GEOLOGICAL AND HISTORICAL SKETCH

OF

INDIANA COUNTY

Boundaries and area—Geology—Surface features—Indiana—Conrad Weiser—Armstrong's march—The Purchase line—Early settlements—Frontier forts—Old Frankstown road—County formation—Salt wells—Pennsylvania canal—Underground railroad—Railroads—Great Civil war—Progress and material development—The press, education, churches and banks—The bar and medical profession—Political history—Census statistics—County officials—Miscellaneous

INDIANA COUNTY, Pennsylvania, lies between forty degrees twenty-three minutes and forty degrees fifty-six minutes north latitude; and seventy-eight degrees fourteen minutes west longitude from Greenwich, or between one degree forty-nine minutes and twenty degrees fourteen minutes west longitude from Washington City. As a political division of the State it is bounded on the north by Jefferson county; on the east by Clearfield and Cambria counties; on the south by Westmoreland county, from which it is separated by the Conemaugh river, and on the west by Armstrong county. Indiana county occupies the centre of western Pennsylvania and its bituminous coal fields. The western boundary line has a straight course from the Conemaugh river northeast twenty miles; and thence due north nine miles to the Jefferson county line. The northern boundary line runs due east twenty-one and a quarter miles to a point from which the eastern boundary line starts and runs due south thirteen miles to Cherry Tree corner; thence south fifteen degrees went twenty-three miles to the Conemaugh river, which makes the southern boundary from the centre of the gap through Laurel Hill range to Salina post-office, a distance of twenty-eight miles in a straight line. Indiana county has a computed area of 828 square miles, or 529, 920 acres. Its geographical centre and centre of population are supposed to be not very far apart, and both but a short distance from the county-seat.

That part of the present territory of Indiana county, south of the purchase line, was a part of the following counties for the respective times specified:

Chester, from 1682 to May 10, 1729.

Lancaster, May 10, 1729 to Jan. 27, 1750.

Cumberland, Jan. 27, 1750, to March 9, 1771.

Bedford, March 9, 1771, to Feb. 26, 1773.

Westmoreland, Feb. 26, 1773, to March 30, 1803.

That part of Indiana county which is north of the purchase line was a part of the general unorganized territory of Pennsylvania until 1784, when the Indian title to it was extinguished by treaty and it became a part of Northumberland county, and remained as such until April 13, 1796, when it was included in the county of Lycoming, which was that day formed from a part of Northumberland. It remained under the jurisdiction of Lycoming county until March 30, 1803, when it became a part of the then created county of Indiana.

Geology.—Prof. Leslie, in the second geological survey of Pennsylvania, describes the geological structure of Indiana county as follows: "With the exception of five spots in as many gaps, and four other spots on the anticlinal axes, the whole surface of the county is occupied by the coal measures. The southeast county corner is in the bed of the Conemaugh river in the centre of the Johnstown gap through Laurel hill, where XII, XI, X, and perhaps a little Catskill IX arch over each other. The northeast corner is on the crest of the continuation of the Chestnut Hill arch, in the midst of a wilderness elevated 2000 feet above tide. The east line of the county therefore crosses diagonally the Ligonier valley coal basin, which, however, is divided into two sub-basins by a low anticlinal arch running through Nolo P. O. and Kimball P. O., bringing up the conglomerate (XII) on Yellow creek, at Strongstown. Both sub-basins are so deep that they are filled with the Barren' measures, but the Productive coal-beds crop out along the valleys which follow or cross the anticlinals, and an irregular belt of them, two or three miles wide, follows the great Chestnut ridge axis from Blairsville to the Jefferson-Clearfield county corner. This belt widens to five miles on the Conemaugh, and in the district of the south branch of Little Mahoning creek, around Robertsville, Smethport corners and the heads of Bear run, where coal out-crops are abundant.

"At the first great bend below Blairsville the 'Indiana anticlinal' arch crosses the Kiskiminetas river and runs in a wonderfully straight line past Indiana (one mile east of the town) and Kintersburg on the Jefferson line at the northeast corner of Canoe township. The basin between the axis and that of Chestnut ridge, drained by Two Lick and Black lick runs, is only deep enough to hold the Productive coals, with some areas of Barren measures in its hill-tops; but going south the Barren measures take possession of the whole surface west of the Two Lick, and then invade the whole basin from Homer (Phillips' mills) southward. In the east end of Black Lick township the basin gets deep enough to take the Pittsburgh coal-bed into its hill-tops, and in Burrell township the hills north and east of Blairsville hold this bed (under a cover of one hundred and fifty feet of supper measures) running about six feet thick, and not very good, and lying about 200 feet above the river. At the second bend above Saltsburg the 'Saltsburg anticlinal' arch crosses the river and runs on straight to the southwest corner of East Mahoning township, where it flattens out and is lost; but here, on a line four miles further west, the 'Perryville anticlinal' arch stands and runs on into Jefferson county, at the northeast corner of West Mahoning township. The Saltsburg axis crosses McKee's run near the mill, and exposes the Freeport Upper coal-bed (E), but all the others are underground, and the surface of the whole country is occupied by the Barren measures. Bed E is also brought to the surface in the bed of the Little Mahoning by the P:erryville axis. The basin west of the Indiana axis, and between it and the Saltsburg and Perryville axes, is nowhere deep enough to allow the Pittsburgh bed to be preserved in any of its hill-tops. But west of the Saltsburg axis all the higher lands of Young and Conemaugh townships between the streams which enter Black Leg creek from Armstrong county contain the Pittsburgh bed, ten feet thick, with its regular upper bench and main clay parting, as in the Monongahela river country. The highest geological ground in the county is in Elder's ridge, four miles northeast of Coalport, where 200 feet of measures, capped by the great limestone, and containing the Sewickley coal and limestone, the Redstone coal and the Pittsburgh Upper sandstone overlie the Pittsburgh coal-bed. On Harper's run 217 feet of Barren measures may bew seen beneath the Pittsburg coal-bed, containing thin Fossiliferous limestone beds, olive

and red shales, and the Morgantown sandstone (fifty feet thick), the massive upper fifteen feet member of which makes the picturesque cliff scenery of this quarter of the county. The Barren measures in Indiana county may be called 600 feet thick. Nowhere in the Ligonier basin has more than the lower 400 feet been preserved. Seven or eight coalbeds exist in the barren measures, but no reliance can be placed on any of the, although one or another may be found in a good condition (three or four feet thick) in some restricted locality, like Painter's coal, at Nineveh, and the Philson coal, at Armagh. The beds seem to be pretty persistent throughout the region, but running only one or two feet thick. The Green Crinoidal limestone and the Black Fossiliferous limestone of the Barren measures are of not much economic importance, but have great geological value as bases of measurement down to the Productive coal beds. Limestone is very abundant in the county, and the beds very numerous. Besides the two above-mentioned there are three others in the barren measures and is in the Productive coal series, of which the Freeport Upper limestone is 10 feet thick in several parts of the county; the Freeport Lower, 6 feet on Two Lick; the Johnstown Cement bed (under coal D) varies from 2 to 16 feet, and is 15 feet in Black Lick gap; but the Ferriferous Limestone, which is the great key rock of all the more western and northern counties, fades away to nothing at the Indiana anticlinal, and is nowhere to be found to the eastward of that line.

"The coal-beds of the county will in future years be mined mostly by shafts. The uppermost one of the series (Freeport Upper Coal E) is 150 feet beneath the Conemaugh river at New Florence, and 600 feet at Blairsville; 400 feet underground beneath the turnpike between Armagh and Ling's, and so on elsewhere; from 3 ½ to 6 feet thick; at Griffith's and other mines on yellow creek, 7 feet; at Agey's and St.Clair's, on two Lick, 7 feet 3 inches; on McKee's run, 7 feet 4 inches. The Freeport Lower coal (D) gets up to 4 1.2 feet on Little Yellow creek, and 5 1.2 feet in the German settlement. The middle coal is 3 feet (C feet); the lower coal (C) small, but is 4 feet at McFarland's, at Greenville. The Clarion coal (B) is a noble bed, ranging widely, as 4 to 8 feet thick, over a valuable fire-clay; but the famous fire-clay bed of Bolivar is under the Brookville coal (A). There seems to be very little workable iron ore in the county. No evidence of the existence of productive oil sands has been obtained; most of the wells bored have been too short to reach the Venango oil rocks, must less the Warren and Bradford horizons. Of the natural gas springs, that of 'Burning spring,' in Deep Hollow, two miles below Blairsville, is best known, but it comes from the Mahoning sandstone which yields oil and gas on Dunkard creek, in Greene county."

Prof. W. G. Platt, in his report of progress in Indiana county in 1878, says: "The geological structure of the district is one of extreme simplicity. Briefly stated, it consists of a series of seven anticlinal and six cynclinal folds of the strata, or broad rock waves, the crest of lines which run nearly parallel to each other across the map in a northeast-southwest direction through the county. The rocks therefore dip northwest and southeast, except in places where the anticlinals and synclinals are sufficiently tilted along their central line to effect the normal incline of the strata. If then we start in the extreme southeast corner of the county, say about a mile above the old Conemaugh furnace, and proceed in a straight line northwest to where the Jefferson and Armstrong county lines join in the northwest corner of West Mahoning township, we shall cross the following anticlinal and synclinal axes:

"The Laurel hill Anticlinal. (First Axis of the old Survey.)

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The Centreville Synclinal.
The Nolo Anticlinal
                                    } Ligonier Basin
The Mechanicsburg Synclinal.
The Chestnut Ridge Anticlinal. (Second Axis of the old Survey.)
The Blairsville Synclinal.
The Indiana Anticlinal. (Third Axis of the old Survey.)
The Marion-Fillmore Synclinal
The Saltsburg Anticlinal
                                    }
The Saltsburg Anticlinal.
The West Lebanon Synclinal
                                    } Westmoreland Gas-coal basin.
The Perryville Anticlinal
The Smicksburg Synclinal.
The Roaring run-Port Barnet Anticlinal. (Fourth Axis.)
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"Excepting the small patches of Upper Productive Measures at Blairsville and Saltsburg, the Lower Productive group are the only rocks that can be depended upon for coal in Indiana county; and by reference to the geological map it will be seen at a glance that west of Chestnut ridge these measure are chiefly below the present water-line of the streams. They therefore underlie the whole of the western uplands, and to reach them at many points would require deep shafts, but fortunately for this part of the county such a necessity is avoided by sufficient coal having been raised at a few localities above water-

level for a short distance by the anticlinal axes. Cheap fuel, therefore, while not everywhere obtainable in the western townships, is easily accessible from almost any point.

"In the Ligonier Basin (east of Chestnut ridge) the greater part of the area is occupied by Lower Productive rocks, and coal therefore abounds in that section in prodigious quantities. Many hillsides contain for a long distance the entire Lower Productive group with all its enclosed coal-beds, lime-stones, etc. Some day these vast stores of fuel will be needed for the arts and manufactures.

"The amount of available lime-stone in the county is no less great than the coal, while its distribution is wider and much more even, for layers of this valuable rock are intercalated not only in the Lower Productive group, but in the Barren series as well.

"The fire clays, although existing in great abundance in all parts of the county, have as yet been developed only along the lines of railroad communication. At these points the clays worked are of excellent quality, the bricks and retorts made from them being well and favorably known.

"The compact and heavy bedded sand-stones prevailing in some part of the county furnish building material almost without limit.

"The iron ores of the county have never been systematically investigated."

And while Prof. Platt seemed to think there were not workable beds of iron ore, yet some of the leading citizens are of a different opinion, and discoveries of very rich iron ore deposits in the county have been recently reported. Some coal veins, also, have been opened whose existence was not stated in the State geological report.

Surface Features.—"In the eastern part of the district the topography is easily separable into a succession of high anticlinal ridges, separated by shallow syncilinal valleys, out of which have been scoured, generally at right angles to the strike of the

rocks, a number of ravines and deep, narrow valleys. West of Chestnut Ridge the country is more in the nature of a high rolling table-land.

"The increase in general elevation of the surface from south to north is very gradual. The country is of course very much broken and diversified by small hills and valleys; but the topography nevertheless presents in substance one broad incline plane tilted gently towards the southwest.

"The country may be divided by the main arteries of its drainage system into four parts: The first comprehending the Conemaugh river with its intricate system of tributary streams; the second, Crooked creek draining a central zone; the third, the Mahonings in the northern part of the district; and the fourth, the affluents of the Susquehanna.

"Generally speaking, the surface of Indiana county requires only intelligent cultivation to yield abundant and profitable returns.

A few kinds of wood make up the bulk of the forests. These leading varieties may be enumerated in the order of their extent as follows: white oak, pine, hemlock, chestnut, poplar, hickory, ash, beech, rock oak (sometimes called chestnut oak), wild cherry, black walnut, sugar maple and locust."

Indians.—Of the aboriginal inhabitants, mention has been made on page 17 of the Mound-builders, and it remains to notice the Indian occupants of the territory of the county. They were the Delawares and Shawanees, and their occupation was principally for the purpose of hunting. They had a few villages whose sites are unknown to-day, and their war-paths or trails were the Kittanning trail, over which Colonel Armstrong passed, and a trail intersecting the great "Catawba War-path," which passed through Westmoreland county from South Carolina to New York. Besides this, they had several minor trails which cannot be traced from the information at our command. The Delawares and Shawanees had all left the county by 1770 to locate in Ohio. Jonathan Row and Richard B. McCabe rescued much of what little information exists at the present time concerning the Indians of this county.

