

THE
CUMBERLAND COAL FIELD
AND ITS CREATORS

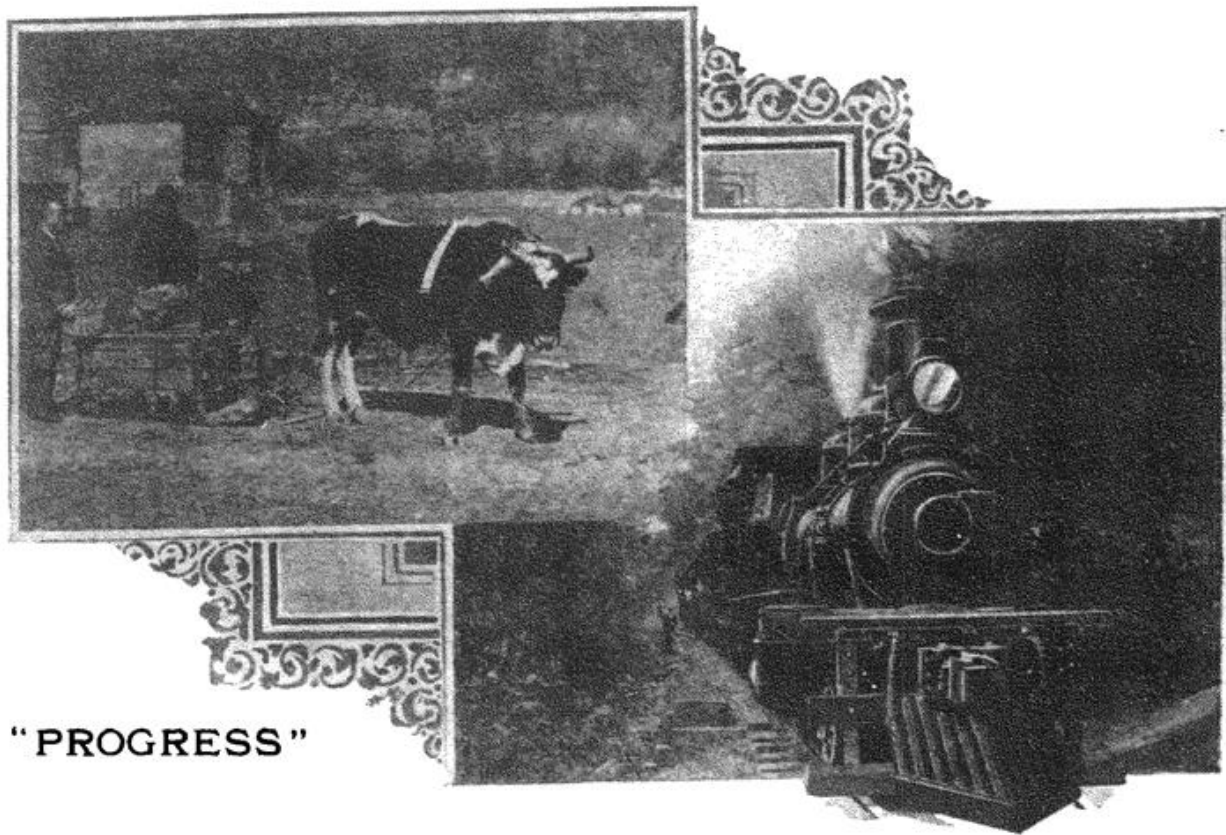
BY J. C. TIPTON

Mr. Tipton. came to his death April
20, 1905, by being run over by the
Straight Creek Train.

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**BY PINNACLE PRINTERY
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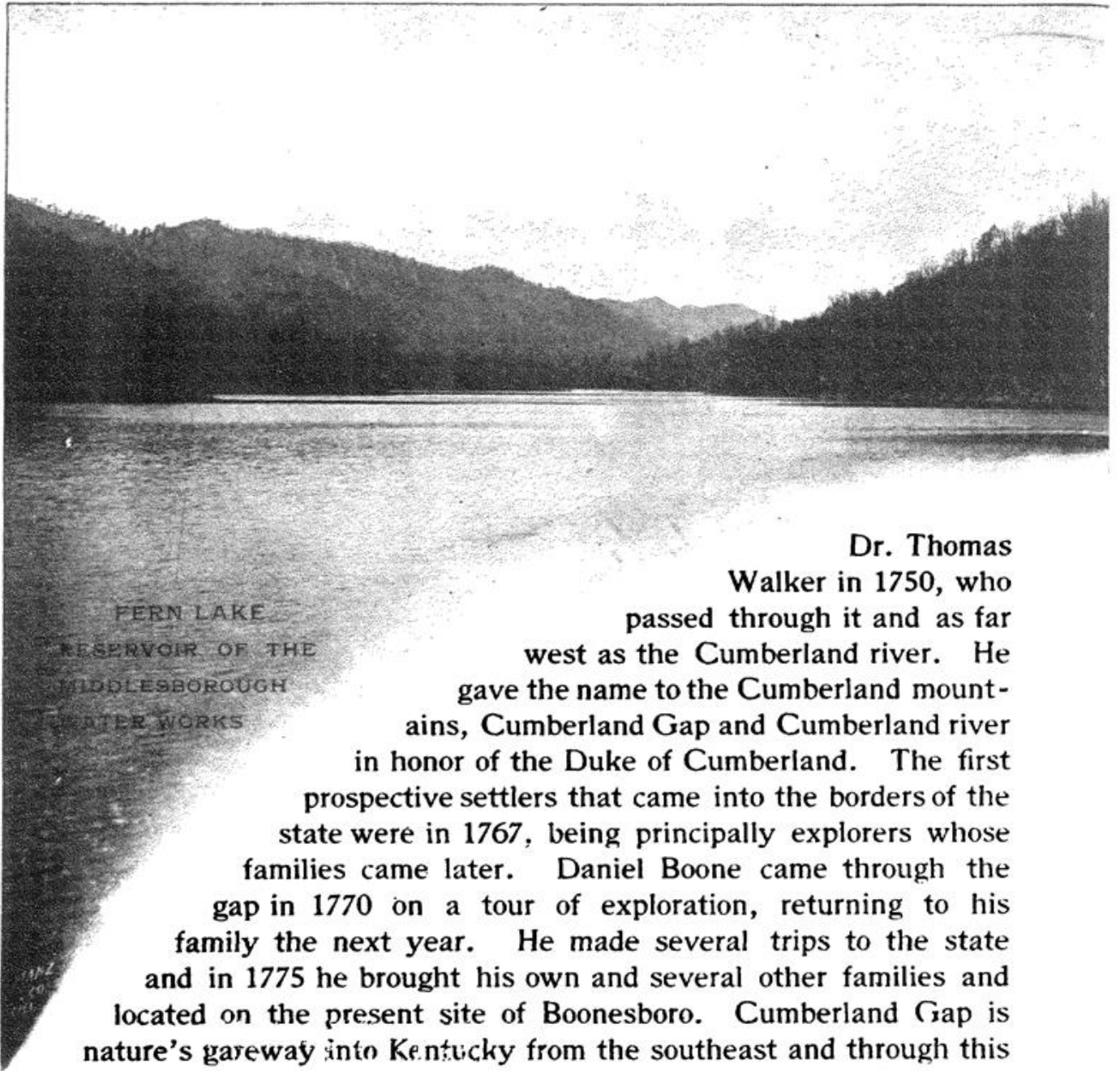
"PROGRESS"

THE CUMBERLAND COAL FIELD AND ITS CREATORS

BY J. C. TIPTON

HISTORICAL AND DESCRIPTIVE

Kentucky led the van in the movement of populating the great west and emigrants were passing through Cumberland Gap to the fertile plains beyond while western Pennsylvania and New York were yet uninhabited, save by the aborigines and wild animals that roamed through the unbroken forests. The Gap was discovered and named by



FERN LAKE
RESERVOIR OF THE
MIDDLESBOROUGH
WATER WORKS

Dr. Thomas Walker in 1750, who passed through it and as far west as the Cumberland river. He gave the name to the Cumberland mountains, Cumberland Gap and Cumberland river in honor of the Duke of Cumberland. The first prospective settlers that came into the borders of the state were in 1767, being principally explorers whose families came later. Daniel Boone came through the gap in 1770 on a tour of exploration, returning to his family the next year. He made several trips to the state and in 1775 he brought his own and several other families and located on the present site of Boonesboro. Cumberland Gap is nature's gateway into Kentucky from the southeast and through this gate, over the Wilderness road, there streamed a mighty host during the latter part of the eighteenth century.

This is the cradle of the history of Kentucky. Boone and the followers that came after him found their way into the state by this route, and from the top of these mountain ranges they obtained the first panoramic view of the section, that in after years, gave Kentucky the sobriquet of the "Dark and Bloody Ground". Many rich historical reminiscences cluster around these parts both in early and modern times. The pioneers' trail or Boone's road across the basin, later became known

as the Wilderness Road, over which most of the settlers of the central part of the state passed in reaching their destination. There are stretches of this road yet that knows but little of the devastating touch of man's destroying axe, and from these views one may form some idea of the grandeur as well as the gloomy aspect of that historical highway a century and a quarter ago.

Centuries of erosion from the mountains made these valleys very fertile and the timber grew to great size. Nature hereabouts presents a rough exterior in places, the climax appearing at Cumberland Gap where the road enters the state from Virginia, and at the Narrows, at Pineville, through which the Cumberland river escapes from the basin. The mountains tower in some places almost perpendicular to a height of over two thousand feet. From the summit of these heights the panorama that bursts on the vision is as charming to the sight as it is awe-inspiring to the mind. It is one of surpassing loveliness either from the Pinnacle at Cumberland Gap or from the summit of Pine mountains at Pineville. No pen is facile enough to describe it, tongue is inadequate to tell it and the painter's art cannot portray it. It must be seen to be appreciated. The student of history is carried back to the ensanguined period of the early settlers when the picturesque and peaceful view before him was the stage of a different scene, in which the bloody tomahawk and the scalping knife of the treacherous savages bore a conspicuous part, and later on when the hills vibrated with the roll of the drum and the resounding roar of the cannon told of the dreadful carnage of war, when brother was engaged against brother in battle array in the greatest conflict of modern times—the landmarks of those days are plainly apparent all around Cumberland Gap, grass grown and peaceful today, but



PRINCESS THEATER, MIDDLESBOROUGH

every stone has a history. The lover of nature will gain an impression and an inspiration that will be retained as long as memory lasts.

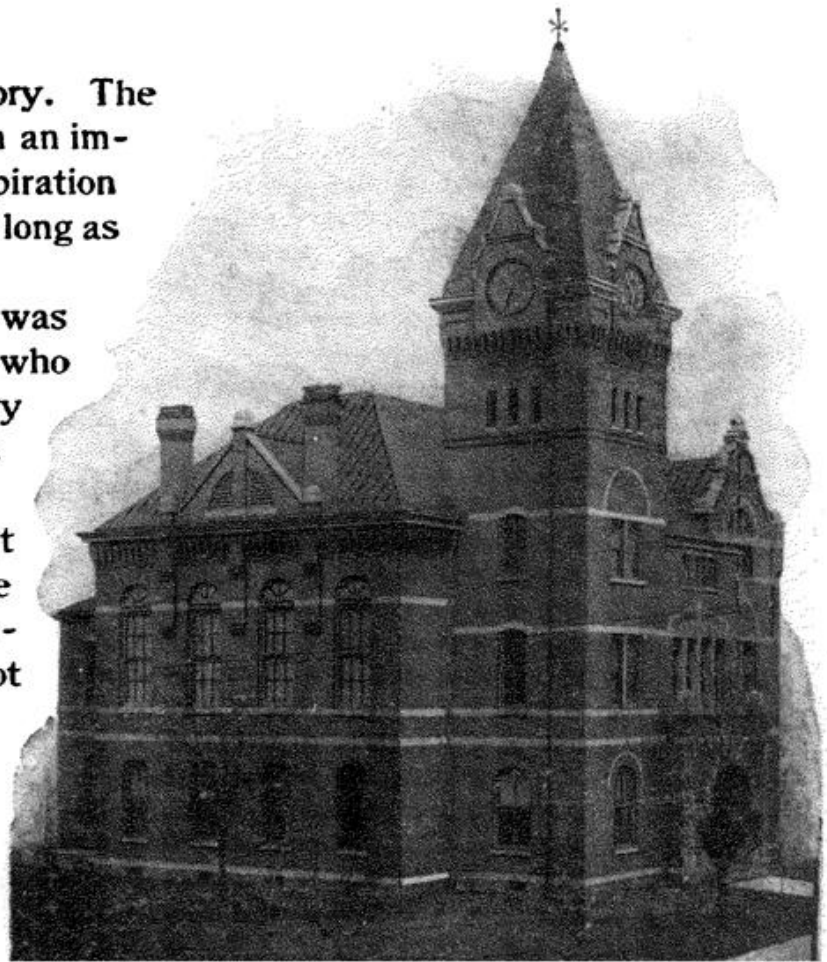
While Daniel Boone was not the first white man who went into the territory which now comprises the State of Kentucky, he was the first to point out the advantages of the Cumberland Gap doorway, the first to pilot settlers into the state; the Boone road which crossed the Cumberland river at the old Pineville ford was the first regular roadway established, and the fort at Boonesboro was the first military fortification inside the limits of what now comprises the State of Kentucky.

Thomas Speed in his history of the Wilderness Road says concerning the travel over this route:

“From Virginia and the Carolinas all the immigrants naturally entered Kentucky by Cumberland Gap. The remarkable fact is that those also from Maryland and Pennsylvania went by the same route to a very large extent: the cause doubtless being the delays, difficulties, and perils of the voyage down the river.

“For many years this ‘overland’ route through the great wilderness was the only practicable way of return. The canoe or flat-boat or keel-boat could make its way down the river from Redstone, Old Fort, or from Pittsburgh, but to take any kind of craft up stream was far too tedious for ordinary travel. There are some accounts of carrying freight up stream with great difficulty and delay, many months being consumed on the trip, amid constant danger from Indians, but passengers were not carried.

“From no point on the Ohio was there any way of travel directly



BELL COUNTY COURT HOUSE
PINEVILLE

across the country eastward. The reason of this was the Indian occupation north of the Ohio, and the difficulty of crossing the mountains and streams along any course than that which led through Cumberland Gap.

“An extract from the memorandum of a trip by Captain Van Cleve, published in the American Pioneer, vol. 2, page 220, contains a military order signed by Samuel G. Hodgson, Quartermaster, dated Fort Washington (afterward Cincinnati), May 10, 1792. The order directs Van Cleve to proceed with all dispatch from that point to Philadelphia by the most direct route, which the order specifies to be by way of Lexington, the Crab Orchard, etc.

“The editor of the Pioneer adds:

“The details of the journey are omitted; the most direct route from Cincinnati to Philadelphia, it will be perceived, was by way of Lexington and Crab Orchard; hence the route was by Cumberland Mountain, Powell Valley, Abingdon, Botetourt, Lexington, and Staunton, Va.; Martinsburg, and Hagerstown, Md; York and Lancaster, Pa.’

“There were traces across the mountains from the valley of Virginia into northeastern Kentucky. Dr. Thomas Walker passed over one of these traces on his return in 1750. He probably went along the upper waters of the Kanawha River. Other explorers went through the same country, but no traveled way led across it.”

For many years this road was nothing more than a bridle path through the wilderness. In 1779 Boone was authorized by the Virginia legislature to prepare a better road, and with a force of laborers and fifty guards, a roadway was cleared that permitted of easy passage for pack-horses, but a wagon road was not constructed until 1795, when it was made by an act of the state legislature.

In closing his history of the Wilderness Road, Capt. Thomas Speed pays the following tribute to the people of Kentucky and the early settlers who passed over this road:

“By the routes and methods of travel described, a people came to the land of Kentucky, in a movement which has no parallel in the history of immigration. The movement was not started by lust for gold, nor to escape persecution. The chief attraction was the fertile land of Kentucky. A land like the land of promise lay in the bosom of the far West. It was rich in soil, covered with stately timber, and watered by sparkling rivers, brooks, and springs. It belonged to those who would go in and possess it. Nerved by a dauntless courage the hunters and explorers marked the way, and their families became the advance guards of the aftercoming hosts. Then groups of families combining for mutual protection sought the Western country. The accounts of the desolate, inhospitable regions through which the journey lay did not deter them. The stories of Indian massacre did not terrify them. They toiled along the wilderness trace until the trace became a road. They

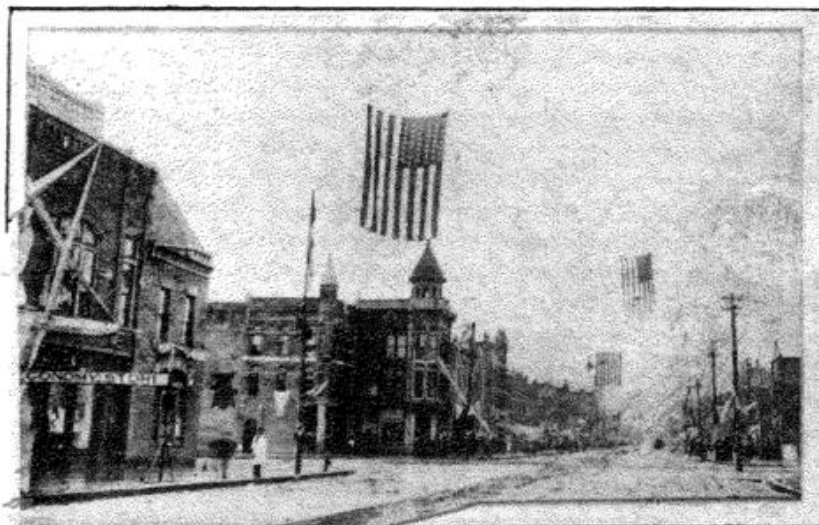
braved the terrible savage until they in turn became a terror to the savage. They reared their forts, and stations, and blockhouses along Kentucky River, Licking River, Green River, Salt River, and along all their tributaries from headwaters, to the Ohio, until their settlements became a state.

“Bound together by ties of common interest, dangers, hopes, and privations, they strengthened the bonds by intermarriage. A widely diffused kinship and endless interlacing of family connection is one of the features of Kentucky society. A natural inheritance from an ancestry which endured the hardships of immigration over the Wilderness Road, and braved the dangers of wilderness life, was a martial spirit which displayed itself in the subsequent wars of our country. Naturally, too, the ties of consanguinity which so generally united the families of the State fostered a social disposition and friendly liberality in living, which has become proverbial in the expression ‘Kentucky hospitality’.

“Nor were the effects of the great immigration of 1775-1795, confined to Kentucky alone. It was a movement of population. It suddenly established the power of the white man in the Western country. It pierced and broke the center of the barriers which had barred the West against occupation. It divided the Indians North from those in the South. It operated as a flank movement upon the powerful tribes which occupied the choicest parts of New York and Pennsylvania, and caused them to give way before the advance of civilization. It made the vast territory of the Northwest, then including Ohio, Indiana, and Illinois vulnerable to settlement. It opened the way to Tennessee and Alabama, and so crowded the Cherokee Indians in the mountain fastnesses of Northern Georgia, that they eventually accepted removal beyond the Mississippi.

“Therefore it is not the Kentucky people alone who have reason to

“THE FOURTH” IN MIDDLESBOROUGH



study with grateful interest the history of the Wilderness Road. The direct benefit of the movement which marked out the wilderness trace and trod it into a road, did not stop at Boonesboro or the Falls of the Ohio. It extended northward, southward, and westward. It sent its reflex influence back to the sea-coast



States and led them forward to possess the great empire of the West".

Boone and other early settlers coming into the state from the east passed the wealth hidden beneath the rough surface of this section for the lower and flatter land beyond. In the years that followed, the tillable portions of the district were settled by agriculturalists, but as much of the area was not adapted to farming, the population was sparse until the advent of the railroad made way for the development of its mineral resources. With the opening of steamboat navigation on the Ohio travel diverted from this route and the mountain section became, in a measure, isolated from the outside world. On the opening of the Civil war the advantage of possessing the Cumberland Gap was perceived by both sides, and it alternately passed into the possession of either side until the final retirement of the Confederates from East Tennessee. Several important engagements took place in this vicinity, but as this is not intended for a chronological history, we will make no effort to describe them here.

For twenty-five years after the close of the Civil war nothing transpired in this section to mark an era or to vary the routine pursuits of a sparsely settled farming country. The broken and mountainous surface would not support a greater population and the country showed no great increase until after the discovery of rich mineral deposits in the latter part of the decade between 1880-1890. Then the increase in wealth and population came like a mighty rushing torrent; towns sprang up, if not in a day, at least in a year, of several thousand population, with paved streets, water and light plants, street cars and other accessories of the modern city. The ball was started rolling at

MIDDLESBOROUGH.

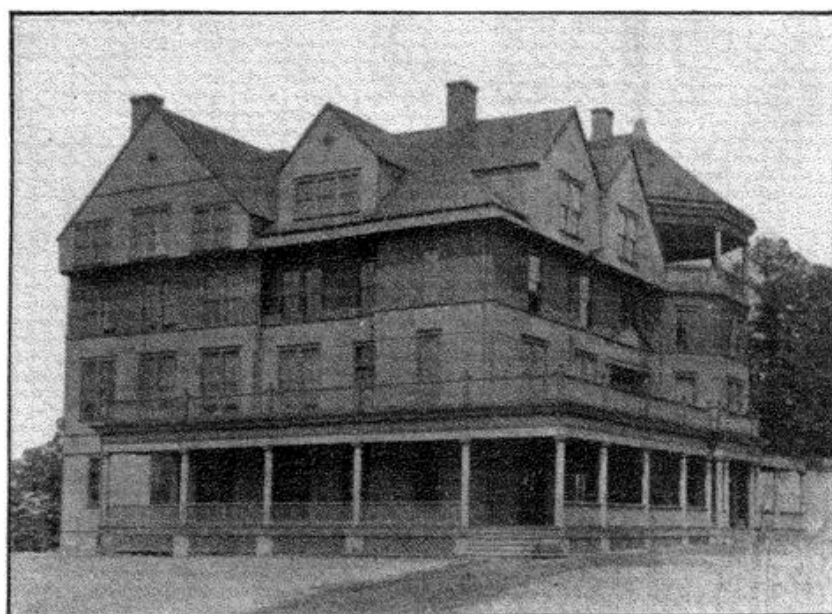
This town is the logical result of the purchase of some sixty thousand acres of the best mineral lands in this section by the American Association, a Kentucky incorporation but almost entirely English shareholders. They invested millions here, just how much was put into the various subsidiary companies, would require a vast amount of research to ascertain. Some light is thrown on that part of the town history in their sketch which appears elsewhere.

A Town Company was formed and the embryo city was given the name of Middlesborough, after the great manufacturing city of the same

name in England. The town was incorporated in 1890 and before the close of the next year had a population of over 6000, a well laid out town with street car line, an electric light plant, water works, the finest hotel between Louisville and Knoxville, numerous office buildings and business houses that would credit any city of 50,000 population. The undoubted success of the first business enterprises here led to over capitalization and over production, and the Baring failure in England and great financial collapse in this country in 1893, following in the wake of this new enterprise, caused a reaction and the enormous shrinkage in values that swept everything before it except those that had the elements of stability behind them. It is worthy of note that none of the coal companies or any of the traders failed or went into the hands of receivers.

Pineville had a somewhat similar experience but fared much better in the panic of 1893 than her sister town of Middlesborough. There the town was developed after a more conservative course, and while the reaction affected the growth of the town, it was only temporary. The town has good business houses, a fine hotel, electric light plant, water system with a gravity pressure of over one hundred pounds, all of which are in prosperous condition and were not put in until the growth of the population justified them.

Cumberland Gap is on the east side of the mountains, and while outside the cool basin is a prosperous and growing town, the railroad lines from the south and east converge there and it is surrounded on all sides by rich deposits of iron ore; it has the elements of growth and prosperity and will have a steady and permanent growth. With the return of prosperity to the country at



"THE BELLEVUE"
A MIDDLESBOROUGH APARTMENT HOUSE

large, the development of this section which had been checked, began a resumption on a normal and rational basis of demand and supply. Since 1896 the coal output of the Middlesborough district has increased from an annual output of two hundred thousand tons to over a million tons, and the quality of the coal is such that the demand for it is far ahead of the producing capacity. The resources of this section are only touched. The coal area here is enormous. These mountains are underlaid with from three to five seams of coal equal to the best produced in America, and it is all above water and susceptible of drift mining on a rapid and economic scale. There are several varieties of iron ore here which analyzes from fifty-one to fifty-eight per cent iron and numerous other commercial minerals which in time will be utilized. Nature has endowed this section richly and the time is not far distant when these vast natural store houses will bring a great increase in both the wealth and population of this section.

That the minerals are here and of great value there is no doubt, that their location is unsurpassed a glance at the political geography will demonstrate. On every side there are populous cities and it is nearer the geographical center of the country and the center of population than any other great mineral producing center of America. Time and the natural demands of trade will establish the commercial value of this section to the entire country. The primal mistake made here was in an effort to force these products on the market before their value was established or the time was ripe for the country to take them.

The high grade of the coal products here and the cheapness with which they can be loaded on the cars has broken down all barriers and their place is permanently fixed. Just as soon as the transportation question is equalized over the country and they are adequate here to handle the products, the other minerals so abundantly found here will find a market just on the same principle as water seeks its level.





**EIGHT POUND BASS
FROM FERN LAKE**

THE SOUTHERN APPALACHIAN COAL FIELD

CHARLES WILLARD HAYES

GEOGRAPHICAL RELATIONS

The Appalachian coal field extends from a point near the northern boundary of Pennsylvania southwestward to near the center of Alabama. For the purposes of the present report it has been divided approximately along the line of the thirty-seventh parallel into the Northern and Southern Appalachian fields. While this subdivision is somewhat arbitrary, since the field is essentially a unit throughout its entire extent, it is desirable, both for convenience of treatment and because the character of the coal-bearing formations and of the coals themselves and the conditions of development undergo a more or less decided change along this line. One important difference is that from the Northern field the coal goes east and northeast to the seaboard, while from the Southern it goes southeast and south.

The boundaries of the Southern field includes portions of Kentucky, Tennessee, Georgia, and Alabama. It coincides practically with the Cumberland Plateau and its outliers, Walden Ridge, Sand Mountain, Lookout Mountain, Blount Mountain, etc. Its eastern boundary is generally a straight line, for the most part a regular escarpment facing upon the Appalachian Valley, while its western boundary is an extremely irregular line coinciding with the deeply dissected sinuous western margin of the Cumberland Plateau. Its northern boundary is just north of the southern row of counties of Kentucky. Its southern margin is irregular and

indefinite, being a line along which the coal-bearing formations pass under the attenuated northern edge of the mesozoic and later formations of the Gulf coastal plain.

From a breadth of about fifty miles at the Kentucky-Tennessee line, the field tapers gradually southward to its narrowest point, opposite Chattanooga, where it has been deeply dissected by the Tennessee River and its tributaries, and has a breadth of less than thirty miles. From this point southward it increases in width to eighty-five miles at its southern edge in north-central Alabama.

SUBDIVISIONS OF THE FIELD

The Southern Appalachian coal field is subdivided into three main districts. This subdivision is due ultimately to structural causes, but as these have resulted in certain centers of development, the immediate subdivision is based upon the commercial development of coal. These three districts are the Jellico, Chattanooga, and Birmingham, each named from its most important town.

The Jellico district includes the northern portion of the field from the Emory River northward to a short distance beyond the Kentucky line. It is subdivided into the Jellico basin, the Wartburg or Brushy Mountain basin, and the Middlesborough basin. The Chattanooga



district includes the territory from the Emory River southward a short distance into northern Georgia and Alabama. It includes the Sewanee basin, which is a portion of the Cumberland Plateau, the Walden basin, separated from the Cumberland Plateau on the west by Sequatchie Valley, and the Lookout basin, which occupies the northern portion of the Lookout Mountain syncline. The Birmingham district extends from a line connecting the southern point of Lookout Mountain and the great bend of the Tennessee River southwest to the southern limit of the coal field. It includes the Warrior basin, which is the southern portion of the Cumberland Plateau, the Blount Mountain basin, the Cahaba basin, and the Coosa basin. The Blount Mountain basin is a synclinal spur, connected at the north with the Walden syncline, and separated from the Warrior basin on the west by Murfrees Valley. The Cahaba and Coosa basins are long, narrow synclines, entirely isolated from the larger areas of coal-bearing formations to the west by still narrower anticlinal and fault valleys.



ARTHUR BLOCK, MIDDLESBOROUGH

THE
GAP
COAL
FIELD

GEORGE H.
ASHLEY



U. S. GEOLOGICAL SURVEY

In recent years there has been no more important industrial movement than that involved in the commercial conquest of the old slaveholding states. Especially in the last two decades has the new South developed so enormously that we are wont to forget there are still large areas of practically untouched territory awaiting the coming of capital and transportation facilities. The growing manufacturing interests of the region, the increasing railway mileage and freight tonnage are making heavy demands upon the local coal-fields. In addition the steadily increasing seaboard coal trade and the growing prospect of foreign shipments render the undeveloped southern coal-fields a very inviting field for investment.

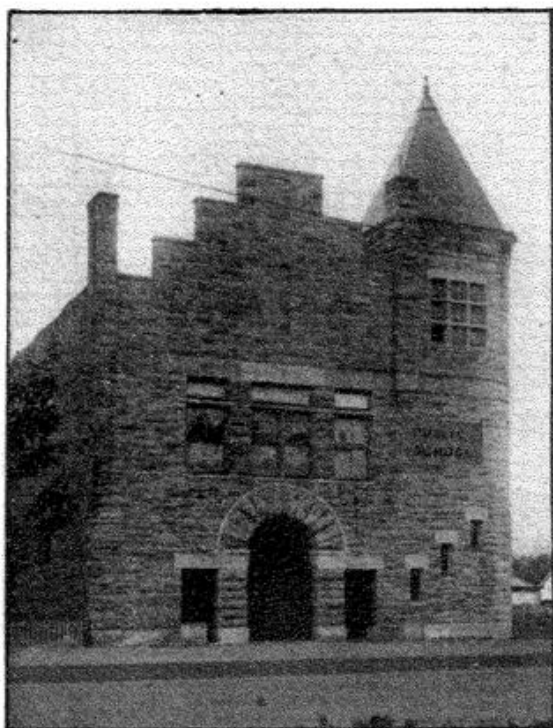
To many people the Appalachian coal-fields are synonymous with Pennsylvania coal-fields. That there are to the south as many, as thick and as good coal beds as those worked in the premier coal state is only beginning to be recognized by the public at large. Men in the coal trade long since discovered, with large profit to themselves and to the community at large, something of the value of the West Virginia and the Alabama fields, and now are beginning to turn attention to the long neglected area between. The great tide of immigration which in the last century swept westward across the northern Appalachian and south-

westward around them was turned aside in the intervening territory by the Great Smoky Mountains and the high and almost unbroken ridges and plateaus of the Cumberland.

While, accordingly, the territory to the north and the south was early known and has been in some measure opened up, in the region of the headwaters of the Cumberland a large and important coal-field has so far been neglected. Hedged in here by high mountain ridges is a basin ninety miles long by fifteen to twenty wide, containing numerous coal beds from five to seven feet thick of high grade and in workable situation. To the west is Pine Mountain, so steep that for miles not even a wagon road crosses it; to the east and north are the Cumberland and the Black Mountains in an unbroken chain, while to the southwest closing in the area is Fork Mountain. For a quarter of a century after the Civil war these mountains shut off the basin like a Chinese wall. The first attempt to open the region was that which centered around the city of Middlesborough.

