THE HISTORY OF THE EARLY DEVELOPMENT OF MINING AND MANUFACTURING IN WESTERN MARYLAND.

John Allen Matthews, 1/6/28

Mining in Western Maryland has seen its day, while manufacturing is but in its infancy. To follow through the history of the former and a survey of the latter, is to find an answer to the continued progressiveness of the whole region, from the time of the first enterprise up to the present day. A gradual decay of the mining interests has been witnessed since shortly after the Civil War, though even today they attain to some importance. Manufacturing is ever increasing in importance and promises great industrial activity in the near future.

Uncertainty as to the exact date of coal discovery in Western Maryland is emphasized by several conflicting writings in the reports of the Maryland Geological Survey for 1905 and 1900.

The first states that coal was discovered near Frostburg, at least as early as 1782, citing as authority a French statement, which in substance reads, "A general map of the Thirteen United States and Dependents of America, in September, according to Mr. Bonne, 1782, shows a coal mine at the mouth of Georges Creek." (c)

In the 1905 report it is said:- "Coal was discovered in Western Maryland by a Mr. Riser near the site of Frostburg in 1804, and although various openings were made

from time to time, it did not become of commercial importance until about 1820." (d) And in corroboration of this statement an oft-copied "History of the Maryland Coal Region", by B.S. Randolph says, "a recently published journal of a journey on horseback, made in 1810, during which the traveler passed over the old colonial road, just south of Frostburg, and stayed over night at what is now known as the 'Musselman Farm', owned by the Consolidated Coal Company, makes no mention of the coal, although the writer was evidently a close observer and his notes on other matters are uncommonly full. It is therefore to be inferred that the business was not as yet sufficiently developed to attract the attention of the casual traveler."

Openings of commercial importance were made in the Pittsburg Seam in about 1820 at Eckhart, the first being the old Neff mine. The coal was transported by wagon to the banks of the Potomac at Cumberland, where it was stored in large piles awaiting a rise in the water on which it would be possible to navigate their flat barges with safety.

Twenty boats have been known to depart in one fleet and as many as forty in one day. Such a departure was an event in the life of the town and usually brought to the river banks crowds of sightseers. The boats were frail affairs and to touch a rock usually meant the loss of a boat, and occasionally the drowning of one or more of the crew. They were sold at their destination for what they would bring and the crew returned on foot.

Market prices for coal ranged from seven to eight cents per bushel at Cumberland and from fifty to sixty cents at Georgetown.

Though profitable for a time, this method of transportation gradually disappeared in the face of railroad competition, and ceased entirely on completion of the canal to
Cumberland in 1850.

The Baltimore and Ohio Railroad was completed to Cumberland in 1842 and for some time coal was brought to Dam #6, (Great Cacapon) to which point the canal had been completed, and there loaded on canal boats for shipment to tide water. The Mt. Savage and Cumberland Railroad was built in 1844 by the Maryland and New York Mining Company; and a line from Cumberland to Eckhart, now known as the Eckhart branch of the Cumberland and Pennsylvania Railroad, was built a few years later by the Maryland Mining Company. This company, chartered in 1828, was the first chartered company in the region. It operated what is now known as the Eckhart Mine and before completion of its railroad, sent its product to Cumberland by wagon. Upon completion of the railroad to Mt. Savage, tramways were built from the mines north of Frostburg to there and the coal was then transported in mine cars to be loaded into railroad cars at the latter point.

About this time, an interesting experiment was made by the construction of a flume or sluiceway from Vale

Summit to Clarysville, on the Maryland Mining Company's railroad, for the purpose of transporting coal by a stream of water. Owing to its fragile nature, the coal was so much damaged by this operation that the scheme was promptly abandoned.

In 1850, the Frostburg Coal Company had extensive coking yards at Mt. Savage and the practice of coking was followed by this and other companies in the region. This coke was used by the local iron furnaces at that time in operation and was also shipped East for locomotive use. Mr. Robert G. Rankin, in 1855, states that, "The opinion seems to prevail among northern railway operators, that this (Georges Creek) coal is only fitted for northern engines when it is coked; but when prejudice gives way to fair investigation and experiment, it is confidently believed that the crude Cumberland coal will be found to contain more combustible matter, pound for pound, than the coke."