Conrad Weiser.—Probably the first white man that ever was on the soil of Indiana county was Conrad Weiser, who, in his mission to Logstown, in 1748, passed down the Conemaugh river.

Armstrong's march.—In his march against Kittanning, in 1756, Colonel Armstrong camped on September 7th at the "Forks of the Kittanning and Shenango trails," in what is now Green township, and the next night, it is said, he halted his force at a spring just south of the present county-seat. The next day he passed out of the county over the site of Shelocta.

The Purchase Line.—On November 5, 1768, a treaty was made with the Indians at Ft. Stanwix, New York, by which the Six Nations ceded all the land within a boundary extending from the New York line, on the Susquehanna, and up the west branch of that river to a cherry tree that once stood close to the site of the present town of Cherry Tree, and then to Kittanning, and thence down the Ohio. It is said that those who established the line was to run up the west branch of the Susquehanna as far as a canoe could go. This point was where a cherry tree stood, which was a perch above the island, near the town of Cherry Tree, the spot has since been known as "Canoe Place."

Early Settlements.—As early as 1766 white explorers had come into the territory of Indiana county and found the country clear of timber or brush. It was a prairie, in fact, being clothed in high grass. The first settlement was in 1768, in the forks of the

Conemaugh and Black Lick. About this time George Findley settled in what is now east Wheatfield township, and was said to have been the first settler in the county. William Clark, William bracken and Matthew Dill settled near him and soon afterward came Robert Rogers, John Bolar, George farmer, Daniel McClentock, David Wakefield, F. Pershing, Jr., John Elder and others. In 1769 William Evans was on Two Lick creek; Francis Waddel and George Pumroy, Sr. (at Long Bottom) on Black Lick creek; and Michael Worley, Samuel Waddel and Thomas Jameson were near the Conemaugh.

In 1772 Fergus, Samuel and Joseph Moorhead and James Kelley commended improvement near Indiana, and Fergus Moorhead was one of the first, if not the first, settler in the county. Moses Chambers, who had served on an English war vessel, was another early settler near Indiana. In 1773 William Bracken built a grist-mill on Black Lick, and near him settled John Stewart, Joseph McCartney, John Evans, Thomas Barr and John Hustin.

On Crooked creek located Andrew Sharp, who was killed by the Indians in 1794, Jacob Anthony, James McCreight, John Patison, David Peelor, Israel Thomas and Benjamin Walker. Philip Altman, Jacob Bricker, Charles Campbell, Archey Coleman, William Clark, Samuel Dixon, Jonathan Doty, James Ewing, Peter Fair, James Ferguson, William Graham, the Hices, John Harrold, Robert Liggot, William Loughry, George Mabon, Samuel McCartney, James McComb, John McCrea, James McDonald, Patrick McGee, John Neal, David Reed, Daniel Repine, George Repine, Alexander Rhea, William Robertson, John Shields, Hugh St.Clair, Malachia Sutton and Ephraim Wallace.

In the early days the northern part of the county was called "the Mahoning country," and was settled at a more recent date. Among the early settlers were the Bradys, the Thompsons, Hugh Cannon, R. Robert Hamilton, John Jamison, John Leasure, Joshua Lewis, William McCall, William McCrery, John Park, the Pierces and William Work. In addition to those names, among the early settlers, in the central portion of the county, were Blaney Adair, Gawin Adams, John Agey, Andrew Allison, Thomas Allison, Thomas Burns, Andrew Dixon, Daniel Elgin, William Lowry, Patrick Lydick, John Lytle, Thomas McCrea, Daniel McKisson, James Mitchell, Robert Pilson, Conrad Rice, James Simpson, William Smith, Christopher Stuchul, Alexander Taylor, John Thompson, George Trimble, Thomas Wilkins and John Wilson.

Frontier forts.—Richard Wallace, in 1765, erected "Wallace's Fort." Somewhere in the southern or southeastern part of the county about six miles from new Derry, in Westmoreland county, but in the accounts of this fort which are accessible at this writing, its location is not given. Two Indian attacks were projected against this fort. In the first one over a hundred Indians invested the log stockade. Major James Wilson (grandfather of the late Wilson Knott, of Blairsville), with forty men from "Barr's Fort," relieved the besieged garrison. In 1783 an Indian half-breed, serving as an English officer, led a body of Indians against the fort, but while displaying a white flag was shot, and his followers hastily beat a retreat. Richard Wallace was captured by the Indians and carried to Canada, where he soon escaped.

On a map of Indiana county, given by Caldwell, he locates an old fort near Indiana, a block-house near Chambersville, and marks the sites of forts, block-houses, stations or fortified houses near Indiana, Saltsburg, Newport, Centerville, Strongstown, Elder's Ridge, Homer City, Tannery P. O., Jacksonville, Crete P. O., and Lewisville.

Several of the early settlers were captured and killed by Indians, and the county has an interesting Indian history, if it were carefully collected and then put in proper shape, which, however, would require several years' work, to secure accuracy.

Old Frankstown Road.—The first road west of the Alleghenies was the old Braddock road from Cumberland to Ft. Pitt. The second road was the Forbes military road, which passed just south of Indiana county. The first main road in the county was the "Old Frankstown Road," which was surveyed in 1787 and established "between the navigable le water of the Franktown branch of the river Juniata and the river Conemaugh.: Its course was somewhat changed in 1800, and some parts of its route was parallel with the latter northern turnpike. It passed through Sharpstown, Armagh, crossed the track of the present Indiana railway, and left the county at Williams Ferry, on the Conemaugh (west of Blairsville). Prior to this road the Kittanning path was he road to the east as well as to Fort Pitt, while a pack saddle trail or road ran from Indiana town south to Ft. Ligonier, where it intersected the Forbes road, and some distance beyond that point a road connected with the old Braddock road.

In 1807 the following reports of county roads were confirmed: "Roger's mill to Indiana, Clark's mill to Indiana, Indiana to intersect at McFarland's mill, Armstrong county line to Brady's mill; David Fulton's to Brady's mill, and Newport to intersect with Indiana road. " In 1810 the State road from Milesburg to Lebouf was surveyed through the northeastern part of the county, and a road was soon opened from Indiana and connected with it. In 1818 the Bedford road was surveyed and passed through Armagh and Indiana to Franklin in Venango county. Seven years later the "old State Road" was located from Centre county via Indiana to Pittsburgh, and the next year the Ligonier, Blairsville and Indiana roads were surveyed. In 1838 the "New State Road" was located from Curwensville, Clearfield county, to East Liberty, Allegheny county, and in 1842 the road from Cherry Tree to the Susquehanna turnpike was surveyed.

County Formation.—Indiana county was created by an act of the Legislature passed March, 30, 1803, and its erection and boundaries are described in the following language:

"An act to erect certain parts of Westmoreland Lycoming counties into a separate county.

"Sec. 1. be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly met, and it is hereby enacted by the authority of the same, that those parts of the counties of Westmoreland Lycoming, included within the following boundaries, viz.: Beginning at the corner of Armstrong county on the Kiskiminetas river; thence up said river to the mouth of Conomauch (Conemaugh) river; thence up said river to the line of Somerset county; thence a straight line to Canoe place on the west branch of Susquehanna; thence a north course along Potter's district line twelve miles; thence a due west course to Armstrong county line; thence along said line to place of beginning, --be and the same is hereby erected into a separate county, to be henceforth called Indiana county, and the place for holding eh courts of justice in and for said county shall be fixed by the Legislature at any place at any place at a distance not greater than four miles from the centre of the said county.:

By the same act the governor was empowered to appoint three commissioners to run the boundary lines and ascertain the centre of the county; and William Jack, James Parr and John Pomroy, of Westmoreland county, were named as trustees for locating the county-

seat, which they established at Indiana in consideration of a gift of 250 acres of land at that place from George Clymer, of Philadelphia. The "fork" of Two Lick and Yellow creeks was an unsuccessful competitor for the county-seat. (See Indiana borough.)

The first court which was held at Indiana is thus described on the records: "December term, A.D. 1806. Pleas returnable to the county Court of Common Pleas held at Indiana for the county of Indiana on the second Monday of December, *Anno Domini*, one thousand eight hundred and six, by virtue of an act of General Assembly of the Commonwealth of Pennsylvania passed the 10th day of March, A.D. 1806. Before John Young, Esq., president, and Charles Campbell, associate judge of the court of Common pleas in and for the county aforesaid." The first attorneys admitted were George Armstrong, John B. Alexander, Samuel S. Harrison, James M Riddle, Samuel Massey and Samuel Guthrie. Of the first court of quarter sessions, we have the following record: "Minutes of a court of quarter sessions of the peace held at Indiana for the county of Indiana, the second Monday in march, in the year of our Lord one thousand eight hundred and seven. Present, Charles Campbell and James Smith, esquires, justices of the same court."

The shefiff was Thomas McCartney, and the coroner was Samuel Young. The acting constables were Andrew Speedy for Armstrong, Daniel Falloo for Wheatfield and Samuel Kelly for Conemaugh township. Seventeen grand jurors were summoned as follows: Joseph McCartney, Jacob Hess, William Bond, Matthew Winesap, Robert Ligget, John McKee, Robert Robertson, James McKnight, Joseph Harbison, Henry Hire, Alexander Lytle, John Matthews, Thomas Boals, Thomas M. Sloan and William The traverse jurors numbered twenty-nine, and were Alex. Ray, Richard Wilson, Samuel Smith, Francis Boals, John Loughry, James McDonald, John Bowers, Peter Hoover, Jeremiah Brown, Andrew Simpson, Robert Nixon, Samuel Wallace, William Parker, Thomas Reed, James Mahon, Peter Fair, Israel Thomas, William Deveny, John Lowry, John White, Moses Curry, Meek Kelly, John Laughlin, Francis Louther, Thomas Wakefield, James Longstreth, Joseph Hutchinson, James Findley and Robert Ewing. At the session Andrew Speedy deputized Philip Rice to act as constable of the township of Centre, and John bell for the township of Washington. During its sessions Henry Shryock, William Bond and James Moorhead were recommended by the court as fit persons to keep public houses of entertainments, and the following person were naturalized: Joseph Wilson, Hugh Junkins, James Lesley, George Turner, William Johnston, Arch. Matthews, Robert Craig, James Anderson, James Graham, Andrew Fee and David Campbell.

The constables appointed at June sessions were Benjamin Clawson, for Black Lick township; Arch. Marshall, Conemaugh; ;Jac. Anthony, Armstrong; Robert Allison, Centre; John Bell, Wheatfield, and David Tomb, Mahoning.

Wheatfield township, which was created in 1779 as one of the townships of Westmoreland county, south of the purchase line. The remaining townships have been erected in the following years: Armstrong, 1785; Conemaugh and Mahoning, 1803; Centre, Black Lick and Washington, 1807; Green, 1816; Young, 1830; Cherry Hill and Montgomery, 1834; Brush Valley, 1835; White, 1843; Rayne, 1845; North, East, South and West Mahoning townships, 1846; Canoe, 1847; Pine, 1850; Burrell, 1853; East and West Wheatfield, 1859; Buffington, 1867, and Banks, 1868.

Salt Wells.—In 1812 and old lady by the name of Deemer discovered salt water at low water mark on the Conemaugh river, two miles above Saltsburg, and William Johnston (from Franklin County) sank a well in which, at two hundred and eighty-seven feet, he found an abundance of salt water. The Conemaugh Valley soon became noted for its great number of salt wells and the value of its salt trade. Crude machinery was first used for boring and pumping, which was afterwards supplanted; by the steam engine. As the wells increased, competition brought down the price of salt, and many salt-works were abandoned. Several works are still running which manufacture an excellent quality of salt. (See Conemaugh township.)

Pennsylvania Canal.—In 1826 the Legislature provided for the construction of the Pennsylvania Canal, and in 1831 the main line of the canal from Philadelphia to Pittsburgh was completed at an expense of over 35 millions of dollars. The Kiskiminetas was slacked, and boats ran from the Quaker to the Iron city, Blairsville and Saltsburg increased rapidly in population and wealth; but the completion of the Pennsylvania in 1852 rendered the canal useless, and for a time checked the growth of the above named boroughs.

Underground Railroad.—About 1840 the slavery question was agitated in Indiana county, and after the passage of the fugitive slave law a branch of the "Underground Railroad" ran through the county. Indiana was depot on the road, and many citizens of the county were actively engaged in piloting runaway slaves to other parties further northward, who assisted the fleeing slaves on their way to Canada.

Railroad.—The Pennsylvania railroad wad completed in 1852, and on June 5, 1856, the Indiana Branch railroad was opened from Blairsville intersection in Westmoreland County,--a distance of nineteen miles; but railroad building was arrested by the opening of the late war.

The western Pennsylvania railroad was chartered in 1853 to run formn Blairsville to Freeport, in Armstrong county; but the company (the Northwestern Pennsylvania) failed after a portion of the grading had been done, and the road was sold at Philadelphia in 1859 to the Weatern Pennsylvania company, which commenced work on the road in 1863. In 1864 trains ran to Freeport, and one yeat later ran into Allegheny City.

The Butler Branch was completed in 1871, and for a period of twenty years the people of the county were adapting themselves to a new life of prosperity inaugurated by these railways. The public-spirited citizens of the county commenced to develop the coal and invest in manufacturing establishments, and the county is now destined to rank high in the State for wealth and manufactures.