In the heart of this region and just below the historic Cumberland Gap is an open plain well adapted to city building. Mountain passes are ever the focusing points of railway systems, and with coal, iron and

limestone available it was argued that a great manufacturing city must result. With the faith which tunnels if it does not move mountains, the projectors proceeded to the building of the city in advance of the establishment of the industries which were needed to support it, and the completion of the railways, which alone make a great city possible. As a result the Middlesborough boom "busted", and it is only within the past two or three years that the slow growth which followed has begun to give the place importance. New branches of railway are now building up Stony Fork of Yellow Creek and up Clear Fork of Cumberland, which is now almost ready for active development, and



"LIBRARY HALL"

NOW PUBLIC SCHOOL, MIDDLESBOROUGH

up through Big Creek Gap. Surveys have been made and the right of way is being obtained up Cumberland River into Harlan county. New mines have started up on Bennett Fork and Stony Fork and the old mines have opened up additional seams. The coal output has grown until in 1902 it was estimated at six hundred thousand tons and it was expected that 1903 would see an increase to one million tons as the new mines came in.

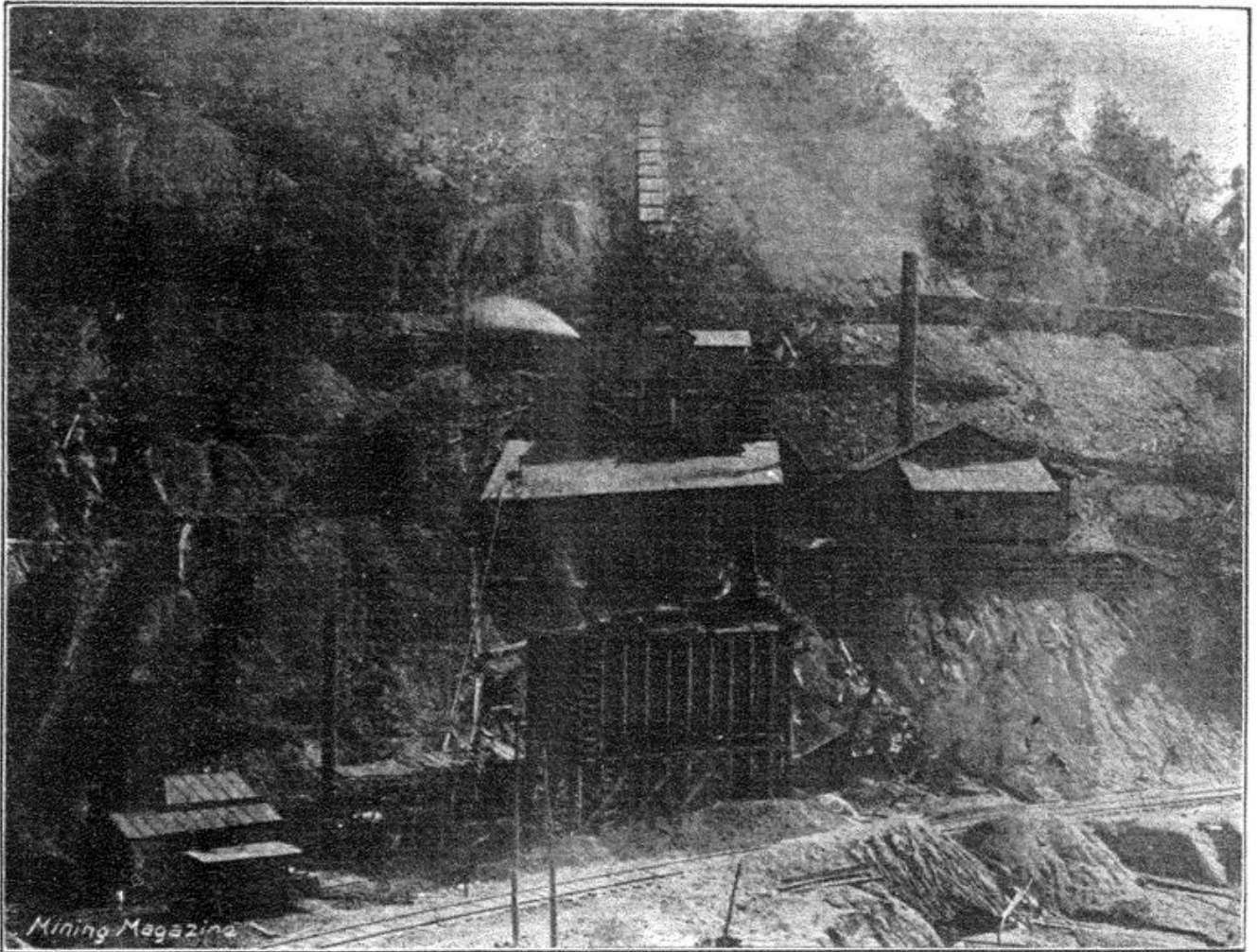
Though the southern end of this field is in Campbell county, Tennessee, and Bell and Harlan counties, Kentucky, extending along the southeastern border of the latter state. The sketch map shows its position as well as its relations to other fields and markets.

As already mentioned, it is an almost enclosed basin, but within the bounding ranges the Black and Log Mountains rise to elevations of over three thousand feet in narrow crested and irregular ridges. In shape the valleys just about duplicate the ridges, though in reversed position, being usually two thousand feet deep and narrowly V-shaped. Only the Cumberland and its main tributaries have any bottom lands, and these are usually limited. East of Middlesborough they have easy grades and the other conditions are favorable for the building of railroads.



Market Areas: A, Competing with Jellico, Wartburg and Chattanooga Fields; B, With Northern Coals; C, With Birmingham Fields.

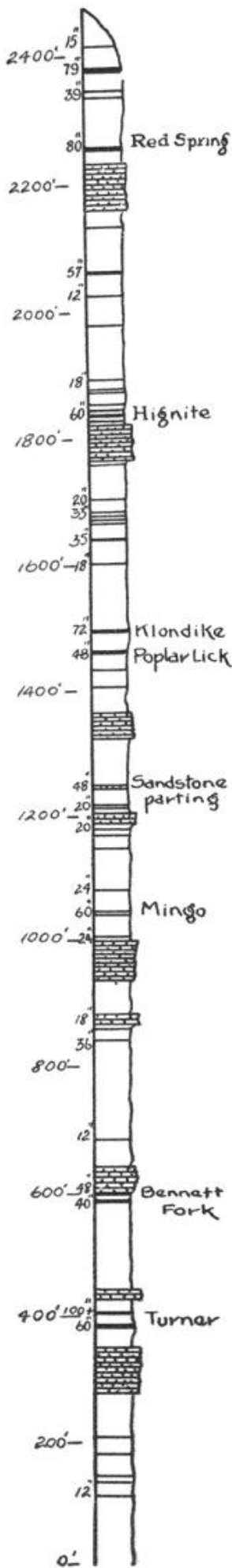
The rocks lie in the form of a nearly flat-bottomed syncline or trough, with the sides turned up at high angles. The axis or lowest line of the trough lies well to the northwest of the center line of the basin, and from this axis the rocks rise toward the sides at about an average rate of one hundred feet to the mile. When within one-half to two miles of the edge of the basin the rocks are up-turned sharply at angles of from thirty to ninety degrees. As the lowest part of the basin lies close to the main drainage line and the slope of many of the streams just keeps pace with the dip of the rocks, the lower coals are exposed along much longer lines of



WASHING PLANT AT MINGO MINE

outcrop than would otherwise be the case, while nearly all of the coals lie well for draining. In most cases the dip is such that easy haulage will be toward a point most easily reached by a railroad switch. The upturning on the northwestern edge of the field is associated with a great fault running in a northeast-southwest direction. Fork Mountain across the southwestern end of the basin is due to the upturning of the same rocks by a fault similar to the Pine Mountain fault, except that it is transverse in direction. The upturning in Cumberland Mountain marks part of the northwest limb of the Powell Valley anticline, the axis of which lies near Powell River in the Great Valley.

The coal bearing rocks of the field consist of sandstones and shales, having a total thickness of about four thousand feet. According to the evidence of the fossils, all of these rocks are of the same age as the Pottsville rocks of Pennsylvania. The lower third of the series are



predominately sandy, containing many massive sandstones and conglomerate beds. While this part of the section contains some coals, one or two of which may be of workable thickness, under all of the central part of the field where the strata lie well for mining these rocks and their coals are well below drainage. On the edges where they are above drainage, they are dipping at high angles and the coals, as far as seen, are usually more or less crushed. While of less value than the other coals of the basin, they constitute an important reserve supply. The upper two-thirds of the section contain about equal amounts of shale and sandstone. The accompanying columnar section shows the coals and cliff-making sandstones in a typical region (Bryson and Mingo Mountains).

The Log Mountain section shows about fifty coals, of which about seven are now being worked commercially along Bennett Fork of Yellow Creek. Of the others at least five are workable over all or part of the field. The beds being worked will carry on the average from four to six feet of workable coal, but as all of the coals are more or less broken up by partings, the total thickness of the seams is often quite a little more. While these partings make the coal easier to mine, they also increase the percentage of ash in the coal as shipped. In some cases the partings are quite variable, ranging from zero to four feet in one mine. In other cases the partings are fairly persistent over large areas, so that to some extent they may assist in identifying the seams. In much the same way the coals range from regular to pockety in thickness. Most of the thicker coals appear to be fairly persistent, some of them being recognizable and workable over practically all of the area within their outcrop. Others, as the Mingo seam, while workable over part of the field, become unworkable elsewhere, either through splitting up or thinning out.

Much the same conditions exist in the Black Mountain part of the field, though the number of

persistently workable beds appear to be less. This difference may be more apparent than real, owing to present lack of knowledge of the coals, while on the other hand the workable Black Mountain coals occur lower in the series, thus being nearer drainage and underlying comparatively larger areas, and the workable portion of the coal is in some cases without partings over large areas. Thus the Harlan coal maintains a thickness of four feet, usually without partings, over most of the part of Harlan county in this basin, an area of one hundred or more square miles. In the same way the Wallin Creek coal, though limited in area, frequently shows one bench of from five to seven feet without partings. The coal of the upper two-thirds of the section (the part being considered) are all above the principal lines of drainage, but will vary from just above drainage to two thousand feet above. The Harlan coal is usually less than four hundred feet above drainage, the Mingo coal usually less than six hundred feet above drainage, and both pass beneath drainage in the upper reaches of the streams. Correspondingly the area undrain- ed by each seam depends on the elevations usually under- lying very limited areas. The quality of the coals of this district is well indicated by the following analysis; the first is averaged from a large number taken in the Black Mountain part of the field in 1902 and 1903 on the Harlan coal. The sampling in all cases included the whole seam, except the larger partings, such as would be excluded in practical mining:



THOMAS LINCOLN PRUDEN
A PIONEER OPERATOR

Water	1.972
Fixed Carbon	54.691
Volatile hydrocarbons	37.552
Ash	4.992
Sulphur	.793

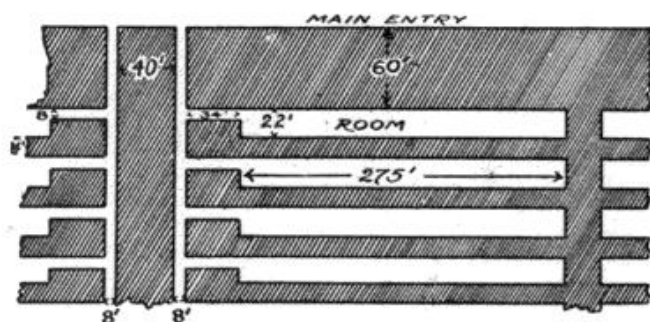
The second is an average sample of one of the coals being mined in the log Mountains:

Water	4.40
Fixed Carbon	56.60
Volatile hydrocarbons	32.80
Ash	5.38
Sulphur	.82

A comparison of these analyses with that of coals in other fields shows at once that these should be classed with the gas coals. They have almost exactly the same composition as the Westmoreland gas coals, the Pennsylvania gas coals and the Clinch Valley gas coals. While the coals are not strictly coking coals, that they may be successfully coked is best attested by the continued success of the coke ovens at Mingo and in the Big Stone Gap field, which is really a continuation of this one. As mined west of Middlesborough, most of the coals have proved rather friable, mining readily without powder and making but a small percentage of lump over four-inch bars. On account of the partings, it has been found desirable at Mingo to wash the coal used for coking.

Most of this paper has been devoted to the geology of the area because as a whole this must be considered a virgin field. It is less than fifteen years since it was first opened up and though it is now producing close to a million tons a year and rapidly increasing, operations are practically confined to two branches of one creek, Bennett and Stony Forks of Yellow Creek.

In mining, the room and pillar method is used exclusively. The accompanying sketch will give an idea of common practice in the dimensions of rooms and pillars. In the past but little use has been made of modern mining machinery, largely on account of the ease of mining. Fans are now used for ventilation, and the present indications are that in the near future much of the working and handling of the coal will be by modern machinery. In 1902 all haulage was by mules, the coal being brought to the headworks, where the mine cars are usually dumped into large "monitors," and in these the coal is sent down the incline to the tippie. The inclines range up to 600 feet in vertical descent.



ROOM AND PILLAR METHOD IN COMMON PRACTICE

At the present time most of the coal produced in the field goes directly to the railroads. The coke supplies the local furnaces at Middlesborough, the Ducktown furnaces and elsewhere. A growing market is being found in the mills of the Carolinas and Georgia.

Present transportation is by the Southern Railway to Knoxville and all points south and to the seaboard; and by the Louisville & Nashville

to Louisville, Cincinnati and points north and west; or by the Louisville & Nashville and Norfolk & Western to points northeast or east to the seaboard. In the Clear Fork field, the Louisville & Nashville already has the track laid down from Saxton past La Follette, and from Hickory Creek to Laurel Fork on the Clear Fork Branch. The Southern Railway is under contract to complete the Clear Fork Branch within twelve months, when the two railroads will operate it jointly. As the Southern has the right of way over the L. & N. tracks into Jellico, the product of this part of the field will have outlet over both roads to the south and over the L. & N. to the north.

Taking into account present railway facilities, this field is about the same distance as the Jellico field from all points north and northwest, and south and southeast.

It is nearer to points in those directions than the Big Stone Gap or other fields



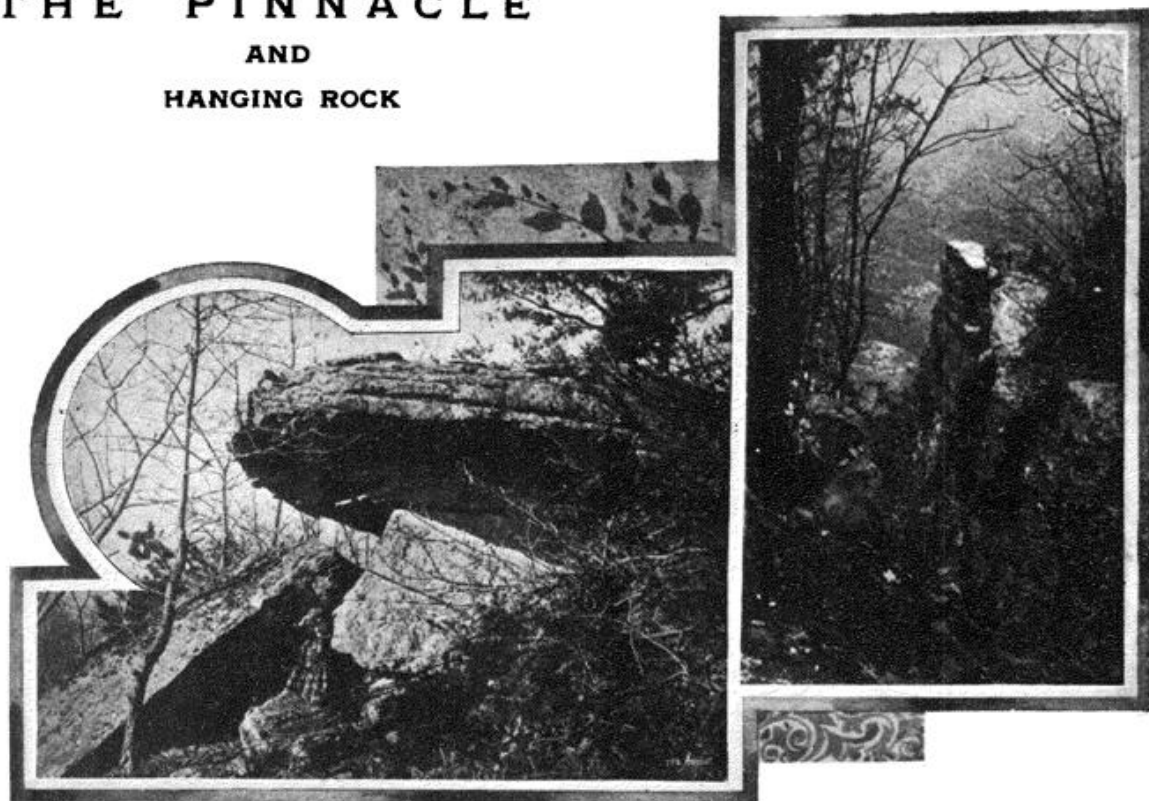
up to the Pocahontas field. It is nearer points east or northeast than the Jellico or the other fields further south, but not as near as the Big Stone Gap field. It is about

on a par with the Jellico, Wartburg and Chattanooga fields in shipments to tidewater at Wilmington and Charleston. To Norfolk it is farther than Pocahontas or Big Stone Gap. To Mobile it is farther than Birmingham, Chattanooga or Wartburg.

The miners of this district belong to a variety of nationalities, are non-union and impress an outsider as above the average in intelligence and thrift. A visit to one of the company's stores during the mining hours would suggest to one that he was in a thriving farming village rather than in a smoky mining town.

[**EDITORIAL NOTE:** This entire article and the illustrations are used thru the courtesy of the *Mining Magazine*, a splendid example of a useful technico-trade journal.]

THE PINNACLE AND HANGING ROCK



KING SOLOMON'S CAVE

CUMBERLAND GAP, TENNESSEE

Within three hundred yards of the union station at Cumberland Gap is found the entrance to one of the earth's greatest natural phenomena. Sight-seers who miss this extraordinary freak of nature are omitting from their lives the opportunity of seeing one of the greatest wonders of the world. Globe trotters will circle the earth in vain for its parallel. Writers rave over the Catacombs of Rome and travelers cross continents and sail over oceans to roam through those whited sepulchers, while far greater than any of these is near at home and easy of access.

King Solomon's Cave, so called, was opened in all its vastness in 1890 by Mr. G. B. Cockrell, the manager of the East Kentucky Land Company, who own the property.

Its only approximate parallel is Mammoth Cave, Kentucky, and this only parallels it in a degree. There is one cave there with many apartments, grand and wonderful as any one who has ever entered it is ready to admit, but this one, or rather a series, while it has all the features

that are seen at Mammoth Cave, has many others not seen there that compels the beholder to stop and wonder whether all this is the work of nature or was some of it carved out by a mighty race of men of whom we are but the humble and feeble imitators. Roaming through these vast caverns is like turning the pages of a wonderful book in which the great secrets of nature are revealed.

How far they extend no man knows. They have been penetrated to a depth of some fifteen to eighteen miles with no signs of an ending, the farther one goes the more solemn, grand and awe inspiring the great openings seem to grow. This cave differs from Mammoth in that it is not so wide but seems to follow the comb of the mountain in a horizontal direction. One need not get lost here, if the stream is followed.

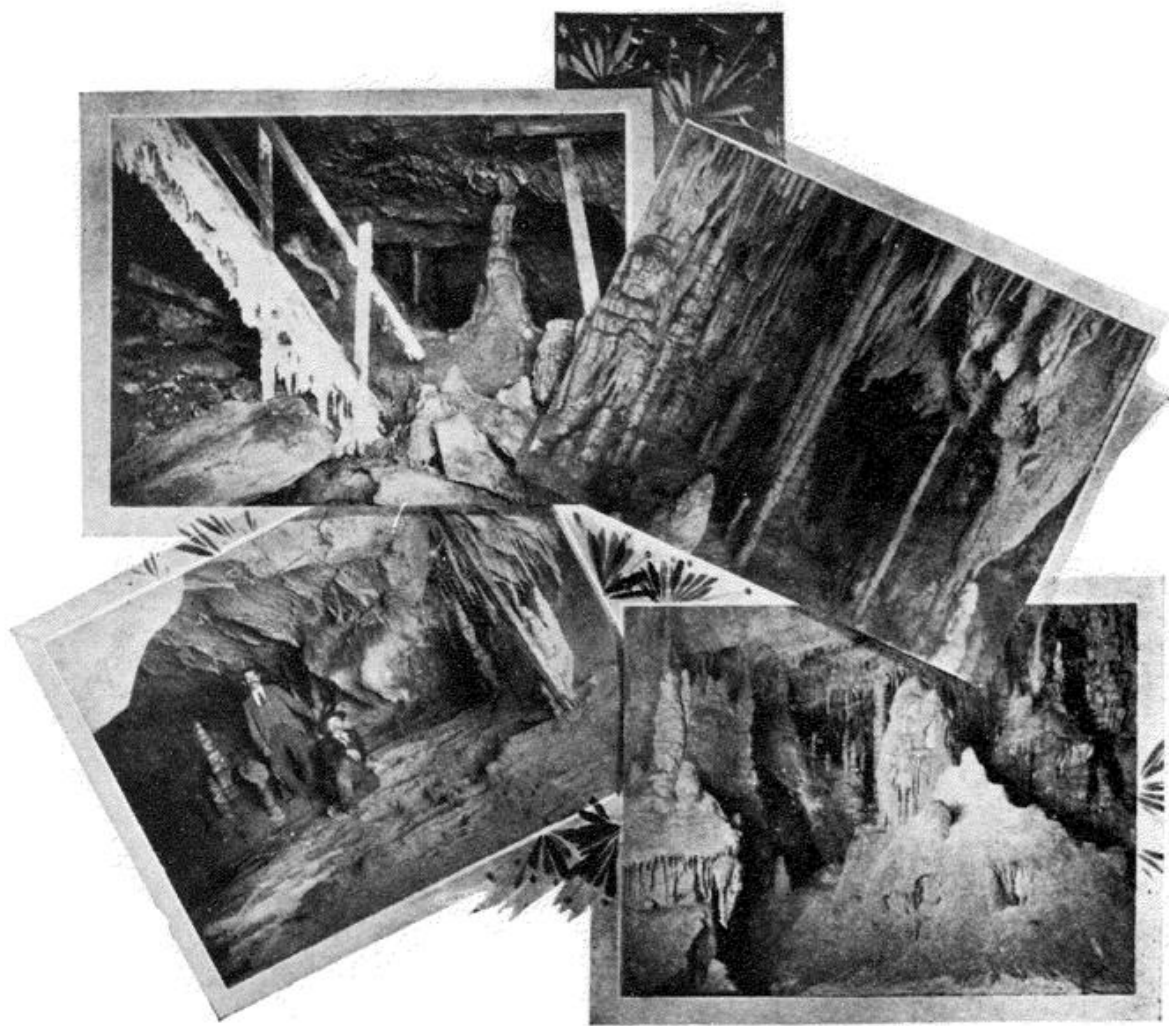
The rooms near the entrance have numerous stalactites of many unique forms and dimensions, the growth of untold centuries, but as the visitor penetrates further into the bowels of the earth the air becomes warmer and the atmosphere is dry and the sand is free from moisture as the sands on the Sahara Desert. While the air does not rush through the cavern with a great velocity, there is plenty of it and it is pure, one may roam for days through these under-ground passages, sleep any where at night, without any danger of taking cold.

In the interior is found a small river which in places ripples over a gravel bottom with a sandy beach, at other points placid lakes are met, then again it rushes through precipitous heights and plunges over cataracts some twenty to fifty feet high—these are numerous. The roar of these greater falls are heard a long while before they are actually reached. Whence this river cometh and whither it goeth is as yet unknown. Whole chapters might be written on this great freak and still be far short of a description.

There are one or two other points that must be referred to before this brief outline is closed: **SALT PETRE CAVE** is reached through another entrance, but it is likely a continuation of King Solomon's Cave in a southeasterly direction. It is called Salt Petre Cave from the fact that that mineral is found here in abundant quantities.

In the days before railroad and steamboat navigation, 1814 to 1834, the residents of East Kentucky and Tennessee made their own gun powder and the salt petre for the purpose was obtained here. Some of the caverns here are of vast dimensions and many very peculiar formations.

Leading off from the entrance is a long high cone-shaped arch, so high that no light from the bottom will penetrate the darkness at the



INTERIOR VIEWS KING SOLOMON'S CAVE

top. On either side of this are numerous openings in tiers, not unlike the levels in silver and copper mines of great depth—so regular are these openings that one instinctively imagines that they were once the homes or mining camps of a gigantic people. Ascending to the upper levels of these tiers a view of the dome is obtained and it is as smooth and correctly arched as the most expert workman could make it.

Having a high altitude only springs are found here, but the water is as clear as the purest crystal and sparkles, when handled, like many radiant diamonds. Here to the direction of the cave follows the ridge of the mountain and, like King Solomon's Cave, the end has never been found.

There are numerous other smaller caves reached by different openings that are equally interesting. So far, only one of them has ever been explored far enough to reach the end, that exception being the Lewis Cave. We mention the "Little Salt Petre Cave," the "Well

Hole” and the “Soldiers’ Cave,” the latter being the most celebrated on account of its historical connection.

This cave was discovered by Confederate soldiers, in 1863, while digging a rifle pit. It is noted for its gigantic formations and the immense size of the rooms, one of which has no known equal in size here or elsewhere. There is one stalagmite over fifty feet high and eighteen feet in diameter at the base. One that has fallen is some thirty feet long and three feet in diameter. It is also famous for the war reminiscences found on the walls and cut into the stones. Smoke pictures of artillery in action and battle scenes and flags, both Confederate and Federal, put there by the soldiers of both armies as they in turn occupied the position from 1863 to 1865. Among the other features of the cave are the mud chamber, the gut, the winding stairs, and the devil’s chair. The latter is diabolical enough in appearance to convey the impression that this is his satanic majesty’s throne room and that his highness had just vacated the chair.

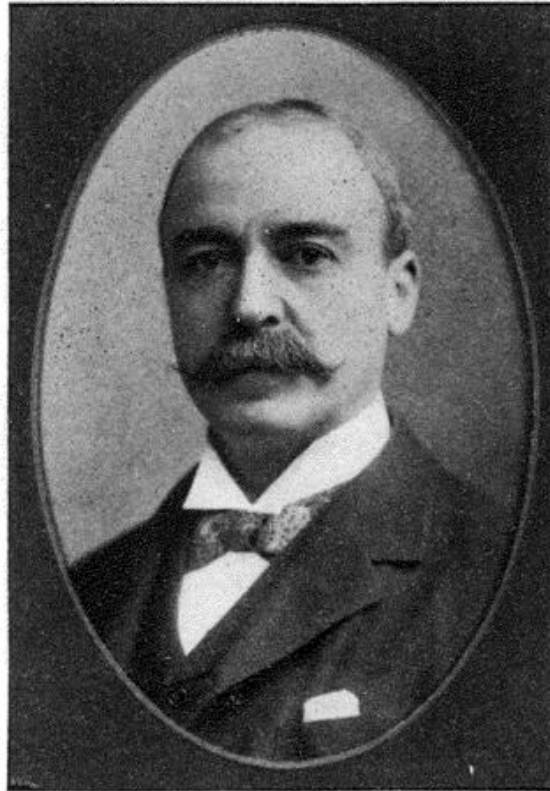
Visitors may spend as much time here as they may choose and go out every day and not have to visit the same attraction the second time. The entrances to all these caves are within two miles of the Gap and are easy of access—all are recesses in the Cumberland Mountains.

The temperature in all these caves is practically the same all the year round, in hot weather it is gratefully cool in these under-ground rooms, and in cold weather it is comfortably warm.

There are two good hotels at the Gap, but those who are satisfied with only the very best accommodations will find them at Middlesborough, at the Cumberland Hotel, and the train service is such that visitors can spend the day in the cave and return in the evening in time for the six o’clock dinner.

Mr. G. B. Cockrell controls these caves, and on application to him guides and all the necessary information will be furnished. His post-office address, residence and museum of war relics, is Cumberland Gap, Tenn. Telephone No. 52.



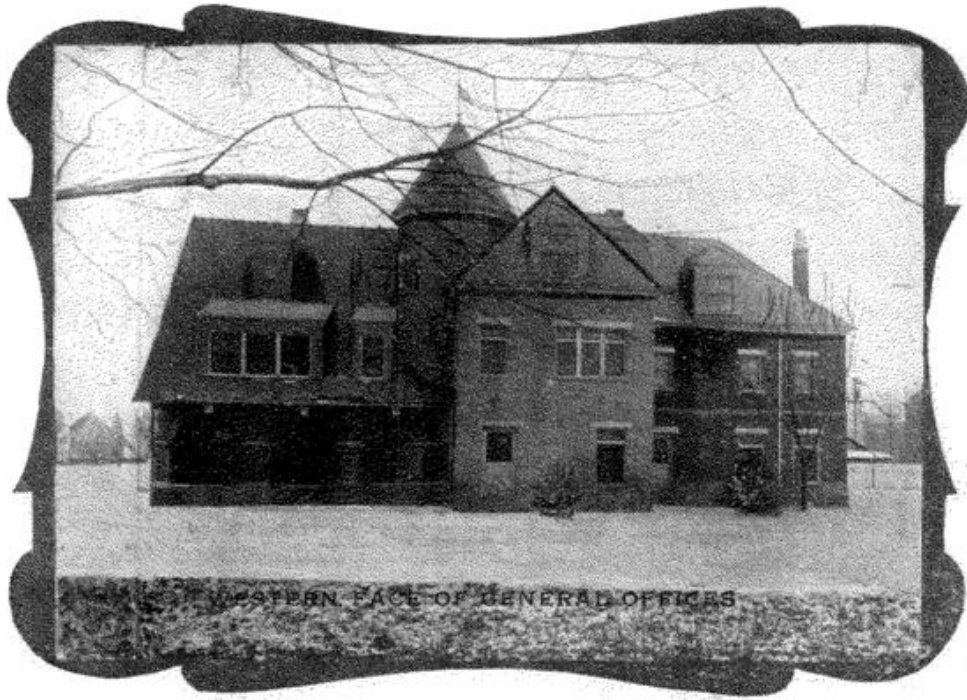


J. H. BARTLETT

THE AMERICAN ASSOCIATION INCORPORATED

This corporation is the successor of the parent of all the developments that have followed their coming into this field in 1889. They sowed with a lavish hand but others have gathered most of the yield so far. They and their friends built the railroad lines converging here, and dug through the Cumberland mountains at an expense of many million dollars. They purchased and opened up for development nearly 50,000 acres of mineral lands and built railroads in order to make them accessible. They furnished the Town Company money to improve the town; they built the Harrogate Inn, and the magnificent Four Seasons Hotel, (some of the buildings and grounds are now occupied by the Lincoln Memorial University); the Middlesborough hotel, water works, electric light plant, churches and school houses, business blocks, and in fact it was their money that changed this plateau and wild mountain valley from an almost inaccessible wilderness to their present high degree of development and prosperity.