The companies in business and shipping by rail in 1850 were the Frostburg Mining Companies and the Allegany Mining Company, loading at Mt. Savage; and the Maryland Mining Company and the Washington Coal Company, loading at Eckhart on the Maryland Mining Company's railroad.

Mining rate was twenty-eight cents in the Pittsburg Seam and fifty-five in the smaller seams, a difference well calculated to keep the latter out of the market.

The Pittsburg Seam, known generally as the "Big

Vein" and averaging about fourteen feet in thickness, was being rapidly bought up, in some cases, largely as a speculation. Much of it was obtained as low as ten dollars an acre.

Although coal is and has been the most important mineral mined in Western Maryland, iron ore and clay demand attention.

As early as 1835, a company was organized and began the mining of iron ore. This company, the Georges Creek Coal and Iron Company, is responsible for founding the town of Lonaconing. Two years later, they began erection of a furnace at Lonaconing, fifty feet high and fourteen and a half feet wide at the boshes, which upon completion was making about seventy tons of good foundry iron per day, using coke, made in their own plant, as a fuel.

In this year also, the New York Coal and Iron Company built two large blast furnaces at Mt. Savage. (d)

These continued in operation for some time, but gradually changing conditions of the iron trade caused their final abandonment shortly after the Civil War. (1868)

Fire clay was first discovered in 1837 at Mt.

Savage, and used in lining the two blast furnaces mentioned above. Originally, the fire brick used in this country was imported from England, but while prospecting, the same type of clay was found in workable deposits at Mt. Savage. (z)

Thus, in 1841, the Maryland and New York Iron and Mining Company was formed, and began mining the clay on a commercial scale and the production of a fire brick that later became famous. (d) After two reorganizations, it became the Union Mining Company in 1871. (z)

The clay mined here has been declared by geologists to be the best in the country besides having the commercial advantage in the fact that both coal and clay are mined in adjacent seams simultaneously. Representing the oldest fire clay deposits being worked today, there are at present, being operated, seventeen kilns with an average production of fifty thousand bricks per day. Famous the country over as well as abroad, at one time, specifications of the Navy Department, before they became technical, stated that all fire clay used by them must be of a grade equal to or better than that mined at Mt. Savage. (2)

Upon completion of the Baltimore and Ohio Railroad to Piedmont, West Virginia, in 1853, the Georges Creek Coal

and Iron Company built a railroad up the valley of Georges

Creek to Lonaconing, and abandoned its tramway to Clarysville.

Its operations had previously been confined to the manufacture of iron, but it now became a shipper of coal also.

The Mt. Savage and Cumberland Railroad was extended to Frostburg in 1852 and recognized as its shippers the Frostburg Coal Company, Borden Mining Company, Withers Mining Company, Parker Vein Coal Company and the Chesapeake Coal Company. (d)

The accompanying map of lands in the Cumberland Coal Basin shows the holdings of the several companies in 1856. (z)

In 1857, the tracks were extended to Lonaconing and in 1864 the Georges Creek Coal and Iron Company's road to Piedmont was purchased and consolidated under the charter of the Cumberland and Pennsylvania Railroad.

Little effort appears to have been made up to this time looking to consolidation among the various operators.

With the exception of the Georges Creek and Cumberland Coal and Iron Companies, the various properties embraced tracts of a few hundred acres only.

In 1860 an act was passed incorporating the Consolidation Coal Company of Maryland, and in 1864 the company was organized, consisting of the properties of the Ocean Steam Coal Company, the Frostburg Coal Company and the Mt. Savage Iron Company, which latter owned the

Cumberland and Pennsylvania Railroad. These properties included a total of nine thousand acres, four thousand of which were underlain by the Pittsburg Seam.