Within the last year the railway outlook for the county is bright. The Rochester & Pittsburg R.R. company have surveyed a line from Punxsutawney, via Plumville, Shelocta, South Bend and Apollo, to Pittsburgh. An effort is being made to establish a competing line to the Pennsylvania R.R., and a road has been projected from Clearfield to connect with the Pittsburgh & Western at Butler, while the American Midland Line (an air-line road from New York to Chicago) road, which, if built, will cross the county as far north as Marion. The Homer City & Cherry Tree railroad has been surveyed, and present indications warrant its construction at an early date.

Great Civil War.—Soldiers from Indiana county served in the war of 1812 along the northern lakes, and Indianians were in three companies of the second Pennsylvania Volunteers, which fought under Scott in the Mexican war. Daniel Kuhns was killed and

James Kelly, William Matthews and Matthias Palmer died in Mexico. William Campbell and Pliny Kelly also served in the Mexican war.

When the late war commended the sons of Indiana were among the first to take up arms in defence of the government, and served with distinction in nearly all of the battles of the Army of the Potomac and under Sherman. Soldiers from Indiana county served in the Ninth reserves and companies B and E and most of the companies A and D of the Eleventh Reserves were from this county. One company of the Twelfth Reserves was recruited near Armagh and thirty men of the Fourteenth Reserve were Indianians. Citizens of the county served in the forty-sixth, fifty-fifth, fifty-sixth, sixty-first, sixty-seventh, seventy-fourth, seventy-eighth, one hundred and third, one hundred and fifth, one hundred and thirty-fifth, one hundred and forty-eighth, one hundred and fifty-ni8nth, one hundred and seventy-seventh, and two hundred and sixth regiments of Pennsylvania Volunteers. Co. B of the fifty-sixth, Co. A of sixty-first, Co. E of the one hundred and forty-eighth and companies A, C, D, F, G, H and I of the two hundred and sixth regiment were recruited in Indiana County.

In 1862, when Governor Curtin called for militia to defend Pennsylvania against Gen. Lee, Indiana county in eight days sent Co. H, of the tenth regiment, four companies of the twenty-third regiment and one independent company to the aid of the threatened border of the State. In 1863, when Lee was marching on Gettysburg, the county between July 3d and 8th sent eight companies into the field, and by the 23d had forwarded six more companies or fourteen companies in all. These companies served principally in the fifty-fourth and fifty-seventh regiments, Pennsylvania Militia, and aided largely in the capture of Morgan in Ohio. Two companies of Indiana county men were mustered into the Union service in 1864 and served nearly one year, doing general guard duty wherever needed. During 1864 fifty men were recruited in the county for the United States Signal Corps. Indiana county's war record of the the great Rebellion is one of which she may well be proud, for her sons served faithfully and with honor on a hundred bloody battle-fields where many of them fell to rise no more. Our limits forbid extended notice of their deeds.

"On fame's eternal camping grounds Their silent tents are spread, And glory guards with solemn round, The bivouac of the dead."

Material Development.—One-third of the 772 miles of territory included in the county, it is said by competent judges, contains coal above water levels. Within the next few years the southern part of the county will be changed from an agricultural section to a great mining region. The coke industry was inaugurated in the county in 1886, by George A. Mikesell, who built ten ovens and then sold them to Jacob Graff and J. M. Guthrie, who increased the ovens to twenty-four in number. They in turn sold the plant to J. W. Moore, of Greensburg, Pa., who organized the McCreary Coke company, whose members are Harry and John McCreary and J. W. Moore. Their works are at Mikesell siding, in Centre township, where they already employ nearly nearly two hundred men. They have fifty ovens burning and one hundred and forty-two more in process of construction. They have six hundred and forty acres of coal besides several large leased tracts, and manufacture a coke which ranks high and sells readily in the market.

The next coke plant is that of the Indiana Coal and Coke company, whose members are Jacob and Paul Graff, J. M. Guthrie, G. W. Hoover, John P. Elkins and John R. Caldwell; their coke-works are just below the McCreary plant and consist of twenty-four ovens now burning a quite a number in process of construction. They own two hundred and forty acres of coal land and have leased one hundred and sixty-five acres of additional coal territory. They also have mines opened for shipping raw coal. Their coal, like the McCreary vein, is six feet four inches in thickness. A town is rapidly being built at each of these coke plants.

The shipping of raw coal has rapidly developed. In 1879 the present Foster Coal company, of Saltsburg, commenced shipping raw coal to Pittsburgh, while in the northeastern part of the county are the Glen Campbell mines, located on a thirteen-mile branch of the Bell Gap Railroad, and the Passmore Burns and Bryson mines on a subbranch of the railroad, some three miles from Glen Campbell. They mine the Lower Freeport coal, which is five feet thick in that part of the county.

The lumbering interest, which was once the leading industry of the county, is still of large proportions and is principally centred at Homer City and on two Lick creek. At Homer City are large mills operated by J. M. Guthrie and on Two Lick creek are the mills of the Guthrie Lumber company. These mills cut hundreds of thousands of feet of lumber every year. The finest timber in the county has been worked up, although considerable quantities yet remain in the eastern and northeastern part of the county. In Wheatfield township and in Cambria county, Joseph Cramer, who formerly operated several portable saw-mills in Indiana county, is engaged in the charcoal business and makes about 20,000 bushels of that article yearly. At Jeannette, in Westmoreland county, works have been erected to extract the juice of chestnut and chestnut oak woods to be used for tanning purposes, and most of the wood for these works is furnished by Indiana county.

Mineral paint beds of exceeding richness are found on Chestnut ridge. Large and prosperous glass-works are located at Blairsville and Saltsburg, and the pressed brickworks of the Black Lick Manufacturing company turn out a brick noted for durability and excellence of manufacture. Standard flouring-mills are located throughout the county, which does not now possess a single brewery or distillery.

A large number of wells for oil and natural gas are being drilled in the county. The few furnaces, among which were the Indiana ironworks and Black Lick furnace, have all gone down, but of late some little move has been made to build two or three furnaces near the railroads.

The Indiana Chemical company has extensive works at Two Lick, and the strawboard mill of J. W. Sutton & Bro., at Indiana, has a capacity of 5000 pounds per day, while the machine-shops and manufacturing establishment of Sutton Bros. & Bell, of Indiana, supply a large county and State trade, besides making shipments to different parts of the United States, Mexico and South America.

Telegraph lines extend along the railways and the principal towns will soon be lighted by electricity, while they seem to have favorable chances to be heated yet by natural gas.

The Indiana Telephone company was organized, in 1887, when the patent line was run from Indiana to Marion. It was chartered in 1889 with a capital of

\$10,000, and has six lines in active operation, running in all over 200 miles, and reaching every town of any size or importance in the county.

For much valuable information in regard to early settlers and material resources, we are indebted to County Surveyor John R. Caldwell.

The Press.—In the beautiful Holland city of Haerlem, Larentius conceived the idea which afterward ripened into the grand art of printing. The printing press was introduced into Indiana county about 1814, when James McCahan established the American, a federal sheet, at Indiana. In 1821 came the Indiana and Jefferson Whig, the first democratic paper in the county. In 1826 the American, under James Moorhead, became Anti-Masonic and in 1827 was merged into the Whig. The first paper at Blairsville was The Blairsville Record, which was established in 1827. The following eleven weekly papers are now published in the county: Enterprise, Records, Port Monitor, Democrat, Messenger, News, Progress, Times, Gazette, Independent and Press.

Chruches.—The Bethel Presbyterian church of Centre township, and Ebenezer Presbyterian church of Conemaugh township were organized in 1790. The following churches of this denomination were organized in the years given: Armagh, 1792; Saltsburg, 1796; Indiana, 1807; Gilgal and Glade Run, 1808; Blairsville, 1822: Washington, 1828; Elder's Ridge, 1830; Cherry Tree, 1837; Currie's Run, 1838; Centre, 1851; West Lebanon, 1853; Smicksburg and Mt. Pleasant, 1854; Clarksburg and Jacksonville, 1857; Marion, 1860; Plumville, 1863; Black Lick, 1867; and Homer City, 1870.

The United Presbyterian congregations of Crete and Conemaugh were organized in 1794: The Indiana and Bethel congregations were organized in 1808; West Union was organized in 1814; Beracha, 1824; Mahoning, 1828; Mechanicsburg, 1833; Jacksonville, 1841; Susquehanna, 1842; Shelocta, 1854; Greenville, 1858; Decker's Point, 1859; Homer City, 1873, and Richmond, 1874.

The first Evangelical Lutheran church in the county was formed at Indiana about 1798; Brush Valley congregation was next organized and about 1830 the Blairsville church was formed; Plum Creek congregation was organized in 1830; Smicksburg, 1842. In 1822 the Indiana church organized probably the first Sunday-school in the county.

The Reformed Presbyterian church was established in the northern part of the county about 1842.

The Methodist Episcopal church of Indiana, was formed about 1822; Blairsville church organized in 1824; Nineveh, 1836; marion, 1837; and Jacksonville, 1839.

Baptist churches were organized in the county in the following years; Two Lick, 1824; Loyalhanna, 1828; Mahoning, 1830; Brush Valley and Shiloh, 1839; Richmond and Pine Flats, 1845; West Lebanon, 1847; Plumville, 1849; East Mahoning, 1850; Indiana, 1858; Black Lick, 1861, and Fairview, 1877.

The first Methodist Protestant church in Indiana county was organized as Hazlett church in 1832; Salem church was organized in 1839; Cookport, 1843; Gettysburg, 1857, and Cherry Tree, 1873.

In 1865 the Protestant Episcopal denomination organized Christ church of Indiana.

Catholic families had settled in the vicinity as early as 1814, but not in sufficient numbers to establish a church. About 1844, or earlier congregations were organized at

Indiana and Cameron's Bottom. S.S. Simon and Jude's church, of Blairsville, was organized in 1829.

In 1843 the Evangelical Association organized a church in North Mahoning township and now have several congregations in the county.

The German Baptists organized Manor and Montgomery churches in 1843.

The Wesleyan Methodists organized Pine Grove church in 1848. Their church at Dixonville was organized in 1855. manor and Spruce churches of this denomination were organized in 1856 and 8162.

Nero congregation of the Calvinistic Methodist was organized in 1842, and Pine Flat congregation of the Church of Christ was formed in 1856.

In 1850 the census report gave the number of churches as 61, of which 29 were Presbyterian; 10 Lutheran; 10 Methodist; 7 Catholic; 4 Baptist and 1 Protestant Episcopal.

Educational.—Of the pioneer schools, Ex-County Superintendent Samuel Wolf says, in his excellent centennial historical sketch, that eh first settlers of Indiana county were Scotch-Irish presbyterians and brought with them their rifles, their Bibles and their spelling books. He states that Revs. Power, Jzmison, and Henderson were instrumental in establishing eh first elementary schools in which spelling, reading, writing and arithmetic were taught six days of each week that they were in session and that the teacher received a yearly salary of from four to six dollars per pupil, never had less than twenty-five pupils and "boarded round." One of the class of school-houses that were in use from 1777 to 1815 is described by John M. Robinson in the following language; "The building was 18x22 feet, of round logs (7 feet high), the cracks daubed with mortar called 'kat and klay;' a large log (mantel) was placed across the building, four feet from the end wall, and five feet high, upon which the chimney was built of split sticks, the cracks and inside of which was daubed with tough mortar; the floor was made of split logs, hewed, called puncheons; the hearth was of stone and at its end a space was left unfloored in which the goose-quills for writing were stuck to make them of uniform pliability. The ceiling was made of puncheons and the roof of clap-boards, eaves-poles and weightpoles. There was a ledge door in the side, with wooden hinges and latch. The windows were the whole length of the building; they were from eight to ten inches high, with little posts set in about every foot, on which oiled paper was pasted in lieu of glass. Writingboards on slanting wooden pegs, even with the under edge of windows, hewed slab benches without backs and a short slanting board in one corner near the hearth, for the teacher's desk, comprised the furniture." Mr. Smith makes record of a school taught by James McDowell, some time between 1777 and 1785, in a cabin owned by Robert Robinson in the Conemaugh settlement. He also states that in 1790 a man named Atwell taught near Campbell's mill in the Black Lick settlement and from that time on schools were opened in every settlement until 1815, when there were at least twenty-five schools in the county.

From 1815 to the passage of the common school law, in 1834, there was a gradual increase in the number of elementary schools and a steady improvement in buildings.

At an early day in the history of the county a movement was made for the establishment of higher education and Indiana academy was founded in 1816, on the site of Judge Clark's residence at Indiana. This institution of learning eceived \$2000 of State aid and continued in existence until 1862. A female seminary was opened shortly

afterwards, but soon went down. In 1832 a class commenced to recite to Rev. Alex. Donaldson, in the second story of a log spring house, and led to the establishment of Elder's Ridge academy, which has become an educational power in the United States, through the three thousand students who have gone forth from its walls. Blairsville academy was established in 1842 and eleven years later was founded Blairsville Female seminary, whose graduates are an honor to it and to society. Close to Saltsburg is the flourishing "Kiskiminetas school for boys." under charge of Profs. A. W. Wilson and R. W. Fair.

At the county institute held at Indiana in December, 1869, an effort was made to obtain funds sufficient to secure the establishment, at that place, of the State Normal school for the Ninth Normal school district of Pennsylvania. Twenty thousand dollars were raised and the matter rested until two years later, when Professor A. N. Raub spoke so forcibly upon the subject that Judge Clark, Peter Sutton, A. W. Wilson and other public-spirited citizens gave freely of their time and money until theirs labors were drowned with success in the erection of the present magnificent State Normal school building at Indiana. It was built in 1875, at a cost of \$200,00, has received extensive improvements since and as a building is second to none in the State.