In an attempt to save their original investment they felt compelled from time to time to make large additions to their first capitalization until the aggregate reached far beyond what the developments will



justify for years to come. They built the Knoxville, Cumberland Gap and Louisville railroad 81.80 miles; the Middlesborough Belt railroad 28 miles, and the Marietta and North Georgia railroad 259 miles, making a total of 368.80 miles, together with all the rolling stock and other equipment, but the English investors lost all the money they put into railways and rolling stock. They now own between sixty and seventy thousand acres of mineral lands in Bell county, Kentucky, Claiborne and Campbell counties, Tennessee, and in Lee county, Virginia. That much of the property is underlaid with rich and valuable mineral deposits cannot be disputed, but in order to give them any commercial value an outlet had to be provided, and here is just where the promoter and first manager of the company, Mr. A. A. Arthur, lost his bearings. It was

a case of "biting off more than he could chew." It would have been a draft on the Bank of England to have financed the numerous developments and improvements he set on foot. He failed to take into consideration the fact that the country was new and undeveloped, that new markets had to be secured, that there was a bitter opposition to be overcome, and that there was no support in sight for the numerous fine Hotels he built, towns projected and industries financed, and that it takes years for a new railroad through a new country to become self-supporting. He induced the Association to put up the money to buy the properties and build the railways, but as the earnings never met the in-



J. D. TEMPLIN

terest charges, or cur-
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 the end. In 1891 some
 ers, becoming dissatis-
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 friend, James Herbert
 profession, a member of
 Engineers of England,
 of Mining Engineers, and



J. C. RICHARDSON

engineering societies. In November, 1891, an arrangement was made, and Mr. Bartlett arrived at Middlesborough in January, 1892, as general manager of the American Association, Limited, and in 1893 was made receiver for the Middlesborough Belt Railway and for the Association's landed property, and in that capacity, to some extent, straightened out the tangled affairs of the company and put it on a business basis. In the reorganization which followed the investment of the English shareholders who owned about two and a half million dollars in ordinary and preferred shares was wiped out. The bondholder's interest was not paid and they had to take the property for their debt; new stock and bonds were issued and sold to buy the property from the Receiver. After the reorganization was completed, Mr. Bartlett was made managing director, and has not only put their property on a sound basis, but by good business judgment and conservative management has standing of the community up with themselves have both the respect outside public.

Though the original
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G. W. EASTON



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 is dollars where twenty



H. M. AXLINE

years ago it was cents. The business affairs of the company and the entire community is now on a basis where success is assured.

Prosperity for these particular parts of Kentucky and Tennessee lies wholly and solely in the development of the mineral resources. So far as the American Association is concerned, much of their property is at present inaccessible and unimproved and therefore unproductive and at present a burden rather than a source of income, but is on the eve of important developments, additional capital is needed here and they should be encouraged.

A large proportion of the coal lands in the Middlesborough district belong to the Association, some of it is leased to mining companies. There are now eleven mines in operation on their property, mostly located on Bennetts Fork of Yellow Creek, which are served by both the Southern and the Louisville and Nashville Railways. About one million tons of bituminous coal were sent to market in 1904. Since the reorganization of the company they have cut loose from all subsidiary companies and devote their entire attention to developing the mineral resources of their property, and Mr. J. H. Bartlett, the Managing Director, has been indefatigable in his efforts to bring additional capital and additional prosperity to this community, having incorporated and promoted the Middlesborough Mineral and the Cumberland Railways, which are now being built to develop the Clear Fork region and the land of the Association, and one of which is projected to go to Harlan, the surveys having been completed and rights of way secured. The investment here is large and the ramifications of the business covers a wide field and it requires a high degree of both financial skill and executive ability to properly manage the property and arrange for further and future development. Mr. Bartlett has demonstrated that he is the right man in the right place, and he has brought the company up to where it is.

The opening of the Clear Fork district, which will probably take place this year, will enable an entirely new and extensive coal field to be developed. The Southern Railway and the Louisville and Nashville Railway are jointly building the new line so that all the Association's lessees here will have the exceptional

T. MILAM





AMERICAN ASSOCIATION INCORPORATED GENERAL OFFICES

advantage of being able to reach all Southern markets over two main trunk lines, and Northern markets over one. Nowhere else in this country can such another situation be found.

Although coal is the mainstay of the Association, they have on their property extensive deposits of iron ore, of limestone and of shale, fire clay and sand. A pressed brick works near Middlesborough is now making a fine quality of pressed brick from the native shale; fire brick can be made from fire clay on the same property. A considerable quantity of timber is sold annually, either on the stump, or in the shape of ties or poles. The Association have between two and three hundred tenants of native mountain people and are on the best of terms with them. The Association has not only always treated them fairly and justly, but has gone out of its way to assist and encourage them; they have responded by being true friends, assisting the Association in protecting its property. It is much to be regretted that these people have not got the advantage of schools and churches which they are entitled

to. Mr. Bartlett is justly proud of being able to say that not one of his coal lessees has defaulted one day on any of their monthly payments during the past seven years, and that all the mountain tenants pay everything they owe; this is a record hard to beat. There are latent possibilities in the Middlesborough district which will some day be realized and developed by the active co-operation of the railways which are now doing such wonderful work in the South; the Association has always endeavored by giving free rights of way and by rendering any

"THE
MADDING
CROWD"



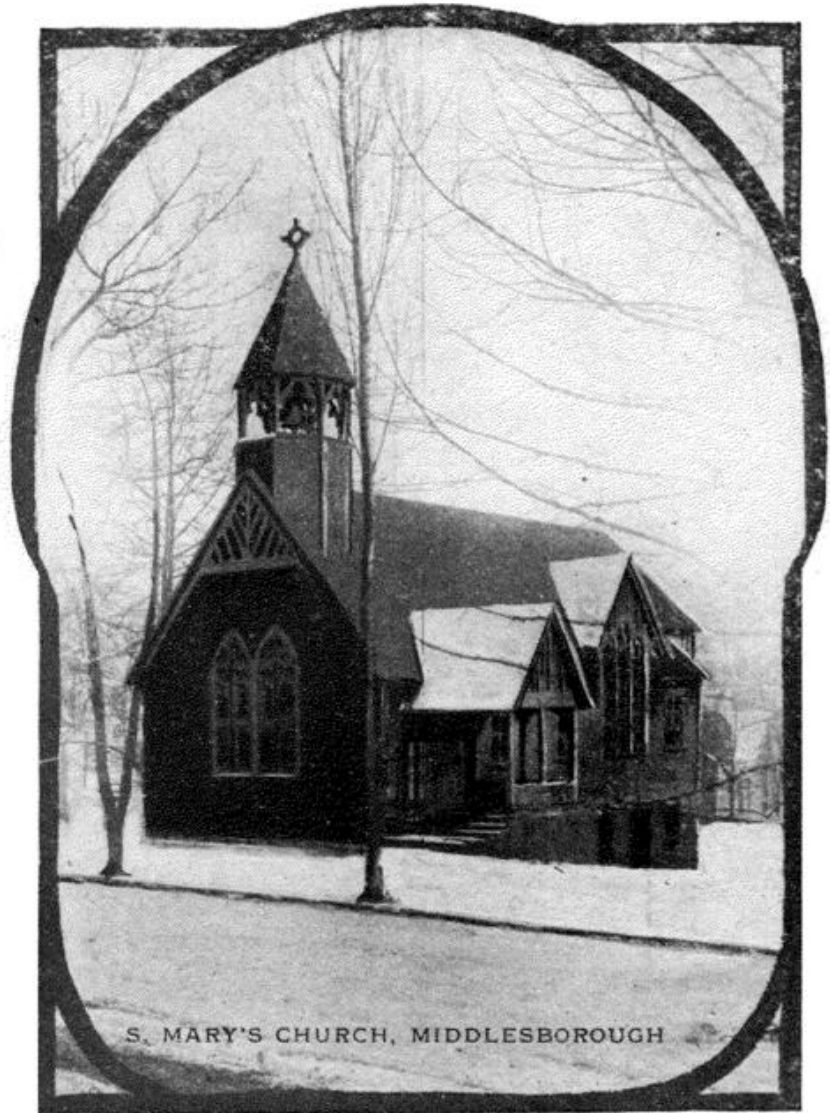
"'TIS SWEET
TO DO
NOTHING"

other assistance in their power to cordially assist them. The credit of successfully managing the Association's affairs is

largely due to the able and efficient staff of officers who assist Mr. Bartlett, many of whom have been with the company since its inception.

The Association's lessees at present are, Fork Ridge Coal and Coke Company, Bryson Mountain Coal and Coke Company, Yellow Creek Coal Company, Reliance Coal and Coke Company, Mingo Coal and Coke Company, Ralston Coal Company, Nicholson Coal Company, Sterling Coal and Coke Company, Fern Lake Coal Company, Winona Coal and Coke Company, Turner Coal Company, Excelsior Coal Com-

pany, Virginia Iron, Coal and Coke Company, Middlesborough Pressed Brick Company. The offices of this Company are in Middlesborough, Kentucky, U. S. A., and its officers are as follows: J. H. Bartlett, Managing Director; J. D. Templin, Superintendent; J. C. Richardson, Mining Engineer; G. W. Easton, Resident Attorney; H. M. Axline, Secretary; T. Milam, Treasurer; Frank McIlhiney, Janitor.



BEE PARADISE

It may seem strange to some, but this section of country is a veritable paradise for bee keepers; the only wonder is that it has not been more fully utilized. The resources here for honey are wonderful. The whole country is covered with honey producing trees and plants, so distributed with reference to the time of bloom as to give a continuous flow of honey nearly all the time from early spring until fall. In the spring come the maples and the elms, then the fruit blooms of every variety, apple, pear, cherry, plum, peaches, etc., then the poplar, then comes the basswood, or linden, and here is a revelation, the coves and mountain slopes are literally covered with this timber, the wealth of blooms and the nectar it produces annually is beyond computation, another beauty is that it affords such an abundance of bee-pasture for such a long time, the trees on the lower lands bloom first; those higher up on the mountains later, it takes perhaps a month for the bloom of this timber to run its course. After the linden comes the sourwood, and as a honey producer is next in importance. After the sourwood comes the sumac, and later a variety of fall flowers, such as the golden rods and asters, which produce honey until cold weather touches all vegetation.

THE NATIONAL BANK OF MIDDLESBOROUGH

The bank was incorporated and organized in the latter part of 1903 and began business January 4, 1904, with the following officers: R. C. Ford, President; L. L. Robertson, Vice-President; W. C. Sleet, Cashier.

Directors: J. Goodfriend, of J. Goodfriend & Co., Merchants; E. S. Helburn, Treasurer, Yellow Creek Coal Co.; L. L. Robertson, M. D.; Daniel Cooper Swab, Vice-President and Treasurer Reliance Coal



BANKING ROOMS, FACING FOUNTAIN SQUARE

& Coke Co.; C. N. Miller, of Miller Bros., Merchants; Ray Moss, Railroad Contractor; J. L. Manring, President Sterling Coal & Coke Co.; C. M. Woodbury, President Mingo Coal & Coke Co.; Geo. W. Albrecht, President Pinnacle Printery, and Postmaster; John Ralston, President Ralston Coal Co.; R. C. Ford. They do a general banking business, issue drafts and bills of exchange and letters of credit available everywhere. Prompt attention given to collections.



JOHN RALSTON
PRESIDENT

RALSTON COAL CO.—STONY FORK COAL CO.

Any history of the development of the Cumberland Coal Field that did not accord John Ralston a prominent position, would not be good history. He is the pioneer operator of this field; he was ahead of the railroad and was actively developing his plans while Middlesborough was yet in the hands of its promoters. A native of Pennsylvania, and reared in the lap of that mother of the coal business of America; he came here with an intelligent and accurate knowledge of the mining industry, and with that energy and perseverance characteristic of his race, he met and overcame every obstacle in his path and blazed the way to the high position the products of these mines hold in the marts of trade today. Mining and marketing coal here in 1889 was a far different proposition from what it is at present. Now it is a matter of capital and business acumen. Given both these qualities, success here in the production of coal is a sure proposition.

Fifteen years back it was radically different. The coal was here then as now, but its excellence was unknown except to the interested few. The public is always slow to accept anything new, and in addition to this was the fierce competition offered by old coal producing communities



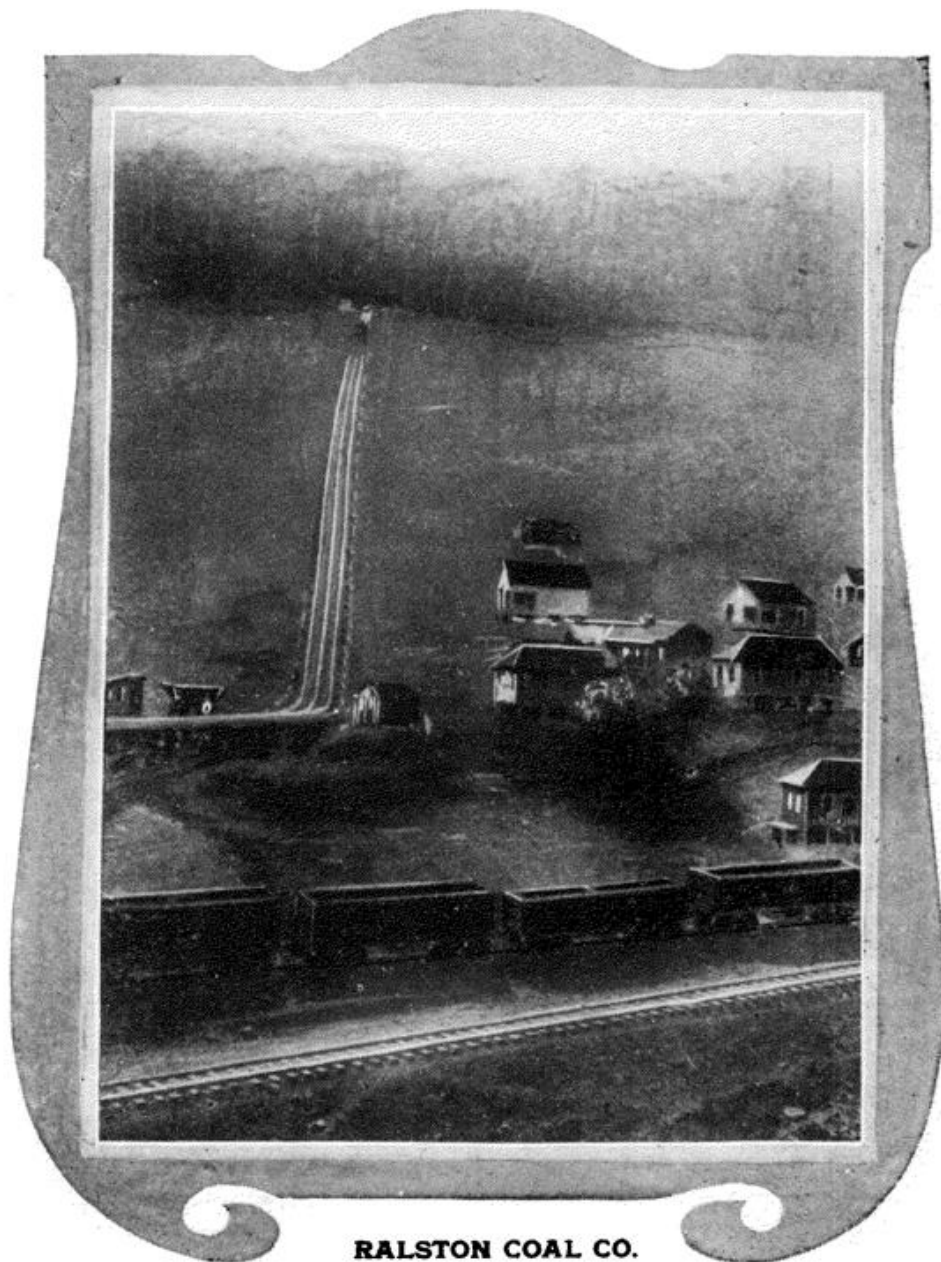
JOHN RALSTON AT HEADQUARTERS

entrenched behind the possession of the market and an established reputation for high quality. He was further handicapped by being the first in the field. There were no highways or beaten paths to his field of development. He had to cut his way in and dig his way out.

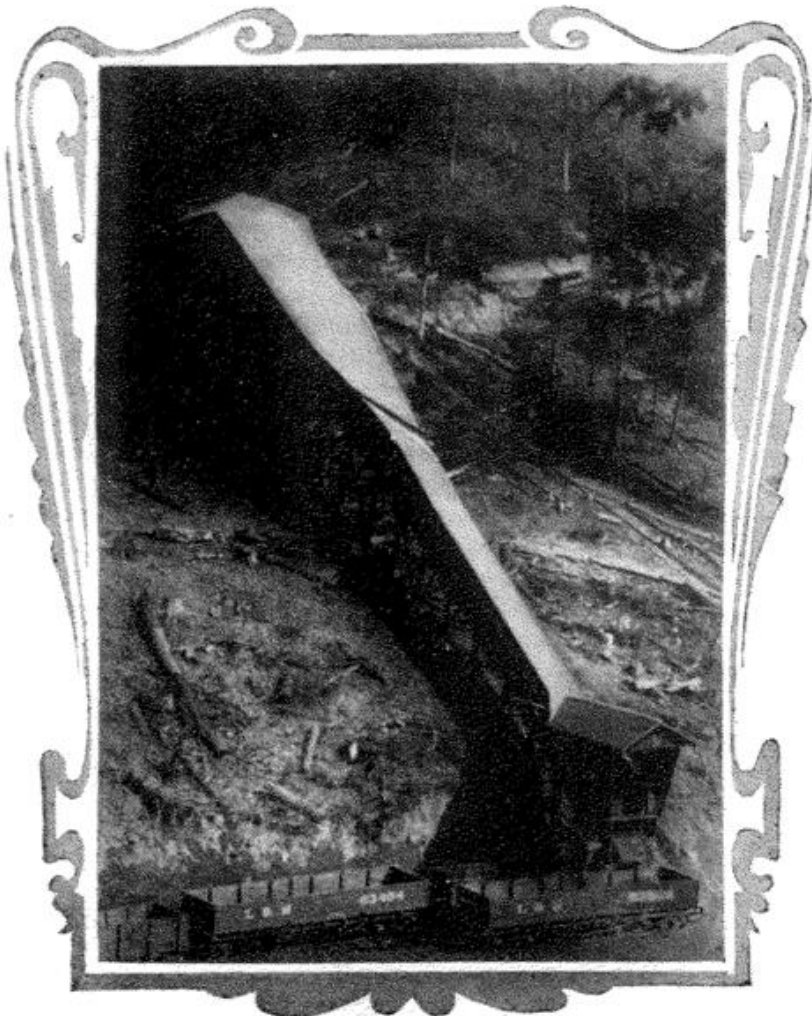
The Mingo Mountain Coal & Coke Co. was the first operating company formed here. Mr. Ralston was the president and active in the management of the mine. The position was no sinecure and the obstacles that were to be overcome would have put a less determined man out of the race.

Mr. Ralston continued as president of the company until 1894, when additional capital was infused and an eastern man was chosen for the position, Mr. Ralston taking the place of vice president and an active manager. He remained in that capacity until 1901, when he ceased to be actively engaged in the management of the Mingo property, having previously organized the Ralston Coal Company, of which he was the president and active manager. This company was successful from its inception. Their output now is 10,000 tons per month, for which they have a ready market. In 1902 the Stony Fork Coal Company was

organized with Mr. Ralston at the head and his son, Chas. E. Ralston, as superintendent. This venture is also proving very successful. Their output now is some 200 tons per day, which is sold ahead of production, and is being rapidly increased. Mr. Ralston is a heavy stockholder of the Mingo Coal & Coke Co., of which his son, Robt. L. Ralston, is vice president and superintendent. He has five sons, all but one actively engaged in the coal business here. Robt. L. and Chas. E., as before mentioned, Herbert M. is superintendent of Ralston mine, Joseph is mine boss of the same mine, and James Howard is in the general mercantile business at Ralston mine and Stony Fork. Mr. Ralston is a



RALSTON COAL CO.



native of Scotland, coming to this country with his parents when a boy of six years. The family settled in Pennsylvania, near Harrisburg, where our subject made his home until coming into this field. Mr. Ralston stands high financially and socially and in addition to his holdings in the Ralston, Stoney Fork and Mingo companies he owns other valuable property in and around Middlesborough.

STONY FORK
CHUTE

NATIONAL COAL & IRON COMPANY

PINEVILLE. KY.

This business was originally organized in 1888 as the Pine Mountain Iron & Coal Company. That company was the pioneer in the coal business here and the promoters of the town of Pineville. They owned practically all the land now included in the City limits, built the first Pineville Hotel and other buildings, and advertised the town until it became a familiar name in many sections of the country. Like pioneers in many other development enterprises, the first result was a disappointment to the promoters in a financial way, though it blazed the way for the development and prosperity that followed in its wake. The property was operated under another title with various degrees of success for a number of years. In 1896, the property with all its franchises and improvements, was sold at public sale, when it was purchased by some of the present owners of the property and later an entirely new company was organized under the title of the National Coal & Iron Company, of which Theodore Harris, President of the Louisville National Banking Com-

pany, of Louisville, became President. Maxwell S. Barker, a member of the Louisville bar, was made Vice-President and General Manager, and Samuel H. Stone, Secretary and Treasurer. W. R. Wood is the Superintendent in charge of the operations at the mines.

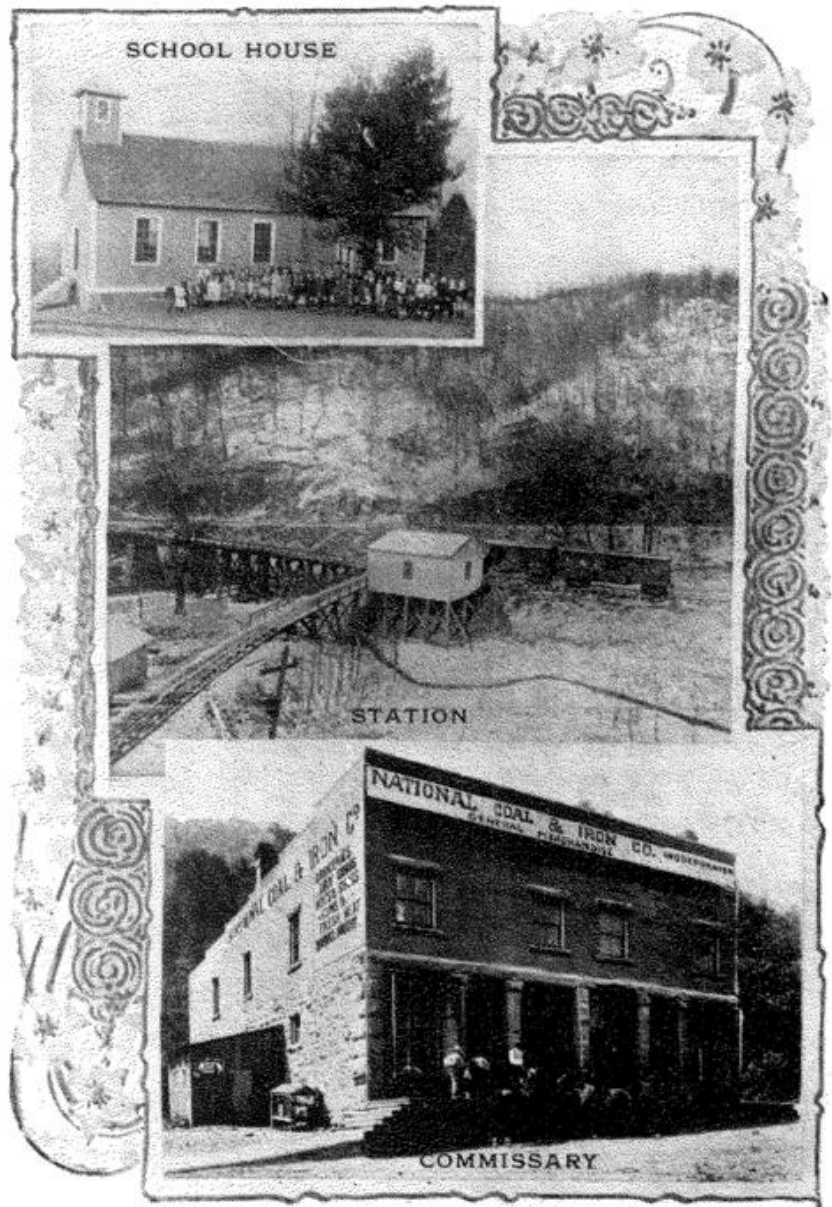
The property passed into their possession with that since acquired, includes 15000 acres of choice Mineral and Timber Lands and 300 lots in the incorporated city of Pineville.

There never has been a question as to the great value of the property. It was and is a practical business problem of getting the products on

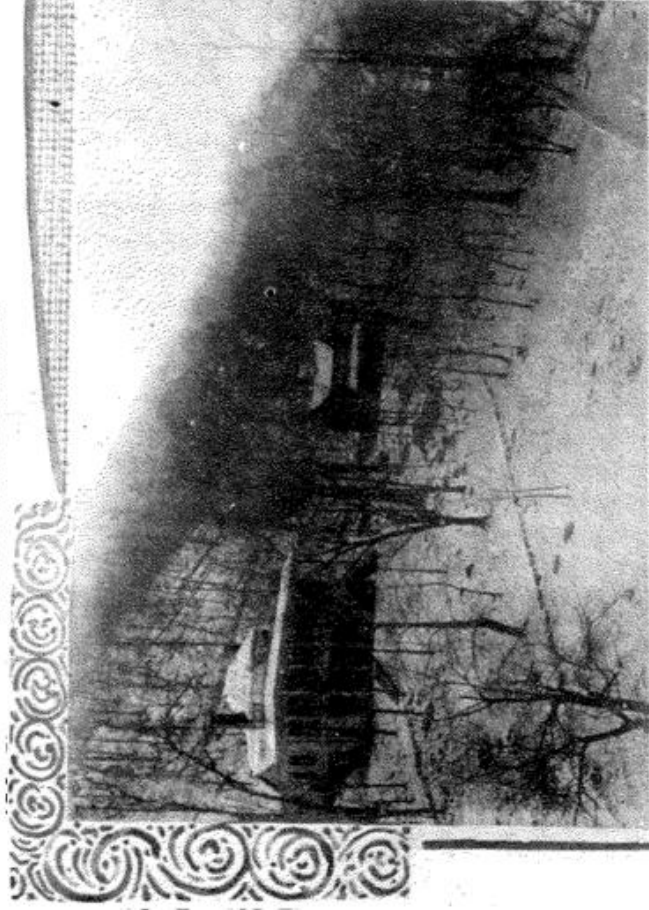
the market at a margin of profit, which the present company have successfully solved. Three workable seams of high grade coal underlie all the acreage; the lower is the only one so far worked. These seams have a thickness of from 36 to 50 inches of clean coal.

The present Company began operations in 1898 with a daily capacity of only 250 tons. The coal is a high grade steam, domestic, gas and coking coal, and has rapidly grown in favor wherever introduced.

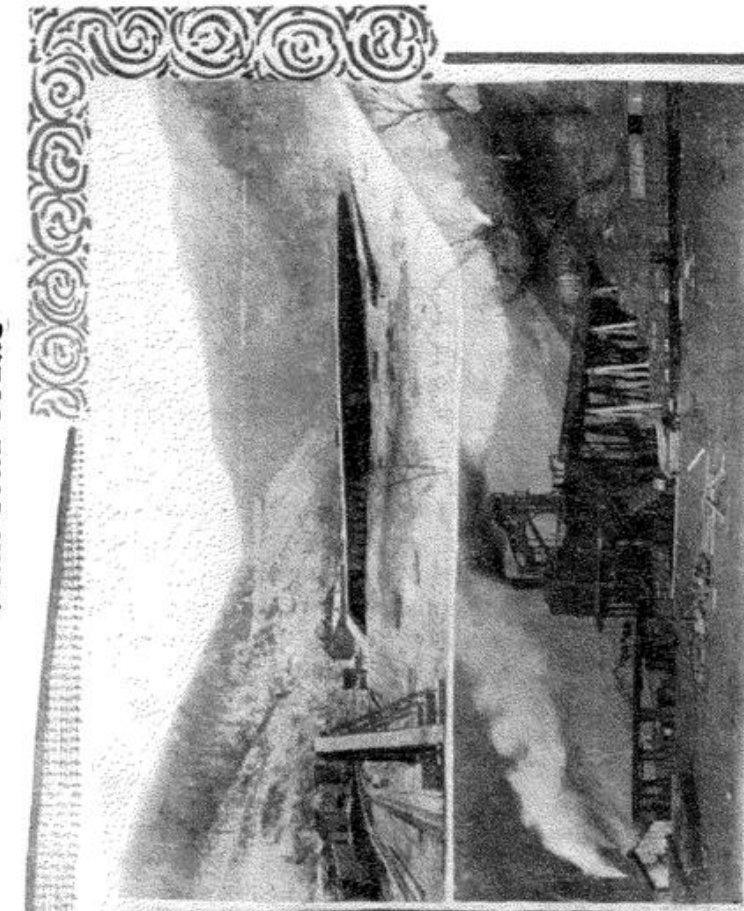
This coal is known on the market as Straight Creek Coal. It is a remarkable coal as it contains no dirt or impurities. This coal has a ready sale for steam and domestic purposes in Kentucky, Tennessee, Georgia, Ohio, and Indiana. It is a very economical fuel because of its high percentage of heat units and small amount of ash. The Company's orders often exceed the daily output of the mines. The analysis of the coal is as follows: Fixed Carbon 62.2, Volatile Matter 33.4, Moisture 2.5, Ash 1.9. Yield of gas, 5.15 cubic feet per pound; Candle power,



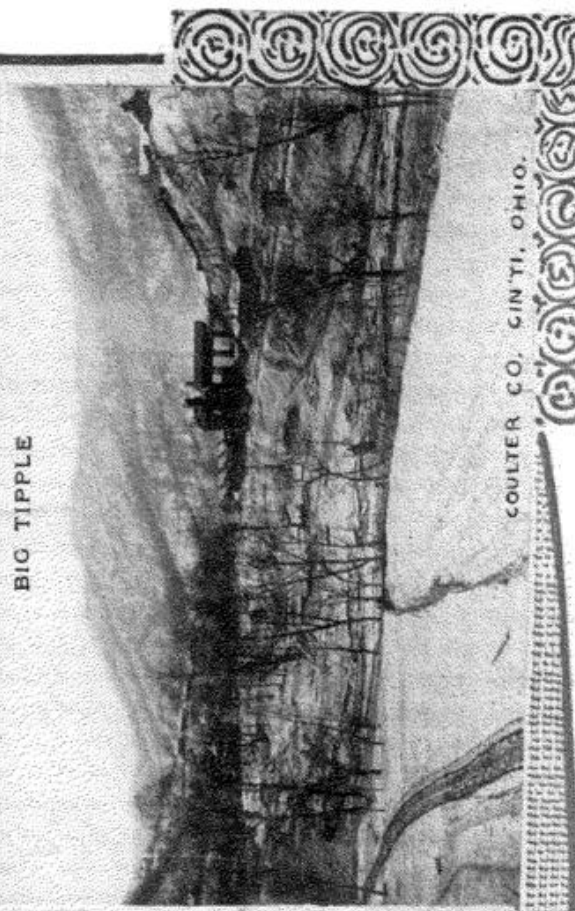
RESIDENCE SECTION



MAIN COKE OVENS



BIG TIPPLE



COULTER CO. CINCINNATI, OHIO.