This movement toward consolidation is generally credited to Mr.W.H.Aspinwall, of New York, who with his associates had recently purchased a tract in the neighborhood of Squirrel Neck Run and organized the Ocean Steam Coal Company. A further move toward consolidation was made in 1869 when the following circular was issued, which, incidentally, draws an interesting picture of the coal trade conditions.

TO THE STOCKHOLDERS OF THE COMPANIES MINING CUMBERLAND COAL IN ALLEGANY COUNTY, MARYLAND.

An experience of twenty-five years has convinced many of the most practical and sagacious persons, whose interests have been identified with the development of the Cumberland coal mines, that those interests can only be made reasonably remunerative by a complete change in the system of management. The total product of 1708 tons in 1842 has been increased, by the legitimate demands of trade, to 1,330,443 tons in 1868, with a prospect of 1,500,000 tons in 1869, and yet, of the immense capital that has been invested in Allegany County, how large a portion has been swept away, and of that now representing the mining interests, how insignificant is the portion which, even occasionally makes any return to the proprietors.

Three reasons may be given to explain these

unsatisfactory results. First, remoteness from our principal markets, with insufficiency and high cost of tranportation thereto; second, heavy expenses of multiplied administration, and third, ruinous and, under existing circumstances, uncontrollable competition.

The first of these obstacles would inevitably subside, if not disappear, under a systematic and unified apportionment of production to demand; the second and third would obviously vanish by the substitution of a single management, in the common interest, for the twenty-one separate ogganizations which, with their complicated and expensive machinery, now absorb the modicum of profit which is left to the owners of the mines.

Five of the largest companies having, with others, tried for years, but in vain, to remedy the evils above averted to, by harmony of action, have at length determined to find, if practicable, a solution of the problem by uniting their properties under one organization, permanent and homogeneous. A suitable agent has been selected to investigate the relative areas and values of their respective coal lands, preliminary, it is hoped, to the adoption of an equitable basis of incorporation. These five companies are now moving, in perfect accord, toward that object, and have established a joint committee on consolidation. Within a month it is hoped that they will be prepared to proceed to the consideration of such a basis. To this end it is earnestly desired

that as many companies as possible now operating in the Cumberland coal region of Allegany County should unite in having their lands surveyed and appraised; or if not that, that they will, at least, appoint a representative or more than one and not more than three, to meet with the joint committee and discuss with them the bearing of this scheme on their various interests. Stockholders are earnestly requested to press this important subject upon the consideration of their directors.

Communications may be addressed to either of the officers of the joint committee, whose names are affixed, representing the American, Borden, Consolidation, Cumberland Coal and Iron, and Hampshire and Baltimore Companies.

Allan Campbell (Pres. C.C&IC)

Ch. Joint Committee, 90 Broadway

James S. Mackie (V.P. Consol.CC)

Sec'y Joint Committee, 71 Broadway

New York, May 31, 1869.

A suitable agent was selected and submitted an excellent report, which, however, was very unsatisfactory to a number of the parties interested and put an end to the "perfect accord" of the signatory companies. The scheme failed utterly with the exception of the acquisition of the property of the Cumberland Coal and Iron Company by the Consolidation Coal Company, which took place in 1870, and included the railroad from Cumberland to Eckhart. This

brought to the Consolidation Coal Company more than half
the coal lands and all the railroad facilities. In 1872
the Allegany Coal Company was acquired and a few years
later the coal under the Wright Farm, which, with the
McCullock property, (1871) practically completes the holdings
of this company as they now exist.

1872 found the Pennsylvania Railroad attempting to tap this important source of traffic with a branch from Bedford. To which the Baltimore and Ohio promptly countered by obtaining a controlling interest in the Consolidation Coal Company.

Previous to the year 1890 the Pittsburg Seam had supplied practically all the tonnage of the region, but with its gradual exhaustion, supply from other sources became imperative, and the smaller seams began to be worked. After about 1870, production decreased steadily, although in 1901 general activity stimulated development of the lower seams. However, all the companies having any considerable business to provide for, have been obliged to secure properties in other regions; and thus Maryland Coal has assumed a place in the background of present day industry. (c)

MANUFACTURING

As late as the beginning of the nineteenth century manufacturing in Western Maryland was practically unknown. (b) The only settlement of importance being Cumberland and the

village blacksmith making by hand all things necessary in the standard of living of those days.