The first teachers' association was formed in June, 1852, by the students of Elder's Ridge academy, who intended to teach, and was followed by a teachers' institute at Blairsville in November, 1852, held for one week by the teachers of Indiana and Westmoreland counties. The teachers of Washington district organized an institute in 1853, which as been continued ever since. White and centre organized institutes in 1854. The first county institute was called by Superintendent Bollman, on August 22, 1854, and led to the formation of the present Teachers' Association of Indiana county.

Banks.—The prosperity of the banks of any city or county is indicative of an era of commercial progress. Indiana county is especially favored in the management of her banks which is done upon conservative and intelligent methods. As far as we have had opportunity to examine records, we find no trace of any bank in the county until 1855, after which the banking-houses of Hogue & Co. was established at Indiana, as the predecessor of the First National bank of that place.

The Bar.—The position which the legal profession has always occupied in the history of Pennsylvania has been a very high and honorable one. The bar of Indiana county, from its very organization, has ranked as among the best of the western counties. It comprises many able lawyers and eloquent orators, and is a credit to the State. The legal history of the county, to be intelligently and interestingly written, can only be written by one well versed in the law and well acquainted with the lives of most of the leading lawyers of the Indiana bar since its organization.

The president judges who have presided over the courts of Indiana county have been: John Young 1806 to 1836; Thomas White, 1836 to 1847; J. M. Burrell, 1847 to 1848; J. C. Knox, 1848 to 1850; J. M. Burrell, 1851 to 1855; Joseph Buffington, from 1855 to 1871; John P. Blair, 1871 to 1885, and Harry White, 1885 to _____.

The first physician to practice in the county was Dr. Samuel Talmage, who resided at Newport for many years, but finally removed to Westmoreland county. Dr. Reed, of the above-named county, practiced in the Conemaugh section, and Dr. George Hays, of New England, came, about 1805, to the black Lick creek settlement, where he remained for several years. Dr. Jonathan French located at Indiana in 1807, and Dr. E. P.

Emerson, at Blairsville, in 1819. The Indiana County Medical society was organized June 23, 1858, and one of its members, Dr. William Anderson, in 1880, wrote a very comprehensive as well as exceedingly interesting history of the medical profession of Indiana county, which was published in Caldwell;s history of the county.

Political History.—No county in the State has a more complete record of township elections than Indiana. These election records extend back to the formation of the county. Instead of discussing the history of political parties, or giving township, county, congressional or State votes, which are sometimes cast in revolt against party leaders, we have carefully compiled the popular vote of the county for president since 1824, when the citizens of this State were given the first opportunity to vote for president, and think that this vote will be the best exponent of the political history that can be given.

Popular vote of Indiana county at presidential elections from 1824 to 1888.

1824	Republican	Andrew Jackson	258
	Coalition	John Q. Adams	27
	Republican	William H. Crawford	2
1828	Democratic	Andrew Jackson	926
	Nat. Rep.	John Q. Adams	245
1832	Democratic	Andrew Jackson	654
	Anti-Mason	William Wirt	583
1836	Whig	William H. Harrison	1,169
	Democratic	Martin Van Buren	692
1840	Whig	William H. Harrison	1,953
	Democratic	Martin Van Buren	1,209
1844	Whig	henry Clay	2,200
	Democratic	James K. Polk	1,443
	Liberty	James G. Birney	80
1848	Whig	Zachary Taylor	2,410
	Democratic	Lewis Cass	1,544
	Free Soil	Martin Van Buren	204
1852	Whig	Winfield Scott	2,387
	Democratic	Franklin Pierce	1,827
	Free Dem.	John P. Hale	142
1856	Republican	John C. Fremont	3,612
	Democratic	James Buchanan	1,762
	American	Millard Fillmore	263
1860	Republican	Abraham Lincoln	3,910
	Democrat	John C. Breckinridge	1,347
	Cons't Union	John Bell	22
	Ind. Dem	Stephen A. Douglas	
1864	Republican	Abraham Lincoln	4,320
	Democratic	George B. McClellan	2,179
1868	Republican	Ulysses S. Grant	4,809
	Democratic	Horatio Seymour	2,223
1872	Republican	Ulysses S. Grant	4,386

	Dem & Lib	Horace Greeley	1,266
	Democratic	Charles O'Connor	
	Temperance	James Black	
1876	Republican	Rutherford B. Hayes	4,934
	Democratic	Samuel J. Tilden	2,248
	Greenback	Peter Cooper	3
1880	Republican	James A. Garfield	4,617
	Democratic	Winfield S. Hancock	2,119
	Greenback	James B. Weaver	1,488
	Prohibition	Neal Dow	
1884	Republican	James G. Blaine	4,607
	Democratic	Grover Cleveland	1,979
	Greenback	Benjamin F. Butler	1,186
	Prohibition	John P. St. John	385
1888	Republican	Benjamin Harrison	5,084
	Democratic	Grover Cleveland	2,231
	Greenback	Alson J. Streeter	483
	Prohibition	Clinton B. Fisk	294

The vote of Indiana for 1824 includes the vote of Jefferson county, which was attached to Indiana at that time in judicial and political matters.

Census Statistics.—Population of Indiana county at each decade from 1810 to 1890, inclusive, as given in the United States census reports:

1810, 6,214 1820, 8,882 1830, 14,252 1840, 20,782 1850, 27,170 1860, 33,687 1870, 36,178 1880, 40, 526 1890, 42,100

Colored population from 1810 to 1890:

1810, 41 1820, 61 1830, 97 1840, 155 1850, 254 1860, 186 1870, 186 1880, 227 1890,

By the Census of 1880, the following places were reported having the population given:

Advance, 34; Bells Mills, 79; Black Lick, 237; Brownstown, 243; Centreville, 169; Colfax, 75; Cookport, 192; Covode, 85; Creekside, 50; Davidsville, 49; Dixonville, 93; Elder's Ridge, 37; Georgeville, 104; Gettysburg, 161; Greenville, 196; Locust Lane, 51; New Washington, 38; N. Blairsville, 100; O'Hara, 135; Pine Flats, 115; Plumville, 191; Richmond, 93; Smethport, 48; Taylorsville, 106; Uniontown, 49; West Lebanon, 150; and Willet, 50.

By the census of 1820 there were in Indiana county 3 carding machines, 277 looms, 1,239 spinning wheels, 3 fulling mills, 6 hatteries, producing 2,400 hats; 1 salt works, making 600 bushels of salt; 18 blacksmith shops, doing \$9,000 worth of business; 27 distilleries, making 18,000 gallons of liquor; 16 wheat-mills, grinding 48,000 bushels of wheat; 17 saw-mills, cutting 985,000 feet of lumber; 2,715 horses and 5,995 neat cattle. There was also, 20,400 gallons of maple molasses made.

By the census reports of 1880 Indiana county had 4,438 farms, containing 457,095 acres. There were in the county 12,066 horses, 14,118 milch cows, 20,218 other cattle, 61,732 sheep and 31,465 swine.

In 1879 the following amounts of grain were raised from the number of acres given:

Grain	Acres	Bushels
Barley,	23	362
Rye,	9,262	77,166
Buckwheat	9,035	109,159
Oats,	31,269	775,383
Corn,	29,146	914,695
Wheat,	31,358	309,752

There were 37,266 acres of meadow, yielding 321,143 tons of hay and 15 acres in tobacco, with a yield of 10,181 pounds of that article.

In 1880 Indiana county had 279 manufacturing establishments, with an invested capital of \$890,000 and in which over 700 hands were employed.

While numbers are not the progress measure of county life, yet their rapid increase indexes every great stride in the development of a county's material resources; and their marked decrease chronicles every great drain by emigration.

The census table to a certain extent is a numerical chart—an arithmetical map—where progress and decay can be partly traced in the swelling and the ebbing of the tide of numbers.

Let us see what the census tells us of the story of Indiana county life. Itw shows a steady increase of population at the end of every decade despite the drain by emigration to the west. In the three decades from 1820 to 1850, the remarkable increase of population tells the story of the influence of the Pennsylvania canal on the county. From 1850 to 1870, notwithstanding the check of business by the war, yet an increased growth is traced in the railroads built in and through the county. The slowly increasing population from 1870 to 1880 and nearly up to 1890 is traceable to the railroads while the wonderful growth of the county during 1889 will be fully illustrated in the census of 1900 when it will give us other coke counties have given, a wonderful increase of population in Indiana county as the result of her coke and other industries.

The following table gives the population of the boroughs and townships of Indiana county, as recorded in the last two census reports:

Borough and Township	1880	1890
Armagh	123	170
Armstrong	1340	1195
Black Lick	924	798
Banks	919	1485
Blairsville	1162	3113
Brush Valley	1365	1179
Buffington	819	644
Burrell	1770	1415
Canoe	1217	1245
Centre	1265	1277
Cherry Hill	2243	1974
Cherry Tree	380	864
Conemaugh	1346	1530
East Mahoning	1160	1085
East Wheatfield	937	775

Grant	1318	1351
Green	2606	2401
Homer City	381	513
Indiana	1907	1971
Jacksonville	114	133
Marion	398	381
Mechanicsburg	226	198
Montgomery	1211	1079
North Mahoning	1317	1251
Pine	1189	1003
Rayne	1948	1924
Saltsburg	855	1114
Shelocta	121	86
Smicksburg	221	299
South Mahoning	4369	1343
Washington	1668	1589
West Indiana	1077	1631
West Mahoning	1170	1055
West Wheatfield	1359	1699
White	1716	1612
Young	1376	1238
Total	40527	42100

Senators of Pennsylvania House of Representatives.—1803 to 1815, James Brady; 1815 to 1819, John Reed; 1819 to 1822, Henry Allshouse; 1822 to 1825, Robert Orr, Jr.; 1823 to 1830, Eben S. Kelly; 1830 to 1835, Robert Mechling; 1834 to 1838, Meek Kelly; 1839, Findley Patterson; 1841 to 1844, William Bigler, of Clearfield; 1847, William F. Johnston; 1850, Augustus Drum; 1851 to 1853, C. Myers; 1854 to 1856, Samuel S. Jamison; 1863, Harry White; 1864 to 1865, Thomas St. Clair; 1866 to 1874, Harry White; 1877 to 1879, Thomas St. Clair; 1885 to 1888 George W. Hood.

Members of the Assembly.—1803, James McComb; 1808, James Sloan; 1809, James McComb; 1815, David Reed; 1816, James M. Kelly and Joshua Lewis; 1881, James M Kelly and Samuel Houston; 1819, Robert Orr, Jr., and Samuel Houston; 1820, Robert Orr, Jr., and Robert Mitchell; 1822, John Taylor and Joseph Rankin; 1825, David Lawson and Joseph Rankin; 1826, David Lawson and Thomas Johnson; 1827, david Lawson and Joseph Rankin; 1828, Robert Mitchell and Joseph Rankin; 1829, David Lawson and Joseph Rankin; 1830, Robert Mitchell; 1831, William Houston; 1833, James M. Stewart; 1834, William Banks; 1836, James Taylor; 1838 William McCaran, Jr.; 1839, Allen N Work; 1840, John Cummins; 1842, John McEwen; 1844, John McFarland; 1846, William C. McKnight; 1848, William Evans; 1852, Alexander McConnell; 1856, R. B. Moorhead; 1858, John Bruce; 1859, A. W. Taylor; 1861, James Alexander; 1862, Richard Graham; 1863, J. W. Houston; 1865, George E. Smith; 1867, W. C. Gordon, A. W. Kimmell; 1868, W. C. Gordon; 1868, R. H. McCormick; 1869, D. M. Marshall; 1871, Thomas McMullin, H. K. Sloan; 1872, Thomas McMullin; 1873, Daniel ramey; 1875, A. W. Kimmel, J. K. Thompson; 1877, A. H. Fulton, Jacob Creps; 1878, A. H. Fulton, Jacob

Creps; 1879, A. H. Fulton, John Hill; 1881, William C Brown and ; 1883, John Lowry and ; 1887, S. J. Craighead and John P. Elins; 1889, N. Seanor and J. W. Morrow.

Associate Judges from 1806 to 1875.—1806, James Smith, Charles Campbell; 1818, Joshua Lewis (succeeded Smith); 1828, John Taylor; 1829, Andrew Brow; 1830, Samuel Moorhead, Jr.; 1836, Robert Mitchell, M.D.; 1842, Meek Kelly, James McKennon; 1843, John Cunningham; 1845, Fergus Cannon; 1846, Joseph Thompson; 1849, James M. Stewart, M.D.; 1851 to 1856, Peter Ditts, Sr.; 1851 to 1861, Isaac M. Watt; 1856 to 1866, John k. Thompson, M.D.; 1861 to 1866, Peter Sutton; 1866 to 1871, T. B. Allison; 1866 to 1871, Joseph Campbell; 1871 to 1876, Peter Ditts, Jrs.; 1871 to February, 1874, James S. Nesbit (resigned); February, 1874, to January 1st, 1875, William Irwin.

