Spring 1937

Development of Charleston and the Great Kanawha Valley

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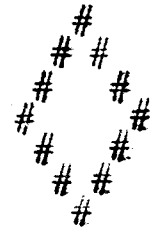
D E V E L O P M E N T

of

CHARLESTON AND THE GREAT KANAWHA VALLEY

by Cecil Anderson



History Thesis
May 24, 1937.

F O R E W A R D

The development of the Valley of the Great Kanawha River has been rapid and has not as yet reached its peake in growth. The Valley has been richly endowed with abundance of raw material and the facilities for the changing of these materials into useful commodities. Along with the growth of the industry comes civic growth and it is these growth that I wish to present in this monograph.

Although much data have accumulated in the form of reports, hulletins, and articles, no available work from which a true concept of the past growth and present status may be obtained now exists in assembled form. Much of the material I have gathered have been through visits to various plants and organization and in personal interviews I have gathered what ever I could that is available for a study of this kind.

The Kanawha River has its orgin at Gauley Bridge where the Gauley River and the New River come together. It flows through a rich valley to its mouth at Point Pleasant on the Ohio River a flow of 96 miles for its orgin to its mouth.

Charleston, the State Capitol, is a fast growing city and it supplies the civic and industrial center for this great valley so a study of Charleston is a study of the Great Kanawha Valley.

For the development of this problem the treatise will be divided into five parts as follows:

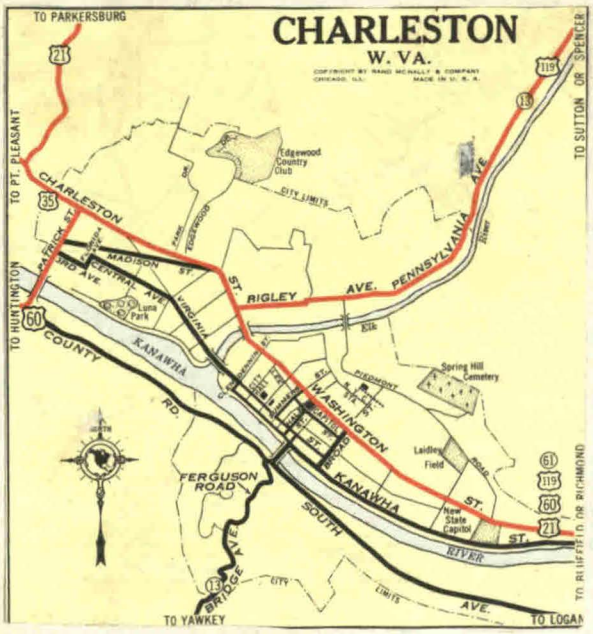
EARLY HISTORY OF THE GREAT KANAWHA VALLEY.

INDUSTRIAL AND COMMERICAL DEVELOPMENT.

BUSINESS AND FINANCE .

CIVIC ORGANIZATIONS.

CHARLESTON AS THE STATE CAPITOL.



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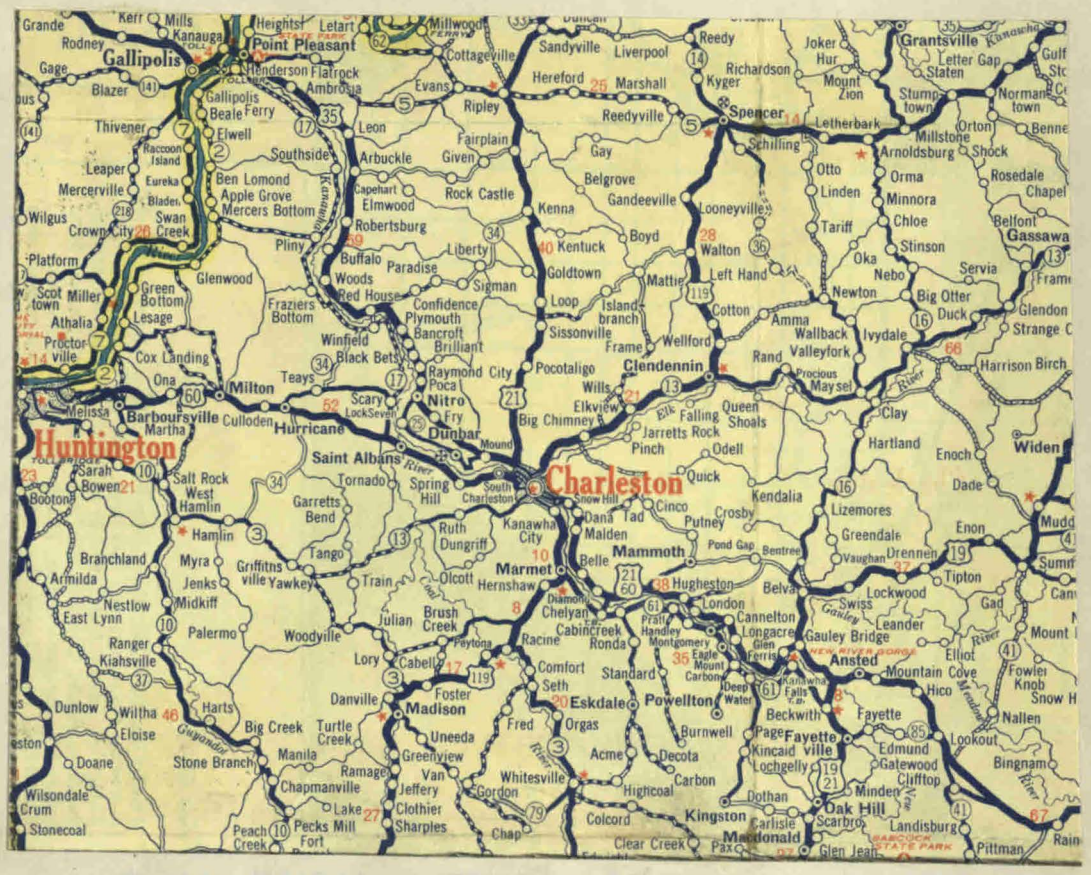

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THE GREAT KANAWHA VALLEY

TABLE OF CONTENTS

Chapter I

EARLY HISTORY OF THE GREAT KANAWHA VALLEY

Tracing the development of the Valley of the Great Kanawha River from an undeveloped and uninhabited wilderness to one of the greatest industrial and commerical and financial centers in the whole United States is the task I have assigned myself in this treatise.

This growth cannot be attributed to any one cause but to the combination of many causes. Its geographical location between the industrial and commerical east and the agricultural and manufacturing west. The fertility of its soil, its vast water power and water transportation, its cheaf fuel, its healthy climate, its vast and various material resourses together with good government, fair dealing, honest officials, splendid education opportunity, charitable and fraternital feeling, religious surroundings and intelligent citizens combine to make the opportunities for progress unequalled.

Nature has endowed this section with unbounded and as yet unrealized natural resourses.

From its hillsides are taken coal and fire clays, its wells give forth salt brime, oils and gas, sand and gravel are taken from its stream beds, its mountains are of building stone and timber for the use of the numerous industries.

The unwritten, unknown history of this valley probably ex-

ceeds that of most sections because there exist evidences of three, perhaps four periods of growth, development and decay, the record of which may be conjectured only.[1]

These periods are those of the moundbuilders and the cliff dwellers, the Indians and the White Man. The history of these must all be conjecture from discovered relics since none of the early people left a written record.[2]

Sufficient evidence that the valley of the Great Kanawha once occupied by a now unknown class of people who existence can be shown but little of their habits are known.[3]

The Iroquois Confederation having subdued the tribes of the other races held the territory of the Kanawha Valley open as a hunting ground but no tribe or race had a permanent settlement in the valley when the white man first crossed into the valley.[4]

Discovered evidence lead to the belief that numerous tribes of three different Indian races at some time lived within the territory now West Virginia. These races are Algonquins, Sioux, and Iroquois. The princiapl tribes which hunted at sometime in the valley were the Cherokees who claimed all the territory south of the Great Kanawha River.[5]

Just as both western continents were subject to rival claims of European Nations so the territory of this valley was a subject to controversy. The Spanish claimed the entire western world,

1. Atkinson, G.W., History of Kanawha County, Ch. 3. State Museum.
2. Ibid.
3. Ibid.
4. Anderson, H.E., Facts Of West Virginia, p. 77-85.
5. Ibid.

and based that claim on the discoveries and explorations of Columbus and others. The English laid its claim to the Atlantic Coast basing its claim upon the explorations of John and Sebastian Cabot.

While the French claimed the Valley of the St. Lawrence, Ohio and Mississippi on account of the explorations of Champlain and others thus giving the French the tributaries of the Ohio this included the waters of the Kanawha Valley.