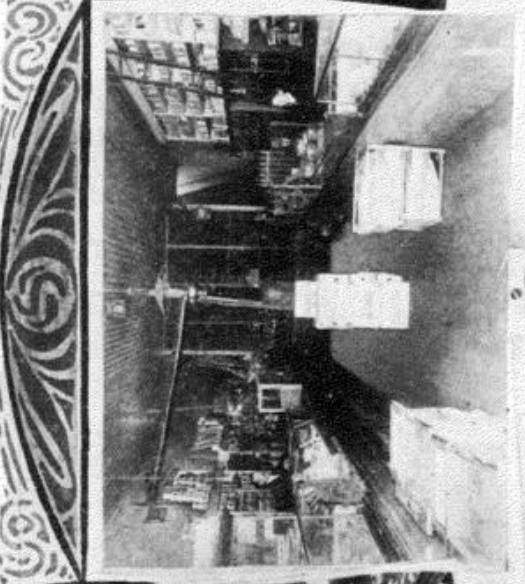
DRAWING COKE

LOOKING WEST FROM COMMISSARY

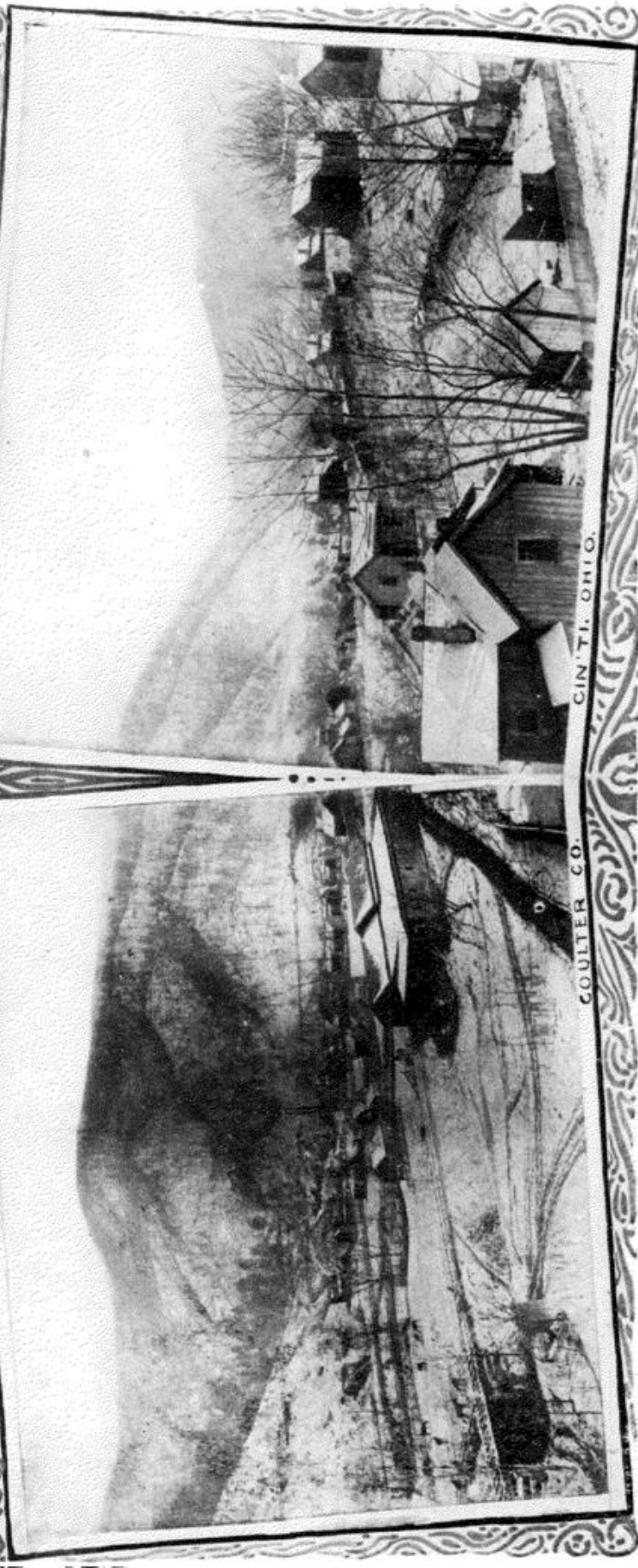
DRY GOODS DEPARTMENT
OFFICE AT REAR



GROCERY AND MEAT DEPARTMENT



ELECTRICAL CUTTER AT WORK



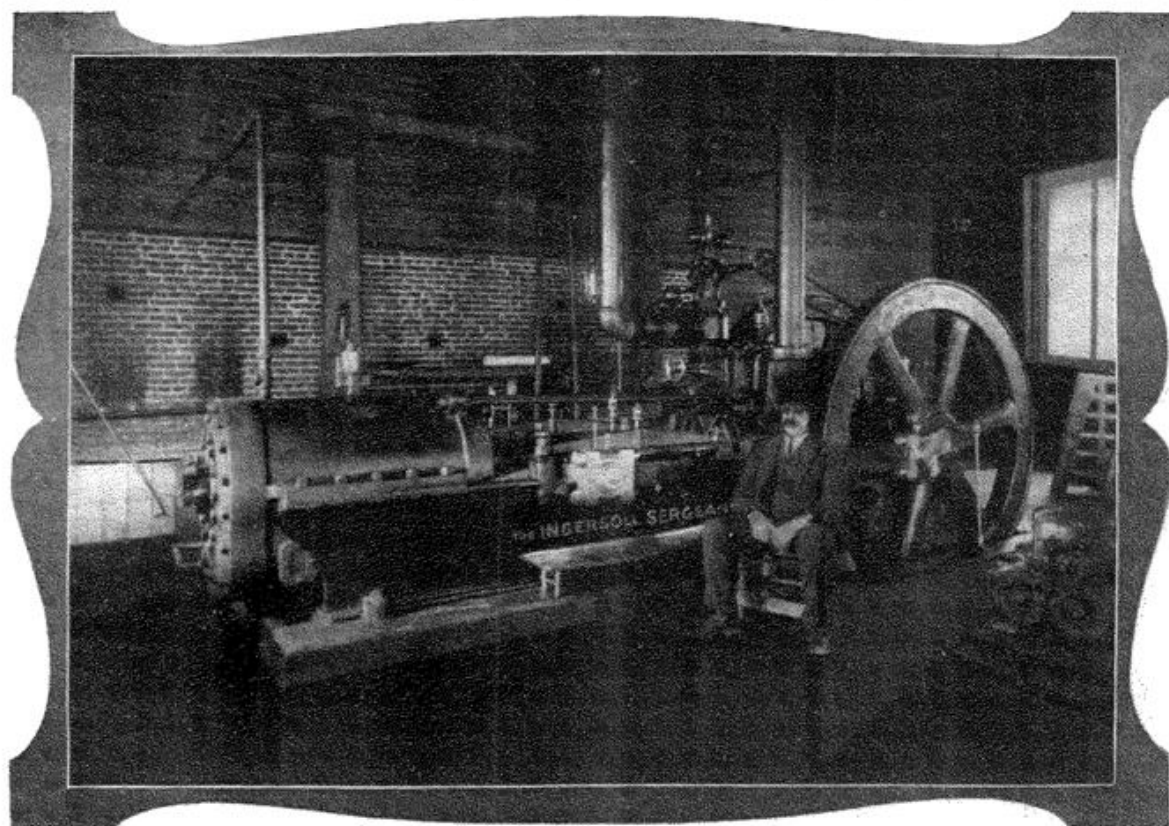
VIEWS OF THE CAMP LOOKING EAST FROM COMMISSARY

18.1; Coke, 53 pounds per bushel of 80 pounds of coal. The coke made from the Straight Creek Coal is one of the purest fuels on the market. It is sold largely to Southern blast furnaces. Breweries and distilleries use it for drying purposes. Several water gas plants also use this coke and obtain splendid results from it in the manufacture of water gas. Analysis of Straight Creek Coke: Fixed Carbon 93.225, Ash 5.880, Sulphur .875, Phosphorus .020.

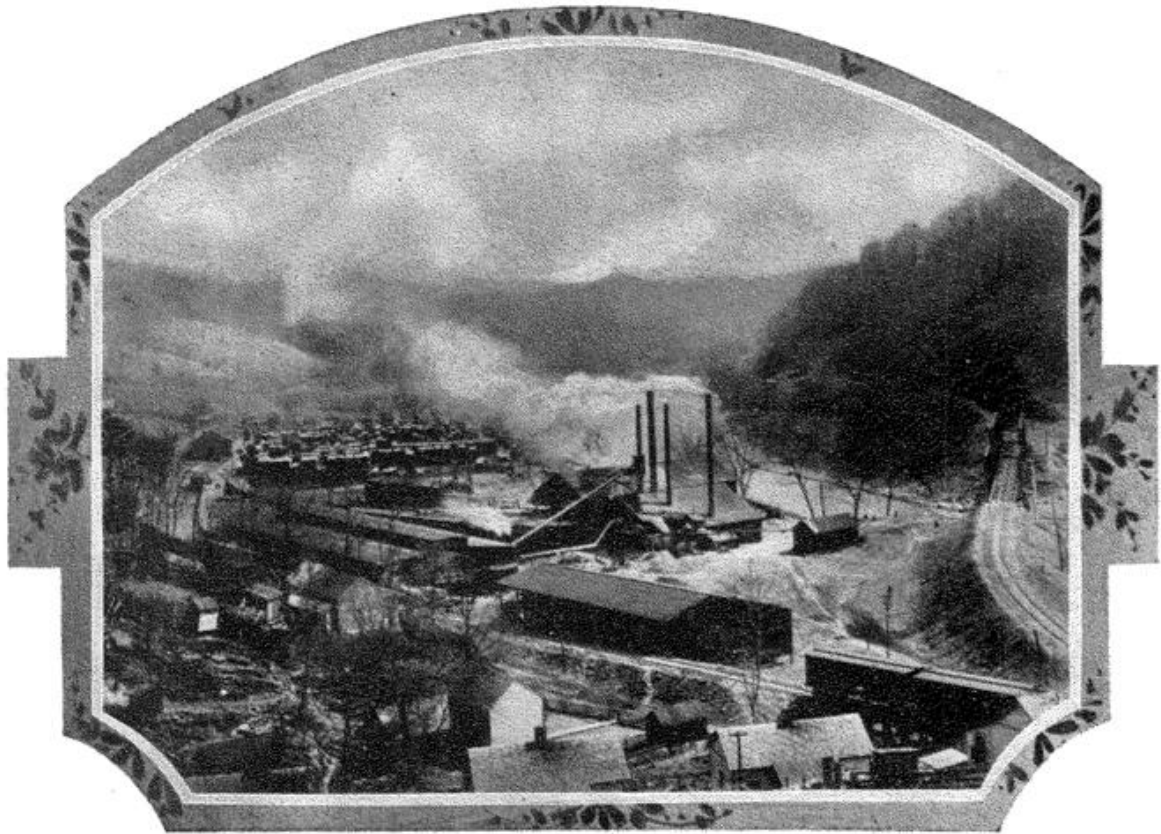
The mines are well ventilated and dry. The capacity of the mines has been increased from time to time to meet the increasing demand made upon them, until their present capacity is 1,200 tons daily. The coal, as the analysis shows, is of a high grade for either coking, steam, or domestic purposes. The hardness of the coal, together with its heating qualities, has made it very popular for domestic purposes and the demand for it is invariably greater than the supply.

There are 200 coke ovens in connection with the plant, but they are not run at their full capacity. The price which their lump coal demands on the market precludes the use of much of it in coke ovens.

There are also some valuable deposits of iron ore on the property, and judging from its quality, location and surroundings, the time will come when it will become one of the valuable assets of the company. The conditions are not ripe yet for developing the iron deposits, neither were they for coal fifteen years ago. The next decade is going to witness a wonderful change in the industrial conditions of the South.



POWER HOUSE



T. J. ASHER & SONS

WASIOTO, KENTUCKY

This business was originally founded by Rennebaum & Slawson in 1886, as a circular saw mill with a capacity of some 18,000 feet of lumber per day, in its present location about two miles above the now flourishing city of Pineville. In 1890 the property was purchased by the present owners and the mill was changed to a band saw mill increasing its capacity to 30,000 feet per day.

The mill is most admirably located on the Cumberland river just at the point where the Louisville and Nashville Railroad leaves the river on its southern and eastern course through the Cumberland coal fields. The railroad gives them access to the markets of the world and the Cumberland river and its tributaries brings right to their booms, the various kinds of high grade timber for which Eastern Kentucky is notably celebrated. Owing to good business management and the high grade of these products, the business has been eminently successful under its present management. In 1895 the plant was entirely remodeled by putting in a strictly modern saw mill plant with a capacity of 50,000 feet daily and adding an up-to-date planing mill of large capacity, enabling

them to fill orders promptly, of any size, either for lumber in the rough or dressed. As the plant now stands it is one of the best equipped in the south or elsewhere and the raw material they control, in the quality of the timber and its accessibility is surpassed by none and equaled by few in America. Soft yellow poplar lumber is their principal output and the quality is such that it gives them a world wide market. They have a very considerable export trade, their products going as far as South Africa. Certain lines of trade in Great Britain use large quantities annually of their A 1, A 2 and A 3 brands of yellow poplar. Atlantic Coast cities takes probably the larger part of their various kinds of lumber, though they fill many orders from cities as far west as San Francisco and north as far as Montreal and Quebec. Whenever they have a surplus they find a ready market for it in the mid-



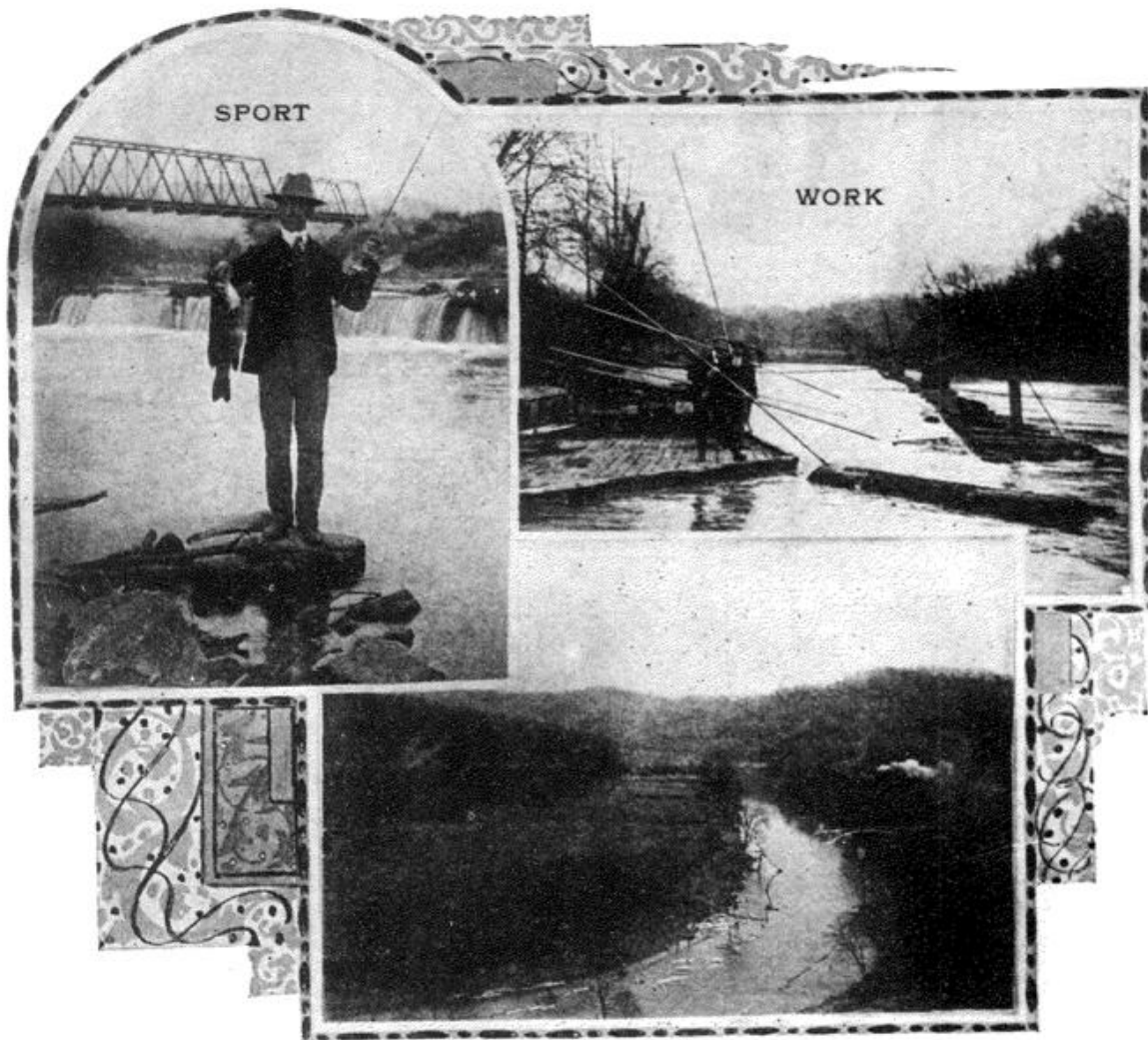
T. J. ASHER

Cumberland river. They have the only large mill in this section and control most of the desirable timber of easy access to these streams. They also own in fee simple, some 15,000 acres of coal and timber lands adjacent to the Louisville and Nashville and Southern roads from which the poplar and pine has been cut but is heavily timbered with oak, ash, chestnut, lynn and other marketable woods. These lands are underlaid with the various seams of coal which permeate these mountains, ranging in thickness from three to six feet, some which faces immediately on the Louisville and Nashville Railroad, and the farthest of it may be reached by an extension of a few miles of

double west and north of the Ohio river. The plant is run to its full capacity and has not been shut down a working day since 1895, except a week or so annually for the purpose of cleaning up and overhauling. Their timber is cut in the winter and carried to booms on the spring freshets of the Poor, Clear and Martin's Forks of the

They have the only large mill in this section and control most of the desirable timber of easy access to these streams. They also own in fee simple, some 15,000 acres of coal and timber lands adjacent to the Louisville and Nashville and Southern roads from which the poplar and pine has been cut but is heavily timbered with oak, ash, chestnut, lynn and other marketable woods.

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CUMBERLAND RIVER

track from either the Southern or Louisville and Nashville branch line. One vein of cannel coal is now being opened on their property about one mile south of Wasimoto. The following analyses and subjoined letter from the analytical chemist, conveys the best idea of the value of the coals underlying these lands. This is as fair an average as the writer could select.

This firm stands high in business and financial circles wherever they are known and particularly so in Eastern Kentucky and Tennessee. They are essentially self made men of the truly American type with all the geniality and hospitality for which Kentuckians are notable. Square and upright in all their dealings they have gained the unlimited confidence of the public and their word as to the quality of what they offer to sell, is all the bond required by those who know them best.

The senior member of the firm, T. J. Asher, takes an active part in the business, being a practical mill man he superintends the operating departments. Robert Asher, the oldest son of T. J. Asher is in charge

of the office business, assisted by a stenographer and J. M. Carroll the book-keeper. Mr. Carroll gained his experience in the lumber business in upper Michigan and has been clear through the course from prep to post graduate. Other members of the firm are. H. H. Asher, G. M. Asher and A. J. Asher and they are each department managers in operating the plant.

The firm also operate one of the largest department stores in Bell county, located at Wasioto. This business is managed by Dr. M. Brandenburg,

son-in-law of T. J. Asher. The accompanying illustrations are scenes in and about the mill and the views were photographed by Mr.



IN THE MILL BOOM

Robert Asher who is quite an expert amateur photographer. We are under obligations to Mr. Asher for a number of other scenes and views shown in different parts of this issue.

**MESSRS. T. J. ASHER & SONS,
WASIOTO, KENTUCKY.**

GENTLEMEN: In accordance with your request I have had careful analyses made of the six samples of coal which you forwarded me for this purpose. I take it for granted that these samplings represent the average of the coal bed at the several localities where you obtained them.

I enclose tabulated analyses as it came from Mr. F. S. Hyde, the Chief Chemist of Cambria Steel Company.

These coals are very peculiar in their very low ash, sulphur, phosphorus and silica.

Taking them in order as returned by chemist, I note the Black Mountain, Mason seam, Hoskins opening. This bituminous coal is quite low in ash, but rather high in phosphorus and sulphur. It would make a fairly good steam coal. Poplar Lick seam,

James L. Green



opening, Hance's Ridge. This is a most excellent coal for the manufacture of illuminating gas, for steam making, and should make a good coke.

Poplar Lick seam, Hiram Ellis opening, Black Mountain. This coal is remarkable for purity, in its low percentage of foreign matters. It is well adapted for gas making, generating steam, blacksmithing, domestic use and for the manufacture of coke.

38 inch seam about 25 feet above Poplar Lick on Hances Creek. This coal is quite similar in quality to that of Hiram Ellis' opening, but lower in ash. It can be used in all purposes requiring coal or its products.

Masons seam, Pitmans Creek. This coal is the most remarkable from its great purity. If the seam is of a workable thickness—say at least three feet—it should command a market for any purposes in which pure coal is demanded.

Very truly yours,

JOHN FULTON,
Mining Engineer.

JOHNSTOWN, PA., AUG. 16, 1902.

ANALYSES OF SAMPLES OF COAL FROM BELL COUNTY, KY.

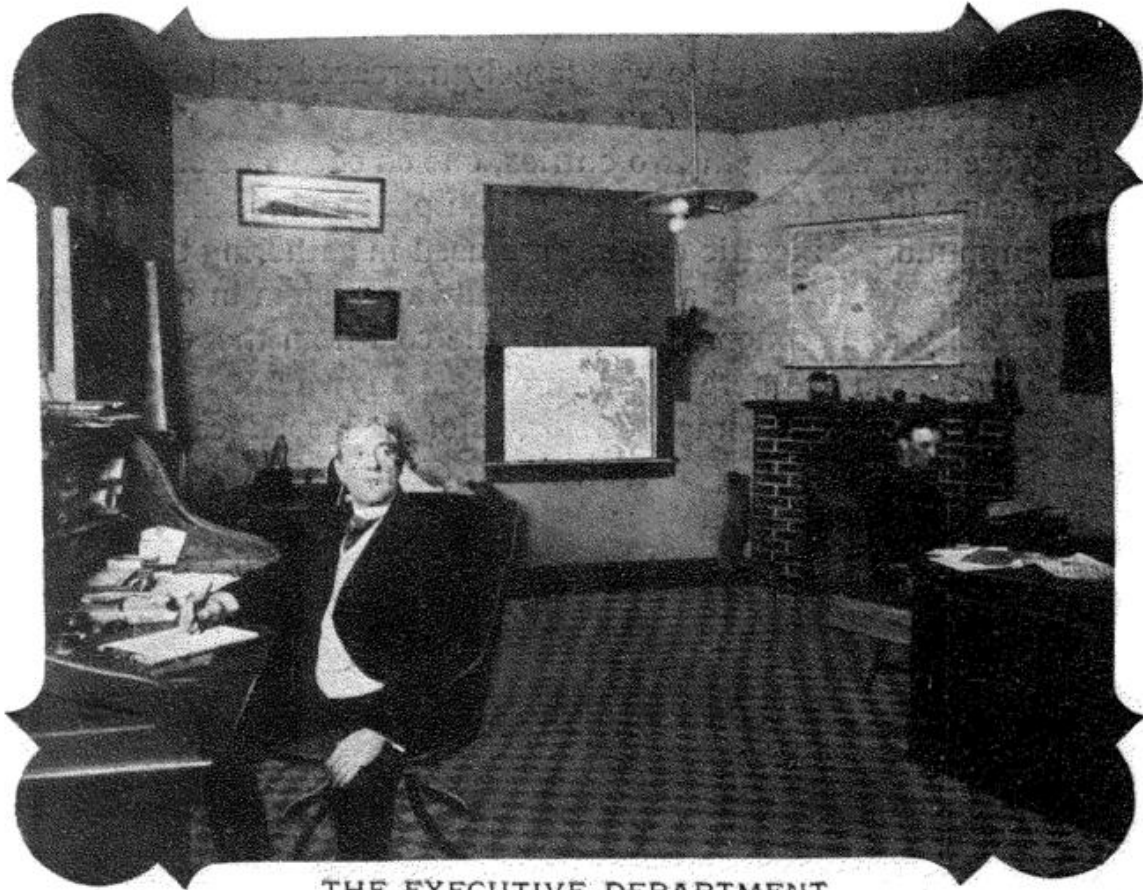
	Moisture	Volatile Matter	Fixed Carbon	Ash	Phos.	Sulphur	Silica	CHEMIST
Black Mountain, Mason Seam, Hoskins opening 46 in.....	.39	37.18	56.85	5.58	.042	1.82	2.00	F. S. Hyde.
Hance's Ridge. Poplar Lick Seam, J. L. Green opening 48 in.	.63	37.31	58.05	4.01	.070	.53	1.35	" "
Black Mountain, Poplar Lick Seam, Hiram Ellis opening 56 in	.65	39.95	55.32	4.08	.012	.66	2.02	" "
38 in Seam about 25ft. above Poplar Lick on Hance's Creek...	.61	38.99	57.50	2.90	.011	1.31	.86	" "
Hance's Ridge, Mason Seam, Pitman's Creek 33 in49	39.36	59.15	1.00	.008	.72	.35	" "

Below is the analysis of the Westmoreland Pittsburg Coal of Pennsylvania for comparison. This is the best of the Pennsylvania Gas Coal Company's product.

Penn. Gas Coal Company.....	.89	35.80	59.18	4.13	—	.60	—	Dr. Rothberg,
		36.86	61.20	1.94	.006	.63	0.57	Fulton & Rothberg

JOHN FULTON, MINING ENGINEER.





THE EXECUTIVE DEPARTMENT

WALLSEND COAL & COKE COMPANY

WALLSEND, BELL COUNTY, KENTUCKY.

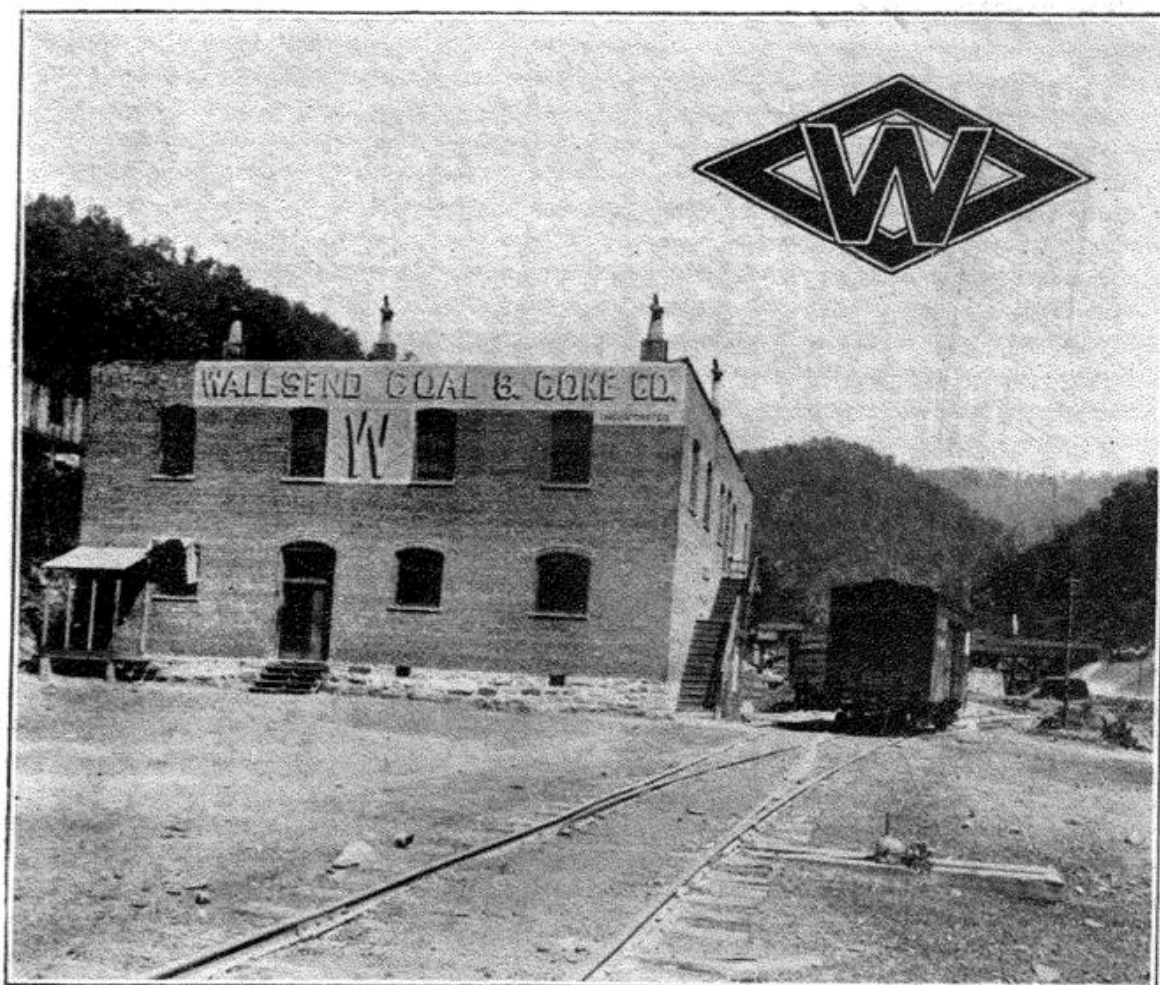
This plant as it now stands is one of the best equipped and largest producing mines in the Appalachian Coal fields and its stockholders can now look forward to the dividend period with an assurance of getting some return on their investment. This favorable condition of affairs was only brought about since the property came under the control of the present company. The property was originally acquired in 1889 and its development began at once but the venture was not a financial success until after the purchase of the property by the present company which occurred on August 1st, 1904. At that time Mr. Charles E. Hall of London, England, became president and general manager, D. B. Logan vice-president and E. Reno Short, secretary and superintendent, the two of Pineville, Kentucky. It is a Kentucky corporation but the stock is largely held in England; some of the shareholders are among the nation's most prominent men of affairs both in politics and in the business world. The new management at once revised the conditions,

the business was thoroughly systematized both inside and outside the mines. The output of the mine was largely increased until their present capacity is about 800 tons per day.