District Attorney.—Edmund Page, 1850 to 1853; Henry B. Woods, 1856 to 1859; John Lowry, 1862; Daniel S. Porter, 1865 to 1868; William R. Allison, 1871; Samuel Cunningham, 1874; M. C. Watson, 1877; M. C. Watson, 1877 to 1884; S. M. Jack, 1884 to 1890; John Leech, 1890.

The Indiana Register in 1859 gave the following list of attorneys of the Indiana county bar from 1806 to 1859: John B. Alexander, Samuel S. Harrison, Samuel Massey, Daniel Stennard, Walter Forward, Samuel F. Riddle, James M. Kelley, Henry Baldwin, John Johnston, William H. Breckenridge, Walter M. Denny, Ephraim M. Carpenter, John Williamson, Daniel M. Brioadhead, Thomas White, Thomas R. Peters, George Canan, George Armstrong, James M. Riddle, Samuel Guthry, Joseph Weighley, Paul Morrow, Alexander W. Foster, Beal Howard, John Maintain, Thomas Blair, A. Lawrence, Charles B. Seely, William M. Kennedy, Jacob M. Wise, Henry Shippen, John Y. Barclay, W. R. Smith, John Reid, R. B. McCabe, Henry G. Herron, George Carson, John Miles, J. McWilliams, Joseph H. Kuhne, W. F. Boon, George W. Smith, John Frances, Thomas Knox, William Banks, Stewart Steel, Alexander McCalmont, Michael Dan McGehan, James Hepburn, Thomas Struthers, George Shaw, Charles S. Bradford, Joseph Buffington, James H. Devor, Joseph J. Young, H. D. Foster, Benjamin Bartholomew, Robert Brown, Martin Brainard, William M. Watson, Caleb A. Alexander, William B. Conway, Barnwell D. Basford, Joseph B. Musser, Michael Galliher, Richard Arthurs, John Fenton, John Brady, Darwin Phelps, Albert Merchand, John Meyers, William M. Stewart, Samuel Johnston, John F. Beaver, Thomas Sutton, Alexander W. Taylor, Reobert L. Johnston, Michael Hasson, S. Hay, Edgar Cowan, James Nichols, Samuel A Purviance, Jeremiah M. Burwell, Wilson Riley, Ephraim Buffington, A. l. Hamilton, B. Cornyn, T. C. MlcDowel, John Potter, james W. Johnson, Charles H. Heyer, P. C. Shannon, H. P. Laird, G. P. Reed, Alexander W. Taylor. S. F. Cox, William A Campbell, Jackson Boggs, Matthew Taylor, Levi McElhose, Edward Hutchison, L. S. Cantwell, Edmund Paige, John Cirsswell, O. H. Brown, T. J. Coffey, John Stanard, William Houston, Jr., Richard Coulter, Jr., Joseph Frantz, Samuel h. Tate, Samuel Sherwell, J. Alexander Fulton, David Barclay, John A. Willis, Robert Sutton, Edward S. Golden, Samuel Douglass, H. B. Woods, Hugh Weir, Thomas E. Morgan, G. W. Bonnen, Jacob Turney, George M. Reed, William H. Coulter, Charles Wyngard, Phineas M. Jenks, J. K. Coxson, Lewis M. Stewart, Harry White, Mathews Coleman, Joseph M. Thompson, Martin R. Cooley, C. D. Steel, Edward J. Belch, William H. McKee, John Conrod, Alexander McKinney, Philip S. Noon, Benjamin F. Lucas, James A. Getty, John McClaran, Slias M. Clark, John Campbell, T. J. McCullough, William Kittell, john T. Crawford, john K. Kalhoun.

Sheriffs.—Thomas McCartney, 1806; Thomas Sutton, 1809; Robert Robinson, 1812; Thomas Sutton, 1815; James Elliott, 1818; Henry Kinter, 1821; Clemence McGara, 1824; James Gordon, 1827; James Taylor, 1830; Joseph Lowry, 1833; James Kier, 1836; William Evans, 1839; David Ralston, 1842; Simeon Truby, 1845; Gawin Sutton, 1848; John Mullin, 1851; John Montgomery, 1854; Joseph R. Smith, 1857; A. P. Thompson, 1860; James R. Daughterty, 1863; Jacob Creps, 1866; Henderson C. Howard, 1869; James R. Daugherty, 1872; William C. Brown, 1875; Daniel Ausley, 1878; M. F. Jamison, 1882; James McGregor, 1885; D. C. Mack, 1888.

Prothonotaries and Clerks.—James McLain, 1806; John Taylor, 1818; James McCahan, 1821; Alexander Taylor, 1824; William Banks, 1828; R. B. McCabe, 1833; Thomas Laughlin, 1836; Fergus Cannon, February, 1839, to December, 1839; Robert Craig, 1839; Alexander W. Taylor, 1845; N. B. Loughrey, 1851; John Myers, 1854; J. R. Porter, Jr., 1857; E. P. Hildebrand, 1860; John Lowry, 1866; A. C. Boyle, 1872; W. S. Daugherty, 1882; John A. Scott, 1888.

Registers and Recorders.—James McLain, 1806; John Taylor, 1818; James McCahan, 1821; Alexander Taylor, 1824; William Banks, 1828; R. B. McCabe, 1833; W. Doughlas, 1836; Isaac M. Watt, 1839; William McClaren, 1842; William McClaran, 1845; Isaac M. Watt, January, 1847, to December, 1847; David Peelor, 1847; John H. Lichtenberger, 1853; A. L. McClusky, 1862; W. R. Black, 1868; David R. Lewis, 1874; B. F. McCluskey, 1881, who died August 18, 1882, and was succeeded by J. A. Findley; James McGregor, 1890.

Treasurer.—James McKnight, 1811; Thomas Sutton, 1813; John Taylor, 1815; William Lucas, 1817; William Douglas, 1820; Alexander Taylor, 1822; William Trimble, 1824; William Lucas, 1827; Blaney Adair, 1830; James Todd, 1833; I. M. Watt, 1836; W. W. Caldwell, 1839; William Bruce, 1842; W Douglas, 1843; W. W. Caldwell, 1845; Samuel R. Rankin, 1847; W. W. Caldwell, 1849; James Hood, 1851; Garvin Sutton, 1853; Thomas McCandless, 1855; John Brink, 1857; Charles N. Swoyer, 1859 (elected but died before taking office); William Earl, 1859 (appointed); James Moorhead, 1861; W. H. Coleman, 1863; John A. Stewart, 1865; George W. McHenry, 1867; Noah Lohr, 1869; James M. Sutton, 1871; George H. Johnston, 1873; John Ebey, 1875; John Truby, 1878; John T. Gibson, 1882; T. C. Ramey, 1885; D. A Luckhart, 1888; G. H. Ogden, 1891.

Surveyors: District, Deputy and County.—The district surveyors whose services extended over that part of Indiana county north of the old purchase line, were James Hamilton, John Broadhead, James Johnston, James Potter and William P. Brady.

Those serving within the li8mits of the purchase of 1768 were: Joshua Elder, John Moore, Joseph L. Findley, Eonieu Williams, James Ross, Thomas Allison and Alexander Taylor.

Their successors were: John Taylor, 1815; also served as surveyor-general; Robert Young, 1818; Alexander Taylor, Jr., 1819; Meek Kelly, 1821; John Taylor, 1825-1827; Meek Kelley, 1830-33; Robert McGee, 1834; William Evans, 1836; Robert McGee, 1839; Thompson McCrea, 1850; David Peelor, 1856; William Evans, 1859; Edmund Paige, 1862; Thompson McCrea, 1865-68; Edmund Paige, 1871-72; John R. Caldwell, 1887

Commissioners.—William Clarke, 1806 and 1807; James Johnson and Alexander McLean, 1806; William Clarke and Alexander McLean, 1808; William Clarke and Rev. John Jamison, 1809; James McKnight, Rev. John Jamison and Robert Robison, 1810; Robert Robison, Joshua Lewis and Rev. John Jamison, 1811; Robert Robison, Joshua Lewis and Joseph Moorhead, 1812; Francis Boals, Joshua Lewis and Joseph Moorhead, 1813; Joseph Moorehead, Francis Boals and Alexander McLain, 1814; Alexander McLain, Francis Boals and Gawin Sutton, 1815; Gawin Sutton, Alexander McLain and Thomas Sharp, 1816; Gawin Sutton, Thomas Sharp and John Smith, 1817; Thomas Shnarp, John Smith and Thomas Laughlin, 1818; Thomas Laughlin, John Smith and Joseph Henderson, 1819; William Clarke, John Smith and Joseph Henderson, 1820; Joseph Henderson, William Clarke and Clemence McGara, 1821; Clemence McGara, Stewart Davis and William Clarke, 1822; Stewart Davis, Clemence McGara and William Clarke, 1822; Stewart Davis, Clemence McGara and Alexander Pattison, 1823; Alexander Pattison, Stewart Davis, James Gordon, 1824; James Gordon, William W. Caldwell, Alexander Pattison, 1825; James Gordon, James Todd, W. W. Caldwell, 1826; Peter Dilts, W. W. Caldwell, James Tood, 1827; Samuel Trimble, Peter Dilts, James Todd, 1828; Samuel Trimble, Peter Dilts, Archibald Johnson, 1829; Samuel Trimble, Archibald Johnson, Gawin Sutton, 1830; Gawin Sutton, Archibald Johnson, James Lewis, 1831; Gawin Sutton, William Leard, 1833; James Lewis, Alexander McMullin, 1834; James McComb, William Laird, Alexander McMullin, 1834; James McComb, William Laird, Alexander McMullin, 1835; James McComb, James Lapsley, John Cummins, 1836; John Cummins, James Lapsley, Joseph McMasters, 1837; William Smith, John Cummins, Joseph McMasters, 1838; William Smith, Philip rice, James Rhea, 1839; John Dick took his seat October 20, in lieu of Smith; Philip Rice, James Rhea, John Dick, 1841; Charles Campbell took his seat November 2, in lieu of Dick; James Rhead, John Dick, Charles Campbell, 1842; Thomas Stewart October 24, in lieu of Rhea; John Dick, Charles Campbell, Thomas Stewart, 1843; John A. Jamison, October 23, in lieu of Dick; Charles Campbell, Thomas Stewart, John A. Jamison, 1844; Alexander T. Moorhead took his seat in lieu of Stewart; Charles Campbell, John A. Jamison, Alexander T. Moorhead, 1845; Abraham Davis took his seat November 3, in lieu of Campbell; John T. Jamison, Alexander T. Moorhead, Abraham Davis, 1846; Thomas Walker took his seat November 2, in lieu of Jamison; Alexander T. Moorhead, Abraham Davis, Thomas Walker, 1847; Jacob Gamble took his seat October 25, in lieu of Moorhead; Abraham David, Thomas Walker, Jacob Gamble, 1848; Thomas Gibson took his seat, October 14, in lieu of Davis; Thomas Walker, Jacob Gamble, Thomas Gibson, 1849; John Lytle took his seat October 15, in lieu of Walker; Jacob Gamble, Thomas Gibson, John Lytle, 1850; John Shields took his seat October 21, in lieu of Gamble; Thomas Gibson, John Lytle, John Shields, 1851; Samuel H. Johnston, November 3, in lieu of Gibson; John Lytle, John Shields, Samuel H. Johnston, 1852; Robert H. Armstrong, October 25, in lieu of Lytle; John Shields, Samuel H. Johnston, Robert H. Armstrong, 1853; Moses T. Work, November 1, in lieu of Shields; Samuel H. Johnston, Robert H. Armstrong, Moses T. Work, 1854; George Lowman took the place of Johnston; Robert H. Armstrong, Moses T. Work, George Lowman, 1855; John Gourley, October 17, in lieu of Armstrong; Moses T. Work, George Lowman, John Gourley, 1856; David Henderson, October 29, in lieu of Work; George Lowman, John Gourley, David Henderson, 1857; Thomas Davis, November 3, in lieu of Lowman; John Gourley, David

Henderson, Thomas Davis, 1858; A. L. McCluskey, Octboer 25, in lieu of Gourley; David Henderson, Thomas Davis, A. L. McCluskey, 1859; William Johnston, October 26, in lieu of Henderson; Thomas Davis, A. L. McCluskey, William Johnston, 1860; Samuel Irwin, October 15, in lieu of Davis; A. L. McCluskey, William Johnston, Samuel Irwin, 1861; Andrew Shields, November 12, in lieu of McCluskey; William Johnston, Samuel Irwin, Andrew Shields, 1862; Samuel Irwin, Andrew Shields, S. A. Allison, 1863; Andrew Sheilds, S. A. Allison, W. C. McCrea, 1864; S. A. Allison, W. C. McCrea, W. G. Stewart, 1865; W. C. McCrea, W. G. Stewart, R. Adams, 1866; W. G. Stewart, R. Adams, G. Shryock, 1867; Robert Adams, George Shryock, Elliott Ferguson, 1868; George Shryock, Elliott Ferguson, James T. Vanhorn, 1869; Elliott Ferguson, James T. vanhorn, John S. Fleming; ing, 1870; James T. Van Horn, John S. Fleming, Jacob Darr, 1871; John S. Fleming, Jacob Darr, James M. Work, 1872; Jacob Darr, James M. Work, George W. Boadenhamer, 1873; James M. Work, George W. Bodehamer, Samuel G. Miller, 1874; George W. Boadenhamer, Samuel G. Miller, Francis Mabon, 1875; Jeremiah Lomison, Frederick Cameron, Frederick Buterbaugh, 1876-7-8; John G. Robinson, A. P. Thompson, William Daugherty, 1879-80; James Johnston, Wm. Mabon, James C. McQuown, 1882; A. W. Stelle, R. M. McComb, Jeremiah Wakefield, 1885; A. C. Rankin, John G. Cameron, A. H. Braughler, 1891.