"The first while man who viewed the site of Fort Lee and present Charleston will never be known Thomas Batts and Robert Fallam from the East first penetrated the wilderness to within thirty-seven miles of the mouth of the Elk. There is substantial evidence to show that in about 1673 one Gabriel Arthur, clever English lad, passed the site of Charleston on his way to visit the Indian village of Moneton, located some distance down the Great Kanawha."[6] This seems to be the earliest trace of the discovery of this territory, although in 1670 the New River is said to be discovered by Wood but the excersion only went as far as the Kanawha Falls.[7]

The present site of Charleston was formally known as "Fort Lee", named January 1792 for Governor Henry Lee of Virginia who served the terms from Dec ember 1, 1791 to December 1, 1794.[8] Often the Fort was called Clendenin, in whose honor the city of Charleston (formerly Charlestown), was named, because of the in-

6. Cook, R.B., The Annals of Fort Lee, p. 3.
7. Anderson, p. 139.
8. Cook, p. 2.

terest Charles Clendenin took in having an army fort established at the mouth of the Elk River.[9] In 1788 an army left the Greenbrier region and marched into the Kanawha Valley and the mouth of the Elk River and in the month of April built a log fort under the direction of Captain William Clendenin for the defence of the settlers of this region.[10]

This territory grew from the little fort of 1,110 men in 1788[11] into an industrial center with the city population of 60,378 in the United States Government census given in 1930. To day it is easily 70,000 with a county population of 160,000 and retail trade area enumeration of half a million.[12]

9. Ibid. p. 8-12.
10. Ibid. p. 16-17.
11. Ibid. p. 17-18.
12. The Charleston Daily Mail, April 19, 1936.

Chapter II

INDUSTRIAL AND COMMERCIAL DEVELOPMENT

Among the natural resources coal is the king in this region of West Virginia, and Charleston holds the scepter of power over the throne of the bituminous coal industry. Within the radius of 60 miles there are 60 billion tons of unmined coal.[1] Coal is the basic industry of West Virginia. Its development has been as a magnet to industry and commerce that has made the valley of the Kanawha grow through the depression while vast territories in other regions have suffered. Great manufacturers have found it more economical to locate their plants in closer proximity to the natural resources that they consume.

In the mining of coal about 70% of the production cost goes to labor. It means coal is a great employing industry, and that the 70,000 miners in these counties adjacent to Charleston have a tremendous purchasing power. Charleston merchants are the benefactiaries of this gigantic payroll.[2]

The coal is the basis for the greatness of railroad traverse in southern West Virginia coal fields with the lines of the Chesapeake and Ohio, the New York Central, the Norfolk and Western, the Virginian, and the Baltimoreaand Ohio. Over 70% of their freight revenue is derived from coal.[3] These rail-

1. The Charleston Daily Mail, May 3, 1936.
2. Quoted in an address by an official of the Miners Union in Charleston, W. Va., Dec. 20, 1936.
3. J. T. Johnson, C. & O. Clerk, Charleston, W. Va.

roads are primarily coal carriers and from the fields surrounding Charleston, transport this product to distant markets. They employ thousands of workmen whoe daily wages depend on the uninterrupted continuity of mining operations. They make large contributions to Charleston's welfare and prosperity.

> "While other fules and water power have displaced a large tonnage of coal in consuming markets, coal remains the major source of energy in the nation. It is and may he expected to remain for many centuries the most reliable source of energy. When present substitutes are exhausted the tremendous reserves of coal in this section will he found almost inexhaustible. Research will find new ways for this product, and its by-products, to he used and future generations will reap the benefits of this natural endowment. 4

Twnety-three years ago marked the beginning of the Chemical Indsutry in Charleston, which is no regarded as one of the leading chemical manufacturing centers of the world.. Attracted by limitless quantities of five of the elements which are necessary for the manufacture of chemical products— carbon from coal, oxygen and nitrogen for the air, hydrogen from water and chlorine from the salt brines, Hugh Rollins, an Englishman, purchased a tract of land along the river bank in the eastern end of South Charleston where he established a small factory. This was actually the beginning of the widespread development of the chemical industry in and near Charleston.[5]

Today the chemical indsutry of Charleston and vicinity represents an investment of more than $75,000,000 the employ-

4. The Charleston Daily Mail, May 3, 1936.
5. Ibid., May 10, 1936.

ment of more than 5,000 men and women, an annual payroll of some $21,000,000 and an output annually of products amounting to more than $33,000,000.[6]

The first industry to make a large establishment in the Kanawha Valley was the Carbide and Carbon Chemical Corporation which in 1920 was formed as a subsidiary of the Union Carbon and Carbide Corporation. At first a small experimental plant was set up at Charleston, purchasing a tract of land in the Kanawha river known as Blaine's Island. This once farm land is now the site of one of the finest chemical plants in the world.[7]

Hundreds of plants of this nature have been set up near Charleston in the Kanawha Valley among them are the Barium Reduction Corporation, Belle Alkali Company, Carbide and Carbon Chemical Corporation, Dickinson Salt Company (one of the oldest of its kind in the world); the E. I. du Pont de Nemours and Co., one of the two largest group, and almost constantly expanding; Electric Metallurgical Company, Evans Lead Company, Ohio-Apex Company, Linde Air Products Company, Vicose Company, Westvaco Chlorine Products, Inc., and the Givaudan Virginia, Inc.[8]

The story of the Monsanto Chemical Company—of which the Rubber Service Laboratories Company, at Nitro, is an important unit, is indeed the story of the future of Charleston and the

6. Ibid.
7. Guide of the Carbide and Carbon Chemical Corporation, December, 1936.
8. Anderson, C.C., et passim.

and the Great Kanawha Valley already recognized as one of the leading chemical manufacturing centers of the world. In the great Monsanto organization there are then plants—eight located at stragetic points in the United States, one in North Wales and one in England.[9]

The company was founded at St. Louis in 1901 to engage in the industrial phases of synthetic organic chemistry in which field Germany at that time exercised a virtual monopoly. Monsanto's first product was saccharin, an American discovery, but until Monsanto's entry manufactured principally in Germany. Later the war showed how great and costly was the chemical dependence of the United States upon Germany and brought the absolute necessity from the manufacture in this country of a large number of synthetic organic chemicals which American manufacturers had been importing. Monsanto developed many of these and brought out new products better suited to the needs of American industry. Today Monsanto is one of the world's largest producers in this interesting branch of chemistry, whish is particularly important in the field of dyestuffs and medicinals.[10]

Monsanto's Rubber Service Laboratories Company, at Nitro manufacture chiefly chemicals used in the manufacture of rubber products. The plant, a part of the great war-time explosives project, has been in operation some 16 years and at the present time at capacity, employing a force of approxi-

9. Clerk at Nitro's Plant, Personal interview.
10. Ibid. Quoted as nearly direct as could take notes on interview.

mately 200.[11]

The E. I. du Pont de Nemours and Company's plant at Belle pictures, perhaps better than any other industry, the future greatness of Charleston and the Great Kanawha Valley as a world leader in industry, particularly in chemical manufacture.

Organized originally to provide ammonia for use in nitric acid manufacture within the parent company, the Belle works unit is, in addition to satisfying this demand, now marketing large quantities of ammonia to the refrigeration, explosives, fertilizes, and various other industires. The orginal plant capacity of 25 tons ahnydrous ammonia per day has been increased many fold. Furthermore, methanol, which was produced at first in only small quantity as part of the gas-purification process, has now become a distinct and major part of manufacture at Belle.[12]

In addition to a daily capacity of hundreds of tons of ammonia and alchols the plant is producing some 60 odd other highly essential products and commodities, many of which were originated and developed in the laboratories and research experiments at Belle.[13]

As with many another indsutry in the Charleston and Great Kanawha Valley area, the great natural resources of the community play an important part in the phenomenal growth and development of the Belle plant, which started operations in May, 1925 with a mere handful of employees and today has a payroll of nearly 2,000.[14]

12. Ibid.

Coal from the hills bordering the Great Kanawha river is the chief raw material. At the present time some 39,000 tons of coal is required, but present plant improvements and extensions will shortly increase the monthly requirements to about 45,000 tons, all of which will be supplied by the mine located up the river above the plant and delivered at Belle by river barges.[15]

In the process of manufacture, the coal is coked in by-product coke ovens. The coke is charged into water-gas generators, which produce a crude water gas having the approximate composition of 50 per cent hydrogen and 40 per cent carbon monoxide. From the water-gas generators the gas passes to the primary scrubbers and from there to the water-gas holders. These holders fed the hydrogen manufacturing operation, from which issues the correct synthesis mixture comprising hydrogen, nitrogen, and carbon monxide.[16]

Water and air are also, essential requirements in the manufacturing process, both in large quantities. The former is acquired from the nearby Kanawha. The water pumping capacity at Belle is 45,000 gallons per day, sufficient at 150 gallons per capita to supply a city of 450,000.[17]

Belle plant employs the highest pressure used in industry when it is using a gas pressure as high as 1,000

12. Guide of the duPont plant. December 1936.
    Brother who use to be employed at the Belle plant.
13. Guide.
14. Ibid.
15. Ibid.
16. Brother. H.E.Anderson Jr.