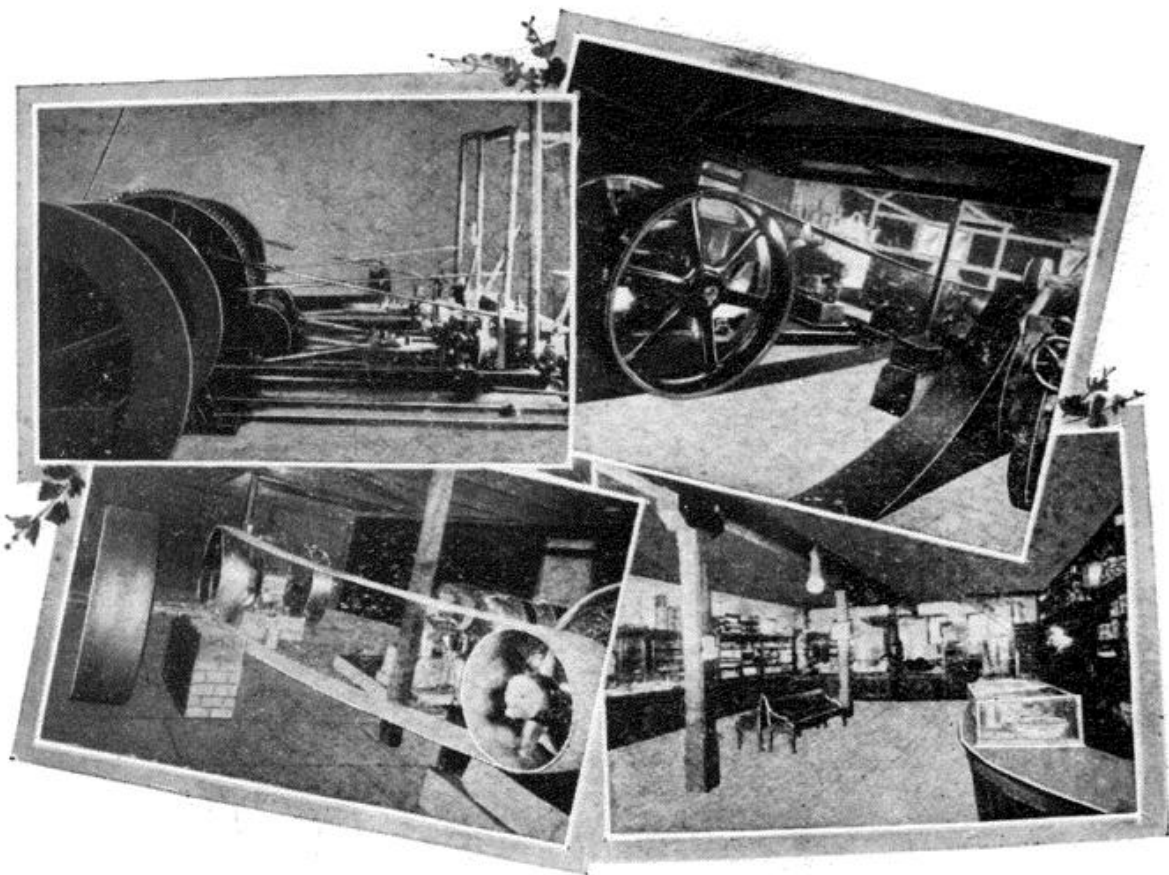
They are now working in two entries, one on each side of the valley, using the same tippie for both mines. Both pick and machine methods are used in mining. Electric motors are used in gathering the cars and the track inside the mines is a complete railway system in miniature.

For rapidity and economy in getting the coal from the mine to the tippie the system in use here is not surpassed anywhere.

The seam worked average 36 inches of fine solid coal of a high grade, analysis as follows: Fixed carbon, 62.2; volatile matter, 33.4; moisture, 2.5; ash, 1.9. Their coke contains 93 per cent fixed carbon and 6 per cent ash. This analysis shows that their coal is high class and especially good for domestic, steam, gas or coking purposes. The standard shaking screen is used in grading their coal; most of the nut



OFFICES AND COMMISSARY



SCENES IN POWER HOUSE AND COMMISSARY

and slack and round coal goes to gas companies, and last year reached the enormous aggregate of 60000 tons.

They own approximately 1500 acres of coal land on which there are other valuable seams. The company is now preparing to make an entry on another seam higher up the mountain which has a thickness of 60 inches at the opening now and is some eight or nine hundred acres in extent. There are fifty coke ovens located near the tipple and the coal used to make coke is disintegrated and carried from the tipple to the ovens by elevators and conveyors.

The improvements they are making are of the permanent kind and the village of Wallsend whose population is made up largely of their employees, is a model for a mining town, the town is regularly laid out, houses comfortable and most of them much above the average size.

The company's commissary is large, well kept and in appearance very much resembles a well managed department store.

Mr. Charles E. Hall the president and manager is the controlling spirit in the enterprise. He devotes all his time to the business and the



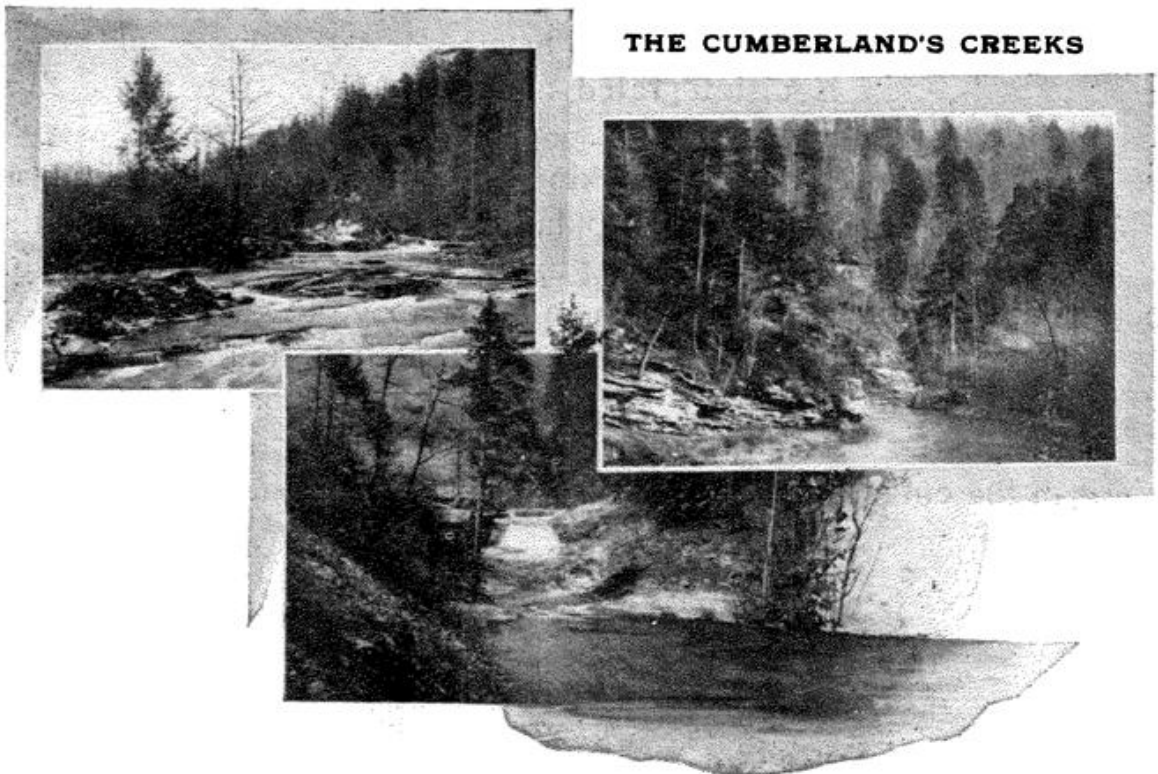
CHAS. E. HALL

present favorable condition of the company's affairs are due entirely to his personal application and correct business methods.

Mr. Short, the secretary has been connected with the mine for many years, he is Mr. Hall's right hand man and has proved a very valuable assistant in the laborious work such a business involves.

The central offices, railroad station, telegraph and express offices are at Wallsend, Bell county Kentucky.

THE CUMBERLAND'S CREEKS





C. M. WOODBURY

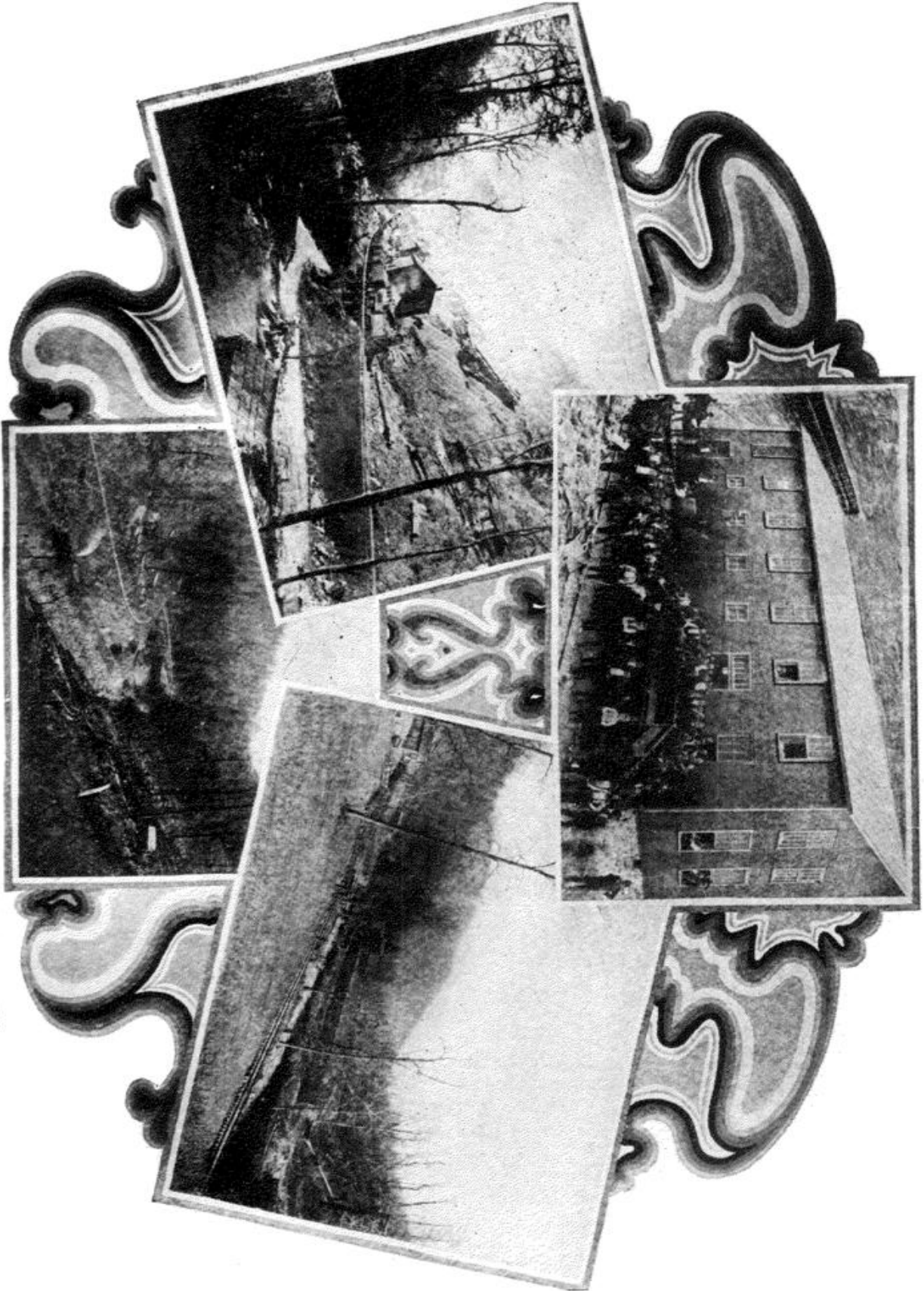
MINGO COAL AND COKE COMPANY

MIDDLESBOROUGH, KENTUCKY

Mr. Woodbury came to Middlesborough in 1889 when the town was yet in an embryo state; he was the first vice-president of the Town Company, and took an active part in developing the young but promising city. He was the general manager of the Electric Light Heat and Power Company, president of the Water Company, vice-president of the First National Bank and held other positions of trust and responsibility. He was and is an executive manager rather than a promoter and during all the changing vicissitudes of the town, his services were always in demand and having unlimited confidence in the future of this field chose to stay with it and time has vindicated his judgment. In 1891 he formed a connection with the Mingo Mountain Coal & Coke Company, taking the position of treasurer and sales manager.

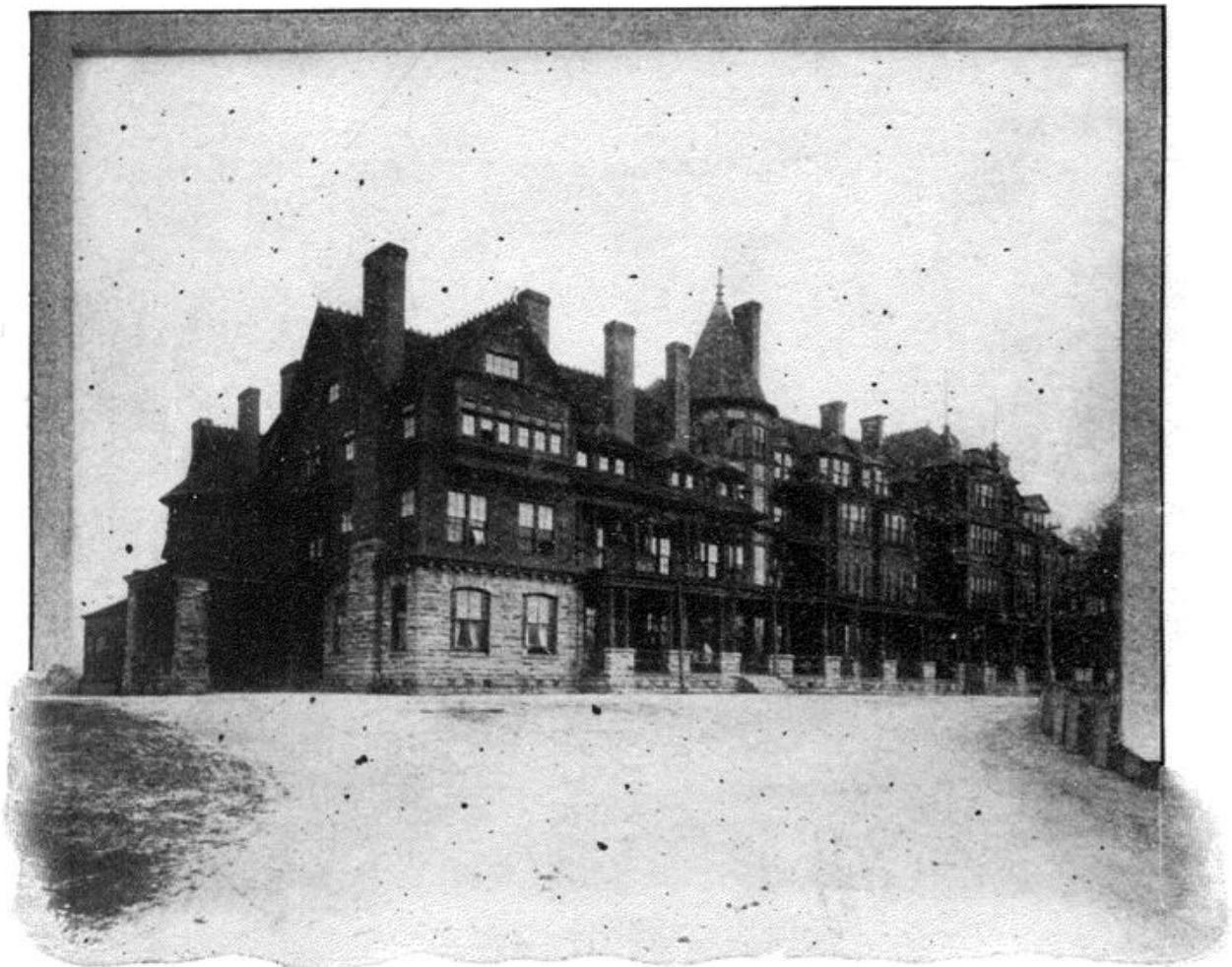
Selling Middlesborough Coal in 1905 is simply a matter of meeting competition, in 1891 it was a very different kind of a proposition. Then it was an untried article and its merits unknown to the outside world. No one, perhaps, in this coal field has done more to entrench the coals of this district in the high esteem it is now held everywhere. He made Middlesborough Coal familiar household words in almost every town in

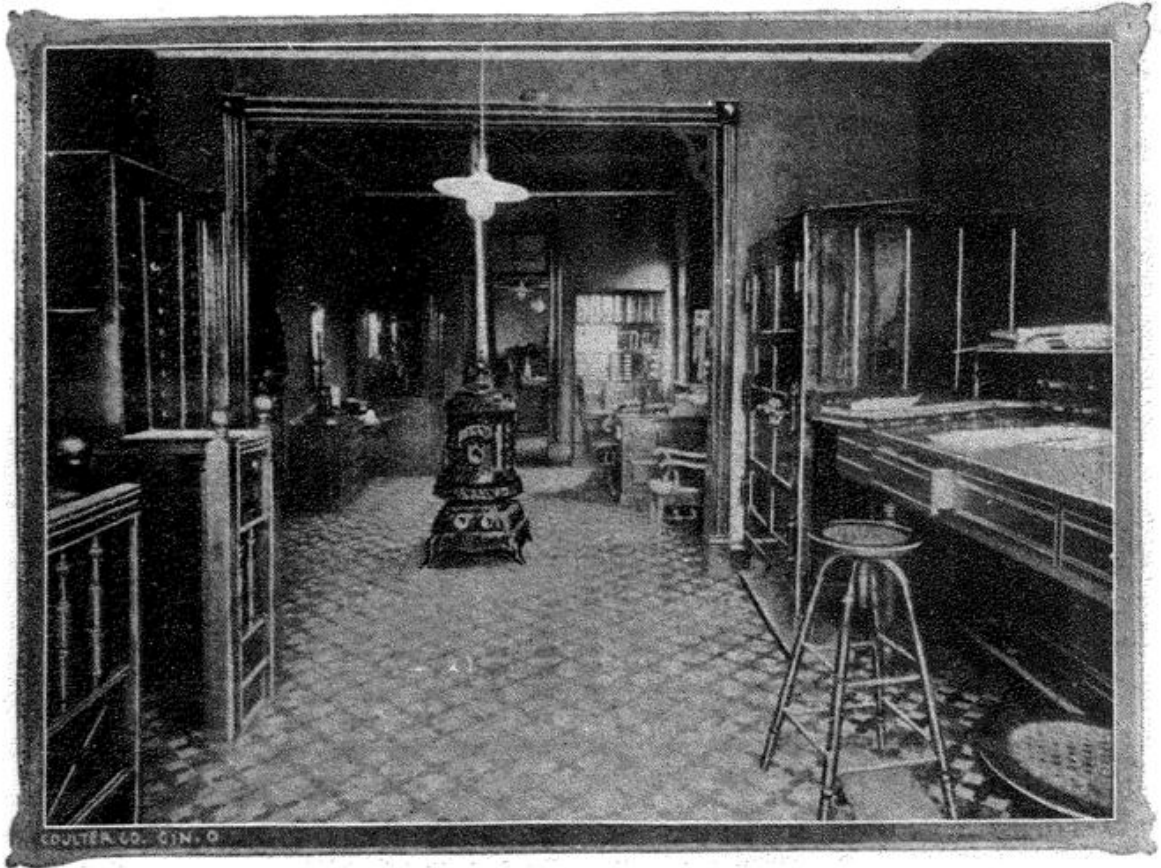
SCENES AT THE MINGO COAL & COKE COMPANY'S MINES



the South and Southwest. Patience and perseverance conquers all things and in time Mr. Woodbury had the satisfaction of seeing Middlesborough Coal capture the southern markets.

The next question that arose was how to supply the increasing demand for Mingo Coal. In 1895 arrangements were made for the infusion of new capital and the company was re-organized and the title changed to the Mingo Coal and Coke Company. Mr. Woodbury was chosen president of the new company and has retained the position to the present time. The Mingo Coal and Coke Company is the largest corporation in the Middlesborough district. This Company bore the brunt of the hard fight it was necessary to make to get these coals on the market. Mr. Woodbury was on the firing line in all these years when the fight raged the hardest and now that the victory is so completely won, should be awarded a large share of the credit that is due the victors. In financial and business circles Mr. Woodbury stands very high and in the social world his family moves in the highest circles in the state. One of his sons Daniel Coryton Woodbury, is a rising Electrical engineer, located with a prominent Railroad Company in New York City, another son, Edward N. Woodbury is a cadet at West Point, now in his second year, while William N. the third son is at Yale College taking the Mining Engineering course.





LOOKING THROUGH THE GENERAL OFFICES

FORK RIDGE COAL AND COKE COMPANY

MIDDLESBOROUGH, KENTUCKY

This is the largest mine in the Middlesborough district, both in point o acreage and in average output. They control 3,000 acres and their lease runs for fifty years; underlying the entire tract are several veins of coal, the most valuable of which are the lower or Mingo-Ralston seam and upper Hignite. The former is the seam most of the mines in the upper part of the valley are working and it is the finest steam and gas coal in the southern Appalachian coal field. It is also a coking coal but owing to its popularity as a steam coal but a very small pro-
potion of it goes into the ovens. The seam varies some in thickness, at this mine it is from 5 feet to 5 1-2 feet in pure coal and the analysis is as follows:

Volatile Matter 37.19, Fixed Carbon 59.83, Ash 1.40, Sulphur .70, Moisture .88.

The Company began operation in 1895 and worked with surprising degrees of success until 1899 when it passed to the present owners,

who have operated the mine since that time under the same charter and corporate name. Appreciating the value of the property they immediately began extensive improvements for the purpose of largely increasing their output; which has been systematically followed to the present time. They now have two distinct mines in operation, and have constructed 1 1-2 miles of railroad to connect them with the Bennetts Fork Branch of the Louisville & Nashville and Southern road. The lower or Mingo seam is sold exclusively for steam and gas purposes and is sold fully up to their producing capacity, the other seam is about 100 feet higher up in the hill and is known as the upper Hignite seam which has a thickness of 6 feet. This coal is a little higher in ash and slightly lower in fixed carbon but is a very fine domestic coal; is clean, hard; burns freely and handles without breaking. Thus it will be seen they turn out two distinct grades of coal and this is the only mine in the valley that makes a specialty of domestic coal. This coal is the market in the South and South-west in competition with the Jellico district and it speaks well for the coal that they suffer nothing in comparison with the best from that field. Electric motors are used in hauling the mine cars to the tippie. Every appliance of the mine is of the latest and most approved kind. The ventilation and drainage is complete. They have recently installed a new power plant which, with the additional sidings they have laid, has doubled their capacity. Thirty-five new cottages for their miners have been built during the past few months and they can now comfortably house 400 workmen. Their residences are on high ground and the surroundings are not unpleasant even in the soft seasons. The upper seam they are working has an elevation of 2,200 feet above the sea level.

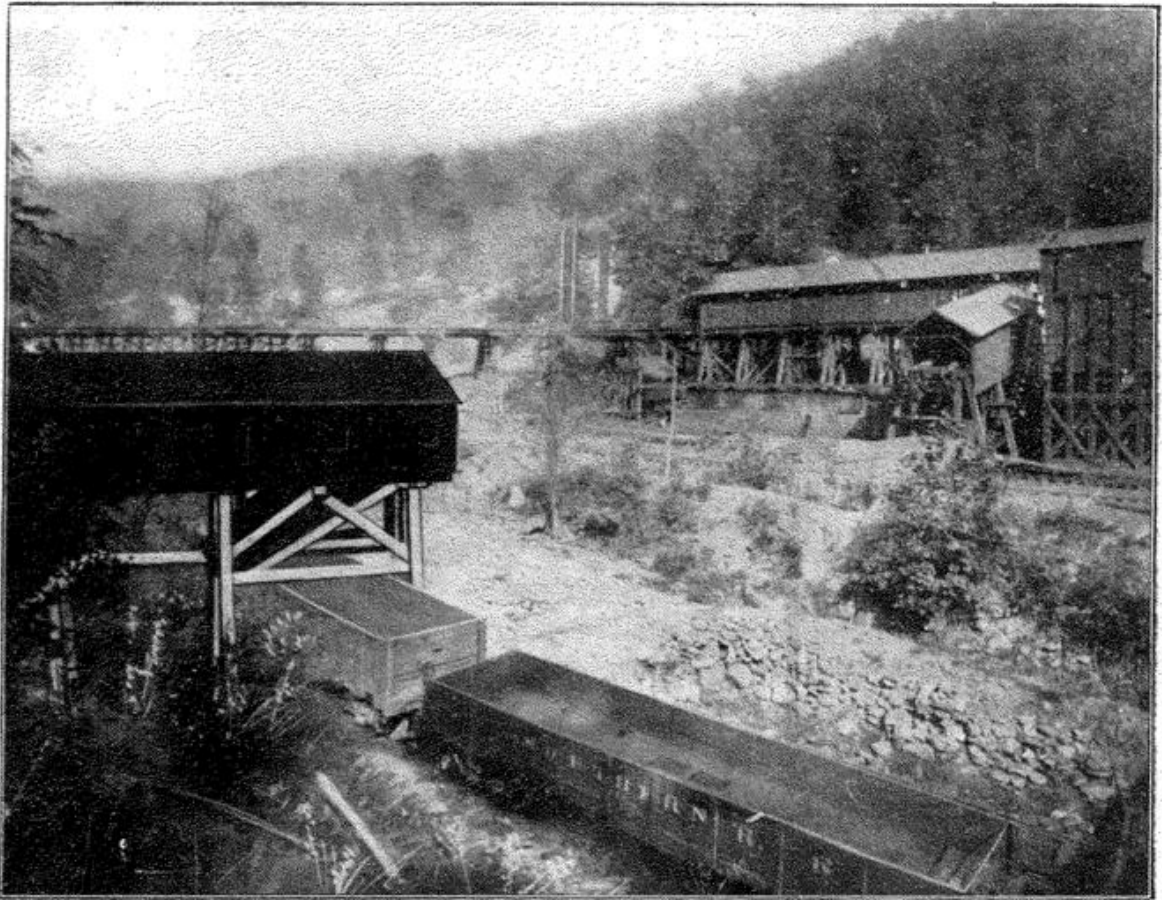


E. B. TAYLOR

Hu L. McClung is president of the company, Tecumseh Milam treasurer, and E. B. Taylor is the general manager in active control of

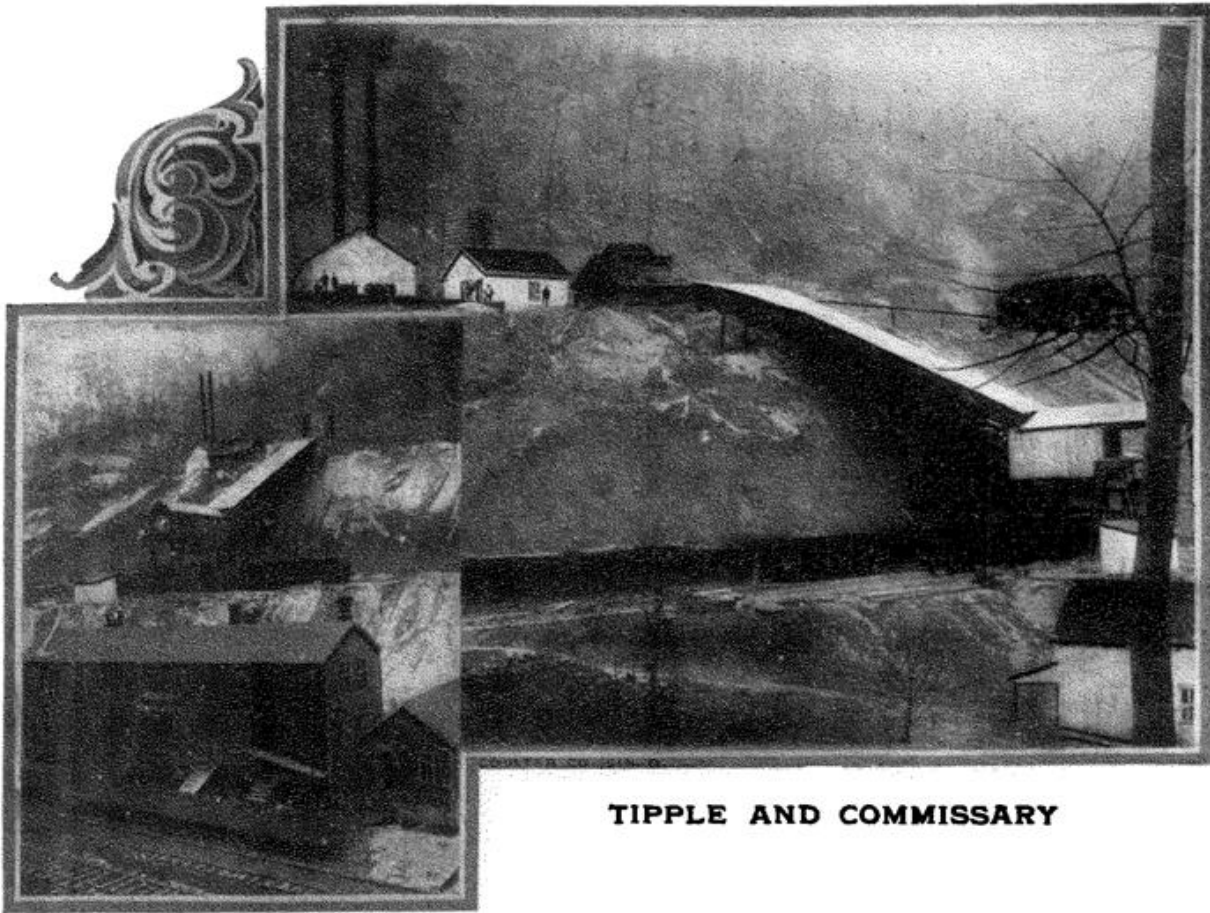
the property. Mr. Taylor is a native of England and by profession is a mining engineer. He came to this country in 1889 locating in the Jellico district, and has been prominently identified with the development of that territory until he came here. He has used good judgment in utilizing the natural advantages of their location until for rapidity and economy of getting their product from the mine to the railroad cars it is unsurpassed anywhere.

The mine office and commissary is located on the main line at the



FORK RIDGE TIPPLES

mouth of the creek, about one-half mile below the tipples. The general office of the company is at Middlesborough which is also their shipping point. The accompanying illustrations will convey an idea of their offices and shipping facilities.



TIPPLE AND COMMISSARY

RELIANCE COAL AND COKE COMPANY

HARTRANFT, TENNESSEE

This plant is located on the Bennetts Fork Branch Louisville and Nashville Railroad, adjoining the property of the Mingo mine. The company was originally organized in 1890, the first lease bearing date of May 1, 1890. A charter was obtained and company incorporated March 26, 1891. The incorporators were Job Whitehead, John Gent, J. B. Huff, Hunt Evans and Thomas Ingram. These parties after reducing their lease to 1250 acres sold out in July, 1891, to Phillip C. Swab and E. A. Sanner, who continued the business under same named charter. Three years later Mr. Swab purchased the holdings of Mr. Sanner and became the sole proprietor, operating the business under the same style as before, which he continued to do until his death, January 10, 1900, from natural causes—at his home at Hartranft, Tenn. On the death of the senior Mr. Swab the property passed to his descendants, and Mr. Walter Whiteman of Philadelphia, became President and Daniel Cooper Swab, son of P. C. Swab, became Vice-President and

Treasurer, actively in charge of the business, which has been continued along the same lines and under same name as before.

There are five seams of coal on the tract, three of which are thick enough to be profitably worked. They are working the lower of these seams, locally known as the Mingo vein, running from 48 to 66 inches, and it is a very high grade steam and gas coal and is also highly prized as a domestic coal on account of its heating and combustible qualities.

The conditions for the economical production of coal here is unsurpassed. The seam they are working is just high enough up to be easily accessible and permit of the use of laws of gravitation to the best advantage. They have recently made a new opening, which is known as entry No. 3, which is in a direct line with the tiple and gives them a straight outlet from the main entry. They are still working entry No. 1 which is the first opening made by the original promoters. Another feature that contributes to the economical working of the mine is its compactness. One tiple only is used and there all the coal mined is loaded and graded. Two 80 H. P. engine furnishes power for haulage running the fans and other purposes for which power is used.