The clerks of the board of commissioners from 1804 to 1880 have been: Alexander Johnston, for trustees of the county, 1804; Paul Morrison, for trustees of county, 1805; James Riddle for commissioners, 1806; James McKnight, 1807; Daniel Stenard and Jame M. Riddle, 1808; Daniel Stenard, 1809-10; James McKnight, 1811; James M. Kelley, 1812-13; John Wilson and James Coulter, 1814, John Wilson and John Taylor, 1815, Gawin Sutton and John Taylor, 1816; Daniel Stenard and Stewart Davis, 1817; Stewart Davis, 1820; Robert Young, 1824, Ephraim Carpenter, 1825; Stewart Davis, 1825,; William Banks, 1826; John Johnston, 1829; William Stewart, I. M. Watt and John Myers, 1838; Robert M. Gibson, 1839; A. W. Taylor, 1841; Edward Paige, 1848; J. H. Lichteberger, 1849; George Shryock, 1853; George Shryock, 1862; W. R. Black, 1865; James B. Work, 1870; W. H. Coleman, 1871; D. R. Lewis, 1873; J. T. Gibson, 1875; J. P. St. Clair, 1879-80.

Theocoroners from 1806 to 1880 have been Samuel Young, 1806; Joseph Turner, 1809; William Sheilds, 1812; James Loughrey, 1815; William Douglas, 1818; Peter Sutton, Jr., 1821; James E. Cooper, 1824; Samuel George, 1827-30-33; Samuel McCartney, 1833-36-39; William Henry, 1839; John McQuilkin, 1842; James Hood, 1845; Samuel Trimble, 1848; James McLain, 1851; J. W. Mahon, 1854; J. A. Jamison, 1857; J. I. Kelly, 1860; William Shields, 1863; Joseph Gilbert, 1868; John Clawson, 1869; William H. Coleman, 1872; Samuel A. Smith, 1875; Irwin McFarland, 1878.

The following is an alphabetical ist of the post-offices in Indiana county, with their respective distances from the county-seat, on October 1, 1890: Advance, 18 miles; Ambrose, 13 miles; Angora, 18 miles; Armagh, 14 miles; Avanmore, 24 miles; Beringer, 18 miles; Black lick Station, 12 miles; Blairsville, 16 miles; Brady, 14 miles; Brush Valley, 10 miles; Buffington, 16 miles; Canoe Ridge, 24 miles; Chambersville, 7 miles; Clarksburg, 15 miles; Clyde, 14 miles; Cookport, 16 miles; Covode, 23 miles; Cramer, 16 miles; Creekside, 6 miles; Crete, 5 miles; Cush Creek, 23 miles; Davis, 11 miles; Decker's Point, 14 miles; Denton, 17 miles; Dilltown, 14 miles; Dixonville, 13 miles; Ebenezer, 13 miles; Elder's Ridge, 16 miles; Flora, 30 miles; Georgeville, 20 miles;

Gilpin, 8 miles; Glen Campbell, 24 miles; Grant, 22 miles; Grip, 18 miles; Grisemore, 17 miles; Hamill, 17 miles; Heshbon, 14 miles; Hillsdale, 20 miles; Home, 10 miles; Homer City, 6 miles; Horton's, 28 miles; Kent, 9 miles; Kenwood, 13 miles; Kimmell, 16 miles; Locust Lane, 23 miles; Loop, 25 miles; Marchand, 21 miles; Mitchell's Mills, 13 miles; Nolo, 10 miles; North Point, 25 miles; North Summit, 35 miles; Onberg, 6 miles; Ord, 17 miles; Parkwood, 10 miles; Penn Run, 9 miles; Pine Flats, 14 miles; Plumville, 14 miles; Purchase Line, 16 miles; Rochester Mills, 20 miles; Saltsburg, 20 miles; Shelocta, 9 miles; Smathers, 6 miles; Smicksburg, 22 miles; Spruce, 19 miles; Strongstown, 14 miles; Suncliff, 8 miles; Tannery, 11 miles; Tanoma, 9 miles; Trade City, 21 miles; Tunnelton, 20 miles; Two Lick, 4 miles; Utah, 14 miles; West Lebanon, 14 miles; Willet, 10 miles.

	Population	from	1820	to	1840
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	1820	1830	1840
Wheatfield	2,020	2,961	1,664
Armstrong	587	814	1,054
Blairsville		957	990
Black Lick	1,303	1,850	2,028
Brush Valley			1,822
Centre	937	1,237	1,615
Conemaugh	1,555	2,104	1,441
Greene		1,130	2,321
Indiana	317	433	674
Mahoning	1,106	1,640	2,890
Montgomery			787
Saltsburg			335
Washington	1,057	957	1,893
Young			1,116

The first iron enterprise in Indiana county was "Indiana Forge," which was built on Findley run near the Conemaugh river in 1837, by Henry and John Noble, who also built a small furnace in 1840. To stock his store at Indiana forge, in 1837, John Noble exchanged two hundred acres of land, in what is now the heart of Altoona, for forty-five hundred dollars' worth of goods, which he purchased of D. Robinson of Pleasant Valley. The Altoona land to-day is worth over two million dollars. In 1843, W. D. and Thomas McKennan purchased Indiana forge and furnace, and in 1846 sold the plant to Elias Baker, who erected a new furnace and forge, which he operated for several years. In 1856 there were four charcoal furnaces in the county.

The "Kittanning Trail" was the great Indian highway through Indiana county. It came from Frankstown into the county below the purchase line. It passed near the site of Diamondville, crossed from Green into Cherry Hill township, ran near Greenville and passed Shaffer's sleeping-place, bore a little to the right of Indiana, then ran through the Charles Campbell and Fergus Moorhead tracts to curry run, which it followed to Crooked creek, where the "Kiskiminetas Path" left it to run southwest to Chartiers, on the Allegheny river. The Kittanning Trail left Crooked creek and passed out of the county near the site of Shelocta. The Wenango Path left the Kittanning Trail at the forks on the

Caldwell tract, in Green township, and ran north. The Peholand Trail came north from Ligonier Valley, in Westmoreland county, and passed near the site of Centreville to Peholand's camp, which was opposite the site of Homer City. It then crossed the Kittanning Trail at Indiana and went northward, passing near the site of Kellysburg, and crossed Mahoning creek to the mouth of Ross run (where an Indian village stood) on its way to the Indian town of Coughcheating.

The Holland land Company held several tracts of land in this county, and its history will be given briefly.

The Holland Land company was composed of eleven merchants of the city of Amsterdam, who had acquired wealth by careful investments and fair profits. They had spare capital and sought to invest in the wild lands of western New York and Pennsylvania. Their investments were made from 1792 to 1800. "These Dutch merchants were far in advance of the prevailing sentiment in Europe, as to the success and permanency of the experiment of free government." The title of the Holland Purchase is traced from James II., William and Mary and Charles II. To Robert Morris, who sold 3,300,00 acres of land in western New York, on December 31, 1798, to Wilhelm Willink, Nicholas Van Staphorst, Pieter Van Eeghen, Hendrick Vollenhoven and Rutger Schemmelpenninck. This was their largest purchase from Morris and included a large portion of the land which had been in dispute between New York and Massachusetts for several years. In 1792 the above-named members of the Holland company purchased several large tracts of land in what are now Indiana and Armstrong counties.

Robert Morris was very permanent in the Revolutionary war and took a great interest in the development of western Pennsylvania and western New York.

"It is an often demonstrated truth, that 'money is the sinew of war.' It was eminently so during the revolutionary struggle, when its strength and usefulness in the cause of freedom were controlled by Robert Morris, a wealthy and influential merchant of Philadelphia. He was born in Lancashire, England, in January, 1733. his father was a Liverpool merchant extensively engaged in the American trade, who came to America in 1744, and settled on the eastern shore of Chesapeake bay. His son, Robert, with his grandmother, followed in 1746, and was placed in a school in Philadelphia, where an inefficient teacher wasted his time and patience. In 1749 young Morris was placed in the counting-room of Charles Willing, of Philadelphia; and on the death of his employer, in 1754, he entered into a partnership with that gentleman's son, which continued thirty-nine years. That firm soon became the most wealthy and extensive among the importers of Philadelphia, and consequently they were the heaviest losers by the non-importation agreements, which gave such a deadly blow at the infant commerce of the colonies, after the passage of the Stamp Act. Yet they patriotically joined the league, and made the sacrifice for the good of the cause of right.

"In November, 17754, Mr. Morris was elected to a seat in the Continental Congress, where his exceeding great usefulness was soon discovered. Its appreciation was manifested by placing him upon committees, having in charge the 'ways and means' for carrying on the war. In the Spring of 1776 he was chosen, by Congress, a special commissioner to negotiate bills of exchange, and to take other measures to procure money for government. At that time no man's credit, in America, for wealth and honor, stood higher than that of Robert Morris. He was again elected to Congress after the

Declaration of Independence had been adopted, and being favorable to that measure, he signed the document, with most of the others, on the second day of August following. Toward the close of that year, when the half-naked, half-famished American army were about to cease the struggle, in despair, he evinced his faith in the success of the conflict, and his own warm patriotism, by loaning for the government, on his own responsibility, ten thousand dollars. It gave food and clothing to the gallant little band under Washington, who achieved the noble victory at Trenton, and a new and powerful impetus was thereby given to the Revolution.

"Mr. Morris was continually active in the great cause during the whole of the war. He fitted out many privateers. Some were lost, others were successful in bringing him rich prizes; and at the return of peace he estimated that his losses and gains were about equal. In May, 1781, bout the gloomiest period of the struggle, Mr. Morris submitted to Congress a plan for a National Bank. It was approved, and Bank of North America, with Robert Morris as its soul, was established, and became a very efficient fiscal agent. He was assisted by Gouverneur Morris; and through the active agency, in financial matters, of these gentlemen, much of the success which resulted in the capture of Cornwallis, at Yorktown, must be attributed. During that year Mr. Morris accepted the office of Financial Agent (Secretary of the Treasury) of the United Sates. After the war he was twice a member of the Pennsylvania Legislature, and he was one of the framers of the Federal Constitution. He was a senator in the first Congress convened under that instrument; and Washington appointed him his first Secretary of the Treasury. He declined the office, and named Alexander Hamilton as more capable, than himself, to perform the duties. At the close of his senatorial term Mr. Morris retired from public life, not so rich in money, by half, as when he entered the arena. Soon the remainder of his large fortune was bst by speculations in wild land, in the western part of the State of New York, afterward purchased by an asocial known as *The Holland Land Company*. On the 8th of May, 1806, Robert Morris, the great Financier of the Revolution, died in comparative poverty, at the age of a little more than seventy-three years."

"The geological work of 1877 in Indiana county has, among other things, established beyond doubt, that the rocks of the Lower Productive Coal measures cross the great anticlinal of Laurel hill from the First Basin without suffering any material modification or change, either as regards their total thickness or in the number of their enclosed coal beds, limestones, &c.; and further, that they continue in what for all practical purposed may be considered the same condition across the several basins to the west, as far at least as the eastern border of Armstrong county, where work will be resumed in the season of 1878,and continued thence to the Allegheny Valley, to be joined on there with the very complete work fo Prof. White, extending west from the Allegheny river to the Ohio State line.

"The surprising regularity of the Lower Productive group throughout the whole First Basin from the Moshannon to the Maryland line, is familiar to every reader of the Pennsylvania reports. This regularity, remarkable as it is, is no greater than prevails in the same rocks in the Second, Third and Fourth basins. One may go all over Indiana county from the Conemaugh river to the Jefferson county line, and from Cambria to Armstrong, without experiencing any difficulty in identifying the coal beds and limestone deposits of the Lower Productive series, by the same guides that were used in operating in the First basin.

"The dominant rocks of the series, as they present themselves in the First basin, are repeated in Indiana county wherever these measures rise above water level; and here as there they are separated by very nearly the same vertical intervals, in many cases the intervals being exactly the same as in the section considered to be typical of the Lower Productive measures in the First Great Basin. From, this however, it must not be supposed that an argument favoring the absolute parallelism of the strata would be presented, because any such supposition is sufficiently disproved by the frequent local variations in the measures, displayed either by the contraction or expansion of their bulk, or by slight modifications of the mineral character of the strata. It is, however, a fact, in whatever light it may be viewed, that the typical vertical section of the First Basin is repeated again and again in every basin of Indiana county, agreeing too in every way with the work in the same basins in Clearfield and Jefferson counties to the north. This is sufficient to show the regularity with which these measures extend over miles and miles of territory, and while not uniformly parallel to a sufficient degree to enable us to identify coal beds in every case by means of the vertical distances separating them, yet the variations from what we may justly consider the normal condition can never produce confusion after the entire section is worked out.

One of the chief points of interest in the Indiana County Survey, was the tracing westward of the now famous Johnstown Cement bed,--the rock that, for so long a time, was wrongly associated with the classical Ferriferous limestone of the Allegheny Valley. The non-identity of these two strata was sufficiently pointed out and proved in the Report of Progress for 1876, and the subject requires no further elaboration. As regards the character and thickness of the rock in Indiana county, the reader must be referred to the detailed chapters of the volume, in which every locality where the stratum was observed is noted. But it may here be said that this limestone band continues in an unbroken sheet westward across all the anticlinal and synclinal flexures of the strata to re-appear occasionally but in a very attenuated form in Mr. White's sections.