Histories, however, refer often to Shryer's Tan

Yard where leather was produced on a small scale. And one
states that, "A grist mill stood at the mouth of the race
where the wharf of the Consolidation Coal Company is located.

This mill was built somewhere about 1800 at a cost of about

\$8,000 and was regarded as one of the finest mills in the
state." (b)

The next development in manufacturing came in 1816 when Thomas and Roger Perry built a glass factory on Center Street at the base of Wills Mountain. The sand, which is said to be the best in America for glass manufacture, was obtained from the mountain close by, and the main product, green glass bottles, was sold in Pittsburg and Eastern cities. Due to financial difficulties, operations ceased in 1819 (b)

As before mentioned, iron was being manufactured in Lonaconing from 1835 on, and in 1843 the two blast furnaces at Mt. Savage led to the erection of the Mt. Savage rolling mill which wasbuilt especially to roll iron rails, and during the summer of 1844 it rolled the first heavy iron rails in America. In honor of this event, the Franklin Institute of Philadelphia awarded a medal to the proprietors in October, 1844. The rails were of the inverted U form and weighed forty-two pounds to the yard. The first few

hundred tons were laid on the railroad between Mt. Savage and Cumberland. J.M.Swank, in his "History of the Manufacture of Iron in all Ages", says that Allegany County is entitled to two of the highest honors in connection with the American iron trade: "It built the first successful coke furnace and rolled the first heavy iron rails". (d)

In 1836 a cement mill was established on Wills

Creek at Valley, under the name of the Cumberland Hydraulic

Cement and Manufacturing Company, and the mining and manufacturing of natural cement was, for a while, a thriving
industry. The plant burned four times and was rebuilt three,
the last being in 1904 after which activity decased, matural to
cement having been displaced in the market by Portland

Cement. (f)

James W. Jones purchased from Wm. Lynn, in 1840, two acres on the west bank of Will's Creek and began the erection of a plant known as Will's Creek Tannery. A part of the original building still stands. It has operated continuously, changing hands several times, and finally becoming a part of the United States Leather Company, which operates it under the name of the Union Tanning Company, a subsidiary corporation, covering the operation of fifteen or twenty plants south of Pennsylvania. Hides are obtained from Western slaughter houses and the Argentine, and tanning materials, consisting of oak barks, from local sources. The process has been improved from time to time and the output

gradually increased from thirty at the start to two hundred hides per day at present. A good grade of leather is made and shipped to, principally, New England where it is used in the manufacture of high grade shoes. (e)

Another glass factory was known to exist about this time on Paca Street, but nothing ever came of it. (u)

In 1841 the Cumberland Foundry and Machine Shop began the manufacture of first class bevel and spur gears.(b) About this time also the brick plant in Mt. Savage was erected. (z)

In 1853 the McKaigs, who proved to be pioneers in numerous industrial enterprises, organized a stock company and built a cotton factory on North Centre Street. Its duration was not long however and now the site is occupied by the Cumberland Brewing Company. This company, organized in 1889 with a capital stock of fifty thousand dollars, flourished before prohibition, and at the time when shutdown occurred had a surplus of seven hundred thousand dollars.

The plant now produces ice and near-beer on a small scale. (k)

What was probably a continuation of the old grist mill, was begun by Colonel R.D.Johnson in 1857. The plant still stands and has increased its production of flours and feeds from twenty-five barrels then to three hundred and fifty per day now. Supplying flour within a radius of a hundred miles, it occasionally exports to South America and Europe. (g)

In the early days of railroad transportation, little confidence was placed by private enterprises in the permanency of the roads. Railroads were thus compelled to build their own rails and equipment, and even hotels and eating houses. (j)