1,000 atmospheres, or 15,000 pounds per square inch. Another extreme is in temperatures. In water gas sets a temperature of 2,400 degrees Fahrenheit is reached, and in the liquefication process, a temperature of 350 degrees F. below zero, a range of 2,750 Fahrenheit degrees.[18]

> "Incoming and outgoing products at the rate of a thousand cars per month-enough to make an eight-mile long freight train-and a pay roll of more than a million dollars per year tells only a part of the story of one of the Great Kanawha Valley's most important industries the Electro Metallurgical Company, a unit of Union Carbide and Carbon Corporation, at Alloy, 30 miles east of Charleston on the Great Kanawha river."[19]

The plant started in 1898 at Glen Ferris as the Willson Aluminum Company, and then passed to the ownership of the Electro Metullurgical Company in 1907 and has not missed a single day's operation since, in the production of electromet ferro-alloys and metals for improving iron and steel to be used in the manufacture of automotive parts and other products where extreme hardness and high quality of metals are essential.[20]

In 1930 the modern plant at Alloy was started along with the hydro-electric project at Hawk's Nest, it is the beginning of the major operation of the oldest industry in the Kanawha Valley. The Hawk's Nest power project was designed and constructed soley to furnish electric power to operate the giant electric furnaces in the Alloy plant.[21]

17. Guide.
18. Ibid.
19. The Charleston Daily Mail, Aug. 2, 1936.
20. Secretary of Oscar Nelson, Pres. of the Alloy Plant.
21. Ibid.

The original plant at Glen Ferris continues in operation where two electric furnaces of 6,000 horse power capacity operate 24 hours every day, producing from ores mined in Serbia, Africa, and Turkey high carbon ferrochrome and manganese silicon alloys and metals. This plant has its own hydro electric power supply, developed from the waters of the Kanawha river above Kanawha Falls.[22]

The construction of the Alloy plant was started in June, 1930. The plant was partially completed early in 1934 and production began in March, 1934. Two furnace rooms were provided for in the original plans for the Alloy development, but depression conditions delayed for a time the second unit which has now been completed as far as the building is concerned and will be equipped with furnaces and will be in production by summer months.[23]

In the Alloy development at present there are two furnace rooms, one measuring 740 feet by 175 feet and the new unit 540 feet by 175 feet. In the first furnace room there are seven giant electric furnaces. Five furnaces are to be installed in the unit just being completed. There are 10 other buildings in the Alloy project.[24]

On July 9 the turbines at the Hawk's Nest power plant were turned for the first time. Several days later they were producing current with the flow of the river—about 60,000 horse power. The capacity of the Hawk's Nest plant is rated at 120,000 horse power.[25]

22. Ibid.
23. Ibid.
24. Employee of the Glen Ferris plant, Mr. Payne, who is also a big stock holder.

The company now ownes land in this section including the Fayette County territory an acreage of 8,000. Residental developments for plant employees at Falls View, Glenn Ferris, Alloy, and Boomer as well as a coal mine development are included in this estimate. The plant uses 12,000 to 18,000 tons of coal from its coal mine a month, the mine which holds a national safety record, from March 14, 1931 to January 16, 1934 without a single lost-time accident while producing this abundance of coal.[26]

Approximately 900 men are employed by the Electro Metallugical Company at the present time and when the second furnace which is now under construction is completed it will take about 200 additional for operation.[27]

In the discussion of the Electro Metallurgical Company I mentioned the famous Hawk's Nest dam that was completed in 1936. I will now present this engineering achievement that took six years for its completion.

This hydro-electric plant has made the natural power resources of the Great Kanawha Valley a double team affair in which the "white coal" of the turbulent New River works side by side with the "black diamonds" of the hills in producing the 120,000 electric horse power that will eventually be required to operate the giant furnaces of the Electro Metallurgical Company plant at Alloy.[28]

25. The Charleston Gazette, July 9, 1936.
26. The Charleston Daily Mail, Aug. 9, 1936.
27. Mr. Payne, Employee of the Glen Ferris plant.
28. Vidi, f.n. 25.

When the project at Hawk's Nest was suggested there was a great uprise of the coal miners who feared that the harnessing of the river would decrease the use of coal but suprisingly enough this project has increased the use of ocal. Both coal and coke used as reducing agents in the manufacture of the Electromet ferro-alloys at the Alloy and Glen Ferris plants account for a considerable tonnage not counting the 12,000 to 18,000 tons required monthly in the operation of the Alloy auxiliary steam power plant required to supplement the power generated at Hawk's Nest Station.[29]

This great project has diverted the entire flow of the New River through Gauley Mountain for a distance of three and one-half miles through a 30 foot tunnel.[30] This is considered the outstanding engineering accomplishments in this section of the country.

The construction of the dam, tunnel and power house was started in 1930 and the first power was generated on July 9, 1936. Five thousand men were employed for some 30 months in the construction of the tunnel alone. At the highest point of the mountain the Gauley mountain towers nine-hundred feet over the tunnel.[31]

> "Despite the enormity of (the Hawk's Nest Project) it will not be sufficient to supply the power needs of the Alloy plant constantly, as it depends upon the flow of New River, which is rather intermittent. From November

29. Vidi, f.n. 26.
30. The Charleston Gazette, July 9, 1936.
31. Ibid.

to May it is expected that the four 30,000 horse-power turbines will turn at capacity, generating the full 120,000 horse power required to operate the Alloy furnaces. During the other months of the year it will be necessary to supplement the hydro power with power generated by the 60,000 horse power steam generating plant at Alloy" 32

This industry has been of tremendous importance to the Kanawha Valley. The Alloy and Glen Ferris plants together with the Alloy plant's coal operation located a mile and one-half in the hills back of Alloy, employ about 900 men at the present time. Completion of the second furnace-room at Alloy will give employment to about 200 additional.[33]

In the plant's mine some 150 men are employed. The Alloy mine is a model of modern, efficient and safe operation. Coal is delivered by the power house boilers from the mine's mouth a mile and a half away by means of an overhead tramway said to be the longest of its kind in the world operated in connection with bituminous coal production. There are 53 buckets in the tramway system, each having a capacity of 2,500 pounds. The tramway is entirely automatic in operation except in starting and stopping. Loading of the huge buckets at the mine mouth and dumbing at the power house is entirely automatic.[34]

"To the pioneer salt-makers of the Great Kanawha Valley— the forerunners of the Chemical Industry now attracting the eyes of the world to Charleston area— is credited the beginning of yet another great industry; the use of natural gas for fuel and as raw material."[35]

32. The Charleston Daily Mail, Aug. 16, 1936.
33. Ibid.
34. Operator of the Alloy mines, personal interview, Dec. 1936.
35. The Charleston Daily Mail. May 17, 1936.

It was in the Great Kanawha Valley, a little more than ninety-five years ago, that natural gas was first used as a fuel in industry. In 1841, William Thompson, made crude wood pipes and began to use natural gas as a fuel in his salt furnace. From that humble beginning, the development and production of natural gas has become one of the leading industries of the Kanawha Valley and the state of West Virginia.[36]

The first explorers who passed through the valley found salt springs from which gas was bubbling. These springs were regarded as great curiosities, and the fame of the "burning springs" on the western river spread throughout the eastern settlements. So well know were they that the explorers, hunters, land surveyors and soldiers amused themselves by setting fire to the gas and roasting their meat over the flame.[37]

Pioneers coming into the country marvelled at the clean, clear flame that sprang up from the surgace of the springs. They found, also, that boiling the water from the springs yielded salt. So were started more than a hundred years ago two of the great industries of the region-chemical manufacture and the production and distribution of natural gas.[38]

It was not until 1874 that the great value of natural gas as a manufacturing fuel was demonstrated in the steel industry,

36. Ibid.
37. Personal interview, W. White employed in the state's archive department. (He is considered an authority on early W. Va. history expecially the old salt mine development.)
38. Ibid.

then in the glass-making industry and others that require an intense heat held at a constant temperature. Gas was piped to the cities and introduced into homes to furnish heat and light.[39]

More than one half of the gas consumed each year in West Virginia is utilized in manufacturing and other industrial purposes. It is therefore, one of the state's greatest natural resources.[40]

The natural gas industry in the Great Kanawha Valley represents an investment of millions of dollars, and other millions are expended annually in carrying on the industry and giving employment to a large number of people.[41]

Not only does this region use gas for heat but through new synthetic processes are able to make many new and different products; glass factories, steel and iron plants and scores of others engaged in various kinds of business are enabled by natural gas to operate economically, efficiently and profitably.[42]

Charleston and the Great Kanawha Valley are richly endowed with unlimited quantities of natural gas, the prime requisite for glass manufacture thus is a ideal location for the glass plants that have been set up and are being constructed near Charleston.