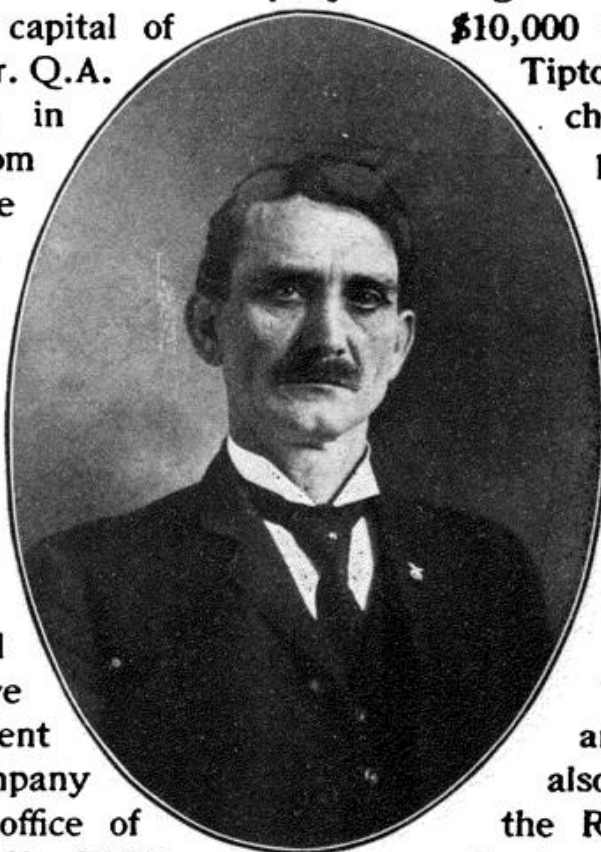
It is a fact worthy of note that a large per cent of their employees are DANIEL COOPER SWAB men who have been with the company for years, and some since the mine was opened. Mr. John Gent, the foreman, was one of the incorporators of the company, and has practically been in charge of the active work in the mine ever since. The business of the mine has been thoroughly systematized and there is neither waste nor confusion and loss of time. Daniel C. Swab has inherited from his father much of the executive business capacity which enabled the latter to put the property on a paying basis so shortly after it came under his control. He shows this in his early grasp of the business over which he assumed control on the death of his father. He was preparing himself for the bar, and only a few months before had graduated from the Pennsylvania College of Law, but taking up the reins where his father dropped them, he is successfully working out the ends which his sire had in view.

THE MIDDLESBOROUGH COAL COMPANY

MIDDLESBOROUGH, KENTUCKY

This is now practically the sales and accounting department of the Reliance Coal and Coke Company, though it was organized in 1895 with the view of making it a general coal exchange. For a while they did practically handle almost the entire output of the valley, but for good business reasons they decided to drop everything but the output of the Reliance mine. The company was organized and incorporated in 1895 with a capital of \$10,000 and it still remains

at that figure. Mr. Q.A. Tipton, who has been the active man in charge of the business of the company, came to this field in 1895 as the representative of the Reliance Coal and Coke Company in East Tennessee, with headquarters at Knoxville. He demonstrated a trade far better than any other brought to the field. When the Middlesborough Coal Company was organized, as above stated, he was made Vice-President and General Manager of the Company. Mr. Phillip Swab was the first President of the Company, holding the position until his death. Daniel C. Swab became his successor and still retains his position.

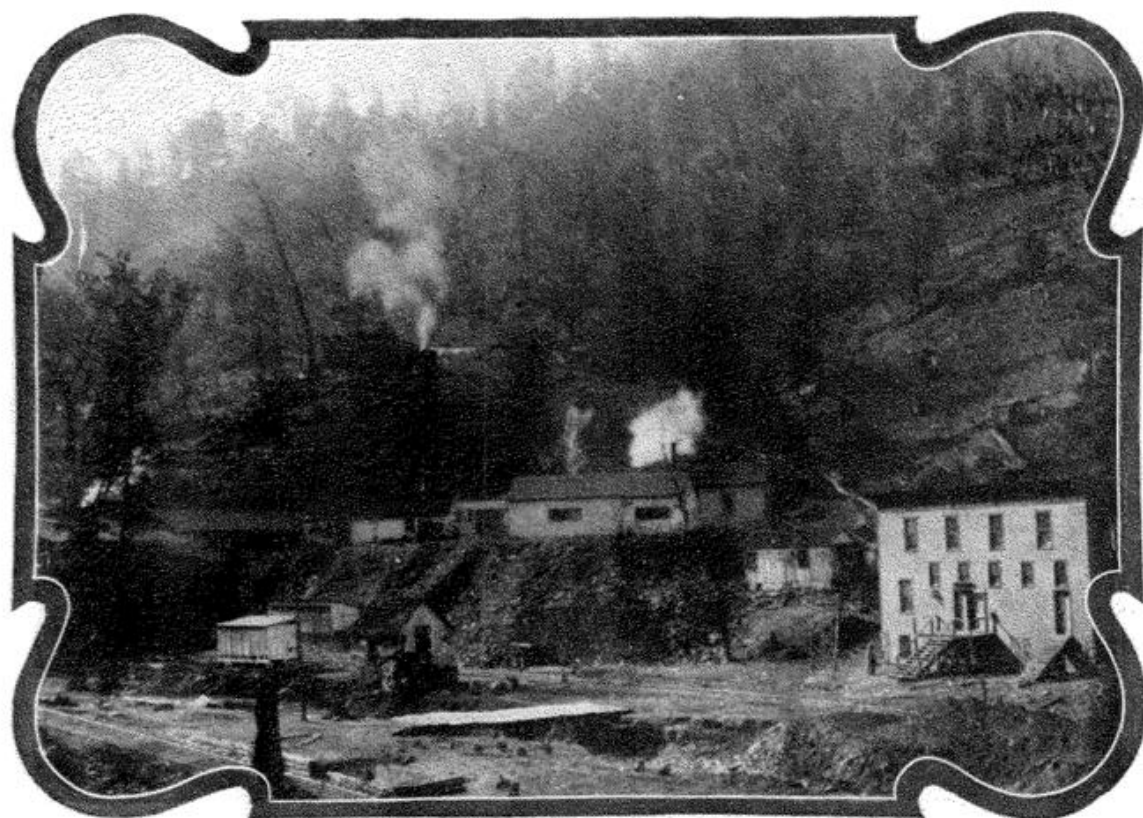


Q. A. TIPTON

There are now no outside interests connected with the Middlesborough Coal Company, D. C. Swab, G. W. Whiteman and Q. A. Tipton holding all the stock. The principal office is in Middlesborough, though both the Middlesborough office and the mine office of the Reliance Coal and Coke Company are joint offices and the business of both Companies is transacted in each as convenience may offer or suggest. Mr. Tipton puts in much of his time at the mine, his long connection with the Company making him familiar with every department

of the business. The mine now has a **capacity** of about 800 tons per day, but they are limited by the car supply to an average of about 600 which is now and long has been sold ahead of its production. This favorable condition of their business was largely the result of Mr. Tipton's perseverance and close personal attention to the outside business of the Company.

Mr. Tipton resides in Middlesborough, and has the confidence and respect of the business and social community. Mr. D. C. Swab resides at the mines and Mr. Whiteman is a Philadelphian.



BRYSON MOUNTAIN COAL AND COKE COMPANY

HARTRANFT, TENNESSEE

This is one of the pioneer mines of the Middlesborough District. Development begun on the property early in 1890 by the present Company. The high grade of their coal and the very favorable conditions surrounding—for economical mining operations, made their mine a conspicuous figure in this field in a short time. For all purposes their product ranks among the very highest in the Southern Appalachian Coal Field. There are four workable seams of coal underlying their lease, but so far only one has been worked. There are four openings and all

are above drainage. The mines are dry, and the elevation of the seam they are working is almost exactly on a level with their tibble, giving them a straight, easy haul from interior of the mines to the railroad track.

When Mr. J. H. Keeney took charge of the mine in 1900 as General Manager the output was about 250 tons daily, and the mine was not in the best physical condition. Following his suggestions, the mine was put in first-class order, both interior and exterior. The hauling system was changed from the mule to the electric motor, a first-class rotary elevator and screen was installed. The mines were thoroughly ventilated and made perfectly healthful from a hygienic standpoint, new cottages were constructed and additional openings made. Under these more favorable auspices the daily output began to increase and the property became correspondingly more prosperous. Their capacity is now about 800 tons daily, and Mr. Keeney keeps their product sold a little ahead of their output.

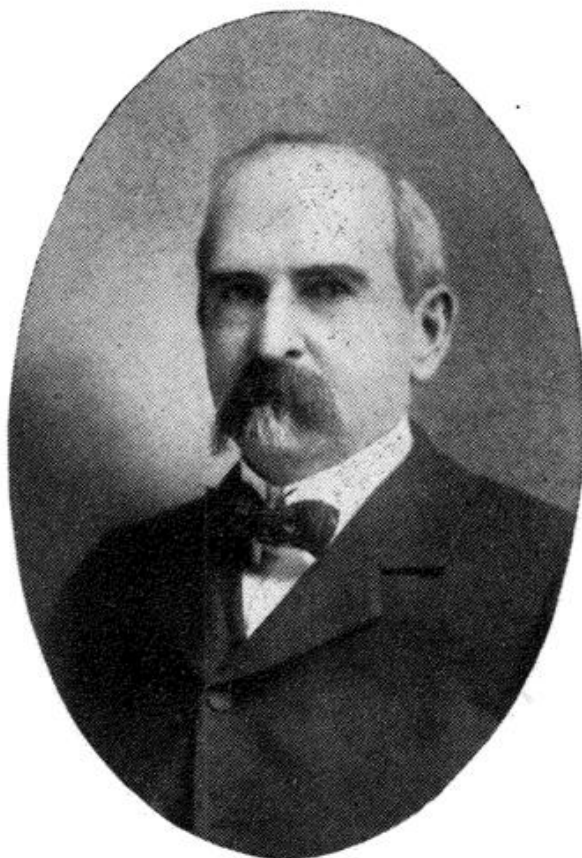
Mr. T. Cockill is the President, and holds the controlling interest in the property. He was one of the charter members of the organization and gradually increased his holdings until he at present owns practically all of the stock. He resides in Pennsylvania and seldom visits the mine.

Mr. Keeney first came with the company as general agent in 1895 looking after the sales department. Succeeding in this he was placed in the more responsible position of General Manager in full control of the business.

He came to Middlesborough in the boom days and is contemporaneous with Messrs. John Ralston, C. M. Woodbury, J. H. Bartlett, and others who were in at the opening, and who kept their hands on the plow handles and did not falter or turn back when reverses came. After the storm had passed they were leaders in gathering together the scattered remnants of broken business fabrics and took an honorable and active part in laying the solid foundation on which the present undoubted prosperity of this section now stands.

The fine showing the property has made under Mr. Keeney's control is the best evidence of his fitness for the position he holds.

The accompanying illustration shows the office and commissary and a bird's-eye view of the property, but fails to cover many of their important improvements. The company controls 400 acres and there are some 900 acres of coal underlying the acreage they control. The mines are at Bryson Mountain, seven miles southwest of Middlesborough. The general office is at the mines; postoffice address is Hartranft, Claiborne county, Tennessee; telegraph office and shipping point, Middlesborough, Kentucky.



W. F. NICHOLSON

NICHOLSON COAL COMPANY

MIDDLESBOROUGH, KENTUCKY

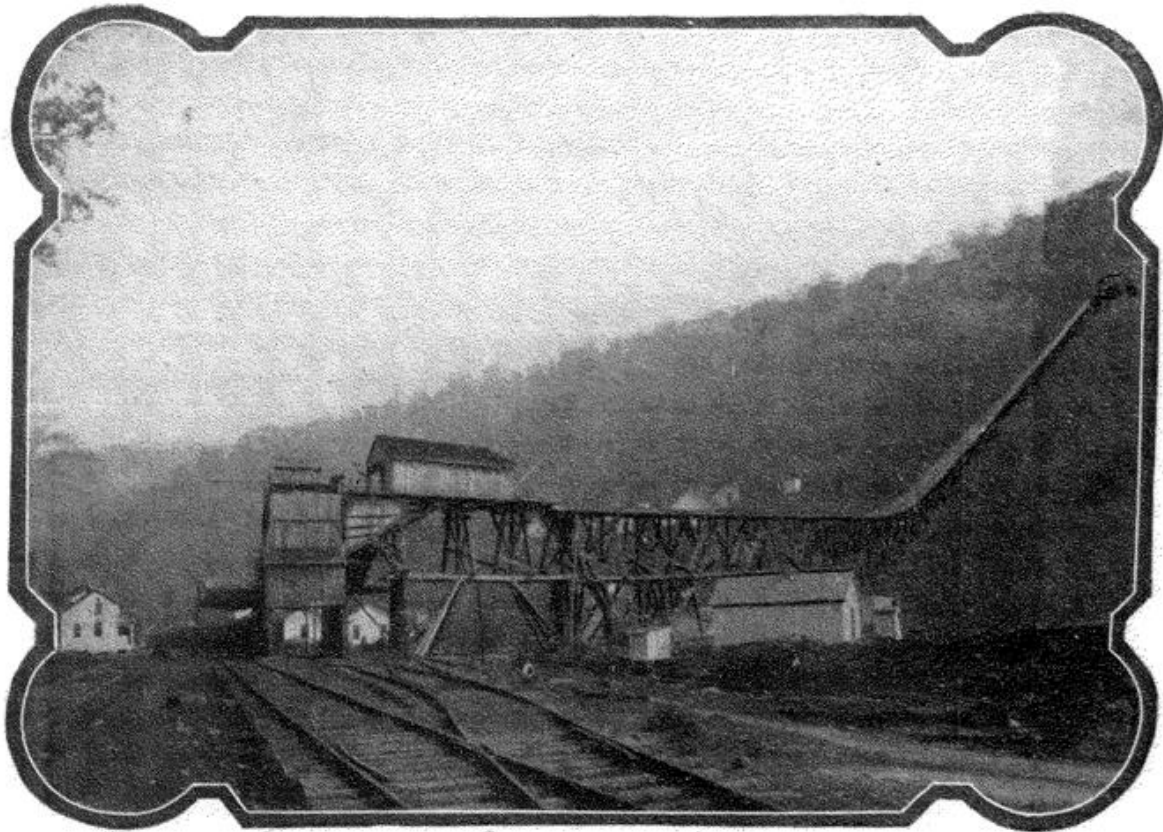
Mr. Nicholson is a native of Virginia and has spent the mature years of his life in the vocations of banking, and mining coal. His first operations in the coal business was in the Flat Top Coal Fields at Thacker, West Virginia. He first came to Middlesborough in 1900, and for a short period was connected with the Excelsior Coal Mining Company. In the spring of 1902 he organized the Nicholson Coal Company, and secured an acreage on Bennetts Fork which they at once began to develop. Their first efforts met with a disaster which no human mind could foresee. Just as they were about ready to begin shipping their output, the memorable flood of February 1903, swept down the valley carrying everything before it. The Nicholson Company in connection with others, lost practically everything, tipples, tracks, out-building, etc., their loss aggregating \$10,000. While this was a discouraging blow it in no wise abated the confidence of the Company in the earning capacity of their property. They immediately set about to repair the damages and in a short time began to market their products.

At the present time their output averages about 500 tons daily, which is being gradually increased right along.

Mr. Nicholson has a three year contract with the Southern road to take 15,000 tons of coal per month. Their output is a high grade of steam and domestic coal that finds a ready sale in competition with the best on the market.

When the Citizens State Bank was organized in October 1903, Mr. Nicholson was chosen president. He is a practical banker, safe and conservative, and keeps in close touch with the workings of the institution. The state bank examiner, after examining their books a short time ago, remarked "that this bank made the best showing for the length of time in business of any bank he ever examined."

Mr. Nicholson does not belong to the meteoric class of business men who go up like a rocket and are liable to come down like a stick. On the contrary he is methodical, conservative and safe; painstaking and careful in all he undertakes and an indefatigable worker. He is a man of sterling character, straightforward and upright in all his dealings and does not speculate in outside ventures, but devotes his time strictly to his legitimate business. He is succeeding here because he has deserved success.



TRACKS AND TIPPLE

CITIZENS STATE BANK

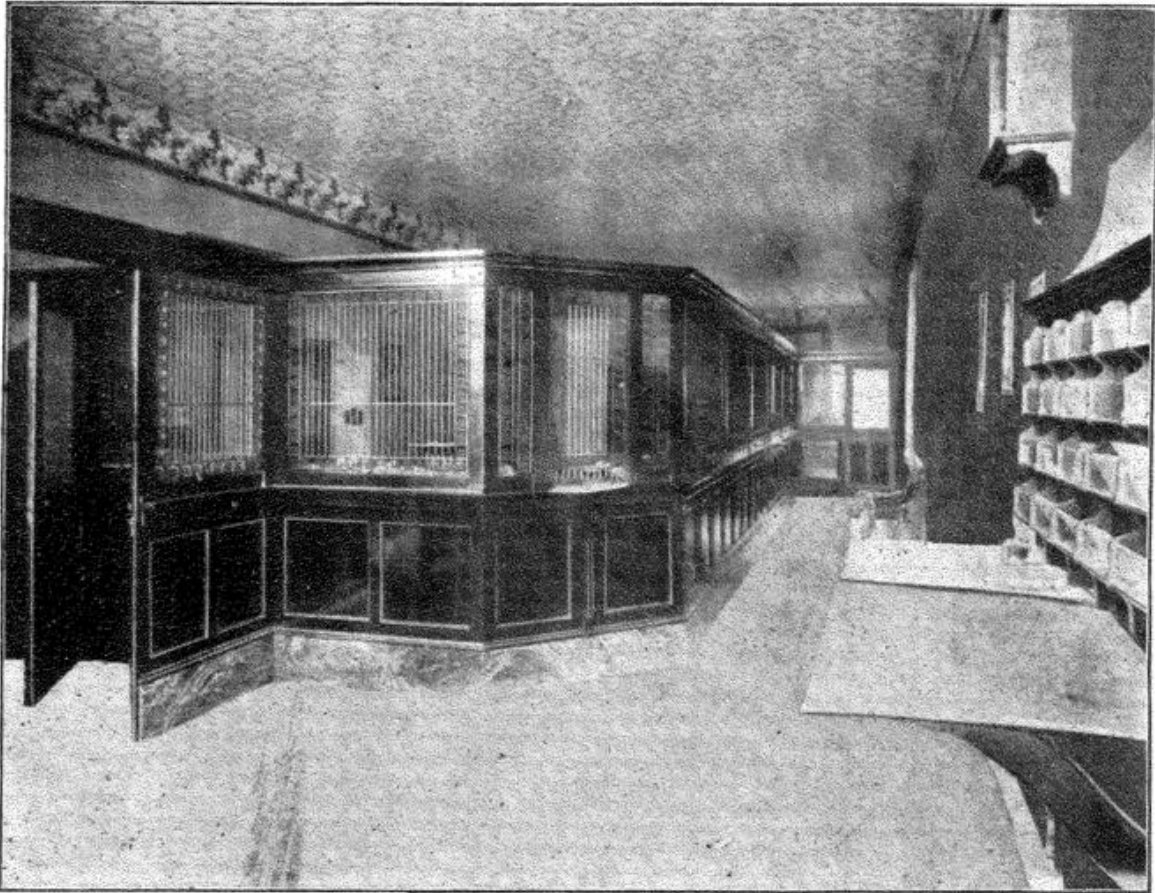
MIDDLESBOROUGH, KENTUCKY

Capital stock paid up	-	-	-	\$25,000.00
Surplus January 1, 1905	-	-	-	1,268.00
Deposits	-	-	-	77,914.25

BOARD OF DIRECTORS.

W. F. NICHOLSON,
J. L. MANRING,

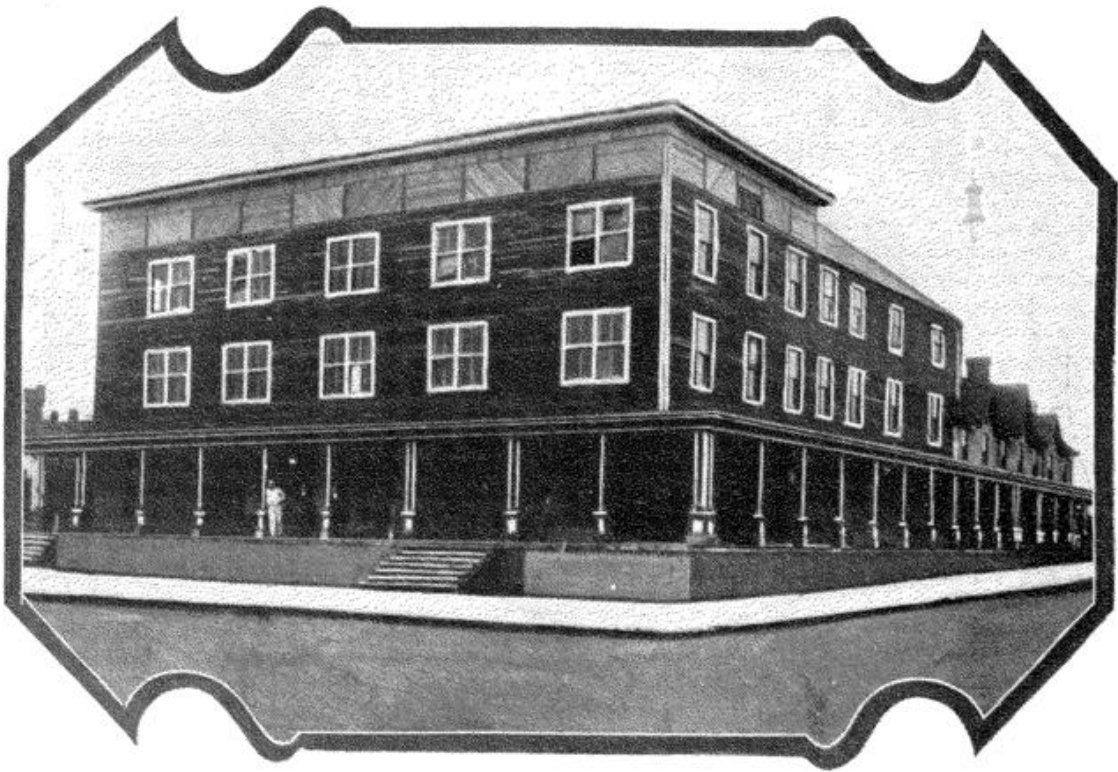
B. H. PERKINS,
A. I. MILLER.



ORGANIZED IN 1903

Does a general banking business, issues drafts and letters of credit available in any part of the United States or foreign countries. Accounts solicited; interest paid on time deposits.

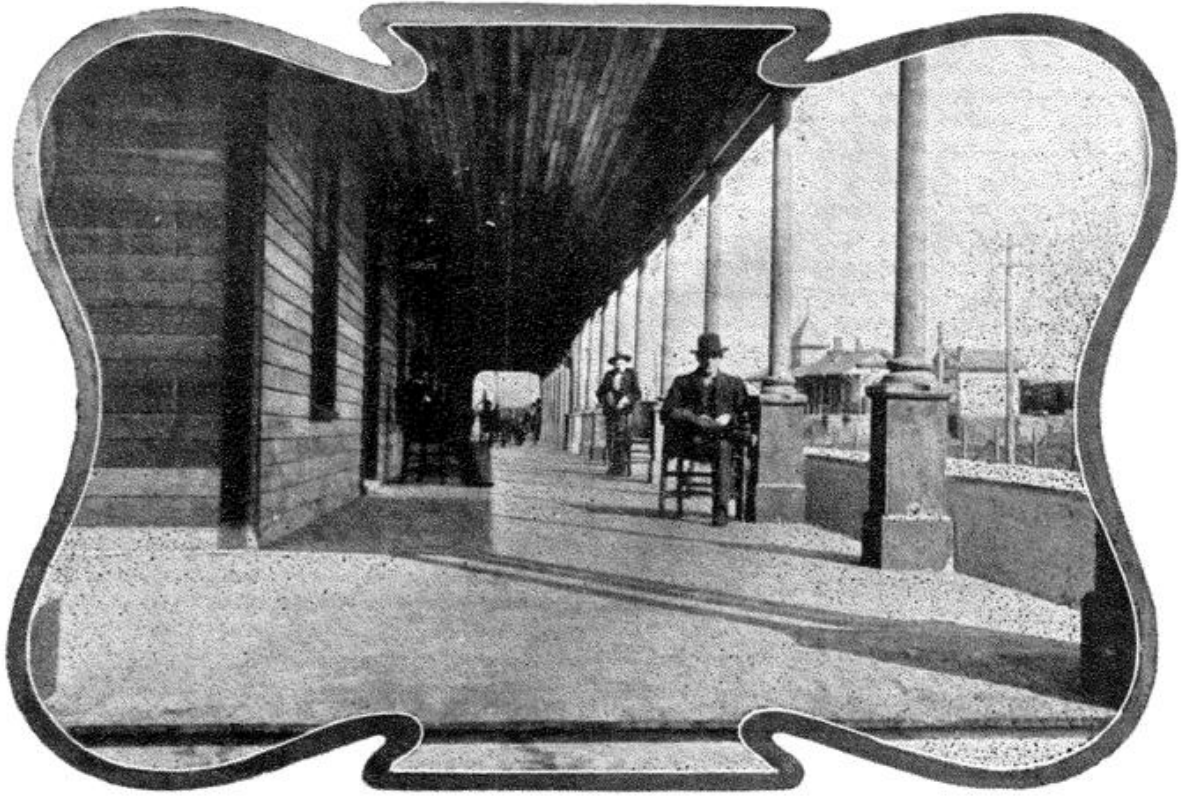
The strength of a bank lies more in conservative management than it does in the amount of its capital stock. This bank confines itself to a strictly legitimate banking business and will not take speculative risks for the sake of earning a possible large return. The officers of the bank are well-known and have the fullest confidence of the people as their large deposit accounts evinces.



THE NEW CUMBERLAND HOTEL

F. D. HART, JR., PROPRIETOR

This hostelry is not only new in name, but it is new in fact. The house now has fifty rooms, steam heated and electrically lighted, with every modern convenience for the comfort of guests of the house. The old part of twenty rooms has been almost entirely remodeled and there is but little about the new Cumberland to remind one of the old house that was a landmark of the early days. The new Cumberland has a frontage of 190 feet on Eighteenth street and 90 feet on Cumberland avenue, and is surrounded by 300 feet of broad verandas. The main office is located in the corner of the building facing both Cumberland avenue and Eighteenth street. It is large, about forty feet square, and everything about the rooms is suggestive of comfort and rest. A large open fire-place, with its ruddy glow, adds a look of cheerfulness to the room that finds no compensation in anything else that may be substituted in its place. A half dozen steam radiators in the room serves to keep its temperature at the proper point in cold and severe weather. The main stairway leads to the second floor from the office, and a wide hallway connects with every room in the house. Another advantage



SUN BATH AND PROMENADE

that guests will appreciate, is that every room in the house is an outside room. They all face either on the street or a grassy lawn. Rooms may be had single or en suite, with or without bath. Bath and toilet rooms are located on every floor. Every room is steam heated and electrically lighted, and is furnished with hot and cold running water. Each room is also supplied with a long distance telephone connected with a switchboard in the office and the Central Telephone Exchange.

There are three wide stairways leading from the lower halls to the floors above, making every room in the house easy of access. The rooms are all comfortably, and some of them, elegantly furnished. Every nook and corner of the house has a cozy, home-like inviting appearance, and, above all, it is well kept.

In the new hotel Cumberland, both the house and the management will meet with the approval of good livers. Order and cleanliness are the imperative rules of the house, and these rules obtains from the kitchen to the garret. In the culinary department the aim of the management is not to see how great a variety of indifferent stuff they can spread on the table, but rather to set a sufficiency and to have that the best obtainable, properly prepared and palatable.

Mr. Hart, the proprietor, has had several years experience in the business and besides has a natural affinity for the vocation. He is courteous and affable, gives close attention to the business, and personally looks after the comfort and convenience of the guests of the house. In this he has an able lieutenant is his wife. The magic touch of a skillful housekeeper is plainly apparent in the daily arrangement of the house. Rates \$2.00 to \$3.00 per day; meals 50 cents. Large sample rooms for commercial travelers.

The location of the house is in the center of the business district. on the principal thoroughfare, and within a short distance of the union depot, Louisville & Nashville railroad and Southern railway. It is an ideal location for transient and commercial guests.

The writer is under obligations to Mr. Hart for a number of scenic views shown herein. He has a good camera and knows how to use it. He has reproduced views of most of the points of interest hereabouts.

PRICE LIVERY COMPANY

MIDDLESBOROUGH, KENTUCKY

The largest, best equipped and best managed livery and sale stable in all the mountain country. Rigs for all roads and every occasion. A specialty is made of the handling of fine horses for private use.





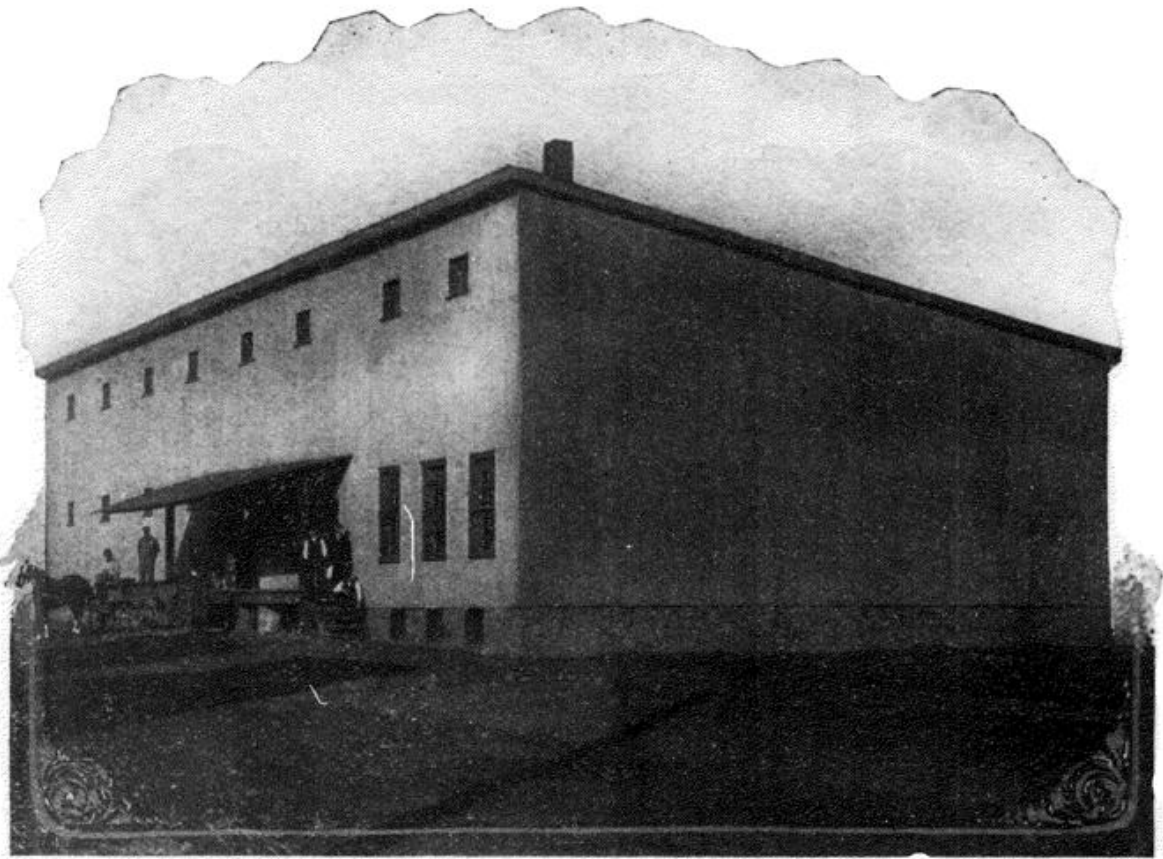
M. O. WINFREY

SUPERINTENDENT MIDDLESBOROUGH CITY SCHOOLS

The pride of every city should be in the opportunities it offers for the education and training of its future citizens.