So in 1867 the Baltimore and Ohio Railroad signified its intention of building a rolling mill in Cumberland. The city granted land for the mills, which on completion in 1870, marked the beginning of an era of prosperity for the town. It employed an army of workers at high wages, and continued in operation, the major industry of the town, until the panic in 1876. Work was resumed in 1879 to cease permanently in 1888 (a) when the steel companies forced the railroads to give up their secondary enterprises. (j) In two years came the Johnstown Flood in Pennsylvania, due to Which the Cambria Iron Company of that city temporarily moved its plant to Cumberland and occupied the rolling mill property. Idle again after 1893, it was leased in 1898 by the Schoenthal Steel Company, who manufactured small iron rails until 1905. At this date it was taken over by the Maryland Rail Company, which had been operating in South Cumberland since about 1887, and whose plant had just been destroyed by a flywheel explosion. The Baltimore and Ohio re-acquired it in 1924 and since has been using it in the reclamation of iron scraps. (j) (a)

A lumber company was started in Cumberland as early

as 1874. It was operated by Landweir and Hines and located along the Baltimore and Ohio on Commerce Street. (y) Mertens Sons, who owned several large lumber tracts east of Cumberland, bought it shortly afterward and built a narrow gauge railway from their lands to the plant. (a') The company discontinued business at the outset of the World War. (y)

One of the important industries of Western Maryland began in 1873 when a charter was granted to the Cumberland Cast-steel Company. A plant was built on the present site of the McKaig Foundry at a cost of \$50,000 and with a capacity of 12,000# per day. (b) Merwin McKaig, a pioneer capitalist in this section, took it over in 1876 and increased the capital stock from \$100,000 to \$500,000. Due to the inventive genius of the forman, W.J.Muncaster, several machines and processes were developed for the manufacture of "Turned and Ground" shafting.

Having obtained patents, McKaig and Muncaster organized a separate company with the latter as vice-president and general manager, and erected a plant for the sole production of this shafting. Operating at present under the name of the Cumberland Steel Company, it produces one thousand tons per month of steel shafting which is sold all over the world. (c')

The foundry of McKaigs is still operating and is the largest producer of machine parts in the west end of the state.

In 1880 another glass factory was opened in South Cumberland known as the Warren Glass Works. (b) Five years later it was owned by its former secretary, L.P. Whiteman and manufactured bottles and press work. The Mertens people took it over in 1889 and operated it successfully until 1908 when after a brief shutdown it began again as the Eastern Glass Company. In 1918 it became the Maryland Glass Company capitalized at \$180,000 and since has been producing table glassware. (d')

Paper has been manufactured in Western Maryland since 1884, when James Luke, a pioneer in the state, built the Luke Paper Mill on a site called "The Isles". A town of the same name has sprung up as a result of the mill which, in the early days enjoyed prominence, and at one time had a contract for supplying the United States Government with post-cards. The company has sales agencies in New York and Chicago, and produces eight hundred tons per day, some by secret process. (h)

Dan and Ezra Deal made corn and oats feeds, shipping locally about fifty tons a day. The plant burned and was rebuilt in 1910. Production today is about one hundred tons along with a small quantity of flour. (i)

The brick plant was begun by Blaul and White, and produced about ten thousand handmade bricks per day. When Blaul Jr. took charge and machine methods were introduced,

the capacity was increased to thirty thousand per day. Today it is only slightly active. (j)

A small matress factory has been in operation in Cumberland since 1892. It was built by Charles N. Thomason and is now handled by R. Wiegand and Son who obtained it in 1919. (n)

The second lumber company of note was the South Cumberland Planing Mill, built in 1896. Incorporated in 1912 at \$175,000, its sales have increased from approximately \$30,000 a year at the start to a maximum to date of \$265,000. (r) In the years to follow a number of these companies sprung into existence. Among which the Cessna, 1900; Western Maryland, 1901; Cumberland, 1905 (1); and the Buchanan in 1912 (q) are important.

A small scap business was begun by Mattern and Gerbig also in 1900. (a) The site is now occupied by the main plant of Footers Dye Works, the largest dye works in the country.