West Virginia has more than marched apace with the advancing Glass Industry, in fact it has been a leader. West Virginia gave to the industry one of its greatest geniuses-Mic-

39. Personal interview, Clerk of the United Fuel Gas Co.
40. Ibid.
41. Ibid.
42. Ibid.

hael J. Owens came out of the West Virginia hills poor and became a glass blower and labor representative. His inventive genius resulted in the Owens Bottle Machine which revolutionized bottle making by reducing to automatism an art which from time immemorial had required hand gathering of glass and blown by human long power into required shapes.[43]

The glass industry is growing as many more uses are found for glass in many and various forms. Building material such as blocks and insulations is becoming one of the new fields of the glass industry, glass curtains, and carpets even exist thus showing the growing field for this prominent industry in Charleston and the Great Kanawha Valley.[44]

In the newest addition to Charleston, Kanawha City, you will find lined along the highway massive, two-block-long manufacturing plants. On the right you will find a plant covering some 35 acres in manufacturing area; 20 additional acres with 91 factory owned residences and 50 additional acres provided for future development of the plant of the Libbey-Owens-Ford Sheet Glass Company--the world's largest sheet-glass plant.[45]

Some 1,200 men work here producing a commodity of great importance to man. Millions upon millions of square feet of sheet glass for the homes and buildings throughout the United States and enourmous quantities of plate glass "blanks" used in the ma-

43. Guide of the Libby-Owen-Ford Company at Kanawha City, Dec.,1936.
44. Ibid.
45. Clerk in the office of the Libby-Owen-Ford Company, personal interview,-E. E. Johnson.

nufacture of mirrors and other commercial uses, and in addition plate "blanks" for the ultimate manufacture of automobile "safety glass."[46]

The manufacture of machine-drawn glass was invented in this plant which was organized in 1915 known then as the Libbey-Owens Sheet Glass Company. This invention completely revolutionized the flat-glass industry.

As first constructed the plant has six furnaces. Natural Gas and Glass Sand were abundant so the growth of the plant has been fast and resulted in the expansion to double its original size and production capacity. The plant has its own electric power plant, machine shop, paint, tin, ice-making and box manufacturing departments.[47]

In 1930 the Libbey-Owens interests were merged with the Edward Ford Plate Glass Company, of Toledo, one of America's pioneer plate glass concerns, and the name was then changed to Libbey-Owens-Ford Sheet Glass Company.[48]

Operating at full capacity (12 furnaces employing a force of 1,600 men), more than 400 tons of sand is required in the manufacture of the approzimate 25 car-loads of plate "blanks" and window glass shipped from the plant each day. Among the best if not the best-paid in the industry, the workers of the plant receive salaries and wages aggregating more than two million dollars annually.[49]

46. Ibid.
47. Guide.
48. Johnson, clerk.
49. Ibid.

The plant is not only a great asset to Charleston and the Great Kanawha Valley in its employment and pay-roll but millions upon millions of cubic feet of natural gas is required for the operation of the furnaces and this is all produced in the gas fields immediately surrounding Charleston; the nearly two hundred thousands tons of glass and virtually all of which is produced in West Virginia as are the millions and millions of feet of milled lumber for the manufacture of boxes in which the product is shipped.[50]

In addition to the expansive Kanawha City plant, the company operates the old Whittemore Glass plant at Dunbar, as an experimental plant, recently purchased the Vitrolite Company plant at Parkersburg for the manufacture of structural glass, a product much in evidence in the construction of attractive store fronts and interriors.[51]

The L-O-F shield shape sign of the Libbey-Owens-Ford plant is becoming more and more prominent as shown by the increase of the industry and the splendid way in which it helped Charleston to weather the depression that was less kind to most communities.

The invention of Michael J. Owens automatic bottle-blowing machine, which was put into operation by Edward Brummond Libbey the sponser has done more to advance and revolutionize the bottle works. This machine, since its initial operation

50. Ibid.
51. Ibid.

in 1903, has done more to advance the art of glass bottle making than was accomplished in all the previous years.[52]

Until 1903, the walls of the bottles were caused to take shape by human breath through processes differing but little from those used by the ancient Egyptians. The automative machine made mass production possible, at the same time blowing bottles of extreme accuracy as to height, weight, finish, and capacity. These attributes in turn made possible the mechanization of filling, sealing, labeling, and packing operations.[53]

The foremost bottle-making works in the Kanawha Valley is the Owens-Illinois Company at Kanawha City. Organized originally as the Owens Bottle Company, the concern was merged with the much older Illinois Glass Company in 1929, to be thereafter known as the Owens-Illinois Glass Company.[54]

The Charleston plant is plant No 6 of the Owens-Illinois Glass Company. Mostly beverage and food-packer bottles are made at this plant, which emplbys on an average of 875 workers.[55]

Approximately 3,150 inbound cars of raw materials (sand, soda ash, lime, etc.), are received annually, involving an expenditure of $700,000 per year in transportation charges. Millions of cubic feet of natural gas produced in West Virginia are used to melt glas and produce bottles.[56]

52. Supra.
53. Guide of the Owens-Illinois Glass Company, Dec. 1936.
54. Clerk at the Owens-Illinois Glass Company, Dec. 1936.
55. Ibid.
56. Ibid.

The daily production of Charleston plant runs into many hundreds of thousands of bottles for nationally distributed foods and beverages.[57]

The plant at Kanawha City is one of twenty in operation throughout the country, three of them being in West Virginia—Charleston, Huntington, and Fairmont. All plants of the Owens—Illinois Company are operated on a four six-hour shift basis. The company has 30 branch sales offices located throughout the United States.[58]

At the Charleston plant are also manufactured corrugated strawboard boxes and wooden boxes, which, in themselves, are sizeable institutions. The boxes are manufactured complete, even to the printing of the labels and trade-marks of the customers for the complete-ready-to-deliver-to-the-consumer product.

Another one of the glass works of the Great Kanawha Valley is the Dunbar Glass Corporation, of Dunbar, which manufactures annually three million chimneys for "coal oil" lamps, and an even larger number of glasses, tumblers, vases, bowls, lighting fixtures, novelties, etc.[59]

At one time the manufacture of the lamp chimneys was the big industry of the Dunbar Glass Corporation but this has become the small item of the plant althoggh they still have an output of three million annually.[60]

57. Ibid.
58. Ibid.
59. Employee of the Dunbar Glass Corporation, Dec. 1936.
60. Supra.

Drinking glasses, plain and decorated, in a great variety of sizes and shapes, some of cut glass, form the principal product of the Dunbar Glass Corporation. These items are distributed principally through the variety stores of the nation—the 5-and-10's and Dunbar household glassware in some size and shape is to be found on the glass counters of the principal chain stores from coast to coast and from the Canadian border to the Gulf; and on into Mexico and the South American Countries.[61]

Operation of the Dunbar plant at the present time is on a 24 hour basis and some 375 skilled glass workers, decorators, glass cutter, etc., are given steady employment. The annual pay roll runs between $350,000 and $450,00.[62]

About 90 percent of the plant's operation is semi-automatic manchine and 10 percent the old process of blowing by human breath.[63] In the machine blowing, a novel process is used in which a lamp chimney and a drinking glass are blown together. Whenaa lamp chimney and a glass are blown at the same time, they are severed by an intense flame and then finished as tow separate articles.

The plant, covering some 15 acres,[64] is a beehive of industry. To know the futility of attempting to enumerate the vast number of articles manufactured in their various sizes and shapes, one has but to glance into the large sample dispaly room at the plant.

61. Personal interview, clerk at the Dunbar Glass Corporation, Dec. 1936.
62. Ibid.
63. Ibid.
64. Ibid.

Here great shelves and tables simply covered with the product of this plant that caries the trade name of the company "Dunbar".

"Aristry plays an important part in much of the plant's product. Deft strokes with paint brush, application of silk screen decoration and airbrush painting transforms prosaic glasses, decanters, bowls, etc., into handsome objects while workers holding glasses against whirling stones etch desings of the most delicate and intricate pattern."[65]

"The Fletcher Enamel Company, of Dunbar, is an establishment whose products are distributed in every state in the union, and in each, perhaps, is better known that in the growing industrial center of which it is a part."[66]

The plant covers more than three acres of well constructed manufacturing buildings, giant presses, some of twenty-ton capacity, transforming discs and sheets of rolled steel with magical swiftness into parts and complete units of some 263 different sizes and shape kitchen and household enamelware and aluminum ware which, finished in three standard color, make a total of 786 different items.[67]

Undoubtedly the enamel ware business—at least that of the Fletcher Enamel Company—is feeling the effect of improved business conditions. At present the plant employs 450 men and women in two eight-hour shifts in the die-punching and finishing

65. Maxwell, Foster, R., "Glass Works in West Virginia." West Virginia Review (March, 1935).
66. The Charleston Daily Mail, July 5, 1936.
67. Ibid.

departments and in three eight-hour shifts in the department where the enamel finish is "burned in". The plant now produces about 3,000 complete kitchen and household utensils of various sorts and sizes hourly--making the daily production about 50,000 pieces.[68] Since my visit to the plant there has been a new continous gas-fired furnace which will increase the plant's present production at least fifty per cent, has been added.[69]

The Fletcher Enamel Company first in Indiana in 1909, was moved to Dunbar in 1914.[70] Today it may be said to be "the pulse" of this growing community and an industry which contributes much to the prestige of Charleston and the Great Kanawha Valley. Manufacturing advantages offered by the community-principally natural gas-used in great quantities in the plant's operations-were factors which prompted the removal of the plant to Dunbar. Its growth and expansion has been steady and sound. In addition to its sizeable contribution in annual pay roll, the Fletcher Company also contributes to the wealth of the area through its large use of natural gas in the manufacture of its products.