"The geological horizon of the true ferriferous limestone is so seldom above water-level west of Chestnut Ridge in Indiana county, and where it rises above the drainage line it has been so infrequently exposed by the farmers, that it would be inexpedient to attempt to define its true relationship to the lower part of the group, because the sections in this region of country are necessarily imperfect. But its relationship with regard to the upper strata of the Lower Productive group, has been very clearly made out, and found to agree closely with the conditions prevailing in the Allegheny Valley.

"The position of the Ferriferous limestone as regards the lower strata of the group, may at the present writing fairly be regarded as uncertain. Some of the sections obtained in Indiana county would indicate that this limestone strata occupies a position between what we have regarded in these reports as A and B coals, and there is no reason to doubt the entire correctness of these sections. Such a construction, thought it would explain many facts observed in the First Basin, would nevertheless be in conflict with what for years has been held as the correct position of the Ferriferous limestone in the column of the Lower Productive measures. As elsewhere intimated the facts at hand are insufficient to reverse the opinion formed long ago by able and competent geologists; but it must at least be regarded as an open question and one that will be decided by the Survey of Armstrong county.

"Excepting in the case of the Upper and Lower Freeport beds, all *names* of coals have been carefully omitted from this report; in their place capital letters are used, the same lettering that was employed all through the First basin.

"It was shown that the *triple form* of the Freeport group, --a classification adoped at the beginning of the present Survey, could not be maintained, and that to prevent inevitable confusion in the future, it was necessary to return to the original classification of the Freeport coals into two beds,--the Upper and Lower Freeport. This has been done in the present report, the name *Middle Freeport* disappearing from the list. The same bed is now called the Lower Freeport, but retains its letter of the First Basin, namely D'. The Lower Freeport of the First Basin report, goes for the present without a name, being known only by the letter D. It is the Darlington coal of Mr. White's sections, and throughout Indiana county as well as in the southern part of the First Basin it comes into the measures directly above the Johnstown cement bed.

"In the following schedule is shown the relative position occupied by the principal strata of the Lower Productive series, together with the classification and lettering adopted for the coal beds in this report. It will be observed that the Ferriferous limestone appears underneath coal bed C, between this and bed B, where it is at present supposed to belong.

"For purposes of comparison the schedule used in the First Basin reports is placed side by side with that employed in the present volume.

INDIANA COUNTY

Upper Freeport coal (E). Freeport limestone

Lower Freeport coal (D').

Lower Freeport limestone.

Freeport sandstone

Coal bed D.

Johnstown cement bed

Coal bed C.

Ferriferous limestone

Coal bed B Coal bed B. Coal bed A'.

Sandstone. Coal bed A.

FIRST BASIN

Upper Freeport coal (E).

Freeport limestone.

Middle Freeport coal (D'). Middle Freeport limestone.

Freeport sandstone

Lower Freeport coal (D0

Johnstown cement bed

Lower Freeport coal (D).

Absent

Coal bed B'.

Clarion coal (B).

Coal bed A;.

Sandstone

Brookville coal (A).

"The survey of the Lower Barren rocks in Indiana county, yielded very few reliable sections. One of the best and most important, was obtained at Dilltown on Black Lick creek in the Ligonier Basin: this section extends without a break from the Upper Freeport coal to the Morgantown sandstone, and although not complete in all its details, yet it shows many interesting features which resemble closely those observed in the same rocks in Somerset county. If to this Dilltown section be added the measures observed at Blairsville between the Morgantown sandstone and Pittsburg Coal, the Barren Measure column will be complete, so far as its length is concerned.

"The Western uplands of the county, though largely covered by Lower Barren rocks, contribute very little to our knowledge of the geology of these measures. In studying them the same difficulties were encountered that have been met with by every geologist operating in these rocks in the western part of the Sate, namely, meager exposure embracing only a few feet of rocks, and separated by wide horizontal intervals. Under such circumstances to build up a column of measures, it is necessary to supply numberous missing links to the chain. And in these gaps it frequently happens that we pass over the only recognized horizons of the group, so that our section teaches us nothing. The very nature of these strata causes them in weathering to conceal their basset edges, and excepting for the limestone deposits enclosed in them they offer no inducement to the farmer to explore them. In the natural exposures only the harder strata of the group are exposed, the small coal-beds being generally concealed beneath a mass of soft crumbling shale.

"But certain members of the series have already been recognized as steadfast, and as constituting reliable horizons. These were repeatedly identified at such parts of the county as include them; but the coals and limestones of the Berlin group, though likely present in some recognizable form, could not always be satisfactorily established.

"The thickness of the group varies but little, maintaining an average of about 600 feet. These are its dimensions at Blairsville, and also in Saltsburg, the only points in the county where the entire series can be measured.

"The best known and most widely recognized members of the series are the following, omitting for the most part the coals of the Berlin group:

"The Little Pittsburgh Coal.

The Little Pittsburgh Limestone.

The Connelsville Sandstone.

The Morgantown Sandstone

The Elk Lick Coal.

The Green or Crinoidal Limestone

The Black Fossilliferous Limestone.

The Philson Coal.

The Philson Limestone.

The Gallitzin Coal.

The Mahoning Sandstone.

Mineral resources.

"Excepting the small patches of Upper Productive measures at Blairsville and Saltsburg, the Lower Productive group are the only rocks that can be depended upon for coal in Indiana County; and by reference to the geological map it will be seen at a glance that west of Chestnut Ridge these measures are chiefly below the present water line of the streams. They therefore underlie the whole of the western uplands, and to reach them at many points would require deep shafts, but fortunately for this part of the county such a necessity is avoided by sufficient coal having been raised at a few localities above water level for a short distance by the anticlinal axes. Cheap fuel, therefore, while not everywhere obtainable in the western townships, is easily accessible from almost any point.

"In the Ligonier Basin (east of Chestnut Ridge) the greater part of the area is occupied by Lower Productive rocks, and coal therefore abounds in that section in prodigious quantities. Many hillsides contain for a long distance the entire Lower Productive group with all its enclosed coal beds, limestone, &c. Some day these vast stores of fuel will be needed for the arts and manufactures.

"The amount of available limestone in the county is no less great than the coal, while its distribution is wider and much more even, for layers of this valuable rock are intercalated not only in the Lower Productive group, but in the Barren series as well. Its use as a fertilizer of the soil does not seem yet to be fully appreciated in all parts of the county, and its too sparing use will account in large part for the unsatisfactory results frequently obtained by the farmers in tilling the land. Here and there, however, the advantages arising from its utilization are understood by the farmers, whose field present then a striking contrast to those barren strips of county, in which the soil, though made up of the same material, is exhausted from overwork and lack of proper treatment.

"The clays of the district include not only some excellent varieties of fire-clay, but also some valuable surface deposits, from which good bricks for building purposes have been made.

"The fire-clays, although existing in great abundance in all parts of the county, have as yet been developed only along the lines of railroad communications. At these points the clays worked are of excellent quality, the brick's and retorts made from them being well and favorably known.

"The compact and heavy bedded sandstone prevailing in some parts of the county furnish building material almost without limit. This rock has been employed by a small extent with very satisfactory results.

"The question of the petroleum interests of Indiana county, although deeply affecting its citizens is one with which this report is not concerned, having-only to deal with the coal rocks. But in view of the excitement that prevailed in many parts of the district during the past season, in regard to the probabilities of finding petroleum at certain specified points, it may be said of the wells as yet put down within the limits of Indiana county that having failed in every case by many hundreds of feet to reach the oilbearing sands of Venango and Butler Counties, they leave the petroleum question as it was before the holes drilled. It can probably with safety be predicted that if oil exists in available quantities and at reasonable depths underneath Indiana county, it is held by the same rocks that furnish it in such great abundance in the counties to the west and northwest. The rocks thus indicated are the so-called Oil Sands, the nearest approach of which to the surface in Indiana county is in the heart of the Conemaugh gaps through Laruel Hill and Chestnut Ridge. At both these places the First Oil Sand, the highest member of the group, is not more than 500 feet below water level, whereas the centre of the basin, at Blairsville, the same rock is scarcely less than 2000 fett below the bed of the Conemaugh. Whether it would be reasonable to expect to find oil on the banks of the great anticlinal arches of Laurel hill and Chestnut Ridge is a question foreign to the purpose of the present discussion. The centres of the basins have mainly been selected for such imperfect tests as have hitherto been made in this region.

"The Nolo anticlinal is a small subaxis splitting the Ligonier basin lengthwise, and attaining its greatest development inside the limits of this district, beyond which it is scarcely known. So also with the synclinals (the Mechanicsburg and Centreville

synclinals) on both sides of the axis; to the south, as well as to the north, these are united into one great trough (by the disappearance of the anticlinal), and pass under the well-known name of the Ligonier Synclinal. Moreover the Marion-Fillmore synclinal is only the prolongation into Indiana County of Prof. Stevenson's Greensburg synclinal, and the West Lebanon synclinal is the Lisbon synclinal of the south. Both of these axes, the Greensburg-Marion and the Lisbon-West Lebanon merge before reaching the Sandy Lick creek in Clearfield county into one trough—the Reynoldsville; whereas the Smicksburg synclinal, the same that crosses the Sandy Lick near Fuller's mills, in forced eastward, going south by the disappearance of the Perryville anticlinal, and probably joins on somewhere to the Lisbon-West Lebanon axis.

"The Third Axis, as it was named many years ago by Messrs. Hodge and Lesley in their early survey of the northern counties, was described by Prof. Stevenson in his report of 1876 as the Blairsville anticlinal; but the name of this town is already occupied, and properly for synclinal, and as the county seat of *Indiana* is the only town of importance under which this axis runs, it furnishes the anticlinal with a more appropriate geographical name, if any such be desired. The name Perrysville (from the village of Perrysville in Jefferson County) is suggested for the second subaxis of the Fourth Basin, an axis hitherto unnamed, and the one that crosses the Little Mahoning above Smicksburg, and the Sandy Lick two miles west of Reynoldsville.

"With two exceptions, the rocks which make up the surface of Indiana county belong to the Carboniferous system. The exceptions noted are in the deep gaps of the Conemaugh through laurel Hill and Chestnut Ridge anticlinals, where for a short distance a few feet of Devonian strata are lifted above the drainage line.

"The Lower Barren and Lower Productive groups of the Carboniferous rocks are those with which we have mainly to deal in Indiana county. These measures are brought up again and again by the anticlinals and spread over miles of territory. At two places in the county a small portion of the higher Upper Productive group is represented in the hills, these places being the regions between Blairsville and Black Lick, and Saltsburg and West Lebanon.

"In the following scheme of the formations is a list of the rock groups that underlie the highest *geological* ground of the district, as for instance at Blairsville, for a distance of ten miles; and it likewise includes at its top some two thousand feet of measures that at one time overspread this whole region, but which have been slowly swept from it in the course of time and carried downwards by the streams into the sea.

"I. The Carboniferous System.

1. Monongahela river coal series.

Upper Barren measures,)Absent in

a. Greene county group,)Indiana

b. Washington county group,)county.

Upper Productive coal measure; present only in part.

XII

2. Allegheny river coal series.

Lower Barren measures.

Lower Productive coal measures.

Pottsville conglomerate (Seral).

c.Sharon and Quinnimont coal group

Mauch Chunk red shale

Mountain limestone)	XI	
d. New river coal group)		
Pocono sandstone (Vesperti	ne)		
(Mountain sands)		X	
II. The Devonian System.			
1. Catskill sandstone (Old red) (?Oil	sand group.	IX	
2. Chemung sands and shales)		
3. Portage shales and sands)		
4. Hamilton formation)		
Genesee black shales)		
Hamilton sandstone)	VIII	
Juniata river coal group)		
Marcelius black shales)		
5. Upper Helderburg limestones)		
6. Oriskany sandstone		VII	
III. The Silarian System.			
1. Lower Helderburg limestone		VI	
Salina, Nagara, &c.			
2. Clinton red shales and fossil ore		V	
3. Medina sandstone)		
4. Oneida conglomerate)	IV	
IV. The Siluro-Cambrian System.	,		
1, The Hudson river slates)		
2, Utica slates)	Ш	
3, Trenton limestone)		
4, Magnesian limestone)	II	
Chazy, Calciferous, &c.	,		
5. Potsdam sandstone		I	
V.The Cambrian System (South Mountain)			
VI. The Huronian System (Philadelphia rocks).			
VII. The Laurentian System (Highlands)."			

Along the line of the Pennsylvania and West Pennsylvania railroads in Indiana county the levels above tide are as follows:

Pennsylvania R. R.

Sang Hollow (In Laurel Hillgap)	1143
Conemaugh Furnace	1135
Nineveh	1141
New Florence	1076
Lacolle	1056
Lockport	1054
Bolivar	1033
Blairsville Intersection	1113

West Pennsylvania R. R.

Blairsville (Market street station)	1011
Livermore	945
Saltsburg	891

The stations on the Blairsville and Indiana branch of the P. R. R. occupy the following elevations, the datum being the same as before.