And in 1901, also, two other plants were inaugusated. The German Brewing Company, organized by W.C.White, was then placed in operation and produced seventy-five thousand barrels per year. Upon our entry into the war, its name was changed to the Queen City Brewing Company, the reason being obvious. Immediately prior to the adoption of the Eighteenth Amendment, the demand for its product was so great that the plant was unable to meet it. Converted to

an ice plant after that event, it has since been producing one hundred tons of ice per day and a small quantity of near-beer. (s)

The Klots Throwing Company had its inception in 1901, but did not occupy the present building at the foot of Old Town Road until 1903. It is but one of a group of fourteen mills, in the vicinity, operated by the same corporation and doing commission work. Three hundred pounds of silk per week in the beginning as compared to seven thousand now shows a rapid growth. (p)

The Cumberland Granite Brick Company functioned as such from 1903 to 1914 obtaining its material from the other side of Wills Mountain. When the granite became worked out, the plant was changed to a shale brick producer and is still operating at present. (f')

A barrel factory was erected in 1911 by W.R.E.King starting production with about thirty thousand a day. Peak production was reached just before Prohibition and since, the maximum has been seventy-six thousand in 1923. Supply is mainly local although some shipments are made via the Baltimore and Ohio to adjacent states. (x)

Near the same location on Valley Street, the Williams Foundry, making grey iron castings for local use, was built in the same year. (w)

In 1916 the five Nevy brothers began the manufacture of macaroni and shipped about twenty-five barrels a day. Semolina, obtained from Dakota wheat, is the raw product. This company sells its product mainly to the foreign element in the country and exports a large quantity to Porto Rice and Santo Domingo. Present production is thirty thousand pounds per day. (m)

The extensive orchards in Western Maryland were mainly responsible for the construction of a box factory at Cumberland in 1917. Production has increased ten-fold since then and a new larger building is at present under construction. (t)

The Kelly-Springfield Tire Company in 1914 operated plants at Akron, Wooster and Buffalo. In 1916 it became evident that it was necessary to increase production materially; and it was decided, rather than to enlarge existing plants, to select a new location ideally situated and there erect a complete new unit. Thorough studies were made by eminent engineers, and Cumberland, Maryland, due to its excellent geographic position, was finally selected as the site for the new plant. The erection of the new plant was begun in the same year-1916-but owing to the war, progress was slow and the plant was not put into operation until early in 1921. Since that date production in Cumberland has steadily increased until at present it is the main plant of the Kelly group and one of the largest in the country. Three thousand five hundred men are employed at peak production which is above ten thousand tires and fifteen thousand tubes per day. The capital stock of this company is twenty million dollars. (b')

Cumberland is fortunate in having, located near the city, the factory of the Celanese Corporation of America. this large firm having just recently adopted this name for purposes of better identification with its product. The Celanese Corporations are well known in both hemispheres, a factory at present being located at Derby, England and employing seven thousand people. The Canadian company has just been completed and is ready to start production of yarn almost immediately. The American Cellulose and Chemical Company, as it was originally called, was brought to this vicinity at the beginning of 1925 and as early as September of 1926 nine hundred people were employed. Expansion of buildings and duplication of equipment has been continuous since production started and nineteen hundred are employed at the factory today - less than three years since the first production of celanese at Amcelle. Contracts were let during 1927 for buildings to house the necessary machinery With which to double the present production; and this equipment will start coming into commission early in 1928. It is expected that by the end of 1928, no less than three thousand people will be employed. Still further developments are expected soon, in that, the Celloid Company of Newark, New Jersey has been acquired by the Celanese Corporation and has announced its intention of building a two and one half

million dollar plant adjacent to that already at Amcelle.

Thus one of the most progressive industrial corporations in the world has seen fit to locate its plant in Western Maryland. (g')

From all the foregoing facts it is quite obvious that the main occupation of the western region of Maryland has been gradually changing from mining to manufacturing, until, at present, mining occupies a position somewhat in the background, and manufacturing has become of such importance as make the region noted as an industrial center.