Die-cut and stamped, each article manufactured in the plant requires a skillfully shaped dye or mould to its exact shape and size. These dies are manufactured in the plant's own machine shop. Aluminum-ware manufacture which has not been so active

68. Ibid.
69. Visit made in the summer of 1936 and the addition to the plant was made a short time before the first of the 1937 year.
70. The Charleston Daily Mail, July 5, 1936.

with the company in recent years is again becoming an important feature with the Fletcher Company. Specialties such as an Italian type of aluminum coffe pot and a complete set of patented cooking utensils has in recent months given employment to a large number, and indications are that this department will form a most important part of the company's business.[71]

There are two prime requisites for the making of a great industrial and manufacturing center; they are; an abundance of raw materials and cheap transportation.

Of the first Charleston and the Great Kanawha Valley have an abundance as; coal, oil, gas and high quality salines.[72] While facilities of the second essential at present are considered eminently adequate and satisfactory, there is being completed now a mode of transportation, which, in later years, is expected to play an important part in giving industral leadership to this territory.

At a total cost of approximately $21,605,000 borne by the United States government, low-cost river transportation is about to become a reality for the Great Kanawha Valley in the construction of a system of locks and dams, providing a nine-foot river stage, linking the community to the great water-ways of the world.[73]

Within the next 18 months, it is believed, the last part

71. Guide of the Fletcher Enamel Company.
72. Supra.
73. Personal interview with Colonel Conklin the Chief Engineer of the whole project on the Kanawha River.

of the great government undertaking will be completed and then it will remain only for men of vision and courage to provide the necessary shipping facilities-boats, barges, and terminals-which, in future years will float the varied products of the Great Kanawha Valley to the markets of the world by the cheapest form of transportation. Above Charleston the London and Marmet dams are finished and in operation. Below Charleston the Winfield dam is over 80 per cent finished and should be completed within the next 12 months and the Gallipolis dam is about 75 per cent finished and shoudl be available within the next 15 months.[74]

The London dam cost approximately $3,200,000; Marmet, $3,300,000.[75] Winfield to cost $6,099,000 and Gallipolis, $9,066,000.

The project cost does not seem so much when the fact is known that the power output of the dams have been sold on a basis which not only pays all operating costs but contributes to the sinking fund requirements as well.[76]

Great masses of men, material and equipment, under the efficient and able direction of the United States Engineers, are driving this enormous undertaking through to completion. And, as with the Great Kanawha River, so with the Upper Mississippi, the Missouri, the Tennessee and others, all to the end that 6,000 miles of dependable, year around nine-foot channels become available to the transportation-handicapped inland empire of the Great Mississippi Valley.[77]

74. Ibid.
75. The Charleston Daily Mail, September 20, 1936.
76. Ibid.
77. Ibid.

"Unbroken cargoes of bulk commodities to and from the Great Kanawha Valley into the Great Lakes at Chicago; into the Great Northwest at the Twin Cities; into the Dakotas via the Missouri; into the Gulf of Mexico via New Orleans; or around the coast via the intra-coastal canal: There are the termini of this great water highway. No exclusive franchises, no limited services, no load of generation-accumulated debts, just a free, open highway, open to all big, little, rich or poor. Built with low-cost government money; operated for the benefit of all.

"Present annual tonnage on the Great Kanawha amounts to substantially 2,200,000 tons; on the Ohio 21,000,000 tons. The nine-foot channels on the Ohio were opened to traffic in 1929. During these depression years traffic has barely held it own. The Great Kanawha should reach 10,000,000 tons by 1950 and the Ohio 30,000,000 tons. Each added service will build additional services. In days to come our chemicals and coals and manufactured products will be leaving our valley in great, economically operated tows for all parts of the Mississippi Valley, as well as for the world markets, and returning with the agriculatural and mineral products of the Northwest, the sugar, cotton, sulphur and lumber of the South-west, and the fruits, coffee and mineral products of world trade from the Gulf of Mexico.

"Our Valley is the greates storehouse of raw materials in the known world, not only as to quantity, but as to quality and diversity as well. Industrial engineers are astounded when confronted with our underlying factors. Capital is rushing in in a great golden stream and where it will all end nobody knows. Into this picture a benevolent providence has thrust the Great Kanawha River. The federal government, thanks to the discerning eye of the U. S. Engineering corps and the Rivers and Harbors Committee of the National Congress, has seen the need and the opportunity and inbringing to us this great, new, and modern and most economical of all the transportation agencies. Let us have the vision and the courage to take it and use it; for ourselves first, and then for others. It will bless us and through us it will be an unending blessing unto the generations and generations to come." 78

Upon transportation, as much as upon any other feature, depends the success and continued progress of any community. In this respect

78. Ibid.

Charleston and the Great Kanawha Valley enjoy excellent facalities, being served by four railway systems, the largest unit of the world's greatest motor bus system, highly improved waterway transportation facilities and for the past several years by one of the great air line of the nation.[79]

Transportation is essential not only in carrying the manufactured products of local plants to the great distributing centers of the nation, but also in bringing in the required raw materials and serving the many thousands of people who do business with the varied industrial plants of the area.

In rail transportation the great Chesapeake and Ohio and New York Central Systems, serving the entire eastern and central west sections of the country provide unusually fine facilities for passengers. The Chesapeake and Ohio, serves this area with 12 trains, east and west, every 24 hours. The New York Central System operates four trains daily in and out of Charleston and the Virginian and Baltimore and Ohio two trains each.[80]

Shipment of coal offers the greatest tonnage for the rail carriers, the daily average being approzimately 50,000 tons or about 1,000 carloads. The industrial plants ship approximately 300 carloads, which include the materials for the plants and the needs for the individuals in supplies and commodities.[81]

79. The Charleston Daily Mail, 1936-1937, et passim.
80. Train Tables of the respective railroad.
81. Clerk of the C. & O. freight yard office, Charleston.

Charleston is the general headquarters for the Atlantic Greyhound lines,[82] the largest unit of the Greyhound Bus System.

Organized as the Midland Trail Transit Company, operating between St. Albans and Huntington, the company later became the Blue and Gray Transit Company and several years ago was changed to the Atlantic Greyhound Lines which now covers 5,350 miles of routes in 11 southeastern states, operating a fleet of 220 coaches in daily service.[83]

The Atlantic Greyhound Lines operate 18,000,000 bus miles annually or 225,000,000 passenger miles and carry annually an average of 3,052,945 passengers.[84]

Several score Atlantic Greyhound schedules are operated daily from Charleston over routes which radiate in six different directions from the city, providing both local and long distance service.[85]

The company is at present constructing a splendid new $100,000 terminal in Charleston at 175 Summers Street and has recently received the sirst shipment of an order of 40 new buses. These coaches are streamlined and the last work in modern bus equipment[86]

The Atlantic Greyhound Lines employ some 850 people and 350 of these are employed in the local general office, terminal garage and over routes operating out of Charleston.[87]

82. Squire Pauley, head of the terminal shops.
83. Ibid.
84. The Charleston Gazette, June 24, 1936.
85. Greyhound Bus Time Table.
86. The Charleston Gazette, June 24, 1936.
87. Pauley.

Chapter III

BUSINESS AND FINANCE

One of the great factors of the growth and prosperity of any commonunity is the efficiency of their public utilities.

From transportation to communication, from water to electric power and gas, Charleston enjoys a degree of public utility service unexcelled by an community in the country.