Under the supervision of Supt. Winfrey since 1902, the city schools of Middlesborough have enjoyed the greatest prosperity in their history. Order, system, discipline, efficiency and an enormous increase in attendance are the characteristic features of his administration. He and his corps of able and earnest teachers have worked faithfully and unceasingly for a better citizenship, based on intelligence and a proper respect for law. With a new \$30,000 school building which should be erected without delay, the "Magic City" will begin to take on a new life.

Prof. Winfrey is a member of the Kentucky State Board of Examiners and is president of the Kentucky Educational Association.



THE DABNEY-OULD COMPANY

MIDDLESBOROUGH, KENTUCKY

This company is an incorporation and began business here early in October, 1903. E. H. Ould, the president of the company, is a resident of Norton, Virginia, and head of the Norton Hardware Co., wholesale hardware dealers of that city. George R. Dabney, the secretary and treasurer and active manager of the business, is a resident of Middlesborough.

Though the firm is among the youngest in the city, the managers are all old in experience and classed with the solid, conservative and successful business men of this section of the union.

Mr. Dabney has been buying or selling merchandise in a wholesale way most of the mature years of his life, and is recognized as being a very close and conservative buyer. In 1903 he organized the Dabney-Ould Co. and began business here in October the same year. The incorporators were E. H. Ould, George R. Dabney and E. W. Morriss.

The house handles everything in the way of staple and fancy groceries, druggists' sundries, provisions, hay, grain, feed and flour. They also handle the leading articles in staple hardware and stoneware;

they also carry a full stock of small notions such as most groceries and variety stores handle, comprising paper, envelopes, etc.

The house has a very advantageous location for the economical handling of business. The office and salesrooms are at the intersection of Nineteenth street and Louisville & Nashville yard with a small switch in the rear of their building from which goods are loaded and unloaded into their wareroom direct from and into the cars. The building is frame, two stories and basement 60x120 feet. In the single year they have been in business here they have made very substantial progress, and the volume of their business now is a flattering prognosis of what it will be in the future.

Middlesborough is the natural distributing point for the coal fields in this district, and there is no reason to doubt but that this house, under its present enterprising and progressive management, will fill this field and build up a large and prosperous business.

They are represented on the road by E. W. Morriss, C. H. Willoughby and Mr. Knuckles.

In financial circles, the house stands high. They are affable and courteous in the treatment of their patrons and as liberal as is consistent with safe business principles.

PINEVILLE HIGH SCHOOL



A MOUNTAIN SCHOOL



"THE OLD SWIMMING HOLE"

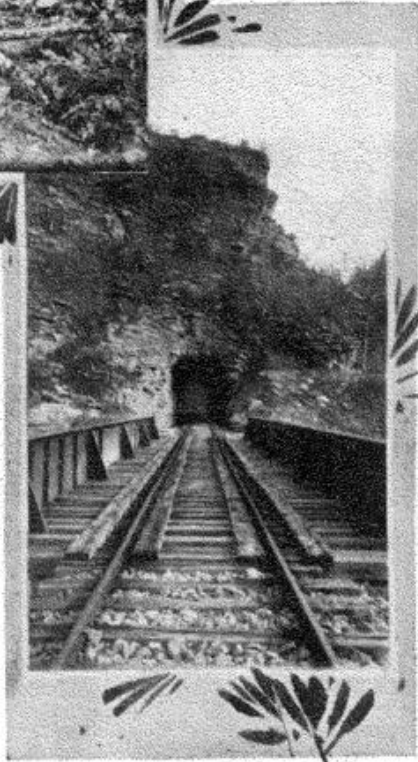


MIDDLESBOROUGH

HIGH SCHOOL



Norton, Va., with the Clinch Valley division of the Norfolk and Western. The management of the railroad company estimated the resources of the country through which their line passes, at their full value and in building the road and providing equipment, prepared for the heavy traffic that was sure to follow with returning confidence on the part of capital.



TUNNEL ON THE CHENOA BRANCH

Few lines in the country of the age of the Cumberland division of the L. & N. road, can show a road in such fine physical condition as is this roadway and its equipment. The line is laid with heavy steel rail and the roadway is stone ballasted from Corbin to Norton and is as neat and well kept in appearance as banner division of a through trunk line. Steel bridges have replaced the earlier wooden structures and while as yet the road is mostly single track, the numerous long sidings permits of the rapid handling of trains. Though the development of the immense resources of the territory traversed by this division has been rapid during the past few years, the company have kept pace with the demands made upon them adding each year largely to

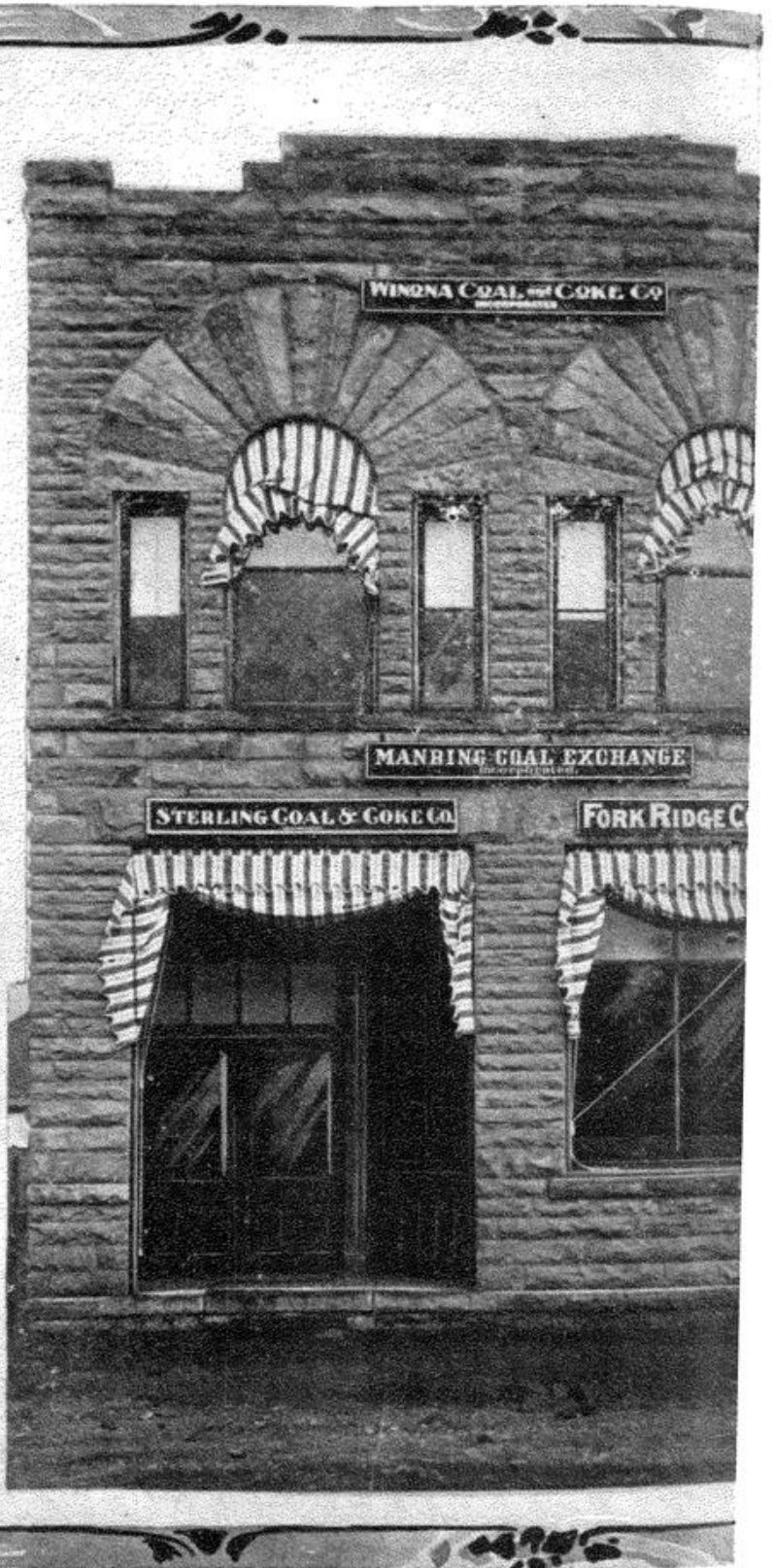
their equipment of motive power and rolling stock.

The territory that feeds this line has now entirely recovered from the blighting effects of the early boom and is increasing in wealth and population at an enormous stride, and the social advantages are keeping pace with its growth and prosperity.

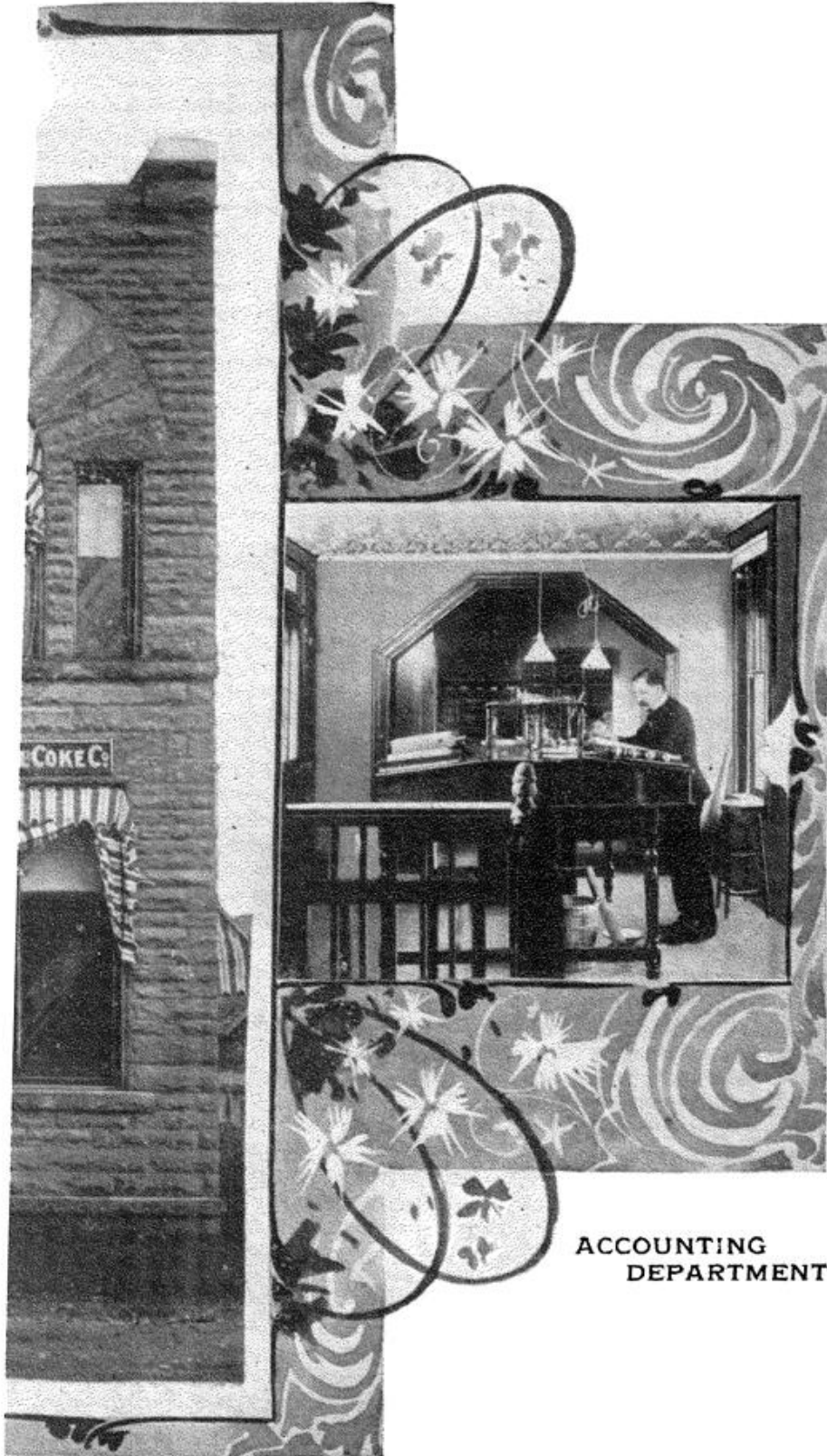




J. L. MANRING
PRIVATE OFFICE



GENERAL OFFICES MANRING C
MIDDLESBOROUGH KENTL



ACCOUNTING
DEPARTMENT

AL EXCHANGE
KY



LOUISVILLE & NASHVILLE RAILROAD

The development of the Cumberland Valley began with the advent of the Louisville and Nashville R. R. into this section. All railroads are evolutionary in their growth. Perfection is not and cannot be obtained in a day or a year. To build up such a system as the L. & N. R. R. requires a vast expenditure of capital and years of hard conscientious work. This is particularly true of lines constructed through a rough and mountainous country such as is traversed the entire distance of the Cumberland division.

Under the stress of an extraordinary boom, great sums of money were spent in uncovering the mineral wealth of the Middlesborough district before there was any reliable market for the products or the railroad company were prepared to offer the best conditions to shippers. The natural order of things was reversed, the cart was before the horse and as a consequence there was delay and disappointment and eventually a collapse that swept millions of dollars unwisely invested into the vortex of ruin and loss. While there was dismay and loss of confidence on the part of outside investors, the L. & N. R. Co. neither lost their courage or faith in the future of this section. They went right on putting their line through to its eastern destination, and in 1890 completed the line through to Cumberland Gap and later formed a connection at

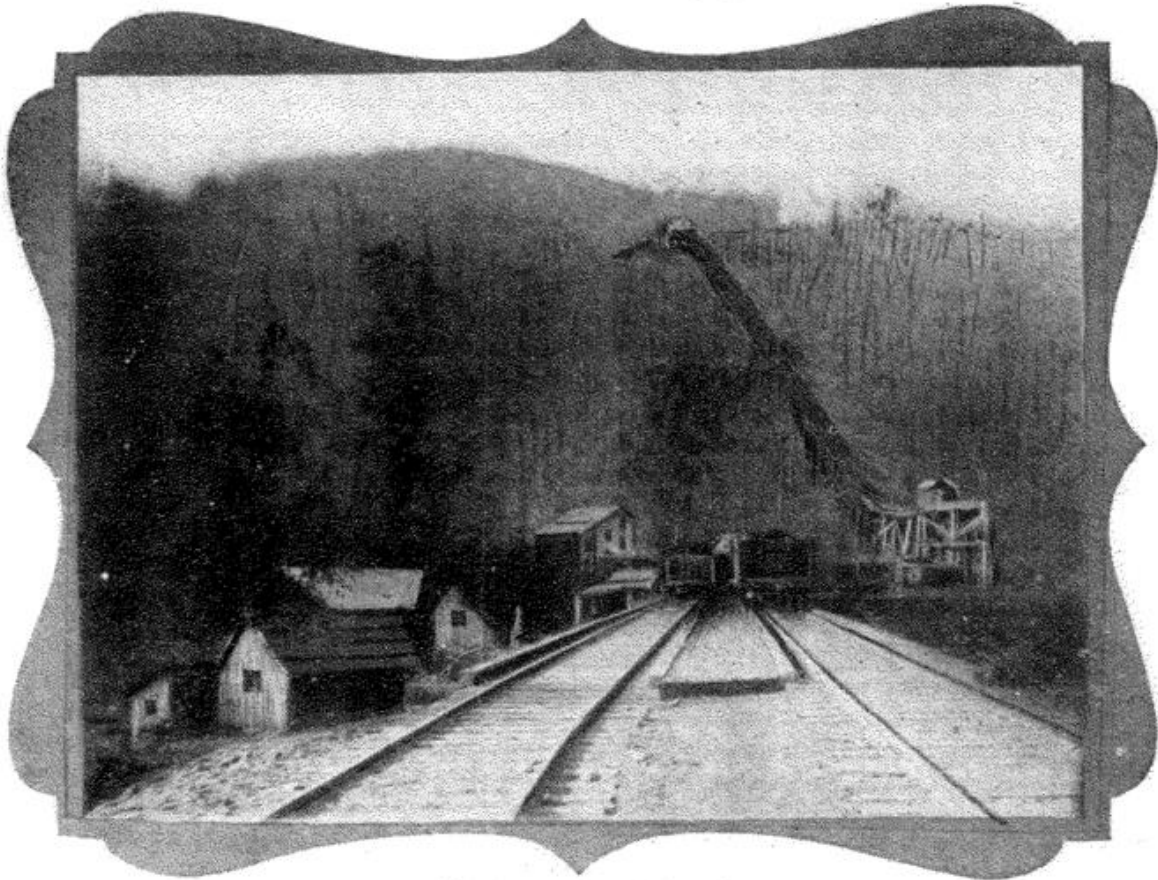


J. L. Manning
MANRING COAL EXCHANGE
MIDDLESBOROUGH, KENTUCKY

If the old adage that "Merit will win" needs any further exemplification it has a splendid example in our subject, Mr. J. L. Manning. He arose to his present commanding position by his own individual efforts. There was no combination of fortuitous circumstances or powerful influence to push him along—his only backing was his indomitable perseverance and acute business accumen.

A native of Ohio, he came to Middlesborough in 1895 as bookkeeper for the Middlesborough Coal Company, who at that time were handling the output of the "valley" except Mingo. His position and ability to "see things", soon gave him a close insight into the business. Possessing in an eminent degree the rather rare business tact of recognizing an opportunity when it arose, he did not long remain stationary in the Middlesborough office. He went from bookkeeper to traveling and general agent to which he held until 1899, when he resigned to accept the position of vice-president and general manager of

the Fork Ridge Coal and Coke Company. Mr. Pruden was chosen president at the same time. At that time the Fork Ridge was the baby mine of the valley, with the smallest output of the group. A few years later the positions were reversed and the Fork Ridge was in the lead. The infusion of new capital and good management were the contributing causes of this change. In December, 1903, the Sterling Coal and Coke Company was organized. Mr. Manring was the leading spirit in the enterprise and was made its first president. This company has the second largest acreage of any mine in this district, and under its present management is sure to become a heavy producer.



STERLING PLANT

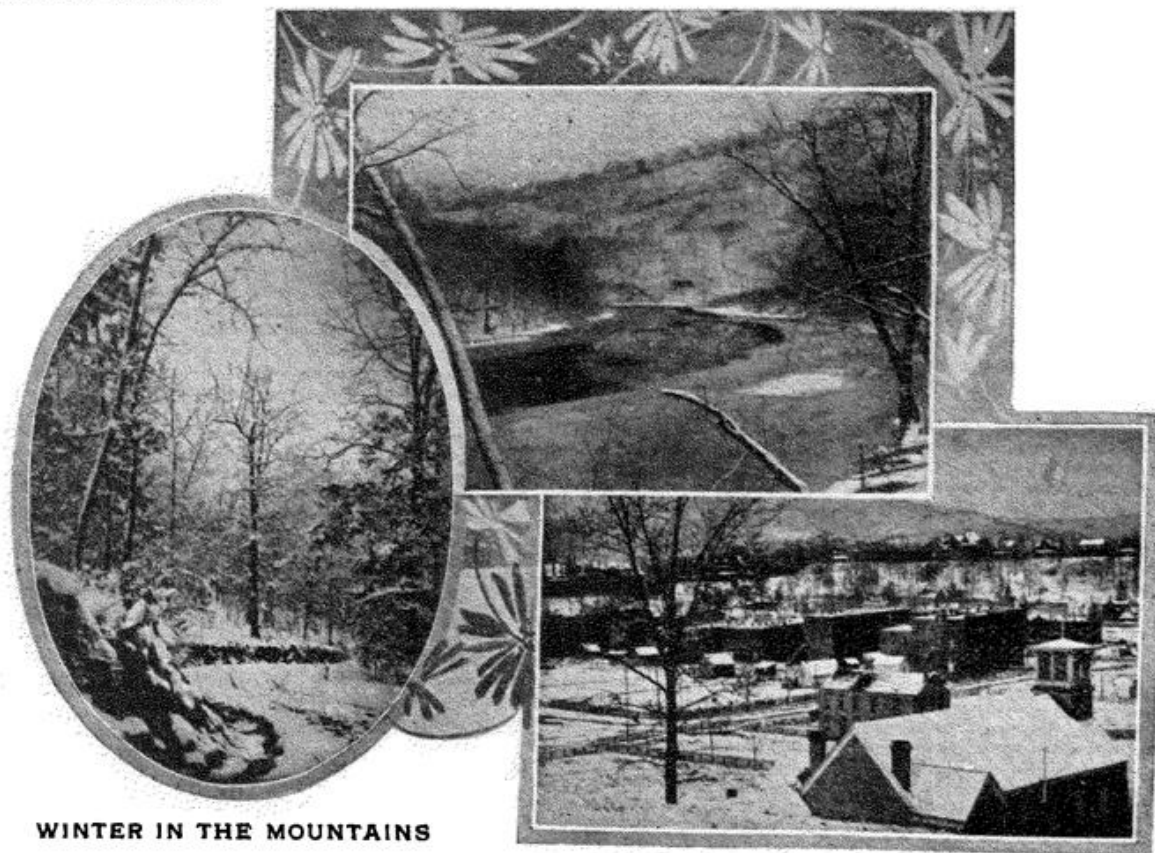
Early in the present year the Manring Coal Exchange was organized and began business with J. L. Manring as president and F. E. Hess secretary and treasurer. The Exchange jumped into a paying business from its inception and are now the largest shippers of this district. They are handling the products of all the mines in this section not previously contracted for.

In March of last year Mr. Manring and associates purchased the property of the Bennetts Fork Coal and Coke Company, but organ-

ized an entirely new corporation under the style of Winona Coal and Coke Company. Mr. Manring was chosen president of the company. January first of the present year the Queensbury Coal and Coke Co. was organized, Mr. Manring taking the position of the chief executive officer.

The offices of the Manring Coal Exchange, the Queensbury Coal and Coke Company, the Sterling Coal and Coke Company and the Winona Coal and Coke Company are all in the two-story stone front building on Twentieth street, erected for the Watts Steel and Iron Syndicate. The improvements put on the building make it one of the finest office buildings, both interior and exterior in this end of the State. Practically all the coal mined by the various mines with which Mr. Manring is connected is a high grade steam and gas coal and the demand for it from large consumers is and will likely continue to be far beyond their capacity to produce.

Mr. Manring is yet a young man with his best years before him. Judging the future from the past, he is destined to become one of the most valuable assets of this coal field as a business getter. He belongs to the class of men who do things. He has the courage of his convictions, and when he sees an opportunity grasps it before its fleeting wings carry it beyond his reach. He is also vice-president of the Citizens State Bank and stands high in financial and business and social circles.



WINTER IN THE MOUNTAINS



A. M. CHAMBERLAIN

THE SAGAMORE COAL COMPANY

LOGMONT, KENTUCKY

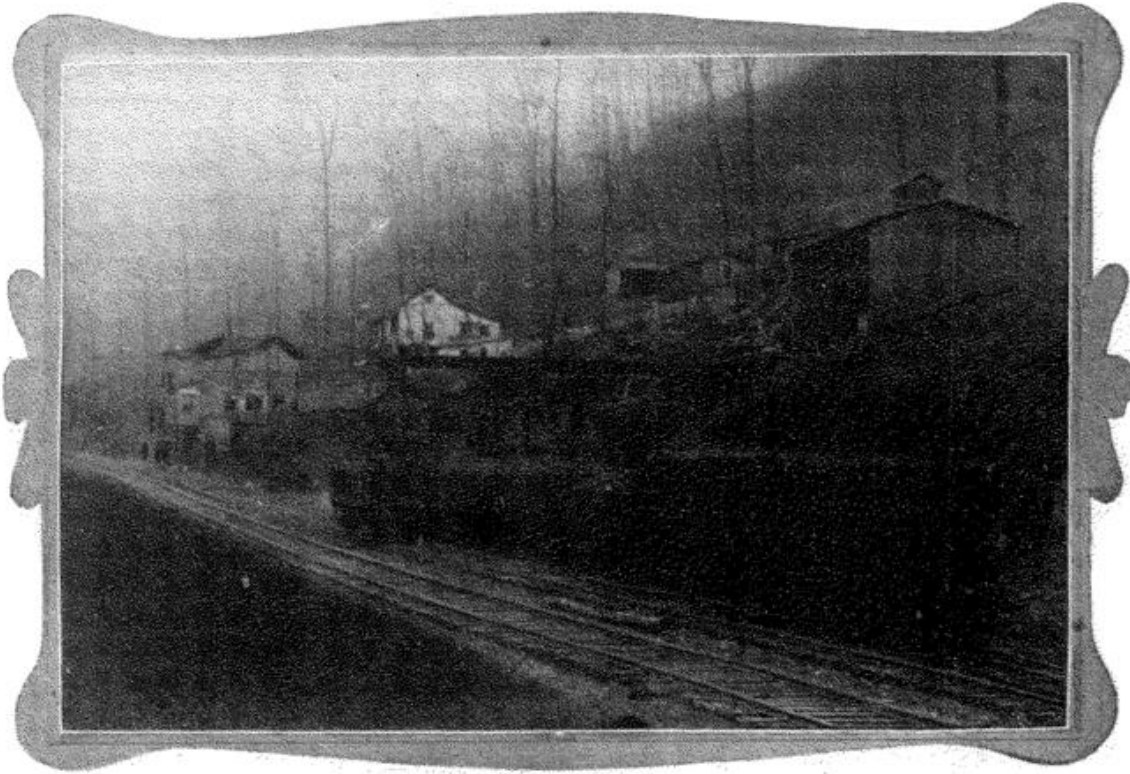
This company was incorporated and development of the property began in 1892. The officers are M. J. Saunders, president; Burke H. Keeney, vice-president; James L. Larmour, secretary; A. M. Chamberlain, treasurer and general manager. Mr. Chamberlain, who owns a controlling interest in the mine, is the active spirit in the enterprise. He is a practical mining engineer, located the railway and laid out the mines. The company has 500 acres in the Stony Fork field on which there are three seams running from 42 to 60 inches of pure coal. They started in the lower or Poplar Lick seam and have developed to the present time to a capacity of 350 tons per day. The first opening is just 26 feet above the rails facing directly on the back which gives them a straight, short haul. The opening in the next vein is just above the first entry 115 feet higher up the mountain. With these two entries with their favorable location they can increase their capacity at will.

Mr. Chamberlain has shown great skill and excellent judgment in

developing the property. The tipple is located exactly in the center of their lease and they can exhaust the three seams with an average hauling distance of less than 3,000 feet.

There are 1,200 acres of solid coal in the lease which contains an aggregate of 5,000,000 tons. If they take out 1,000 tons per day for every working day in the year it will take them twenty-five years to exhaust the coal supply under their land.

The road was completed to the mine in 1903 and they began to make shipments about January 1, 1904. So far they have expended



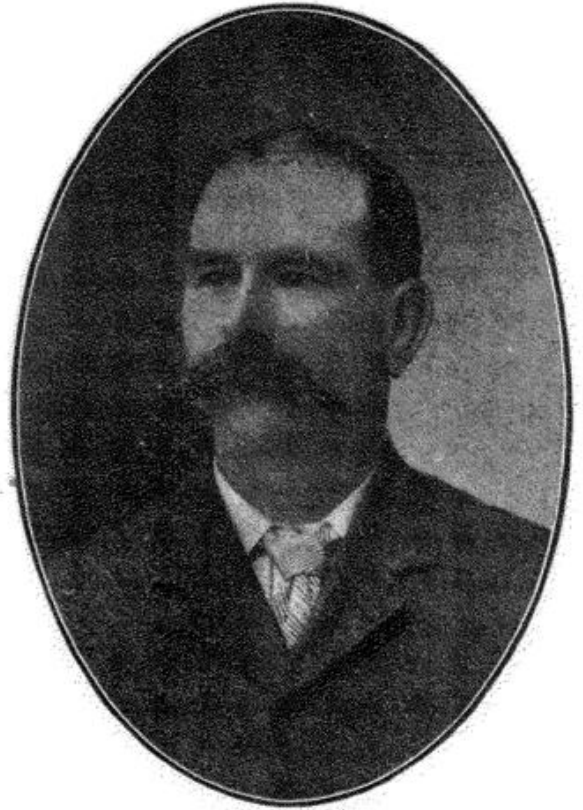
SAGAMORE MINES

\$45,000 in developing the property. The equipment is up-to-date in every particular. The product of their mine is a high grade of domestic, steam, gas and coking coal and they were the first in this district to make a specialty of domestic coal. This was the pioneer mine of the Stony Fork field, but they were not long alone. There are now two others in operation and more to follow. The coal is of such a quality that where once put on the market it stays. Selling it is not one of their difficulties: getting it to the market is their only trouble. At present their output is handled through the Manring Coal Exchange at Middlesborough.

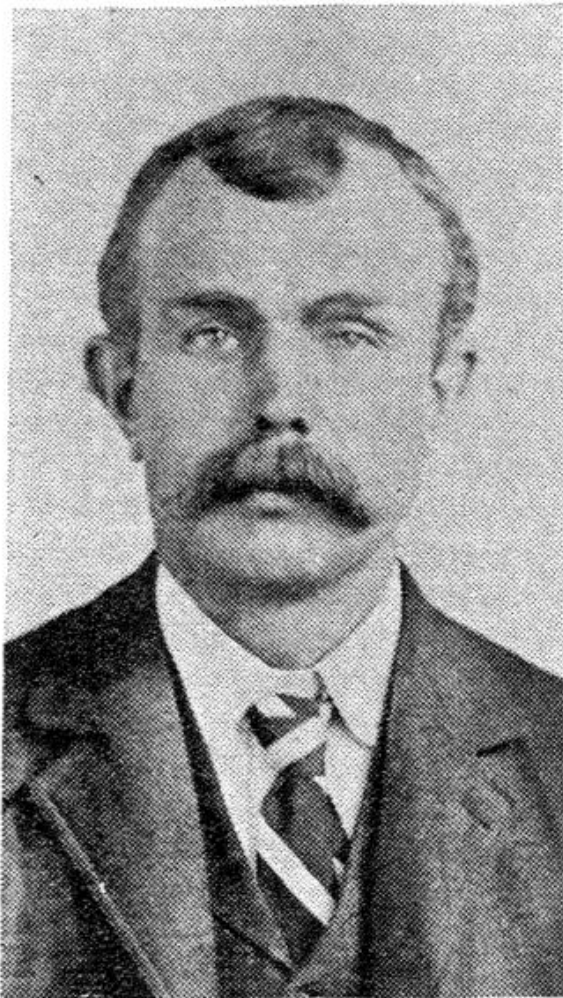
LUKE & DRUMMOND COAL CO.