	Feet.
R. R. Junction near Blairsville Intersection	1111
Blairsville (as above)	1011
Smith's Summit	1101
Wier's run	970
Black Lick	963
Water station	966
Black Lick bridge	1982
Doty's bridge	1011
Rugh's	1038
Saw-Mill run	1016
Bell's Mills run	1032
Phillip's Summit	1044
Kissinger's Summit	1055
Two-Lick creek	1044
Reed's	1145
Indiana terminus (Main street)	1311

The following barometrical levels (which must be considered only as approximately correct) are here introduced to show the relative elevations of the points names. They relate entirely to the summits of the main ridges:

	Feet
Summit of Laurel Hill overlooking Sang Hollow	2300
Nolo; summit of Nolo anticlinal	18347
Summit of Chestnut Ridge opposite Packsaddle	2050
Oaks' Point	1900
Summit of Chestnut Ridge, Black Lick gap	1894
Summit of Chestnut Ridge at Greenville	1600
Summit of Chestnut Ridge near Smithport	1815

The projected pipe line (1879) for the transportation of oil from the heart of the oil regions to the Atlantic seaboard, passes in a southeasterly direction through the northern part of the county, entering it a short distance south of Smicksburg, in West Mahoning township, to continue thence across the northeast corner of South Mahoning, passing close to the Smyrna church, and so on to the town of Marion; beyond this it enters Green township, in which its course in past the Dunkard Church, past Buterbaugh's mill and within about one third of a mile of Cookport; it finally crosses the

Cambria county line about 6 miles S. W. of Cherry Tree. The levels above tide along this pipe line vary from 1271 to 1999 feet.

Formation IX, the Ponent of Prof. Rogers' classification, is the equivalent of the Old Red sandstone. It has an extensive outspread in new York State, forming there the greater part of the Catskill mountains, from whence it has derived its geographical name. Prof. Hall describes it as consisting in the latter locality of alternating strata: of sandstone, shale, and shaly sandstone, conglomerates and impure limestones." Moreover, these strata in the Catskill, like their equivalents in Pennsylvania, are much stained with ferruginous matter, the pervading color of the sandy parts being, according to Prof. Hall, a brick red.

In Eastern Pennsylvania, where Formation IX passes under the Anthracite coal-fields, it has a composition similar to that above described, and a thickness of nearly s,000 fett, which is likewise its dimensions on the south flank of the Catskills. In the Broad top region of Huntingdon county it has increased in bulk to 2, 680 feet, which is also its thickness on the face of the Allegheny Mountain. Its thickness under the Ligonier basin in Indiana county is not known, because only the upper members of the Formation are above the level of the Conemaugh; but the oil well now being drilled at Blairsville will show the character and thickness of the Catskill rocks in that regtion.

The topography of For. IX is eminently characteristic, rising either as a high, uneven terrace on the flank of the mountains of X as at the mouth of the Juniata, or cup by numerous ravines and projecting then as bold spurs as along the Allegheny mountain overlooking Tyrone, Altoona and Hollidaysburg.

The greenish sands and grits of the Pocono sandstone (the Vespertine of Rogers) have a wide geographical range in Pennsylvania, forming as they do the southeast border of the Bituminous coal-fields. The same formation aso enclose the anthracite basins, having there a thickness of nearly 2,000 feet and forming the Pocono mountain, from whence came the geographical name assigned to the Formation by Prof. Lesley. It has even a greater thickness where measured by Mr. Ashburner on Broad Top, showing there nearly 2,200 feet from top to base; but in the great leap from the Broad Top to the Allegheny it loses more than one half its rocks and appears on the mountain face above Altoona as a formation only about 1,000 feet thick.

Thence westward and northwestward the reduction is continuous but more gradual. In the Conemaugh gap of Laurel hill the entire thickness of the formation does not exceed 650 feet; in the Packsaddle gorge (Chestnut Ruge) each of Blairsville, it is about the same; then it passes under the uplands of Westmoreland and Indiana, and where "it rises again in Ohio and Northern Pennsylvania from its underground journey {it is}so lean and changed as scarcely to be recognized. It is there a formation of greenish sandstone less than two hundred feet thick. The whole intermediate space of course it underlies; that is all Northern and Western Pennsylvania, all Western Virginia and the whole southern region of the Cumberland mountain; here it is as thin as in the Catskill region, but here as there helps to pile up the immense plateau, which narrowing as we go southward domineers with its lofty terminal crags the plains of Alabama."

Prof. Fontaine has made a careful study of the outcrops of the Pocono sandstone in West Virginia and in his published descriptions of it show that the maximum thickness of the formation in that locality does not exceed one thousand feet, and this is including about 500 feet of rocks which Prof. Fontaine thinks may belong to the Catskill group.

It was stated above that the Catskill rocks are only partially exposed along the Conemaugh river. In the gaps of Laurel Hill and Chestnut Ridge only about two hundred feet of these measures are above water level; while north of the river in Indiana county Formation IX does not again rise above the stream beds, but extends in an unbroken sheet far below the general surfaces of the country. Even in the dep gap of Black Lick, and in the almost equally deep gorges of Yellow creek and Two-Lick through Chestnut Ridge, the arch of the Catskill rocks across the anticlinal is several hundred feet below the channels of these creeks.

What little of Formation IX is exposed along the Conemaugh can best be seen at the centre of the Laurel Hill anticlinal below Johnstown. Its oval shaped outcrop area extends only a short distance in either direction from the axis, owing to the rather sharp northwest and southeast dips which there prevail. But the frequent exposures at the heart of the gap show how the red clays of IX extend up to and touch the greenish sands of X.

Formation XI, Mauch Chunk Red Shale.

Far greater than in either of the Formations above described is the reduction which takes place in the thickness of the Mauch Chunk Red Shale, going west and northwest across the State.

Where fully developed in Eastern Pennsylvania, as, for instance, at Mauch Chunk (whence its name), it is a vast accumulation of soft ferruginous mud rocks, three thousand feet thick. This is likewise its condition and dimensions in the valleys of the Schuylkill and Susquehanna rivers; but on Broad Top we find it only 1,100 feet thick, and but 400 feet thick on the southeast front of the Allegheny mountain, dropping then to less than 200 feet in the Packsaddle Gap, and finally to less than 100 feet in the Allegheny river region.

It may here be stated that in the Conemaugh gaps of Chestnut Ridge and Laurel Hill there are no transition rocks whatever between Formations XI and XII, the red shales of the lower formation being there in direct contact with the lowest member of the Pottsville Conglomerate. This is very handsomely shown in a side cut along the railroad below the village of Bolivar.

Nor is the base of XI an less distinct, either in the Packsaddle Gap, or in the gorge of Laurel Hill. At both these places the grits of X begin directly underneath the Carboniferous or Mountain Limestone, and the base of that great stratum is here, without doubt, the base of Formation XI. That this is a considerable change from the condition of the formation further east, need hardly be said; for it is well known that not only along the face of the Allegheny Mountain, but as far east as Broad Top, the Mauch Chunk Red Shale is divisible into three distinct groups, of which the Mountain Limestone is the middle member, the lower member of the group in those places consisting of a mass of red shale and sand, which, however, steadily thins (going west) from Broad Top, and finally disappears altogether from the Formation before reaching the Ligonier Basin of Indiana county, leaving the Mountain limestone to rest there upon the upper member of X.

Mountain Limestone.—From the series of thin bands into which the Mountain Limestone is divided on Broad top, the deposit has changed on the Allegheny Mountain to a compact mass of very arenaceous limestone, thirty feet thick. In the Conemaugh gaps this thickness is increased to upwards of forty feet, passing under the Indiana county upland to the west of Chestnut Ridge, as a highly siliceous limestone, which is further

characterized by its oblique planes of deposition. In this condition it appears at both ends of the Laurel hill gap, and again at both ends of the Packsaddle gorge, being quite extensively quarried by the Pennsylvania Railroad Co, and broken for ballast, for which purpose it is well adapted, being easily raised and slow to disintegrate. It is further exposed at the heart of the Black Lick gap of Chestnut Ridge, forming there at the centre of the anticlinal abrupt high cliffs along the water's edge; elsewhere in Indiana county it is not known, being at all other points far below the drainage lines.

The deposit continues to gain slowly in bulk towards the west and southwest, and in Kentucky it appears as a sub-formation one hundred feet thick, enclosing a vast and complicated series of caverns, of which the famous Mammoth Cave, with its two hundred miles of subterranean chambers, is one. Moreover, in Kentucky, as in other equally favored regions, it is intersected by numerous metalliferous lodes, some of which are of considerable value.

Among the Congressmen who have represented Indiana county have been William Findley, 1803-17; Andrew Stewart, A. G. Marchand, 1840; Joseph Buffinton, 1842-44; Alex. Irwin, 1846; Alfred Bilmore, 1848; Augustus Drum, 1854; John Covode, John L. Dawson, Henry D. Foster, A. W. Taylor and George A. Jenks. Of these, Findley, Stewart, Dawson and Covode were men of national reputation.

William Findley was born in Ireland, January 11, 1851; "received a parish-school education; came to the United States and located in Philadelphia; served in the Revolutionary war; removed to Westmoreland county, Pennsylvania; was a member of the State legislature, and a delegate to the State Constitutional Convention; was elected a representative from Pennsylvania in the Second Congress as a democrat and was reelected to the Third, Fourth and Fifth Congresses, serving from October 24, 1791, to March 3, 1799; was again elected to the Eighth, Ninth, Tenth, Eleventh, Twelfth, Thirteenth and Fourteenth Congresses, serving from October 17, 1803, to March 3, 1817; he died near Greensburg, Pennsylvania, April 7, 1821. he published a 'Review of the Funding System' 1794, a 'History of the Insurrection in Western Pennsylvania' 1796, and several political pamphlets."

"Andrew Stewart, or 'Tariff Andy,' whose name will be known for all times to come in the political history of the United States in connection with the tariff, was born in Fayette county, Pennsylvania, June, 1792; received a public-school education; studied law; was admitted to the bar in 1815, and commenced practice at Uniontown; was appointed by President Monroe United States attorney for the western District of Pennsylvania; was for three years a member of the State House of Representatives; was elected a representative from Pennsylvania in the Seventeenth Congress as a Jackson democrat; was re-elected to the Eighteenth, Nineteenth and Twentieth Congresses, serving from December 3, 1821, to March 3, 1829; was again elected to the Twenty-second Congress; was re-elected to the Twenty-third Congress, serving from December 5, 1831, to march 3, 1835; was defeated for the Twenty-fourth Congress by Andrew Buchanan, whig; was again elected to the Twenty-eighth Congress; was re-elected to the Twenty-ninth and Thirtieth Congress, serving from December 4, 1843 to March 3, 1849; died at Uniontown, Pennsylvania, July 16, 1872.

John L. Dawson, a leading statesman, a fine orator and the author of the celebrated 'Homestead Bill,' was born at Uniontown, Pennsylvania, February 7, 1813; received a classical education, graduating at Washington college; studied law; was

admitted to the bar and commenced practice at Brownsville, Pennsylvania; was United States district-attorney for the western District of Pennsylvania, 1845-48; was elected a representative from Pennsylvania in the Thirty-second Congress as ad democrat, receiving 6,404 votes against 6, 135 votes for Ogle, whig, and was re-elected to the Thirty-third Congress, receiving 9,791 votes against 7,460 votes for Gowen, whig, serving from December 1, 1851, to March 3, 1855; was appointed by President Pierce governor of Kansas territory, but declined; was again elected to the Thirty-eighth Congress, receiving 10, 234 votes against 10,009 votes for Steward, Unionist, and was re-elected to the Thirty-ninth Congress, receiving 10, 855 votes against 10, 730 votes for Fuller, Unionist, serving from December 7, 1863 to March 3, 1867; was a delegate to the National democratic conventions in 1844, 1848, 1860 and 1868, and died at Uniontown, Pennsylvania, September 18, 1870."

"Henry Donnel Foster, one of the ablest lawyers that western Pennsylvania ever produced, was born at Mercer, Pennsylvania, December 19, 1812, recveived a liberal education at Allegheny college, Meadville, Pennsylvania, studied law and practiced the profession; was elected a representative from Pennsylvania in the Twenty-eighth Congress as a democrat, receiving no opposition, and was re-elected to Twenty-ninth Congress, serving from December 4, 1843, to March 3, 1847; was elected to the House of Representatives of the legislature of Pennsylvania in 1846 and 1847; was the democratic candidate for governor of Pennsylvania in 1860; was a candidate for the Forty-first Congress, but did not secure the seat, and was again elected to the Forty-second Congress as a democrat, receiving 12, 399 votes against 11,669 votes for A. Stewart, republican, serving from March 4, 1871, to March 3, 1873, and died at Irwin, Pennsylvania, on October 16, 1880."

The writer, in securing historical matter concerning Indiana county, received valuable assistance from the county officials of 1890, and from E. B. Clarke, assistant librarian, and C. B. Boggs, an officer of the Mercantile Library of Philadelphia. In Armstrong county he received aid from the county officials, and especially from the clerk of the Board of Commissioners. In regard to speculative surveys and projected blocks of land from these surveys and "shingled" land claims, we received a very accurate and clear account from Judge Silas M. Clark, but unfortunately lost the notes of the same.

When Columbus planted the royal banner of Spain on the shores of the new world, and beside it placed the cross of Christian civilization, he gazed upon an empire more vast in extent than any of the empires of the east, and stretching for nine thousand miles from pole to pole it rivaled imperial Rome during her golden age in territory, population and rich mines. Of the thousands of counties existing on the North American continent to-day but one perpetuates the name of this great fallen Indian empire—and that one is Indiana county, Pennsylvania. (signed) Samuel T. Wiley.