As a review of the complete history of manufacturing, as given herein, the author has prepared the following:-

CHRONOLOGICAL TABLE

- 1800 Manufacturing almost unknown.
 - Shryer's Tan yard and a grist mill in Cumberland
- 1816 Perry's Glass Factory
- 1835 Iron mills of the Georges Creek Coal and Iron Company at Lonaconing
- 1836 Cumberland Hydraulic Cement and Manufacturing Company
- 1840 Wills Creek Tannery. Glass factory on Paca Street, Cumberland.
- 1841 Cumberland Foundry and Machinery Shop

- 1843 Mount Savage Rolling Mill.
- 1853 Cotton factory in Cumberland.
- 1857 R.D. Johnson Milling Company.
- 1867 Baltimore and Ohio Railroad's rolling mill.
- 1873 Cumberland Cast-steel Company.
- 1874 Landweir and Hines, lumber.
- 1880 Warren Glass Works
- 1884 Paper mill at Luke, Maryland.
- 1887 Deal Brothers Milling Company. Maryland Rail Company.

 Queen City Brick and Tile Company.
- 1889 Cumberland Brewing Company.
- 1892 Mattress factory.
- 1893 Cumberland Steel Company organized.
- 1896 South Cumberland Planing Mill.
- 1900 Mattern and Gerbig, soap.

 Cessna Lumber Company.
- 1901 Western Maryland Lumber Company.

 German Brewing Company.

 Klots Throwing Company, silk.
- 1903 Cumberland Granite Brick Company.
- 1905 Cumberland Lumber Company.
- 1911 W.R.E.King, barrels. William's Foundry.
- 1912 Buchanan Lumber Company.
- 1916 Cumberland Macaroni Company.
- 1917 Cumberland Box Company.
- 1921 Kelly-springfield Tire Company.
- 1924 Celanese Corporation of America.

BIBLIOGRAPHY

The first part of this paper is practically a review of the work of Mr. B.S.Randolph on mining in Western Maryland, interwoven with a number of facts obtained from reports of the Maryland Geological Survey and by direct connection with a number of present day coal operators.

The section dealing with manufacturing has been compiled from a multitude of facts collected from among the leading manufacturers in the region and several old residents, able to recall events of days gone by.

The following are referred to by guide letters affixed in the text:-

A	Volume I
	THOMAS
B History of Western Maryland.	Volume II
	SCHARF
C Maryland Geological Survey. 1905.	Volume V
D Maryland Geological Survey. 1900.	Volume -
ALLEGANY	COUNTY
E George Brotemarkle, Chief Clerk, Wills	Creek Tannery.
FJ.W.Cook, Cumberland Cement and Supply	Company.
G M.B.Coffey, manager, R.D.Johnson Millin	ng Company.
HJudge O.H.Bruce, former resident of Lul	ke, Maryland.
IP.H.Ingles, chief clerk, Deal Brothers	

J Henry Schriver, president, First National Bank of
Cumberland.
KM.L.Fesenmyer, former vice-president, Cumberland
Brewing Company.
L
MM.J.Clement, manager, Cumberland Macaroni Company.
N M. Wiegand, partner, Cumberland Mattress Factory.
OJ.M.Rhind, treasurer, Cumberland Steel Company.
PC.T.Jett, superintendent, Klots Throwing Company.
Q H. Buchanan, president, Buchanan Lumber Company.
RA.J. Weber, secretary, South Cumberland Planing Mill.
S W.P.Rizer, secretary, Queeno Company.
T F.P.Smith, owner, Cumberland Box Company.
UJ.P.Shelhouse, president, Potomac Glass Company.
V
WJ.B.Williams, owner, Williams Foundry.
XW.R.E.King, owner, barrel factory.
YL.R.Boward, former forman, Mertens Sons.
ZH.R.Aldridge, Union Mining Company.
A'P.A. Nicklin, Allegany County Treasurer.
B'Mr. Granger, Kelly-Springfield Tire Company.
C'W.J.Muncaster, former vice-president, Cumberland
Steel Company.
D!J.M.Conway, secretary, Maryland Glass Company.
E' D. Annan, president, Western Maryland Lumber Company.
F' Henry Paupe, manager, Cumberland Brick Company.
G' Cumberland Evening Times, December 28, 1927.