Some 40 miles of city street car and interurban tracks and 32½ additional miles of bus routes provides modern transportation service which enables the citizens of Charleston and its industrial are to travel between homes, stores and work not only quickly, dependabley and easily. The Charleston Transit Company is expecting to improve it now good means of transportation with addition of street cars that will give the comfort and speed of the present bus routes.[1]

Charleston and the Great Kanawha enjoys the lowest rates in the country on fuel for domestic and industrial uses. Located in the unlimited field of Natural Gas the United Fuel Gas Company is able to provide very efficient service at an unbelieveable low rate. Virtually every home in the entire section uses Natural Gas for cooking and heating. Many of the industries depend upon the United Company for its heat.[2]

Charleston and the area from Poca to Diamond enjoys a splendid supply of pure water furnished by three purification and dis-

1. The Charleston Daily Mail, Dec. 20, 1936.
2. Ante, chap. II.

tributing plants of the West Virginia Water Service Company located at Charleston, Nitro and Belle.[3]

The company serves more than 20,000 domestic, industrial and commerical customers. The maximum capacity of the three plants, which are physically tied together much after the fashion of an electric system, is 57,000,000 gallons of water per day, which is estimated to be sufficient to supply a population of from 200,000 to 250,000. The system consists of approximately 300 miles of pipe lines with slightly more than 700 fire hydrants in the various communities in the Valley.[4]

The Appalachian Electric Power Company serves the district with electric light and power. Inter-connected with power stations at Bluefield, Logan and Kenova and others in Virginia, North Carolina and Ohio, an unlimited supply of electric energy is assured in such a manner as to safeguard against power interruptions or failure of more than momentary duration. In Kanawha County alone the Appalachian Electric Power Company has some 27,784 meters which includes service to 26,500 residences and homes.[5]

Charleston's telephone service started January 1, 1883, with 25 subscribers, has grown to nearly 21,000 telephones served by three dial central offices. Approzimately 145,000 local calls are made daily between the subscribers connected with the

3. Imformation secured at one of the W.Va. W. Ser. Substations.
4. Ibid.
5. Harrison an employee with the AEPCO, at Charleston.

Capitol, Kanawha City and South Charleston switchboards. About 65,000 miles of wire connects Charleston's telephones-enough to circle the world two and a half times.[6]

The four major finance companies did $20,000,000 business[7]-enabling the people and families of the Charleston district to enjoy modern improvements through the medium of time payments.

General Motors Acceptance Corporation, Commerical Credit Compa(, The Commercial Investment Trust Corportation, and the Universal Credit have all established branch offices here with sizable forces employed thus giving the region the benefits of their loan policies.

The GMAC and the Universal companies specialize almost exclusively in financing the purchase of automobiles for both consumers and dealers, the other companies engage in financing industries and businesses in the matter of cpaital equipment investments as well as automobiles which adds to the importance of the companies to the community.[8]

The General Motors Acceptance Corportation branch employs the largest force which with its affiliate, the General Exchange Insurance Corportation supplying insurance service for automobiles purchased on the GMAC plan, employ between 250 and 300 men and women.[9]

6. Personal interview with employee at the telephone office.
7. The Charleston Gazette, Dec. 28, 1936.
8. Personal interview at the GMAC office.
9. Ibid.

Since 1933 the Charleston branch of the GMAC has the greatest percentage of growth of any of the more than 130 branches scattered throughout the entire United States. And the 1936 year was the best in the history of the office which was opened in November, 1927.[10]

While the GMAC finances the General motor products the other have taken over the various other cars and each have show an increase in the last year.

One of the great barometers of progress and growth is the communities banking deposits and Charleston's four splendid banking institutions last June 30 reached an all time high record when deposits totaled $50,307,369.[11] Total deposits based on the present estimated population of 70,000 give Charleston a per capita of more than $700 on deposit in local banks.

Deposits of all local banks on December 31, 1929 totaled $38,218, 971. The previous high for deposits was reached in the statements as of December 31, 1934 when the total was $44, 038,857. In the 18-moth period from the previous high, total deposits of Charleston banks increased $6,268,512 while the increase over the past six and a half years-among them the worst depression years the world has known-the increase in deposits totaled $12,088,389. The low record of total deposits during past 10 years was $35,000,000.[12]

10. Ibid.
11. Interview with the late Mr. Beck, president of the National Bank of Commerce.
The Charleston Daily Mail, Sept. 13, 1936.
12. Ibid.

The Charleston National Bank and the Kanawha Valley Bank, both of which are well past the half century mark in service to the community, are the two largest banks in the state of West Virginia. The June 30, 1936 statements showed deposits in the amount of $21,197,615.64 for the Charleston National Bank and the Kanawha Valley Banks' depowits $20,859,045.47. Resources of the Charleston National Bank were given as $24,191,886.91 while the resources of the Kanawha Bank were $23,316,128.04.[13]

These tow leading banks of the state are also classed as two of the oldest financial insitutions in West Virginia. The Kanawha Valley Bank was organized in 1867 and is therefore in its sixty-ninth year of service to the community while the Charleston National Bank has been in existence 52 years, having been organized in 1884. Next in order in size and age is the Kanawha Banking and Trust Company which was organized in 1901. The National Bank of Commerce is also one of the fine banks of Charleston.[14]

The strength of the banks shows and make secure the strength of industry and security for the individual of a community and the people of Charleston need not fear for the need of a strong banking system.

The progress of a community is marked by and runs parallel with the growth of the business of suppling commodities to the individuals of the community.

13. Ibid.
14. Ibid.

The retail business of the 200,00 people centered around Charleston was estimated for the year 1935 at a total of more than $53,000,000 and in the year of 1936 the report showed an increase of 8 percent.[15]

That business in Charleston and the Great Kanawha Valley reflect the huge industrial activity of the community is indicated by the 1935 report of the State Tax Commissioner, which credits Kanawha County with a total of $1,007,914.78 received from retail concerns in collections of the 2 percent comsumers sales tax. This amount, the report further shows, is almost equal the combined tax as collected and reported by Wheeling and Ohio county and Hunting and Cabell county. The tax collection from Ohio county in 1935 was $652,228.41 while those of Cabell county, which also includes the city of Huntington, was $553,640.78.[16]

It is estimated that there are about 1,424 retail establishments of all classifications in Kanawha County.[17] Practically every type and kind of service that is to be found in any modern community is also to be found in Charleston and the Great Kanawha Valley.

The stores are modern and up to date in all detail and can compete with the stores in any locality for styles and modern merchantdize.

15. The Charleston Gazette, Sept. 7, 1936.
16. Sales Tax Commissioner Report for 1935.
17. Ibid.

The Charleston Retail Credit Association has on file credit references of more than 350,000 persons during their 12 years service in Charleston. It is estimated that approzimately 200,000 of these people do their retail shopping in Charleston.[18]

The Wholesale and Jobbing concerns of Charleston and the Great Kanawha Valley also present a good record for within the past 25 years the annual volume has never fallen below $40,000,000.[19]

It is estimated that at present there are approximately 75 wholesale and jobbing concerns in the Charleston industrial area, supplying every conceivable need or want of this fast growing community.[20]

" Charleston's Wholesale and Jobbing industry far exceeds that of any other West Virginia city. Indeed it is said by experienced business men to be the largest market between Baltimore and St. Louis. In many lines the volume of business exceeds that of Cincinnati, although the latter is many times larger in population."[21]

Charleston Wholesale and Jobbing concerns, too, cover a vast territory, extending to Bluefield and vicinity on the south, to Covington, Va., on the east, Clarksburg, Pakersburg, and Fairmont on the north and the rich Harland and Hazard coal fields in Kentucky on the west.[22]

18. Charleston Retail Credit Association Records.
19. The Charleston Daily Mail, Sept. 1, 1936.
20. Ibid.
21. Ibid.
22. Employee of the P. H. Noyes wholesale house.

The industry of wholesale and jobbing is growing and is not dependent on the present locality for its growth alone but is becoming virtually responsible for the growth of the community in which it is centered.

Another barometer of progress is real estate values. Already Charleston is famed for the proportion of its individually owned homes. More houses are occupied by their owners and fewer by tenants than perhaps in any other city of similar size in the United States.[23]

Aside from temporary fluctuations, no Charleston real estate has ever decreased in value. Property values never decrease in any city or community where employment is based on permanent industry; and with industrial conditions as they are now, and with every evidence of material expansion and permanency, the people of Charleston and the Great Kanawha Valley seem to have realized that the establishment of homes, instead of mere residences in houses, is its safest investment.[24]

It seems evident that the growth of Charleston as a center for industry is just in the making and that the real estate values are on the incline as far as man can realize and see. All indications point to a bigger and more prospers community as seemingly all industries and business flurish within this ideal setting for growth and prosperity.

