite as readily as for the other.

This builder of foot wear sat on a low bench which

J. Barton Cheyney,

December 15, 1936.

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Folklore -The Village Shoe
marker.

offered accommodations for his tools, awls and such devices. A cake of black wax stuck on a scrap of leather was always at hand. This put the finishing touches on his wax ends which were made of strong linen threads rolled together and the wax applied by running it up and down or along the threads until it was thoroughly unified and strengthened. ^{Stiff bristles} ~~Camel's hair tips~~ were threaded into the "wax end," to be used as a needle to guide the thread through the holes in the leather made with an awl. In sewing the shoemaker wore shields of soft leather in ^{his} ~~the~~ palms of his hands to protect ^{his hands} ~~them~~ against the cutting bite of the strong, waxed thread. Following the awl with the thread the cobbler would grip a wax end in each hand and swing his arms high into the air as he drew it tight, narrowing the extent of his swing as the length of the strand grew shorter.

Years of service on the bench bowed his back and shoulders, and the sewing roughened his hand into a state of almost chronic soreness. He was almost invariably a patient, good tempered man, who liked the companionship of waiting patrons and who entertained some of his near neighbors who might drop in of evenings to ^a ~~what~~ while he patiently worked at making or mending. In this way the country cobbler's shop was the centre of harmless gossip- small talk of the community.

He bought his leather and "findings" from dealers in a near by city or from tanneries in Delaware which were numerous until the tanning bark became exhausted and the trade was absorbed by a trust.

The buzz and racket of modern shoe making and repairing machinery was a swan song for the hand cobbler and put up his shutters

for all time. Shoes are now made or repaired almost while the patrons wait, and by men mostly from the Old World who seem to have an aptitude for cobbling by machinery.

In some of the larger cities a very few of hand shoemakers have stuck to their lasts and supply footwear for particular patrons who are willing to wait and pay dearly for the luxury of hand made shoes.

It may be remarked that in the days antedating machine made footwear, chiropodists and foot doctors, generally were fewer in number then in later days, when corns, bunions and callousness seemingly are the lot of all the human kind even before middle life is reached.

Source:- Personal Reminiscences.

Franklin Pote
March 17, 1937

1830 February 6

400 1c Helen Dr.
1c Helen G. E.
1c Custome +
Seduction in
Cedents
1c Dunning

A LOAN WANTED

20 DOLLARS, (redeemable in 5 years) for which good freehold security will be given. Proposals received at the Town Hall, until, the next Nobility Ball is given - when that, at the lowest rate of per cent, will be accepted.

Also a skilful Genealogist wanted, who can divine the grade of Nobility my grandfather sprang from, as I have lately discovered a Boar's Head worked in the seat of a pair of his old Buckskin Breeches, (my sole legacy.)

Paul Jone/torn

Jan. 29 6

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