23. Agent of the Lily Real Estate Office.
24. Ibid.

Chapter IV

CIVIC ORGANIZATIONS

"The Civic Club is a definite, positive, unselfish instrumentality in molding and preserving community, state, national and international cooperative public spirit. It is unique, although closely related to every uplift movement. Its collective influence and returns are more spiritual than physical. For obvious reasons its membership is limited, but its goal is a worthy representative from every business and professional service to society.[1]

Charleston's Civic Clubs, some of them branches of international movements, other nationalized, many local in character, "par" with the best, are constituted alike of selected men or women from Charleston and its environs, citizens, neighbors and friends, chosen for their qualifications to lead and fitness to absorb and be a part of the adopted programs. Their independent efforts do not clash, their ambitions are justifiable, their pride in accomplishments is pardonable, and their good will visualizes and embraces the success of others as their own. They reach out a neighborly hand to meet a like response for clubs in other communities; a friendly rivalry replaces unfamiliarity, and better clubs, better cities and towns and a better state are inspired.[2]

1. The Charleston Daily Mail, Oct. 18, 1936.
2. Ibid.

The "Kiwanis" is a group of the civic leaders that are ready servants of the common weal, to cooperate in creating and maintaining that sound public opinion and high idealism which makes possible the increase of righteousness, justice, patriotism and good will, with an international program idealized in its slogan, "We Build".[3]

"Lions International," fostering "loyalty to country, community and home, individual intergrity, one flag, one language, new ideals, hopes and ambitions in business and profession, and service founded on the Golden Rule," with the slogan "L-iberty, I-ntelligence, O-ur N-ation's S-afety".[4]

"Rotary International" with a world-wide program to encourage and foster the ideal of service as a basis of worthy enterprise, spiritualized by the motto, "He profits most who serves best," its objects-"The development of acquaintance, high ethical standards in business, and the advancement of international understanding, good will, and peace through a world-fellowship of business and professional men united in the Ideal of Service".[5]

"Quota International", whose prospectus embraces "fostering the ideal of service and promoting among business and progressional women and intelligent advancement of of righteousness, justice, mutual understanding and good will, with a specialized 'Big Sister' girls service program."[6]

3. Corresponding secretary of the Charleston Kiwanis, letter of February 12, 1937.
4. Copy of the Lions Constitution secured from member.
5. Ibid., Rotary International Constitution.
6. The Charleston Gazette, Oct 12, 1936.

Various other civic groups should be mentioned for their promotions of activities within the community. Junior League, Parent-Teachers Association, Kanawha Players, Civic Music and May Festival Association and various similiar groups.

Each club had its beginning in some illuminated problem and has keep abreast with problems that arouse thus uniting the leaders of the community in a fellowship groups for the solution of the questions meet by society.

Fraternities play a big part in the development of the civic side of the community

Masonry, unquestionably, is the dominant society of the community and righty so since the first Masonic Lodge was formed in Charleston 121 years ago.[7]

Kanawha Lodge No. 20 was organized in Charleston in 1816 and stands today the third largest Masonic organization of its branch of Masonry in West Virginia, being exceeded in membership only by lodges at Pakersburg and Clarksburg.[8]

"In Scottish Rite Masonry, Charleston has one of the two Consistories in the entire state, the other being located at Wheeling. The Charleston Consistory confers all degrees up to the 32nd. Scottish Rite Masons in Charleston number about 2,500."[9]

7. Masonry's Grand Secretary George S. Laidly in correspondence, Feb. 15, 1937.
8. Ibid.
9. Ibid.

The Shrine, originally organized as "the playground of the Masonry," has in recent years developed into one of the most charitable and philanthropic organizations in the nation. The Shrine was organized in Charleston 41 years ago—in 1896—and at the present time Charleston Beni Kedem Shrine Temple is the headquarters for Shriners throught southern West Virginia, having a membership of about 4,400.[10]

Some 15 years ago the Shrine started work in interest of cripple children. Beni Kedem Temple has played a leading part in this humanitarian work of the Masonic Order. Each member of Beni Kedem Temple pays $2 per year toward the support of the Shrine's 15 Crippled Children's Hospitals throughout the nation. Annually 75 to 100 crippled children are given hospitilization by the members of Beni Kedem Temple, and many are sent away to various specilists to be treated.[11]

Beni Kedem Temple, it is understood, is the largest Temple, in the point of membership in the territory south of the Mason-Dixon Line and the Ohio river and east of the Rocky Mountains.[12]

Other fraternal organizations of Charleston which enjoys splendid memberships and are active include the Protective Order of Elks, Independent Order of Odd Fellows, Junior Order

10. Personal Interview with secretary and manager at the Beni Kedem Temple of Charleston, Dec. 1936.
11. Ibid.
12. Ibid.

United American Mechanics, the Knights of Columbus, Loyal Order of Mosse, Order of United American Red Men, Sons of Italy and United Commercial Travelers.

The American Legion and Legion Auxiliaries are the leaders among the patriotic organizations of the community.[13]

Not only does the Charleston region provide adequate civic organizations for adult but the oncoming generation has been thought of in the forming of the Young Men's Christian Association and the Young Women's Christian Association, in which religious education and physical education has been emphasized.

The Boy Scouts of America and Girl Scouts of America have also been set up for the training of the younger set emphasizing outdoor programs.

The older clubs as Rotary, Kiwanis, Lions and Civitan clubs are allies of the younger groups thus a conpedent training is given to the younger clubs in leadership and citizenship.[14]

"A community does not produce citizens of high character and fine quality by chance. It produces them by intention. Insofar as its recognizes sound character as the prime necessity it will go to any length to produce it.[15]

It seems that even the early settlers realized this be-

13. Visit to the American Legion Headquarters.
14. Member of the Kiwanis in a Personal Interview, Dec. 1936.
15. The Charleston Daily Mail, Oct. 4, 1936.

more than 120 years ago, churches were organized and erected log buildings for their services.[16]

The children of these hardy pioneerw carried on with the expansion in industry but did not forget the provisions for worhhip because now Charleston has over 59 churches of various denominations.[17]

As Charleston grows so will the churches because for the last 120 years it has stood up under depressions, propaganda, wars, ruins of business, and has grown in strength as time went on. It is the oldest organization in the community. No business or industry can trace its history back to preceed that of the churches.

The Kanawha County public school system can be seen in these figures: More than $10,000,000 invested in public schools and equipment, a necessary budget of almost $2,500,00; a total enrollment of 41,000 pupils; over 1,300 teachers and more than 500 other employees. Charleston's school costs of $650,000 are just an item in this budget and investment.[18]

With the growth of the industry side of the Kanawha Valley there has to be a growth in the school system of the Valley. New courses to fit new industries, new buildings to house new communities, new transportation to take care of new developments all have made the last five years a big increase in the history of the public schools of the community.

16. Ibid.,
17. Ibid.
18. Kanawha County Suprentendentss Office Records.

Parochial education by the Roman Catholic Church in both grade and high school is also increasing. Inaugurated in 1923 and fully a credited in 1929 as of first class, Sacred Heart High School now is planning a new building to accommodate its growth.[19] The high school of Charleston was moved to a new building because of the big increase a few years ago and this years enrollment shows an increase of 800 over that of last year.[20] With these two high schools growing the community need not fear of the future of the leaders in business.

The Y.M.C.A. and the Y.W.C.A. also helps in providing educational classes in physical and spiritual education.[21]

The Reference Library of the Department of Archives and History at the State House provides approximately 140,000 books with files of newspapers of the state date from 1851.[22] The Kanawha County Public Library has over 35,000 books that is accessable to the public and the circulation for last year was over 150,000.[23]

Two institutions of collegiate rank are located in Kanawha County. Four years ago Kanawha College was founded in Charleston with the purpose of providing an adequate junior college program. Three years later Morris Harvey College, a denominational school, removed to Charleston from Barboursville. Both schools are located in the Kanawha County Public Library building and are autonomous units of the Charleston Educational Center. The appro-

19. Secretary in the principals office at Sacred Heart School.
20. F.n. no. 18.
21. Supra.
22. Mr. Moore, State Librarian.
23. Miss. Thomas Asst. Librarian at the County Library.

ximate enrollment of full-time students is 400.[24] This enrollment does not include the other schools of the center as the business schools, art schools and music school.

This community offers exceptional recreational facilities to keep its vast army of busy people healthy, happy and contented. Virtually every type and form of recreation generally unjoyed in this section of the country is available to residents of Charleston and the Great Kanawha Valley.

This section braggs of four country clubs-Edgewood, Kanawha, Southmore and Meadow Brook which provides adequate space for recreation for the community. There are two tennis clubs, the Charleston Tennis Club and the Pequoni Club which help provide tennis facilities along with the country clubs.[25]

There are two thoroughly equipped riding academies--Kanawha Stables and the Charleston Riding Academy.[26]

The sport loving fans can be spectators to the Charleston Senators of the Mid-Atlantic League offering baseball during the summer while the Charleston High School "Mountain Lions," with the annual game of West Virginia University and Washington and Lee University offer a filling portion for devotees of the football gridiron.

Swimming pools are numerous and beaches along the Kanawha, Coal and Elk river provide adequate swimming for the water-goers.

24. Morris-Harvey 1936-37 catalogue.
25. Clerk at the Moore's Book Store the athletic supply store of this locality.
26. Ibid.

Boating, too, is a favorite outdoor sport among many. Canoeing, speed boating and other river craft up to large house boats afford enjoyable recreation and sport for many from early spring until late fall. Fishing, too, is a sport afforded in Elk River, Coal River, Kanawha River and tributaries. Game fish, bass, pike, etc., abound in Elk and Coal Rivers.[27]

Various rifle clubs are organized with driving range of the city providing skeet and trap shooting that holds interest for many gunsmen of the city.

Not only does this community provide for amusement and recreation but it is a charitable city. The Salvation Army predominates here as in other parts of the country in charity so I will discuss them first.

The records do no reveal the date of the personnel of the armies original location of the first band or the date of their organization in Charleston. However members of the band can trace back for over 30 years but beyond there they can not certify the origin.[28]

Some 19 years ago the Salvation Army moved into its present cital in Virginia Street which not only provides an auditorium for the varied religious activities, but living quarters for the members of the staff and others, and for some years has also provided a hospital and clinic staffed by leading physicians

27. Ibid.
28. Captain Jenkins of the local army, personal interview Dec. 1936.

and surgeons of the city. This latter institution was added to the activities to give medical attention to strictly charity cases—unfortunates unable to afford hospital care.[29]

Their little street corner Gospel meetings, has been the cause of many changing the course of their lives; they have re-established connections with families and loved ones; the naked and cold have been clothed and countless thousands and thousands have been fed.[30]

The annual report of the Army for the year 1935 shows many actitities:

In assisting "transients" the army during the year recorded 303 applications. Beds were furnished to 628 and meals to 444. In family welfare assistance the Army gave groceries to 176; clothing to 264, shoes to 81; furnished medicine to 4 and other aids rendered numbered 57.[31]

The social welfare work of the organization include visits to hospitals and jails. In the former there was 164 visits made. Prayer was offered with 344 and a total of 795 publications distributed.[32] In all a total of 83 hours was devoted to this work.

The Army held meetings in their auditorum where large crowds came to worship and listen to the various speakers.

The Army's Corps Cadets, for young people 11 to 18 years of age, has 11 members.[33]

29. Ibid.
30. Ibid.
31. Ibid.
32. Ibid.
33. Ibid.

The annual report of the Army's Hospital and Dispensary department shows a great work. During 1935 a total of 290 women and 230 children were admitted as patients. A total of 120 major operations, 156 minor operations and 48 obstetrical cases were handled during the year.[34]

The city regards this Army as one of its chief charity organizations and helps as best it can. Each year they have a drive for money and the city respondes liberally and leaders of various organizations serve on the Army's Board of Directors, assisting in directing the work which brings material and spiritual help to so many who are in need.[35]

Another charitable organization is the Davis Child Shelter which was established 41 years ago—1896—by the philanthrophy of West Virginia's late Senator Henry Gassaway Davis, after whom the shelter is named.[36]

Records of the institution show that in the 40 years 1,791 orphaned children have been placed in desirable homes after having been cared for in the Washington Street home. These do not include more than a thousand other children who have, during this time, been temporarily care for at the home.[37]

The shelter cares for both boys and girls from infancy up to 12 years of age.[38] To the credit of the shelter are many instances of boys and girls, who, receiving their chance through the institution, have attained real success in life.

34. Ibid.
35. Ibid.
36. Supt. R. S. Cleland of the Davis Child Shelter, personal interview, Dec. 1936.
37. Ibid.
38. Ibid.

Operating costs of the Davis Child Shelter runs between $20,000 and $21,000 annually, depending, of course, upon the number of children in the home. Sincerely and actively interested in their great work, members of the Childrens' Home Society make thorough investigation before their little wards are placed in private homes.[39]

The revenue of the Davis Child Shelter is derived from charitable donations of firms, organizations and individuals. These amount to about $15,000 annually. The remaining funds are received from endowments and from relatives of children placed in the home temporarily.[40]

Started with funds contributed by the late Senator Henry Gassaway Davis additions have been made from time to time. Heirs of the Davis estate, it is understood, have released a greater part of their interest in the property. The buildings of the Davis Child Shelter in Washington Street are estimated at about $50,000 in value and the real estate at about $25,000.[41]

Charleston has established fine and active institutions to care for the sick, the destitute and the unfortunate-institutions which, because of their splendid and unselfish service, reflect great credit upon the community.

The work of Hill Crest was started 26 years ago-in the summer of 1911-as a summer camp which occupied the grounds where

39. Ibid.
40. Ibid.
41. Ibid.

the present sanitarium now stands.[42]

In 1912 the Kanawha County Anti-Tuberculosis League assembled to accept the charter issued by the clerk of the County Court. This same year the League purchased 29 acres of land on top of the Hill Crest ridge, including a four room cottage. An open air shack was added to provide for eight patients.[43]

Charitable donations have enabled Hillcrest to expand, enlarging facilities to the point where 40 beds are now provided.[44] Nine buildings now comprise the Hillcrest Sanitarium group, the most recently constructed building being modern in every respect. These buildings are all connected by covered passages and are completely screened.

In 1935 the Sanitarium cared for 74 different patients, the daily average being 37 patients. Hospital hours were divided as follows: Charleston patients, 6,572 hours; Kanawha county 7,359 hours; Boone county, 169 hours; Putnam county, 207 hours; Raleigh county, 8 hours; Summers county, 83 hours.[45]

In 1930 a school teacher was employed by the Board of Education for Hillcrest.[46] The Ben Baer Memorial Hall provides a recreation room with a large open fire place and a school room where the children carry on their school work. As they are nursed back to health these children are enabled to keep abreast of the more fortunate as far as their school studies are concerned.

42. Personal interview with Dr. B.S. Preston, physician at the sanitarium.
43. Ibid.
44. Ibid.

Charleston and the Great Kanawha Valley are proud of this charitable hospital and its work is recognized by the community as necessary for advancement.

45. Ibid.
46. Ibid.

Chapter V

CHARLESTON AS THE STATE CAPITOL

This is a chapter that can not be admitted from a study of the development of the Great Kanawha Valley and Charleston yet there is little to say about it although it is obvious that it has a great influence yet the discussion can be but short. It is impossible to place this in with any of the other chapters so I will call it a chapter in itself although it is brief.

The first capitol was located at Wheeling even before West Virginia became a state. Before the state had received its charter in June 1863 the mountaineers had set up a capitol at Wheeling during the war. At this time Virginia had three capitols, one at Alexandria, another at Richmond, and the third at Wheeling. When West Virginia finally became a state Wheeling became its first capitol, the building was the Linsly Institute building.[1]

The Capitol remained at Wheeling from June 20, 1863 until April 1, 1870 when it was moved to Charleston which remained the Capitol city until May 21, 1875. Wheeling became the Capitol for the second time May 21, 1875 and reamined so until May 1, 1885 when it was again moved to Charleston in 1885 and has reamined there ever since.[2]

1. Anderson, H.E., Facts of West Virginia , p. 60.
2. Ibid.

The first Capitol building in Charleston was erected 1869–1870. The State records were carried from Charleston to Wheeling in boats and barges and there they were placed in the building that is now the city hall of Wheeling, built 1875–76. The second Capitol at Charleston was erected in 1884–85 and burned January 3, 1921. The records and documents where carried from Wheeling by steamboats "Cheasepeake" and "Belle Prince" and placed in the second Capitol.[3]

The third Capitol building of Charleston known as the "paste board Capitol" was erected in 1921 in 42 days and was destroyed by fire March 2, 1927.[4]

Finally on June 20, 1932 a new Capitol building was dedicated. The Capitol consists of the main building and two office units as wings. The main building is 585 feet long, 120 feet wide, and is three stories high, not including dome or basement. The two wings are 300 feet by 60 feet and are four stories high not including the basement. The exterior structure of the capitol is limestone brought in from the states own limestone cutters. 4,640 tons of steel and 314,000 cubic feet of stone were used in the construction of the Capitol. The building contains 535,000 square feet of floor space and 10,300,000 cubic feet of space.. The building contains 333 office rooms in the Capitol, not including the assembly rooms.[5]

3. Ibid.
4. Ibid.
5. Ibid., p.60–62.

The Capitol is not only a spacious building but it is a beautiful construction. There are 10,000 pieces of rock cyrstal in the chandeliers of the House and the Senate. The chandelier beneath the 300 foot dome weighs two tons. The rug in the governor's office is 60 feet long, 26 feet wide and weighs 1800 pounds. The great dome is covered with twenty-two karat gold leaf sheating. The cost of the capitol building and grounds, not including furniture and equipment, was $9,491,180.03.[6]

It can not be denied that the capitol is an important factor in the growth and prosperity of this community because of its magnatic force as the capitol of the state and for the fact that 800 persons are employed in various capacities at the State Capitol.[7]

With all factors as an aid to the growth and advancement, and no serious hindrances in view, the Great Kanawha Valley will some day be the Nile of the Western Hemisphere.

6. Ibid.
7. Ibid.

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