LOGMONT, KENTUCKY

This is one of the three operations that are the pioneers of the Stony Fork field. The firm is an individual concern composed of Geo. Luke and Hugh Drummond. Both are practical miners and both began their career as mine laborers with no other capital than willing hands and persevering wills. This with the high degree of business acumen



HUGH DRUMMOND



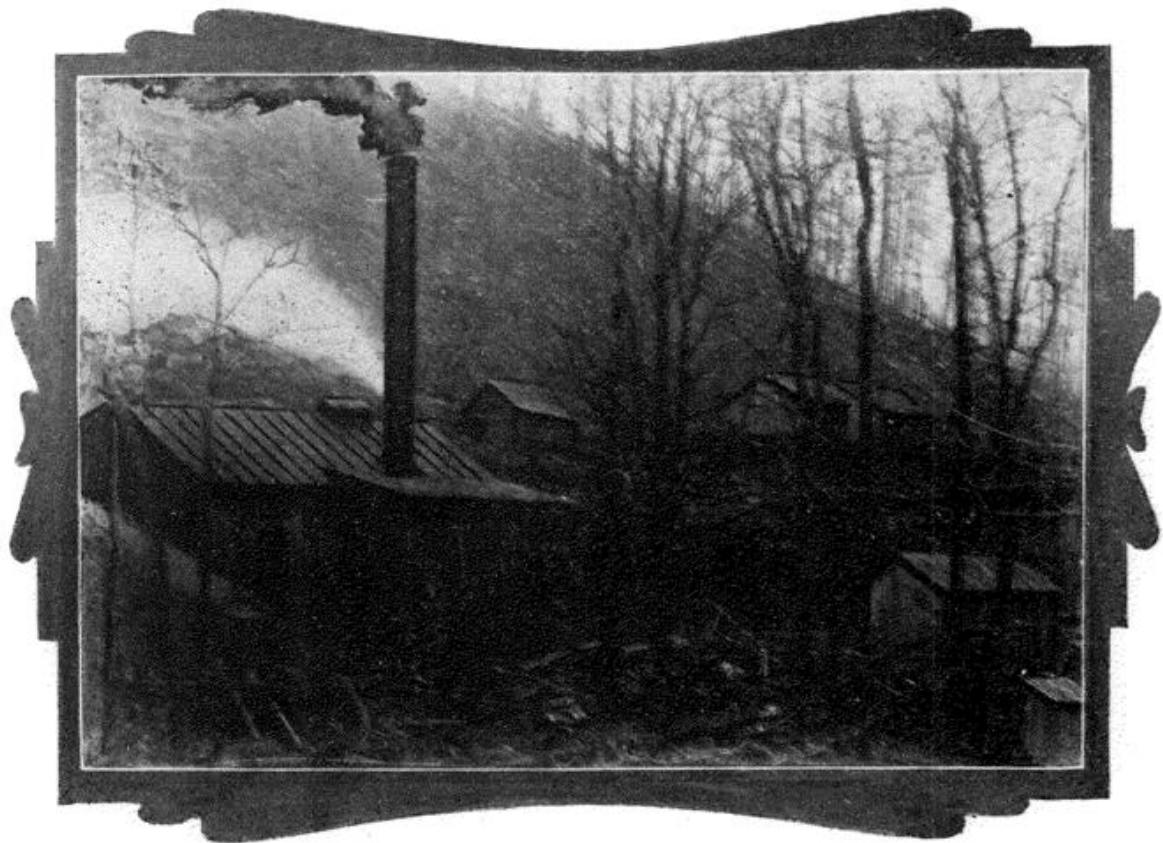
GEORGE LUKE

with which they are endowed by nature, was the corner-stone and foundation upon which they are building up a business that seems destined to place them high up on the roll of the many successful concerns that have made this district famous.

Their first connection with this coal field began with the Bennetts Fork Coal Company in 1896, remaining with that company until the latter part of 1903, and during that interval of seven years they had become the principal owners of the mine, and by their individual efforts put that property in a physical condition to attain the high position it has since achieved.

After disposing of their holdings in the Bennetts Fork mines, their knowledge of the intrinsic value of the different coal measures in this district and the surrounding conditions for economical production, led them to the Stony Fork field. They secured a lease of 400 acres and began its development. They have pushed the work with the energy characteristic of the men, and now have a strictly modern plant with a capacity of 150 tons per day, fully equipped for either machine or pick mining, but so far have confined themselves to machine work exclusively. From the mine to the stock tipple the haul is a very short one and natural gravity is the only power used for the purpose. They have a battery of two each 100-horse power boilers, which furnish all the power necessary for driving their cutting machines, ventilating appliances, saw mill and other purposes for which power is used. They are improving the property all the time and the coming summer will show marked changes in both the interior of the mines and on the outside.

They now have two openings and with the completion of work now in progress their capacity will be largely increased. A new commissary and additional cottages for their employees are among the other improvements contemplated. Their output is a high grade steam, gas and domestic coal and is marketed through the Manring Coal Exchange.





BURKE HILL KEENEY

Mr. Keeney is now the general manager of the Manning Coal Exchange and Winona Coal and Coke Company; secretary of the Excelsior Coal Company, and of the Sterling Coal and Coke Company, and vice-president of the Sagamore Coal Company and the Queensbury Coal and Coke Company, with an office in Manning Coal Exchange building. He is also a director in the Citizens State Bank of Middlesborough. Mr. Keeney is a native of Indiana and a graduate of the State University at Bloomington. He first came to this section in 1896 as principal of the public schools of Middlesborough, remaining in that connection for three years. He began his career in the coal business in 1899 with the Bryson Mountain Coal and Coke Company in charge of the Middlesborough office, managing the sales department. While in this position he developed a very marked capacity for business and demonstrated that he possessed executive and managerial ability of a high order. Later he was made secretary of the Excelsior Coal Mining Company of Middlesborough, looking after the outside business of

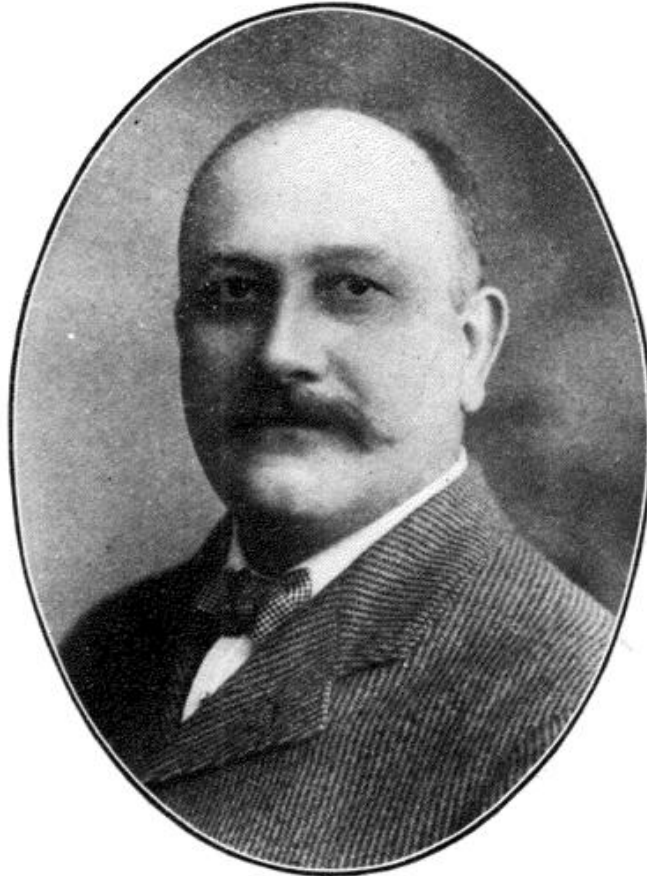
the company. The success he met with in these positions created a demand for his services and he was chosen to fill the other positions named, as the companies were organized or management changed.

September 1, 1904, he severed his connection with the Bryson Mountain Coal and Coke Company and shortly thereafter was made general manager of the Manring Coal Exchange, and all the great volume of that business passes through his hands.

Were all these various concerns scattered, with different offices, no one man could do the work involved which falls upon his shoulders, but as the Manring Coal Exchange handles the entire output of these mines, Mr. Keeney as sales manager for the Exchange fulfills, in that capacity, his duties to the various companies he represents. His numerous connections resolves itself into a matter of systematizing the business, and here he is perfectly at home. The Exchange now handles the entire product of seven mines with a daily capacity of about 2,000 tons. All of this is marketed by the Exchange, and as all the coal they handle is of a high grade, Mr. Keeney finds his greatest trouble does not come from lack of demand but from lack of supply. The steam and gas coal they market is so well adopted for the purpose that their orders are always ahead of their ability to fill them. All the mines with which Mr. Keeney is connected are being rapidly developed and their output will be largely increased in the near future. The management of the Exchange is in able hands as is demonstrated by the unparaleled growth of their business during the past year. They are now the largest shippers from the Middlesborough district, and judging from the character of the men who control its affairs, their experience, business accumen and progressive business methods, it is not placing it too strong to say that the Manring Coal Exchange is predestined to cut a very important figure in the future of the southern coal fields.

Mr. Keeney is yet a young man on the sunny side of thirty years. He is of correct habits, an indefatigable worker, and appreciates the value of time, and possessing a clear, active and logical mind, is thus enabled to despatch business rapidly and with ease. Business, and not pleasure, is his ambition; in fact, he has the happy combination that wins in business pursuits, an old head on young shoulders.





WILLIAM WALLBRECHT

THE NEW SOUTH BREWERY AND ICE COMPANY

MIDDLESBOROUGH, KENTUCKY

Nothing succeeds like success. This company began business here in 1893 without a dollars worth of trade, but did have an honest intention to take full advantage of the extraordinary natural facilities at their command to make the healthiest, purest and best beverages that could be brewed from the best materials with the latest modern appliances. How well they have succeeded is best evinced by the fact that in the face of the strongest kind of opposition from older concerns who had the market, they are now selling annually over 25,000 barrels (liquid measure 31 gallons) of their products in the States of Kentucky, Tennessee, West Virginia, Virginia, North Carolina and in fact throughout the south, and some of their brands of bottled beer goes regularly into Cincinnati, Chicago and other northern cities.

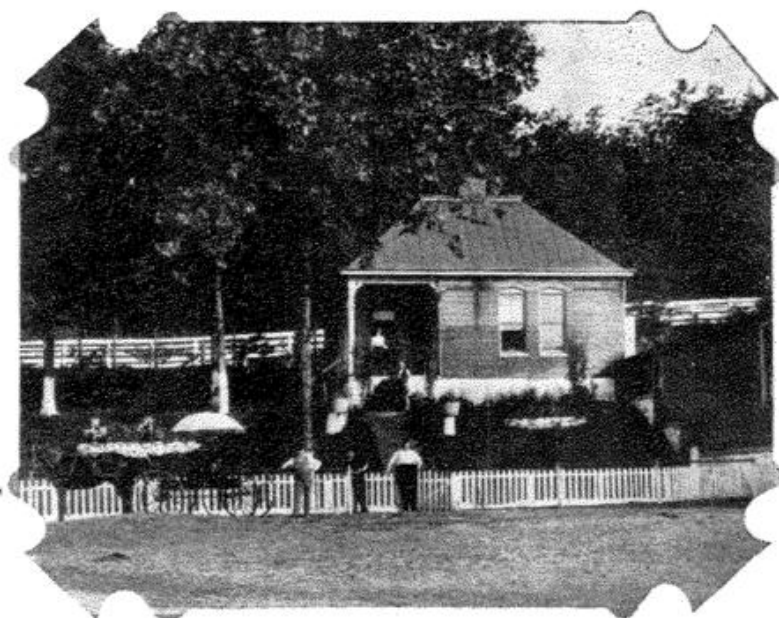
These people started in to make a clean, high grade goods and they have every facility at their command to turn out a product that is absolutely pure, clean and healthful as it is possible to get them. The water

they use comes from mountain springs running through a freestone rock formation which forms a perfect natural filter and it is as clear as crystal, sparkles like diamonds and is chemically pure. They use nothing but the very best material; barley-malt and hops, both New York state and imported. They pay particular attention to ageing their goods as that is an important feature in making a perfectly healthful beer. Another essential feature in a healthful beer is absolute cleanliness. In large cities breweries are often surrounded by all sorts of contaminations and unsanitary conditions. This plant is located out of town and has no filthy surroundings. The atmosphere about it is as pure as its water that flows from the mountain recesses. The interior of the building is kept as clean as water and unsparing labor will keep it. The Brewery itself is constructed after correct hygienic designs, properly ventilated, the floors of the vat room laid in cement and odors removed by atmospheric pressure. The machinery and all appliances are of the most approved kind. The tanks and vats are so constructed that as soon as the contents are drawn off, they may be immediately thoroughly cleansed and renovated. Every package is thoroughly cleaned and sterilized before being used. The same may be said of every vessel or utensil used in the bottling department. The most fastidious stickler for cleanliness can find no fault with the conditions that are maintained

PLANT OF THE NEW SOUTH BREWERY & ICE COMPANY



here. Even the stables and out buildings are models of their kind. The capacity of the Brewery is 10,000 barrels annually and the bottling department has a capacity of 15,000 pints per day of 10 hours. They have their own branch warehouses and refrigerators at Knoxville, Johnston City, Bristol, Jellico, La Follette, Tennessee; Corbin and Pittsburg, Kentucky; Asheville and other points, North Carolina. Pinnacle Beer and Crystal Pale Beer in all that goes to make a stimulating, refreshing and healthful drink has few equals and no superior anywhere. It is properly brewed and properly aged, made from purest and best materials and therefore will not cause biliousness or impure blood. It may be drunk in any quantities without injury and is a food as well as a drink. This cannot be truthfully said of many of the brands of beer



NEW SOUTH OFFICES

that are sold both in bottles and over the counter. Another of their products that has made a wide reputation is their Pinnacle brand Malt Extract. It is highly recommended by physicians and sold by drug stores all over the country. Fine sparkling spring water that is chemically pure, the best malt obtainable and finest imported hops are the ingredients, the highest skill, perfect hygienic conditions and absolute cleanliness, thorough fermentation and proper ageing constituting causes for the high quality and ever-increasing demand for this invigorating and health promoting tonic.

Their claim for superior quality is not an idle boast made simply to sell their goods. Their claim rests on the solid foundation of facts. In addition to the advantages before mentioned is that of plenty room and abundant capital to carry a heavy stock in ageing, and just here comes in the difference between a highly nutritious and healthful drink and one that is positively injurious. Properly aged beer acts on the system like well ripened fruit, and aids nature in her assimilating and digesting

processes, while beer that is drank soon after or within two or three months after brewing causes biliousness and indigestion.

Mr. Kumli, their brew master, is an expert in his line with many years experience, and he values his reputation too highly to allow any goods to be drawn from the storage tanks until they are as absolutely correct as time, skill and best ingredients can make them.

The officers of the company are Fred W. Wolf, president; Chas. C. Schreiber, vice-president; Steve Hauser, secretary, and William Wallbrecht, treasurer and general manager. Mr. Wallbrecht is the active man in control of the business and gives it his undivided time and attention. He knows the business thoroughly and his ambition is to place the products of their plant just where it properly belongs, right at the top among the very finest that are made in the world, and he will succeed because he has the goods to deliver and the ability and enterprise to place them where they belong.

The Ice Plant in connection with the Brewery has a capacity of 30 tons per day. From it they supply their various storage warehouses and the city of Middlesborough and ship to surrounding towns.

CLEAR CREEK AND ITS SPRINGS

Back a few miles from Pineville lies the Clear Creek Springs wonderfully efficacious medicinal water which, when once exploited, must bring fame and fortune to the spot.





E. W. JONES

PINEVILLE, KY.

Mr. Jones is the oldest and leading photographer in Southeastern Kentucky and Northern Tennessee. He does portrait work of all kinds and will make it just as fine or as cheap as each individual patron is willing to pay for. His ability to do good work in any line is shown by the class of work in this book. He makes a specialty of view work. Most of the pictures shown herein were made from photographs he furnished. It is a mistake to infer that one must go to the city for first-class photographic work. There are few city concerns that are as well equipped for outside work as is Mr. Jones. He has special cameras and lenses fitted for any kind of work and can make a plate from 2x3 to 14x20 inches. He has lenses from 90 degrees up for all sorts of interior work and a flash light for instantaneous pictures where light is weak. He can reproduce anything on a plate where the conditions are favorable—and get the best results obtainable. He does not travel over the country with a cheap camera making promises he can not fulfill. When he makes a cabinet he has the facilities, and is in a position to deliver the goods wanted.



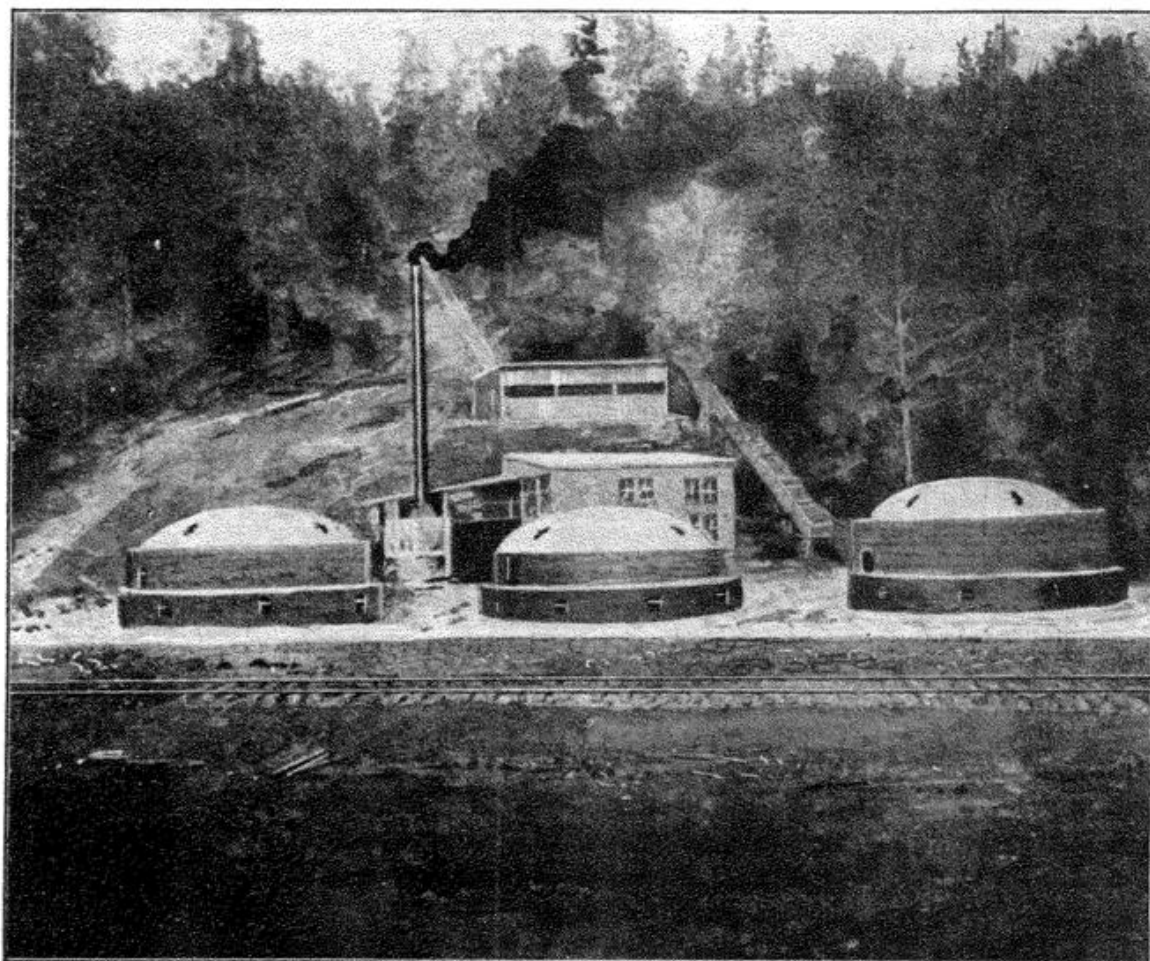
PROBABLY THE BEST CONSTRUCTED TIPPLE IN THE ENTIRE DISTRICT

TURNER COAL COMPANY

MIDDLESBOROUGH, KENTUCKY

This is one of the newer operations in this district that has but recently begun to put their product on the market. The mine is located about one mile southeast of Middlesborough and the seam they are working is designated in the geological map as the Turner Vein. It lies some 200 feet lower than the Bennetts Fork seam but the coal is much the same.

The company is composed of local people, Mr. Wm. H. Turner being the president and general manager of the company. Mr. Turner is well known locally, and is recognized as one of the permanent fixtures of the town. His past vocation was a contractor and builder, and he came to Middlesborough with almost the first load of building material, and has made this his home ever since. For several years he has taken great interest in the welfare of the town and has been kept prominently before the public in local government. He is and has been for several years past Mayor of the city and has held other positions of public trust. He is plain, direct and straightforward in his affairs, whether of a public or private nature, and the fact that he has retained the confidence of people of all political affiliations and associations is the best evidence that the guiding principle of his life has been a square deal for every man, high or low, rich or poor.



MIDDLESBOROUGH PRESSED BRICK COMPANY

MIDDLESBOROUGH, KENTUCKY

There are bricks and bricks, and they run all the way from the superlative quality down to the absolutely worthless kind. Quality is an object in any kind of brick, but in fire brick, paving brick and other kinds that have to stand a severe strain, anything but the very best is a waste of both time and money. The first cost of brick is a small item compared with the cost of replacing them if they prove defective in strength or wearing quality. Three things are necessary for the production of the best quality of brick, and if either is lacking the result will show in the wear of the product. There must be the right kind of clay, the right kind of machinery, ovens and men who know how to mix the clay so it will fuse in burning. This company has located their plant just where all the conditions meet for making the best brick that can be made, and under the most favorable auspices for economy in production. Coal, fire-clay, plastic clay and shale of the highest quality

is in the hill just in the rear of their plant, and in quantities that is practically inexhaustable for brick making purposes for centuries to come. The coal seam is located in the hill about one hundred feet above the plant, and the clay is found just above and below the coal vein. Natural gravity is all the force that is required to carry the clay from the diggings to the hoppers, and a chute carries the coal from the mine to their bins.

The plastic clay that is found here is fine enough and tough enough to make a high grade pottery, and when combined with other clays found here in abundance, will make anything in the way of brick or tiling. Nature has laid all the ingredients for a flourishing industry in a bunch here, and all that is necessary is the capital, brain and brawn to develop them.

They use several varieties of clay in the manufacture of the different kinds of brick they make. From the material before them they can make brick of any degree of hardness that will fuse properly in the oven. The secret of making good brick is such a fusion of the clay that it will give both strength and hardness and that will stand the intense heat of the ovens without melting, cracking or losing their shape.

The accompanying illustration gives an idea of the conveniences and natural advantages of the plant, though it does not show in its entirety. They are at present giving their attention to the manufacture of fire brick, facing brick and paving brick and a high grade building brick. They have plenty of room and can spread out indefinitely. Later on they expect to take up the manufacture of tiling.

The company was organized and incorporated in May, 1894. They began developments at once and were turning out brick about January 1st of the present year.

The building brick they are making is made up from a fusion of clays and is as hard, tough and smooth as tiling and will outlast the ordinary brick, besides it will never scale and lose but little in handling. The company is composed of J. F. Harkness, president and treasurer; Will S. Harkness, secretary. Directors, J. F. Harkness, Andrew Harkness, James Harkness, Will S. Harkness and Alex Harkness.

Middlesborough is their postoffice, telegraph office and shipping point. The main office and store is at the works, two miles west of the city.



W. R. HUGHES

HUGHES JELICO COAL COMPANY

FLAT LICK, KENTUCKY

Though this mine has been in operation less than three years the high grade of their product gives them a market for all the coal they can mine.

Mr. W. R. Hughes, the sole proprietor, is and has been a prominent actor in developing the resources of this section. He discovered and started the development of the oil fields of this section, working alone and unaided for a period of nearly two years before he got any results. Seeing greater possibilities in the development of the coal measures, he closed out his interests in the oil field and entered the coal business. He opened up the Excelsior Mine at Middlesborough, and after putting it firmly on its feet, sold out there and a little later secured an acreage at his present location, on Pogues Creek, and with the energy which characterizes all his movements, immediately began the development of the property. His property embraces 818 acres and is a very valuable one. There are three seams, all work-

able, underlaying the entire tract. He is working only the Jellico seam which here has a thickness of from four to five feet. It is a steam, gas and domestic coal that has invariably created a market for itself wherever introduced. On account of its burning qualities, hardness and freedom from slaty matter there is a steady and constantly growing demand for it for domestic purposes.

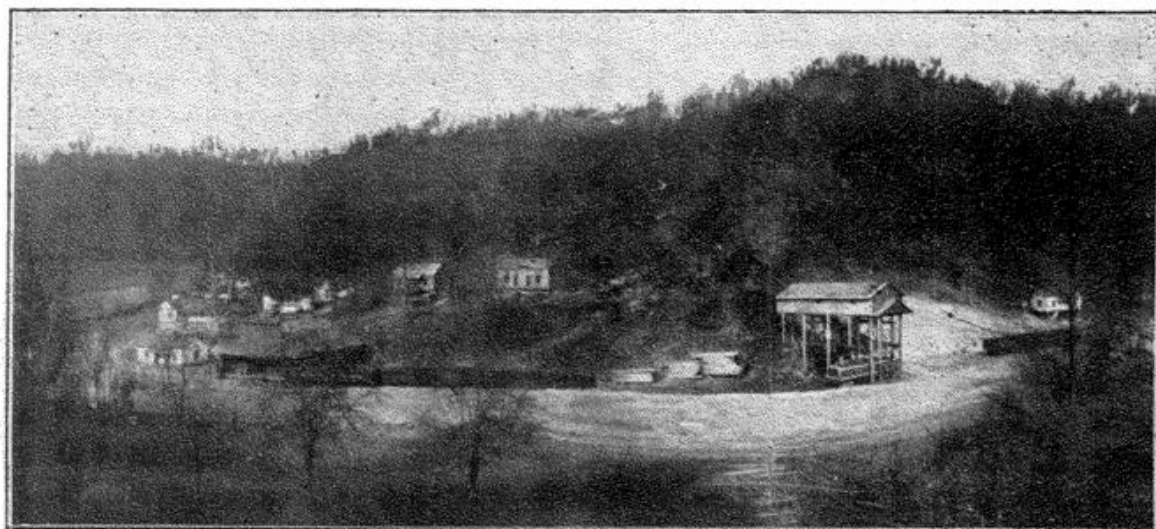
The present capacity of the mines is 350 tons per day, and they are worked up close to their full capacity. The accompanying illustration gives a bird's-eye view of the commissary and tipple and some few of the cottages of the mines.

The conditions surrounding this mine are much more favorable for home building than at most mines. The surface is smooth, soil fertile and grass grows luxuriantly where given an opportunity.

The commissary is more like a well-stocked department store than a mine commissary. The room is large and supplied with good fixtures and they carry a first-class stock of goods and it is well handled and neatly kept. The mine office adjoins the store; everything about the property indicates system and good business management. Waste and sloppy methods are notable here only for their entire absence.

Mr. Hughes resides with his family in a fine home in Barbourville, the county seat of Knox. He is well-known in Eastern Kentucky and stands high in business, financial and social circles.

PLANT OF THE HUGHES JELICO COAL COMPANY





JOHN G. MATTHEWS

PROPRIETOR MATTHEWS JELICO COAL CO.

VICE-PRESIDENT ELY JELICO COAL CO.

PRESIDENT FIRST NATIONAL BANK, BARBOURVILLE

ELY JELICO COAL COMPANY

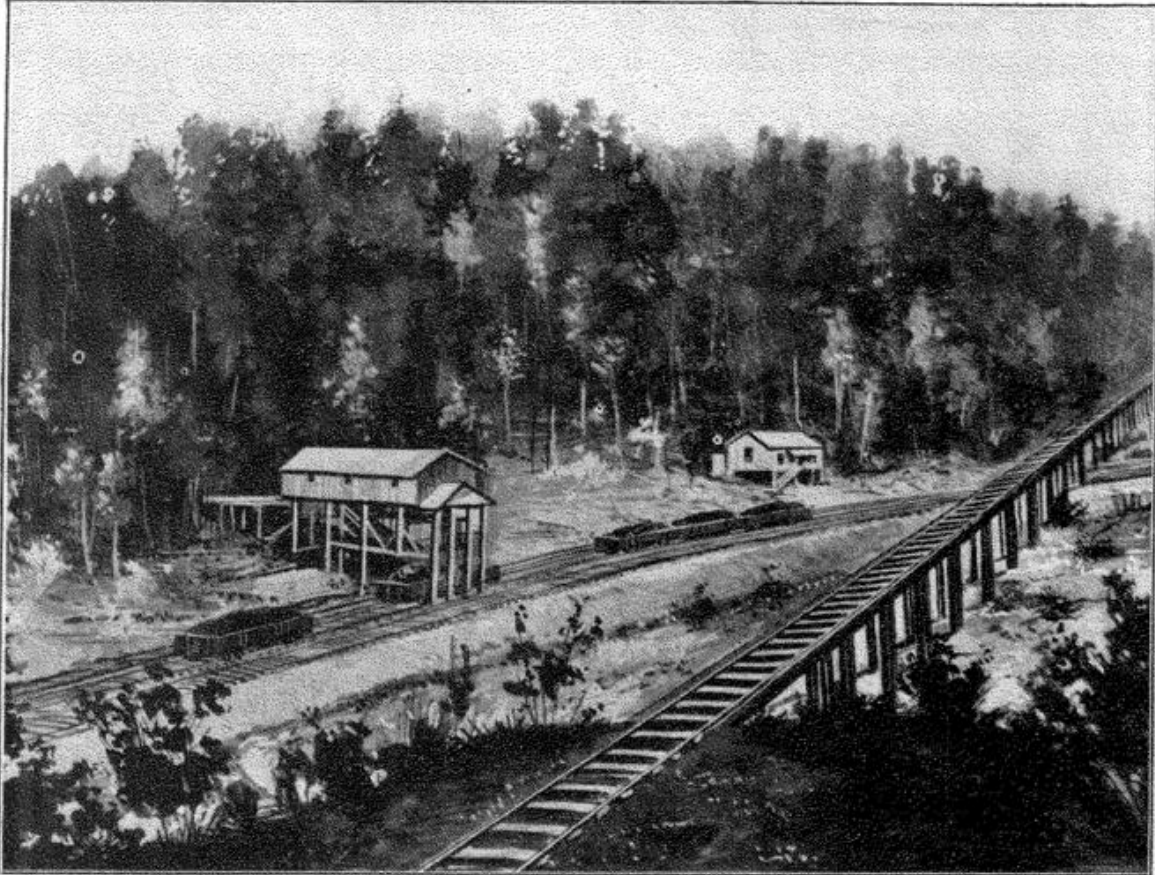
BARBOURVILLE, KENTUCKY

This is a holding rather than an operating company. They own 1050 acres of finely located coal land on Pogues, Sandy and Lick branches on which there are five workable veins of coal, of which the Blue Gem and Jellico are the best known and most extensively worked. The former ranks with the finest domestic coal found in the Appalachian coal fields, north or south. The land all lies well and is easily accessible at a light grade.

The company has built a track up to the head of Pogues Creek which practically opens up the entire tract ready for the operator and it has other very valuable and desirable coal property not leased, that it will lease to desirable operators on favorable terms. Two openings have already been made upon the property.

Mr. Hughes is working the Jellico seam at Ely's, and Mr. John G. Matthews has leased 300 acres of the tract embracing all the coal in the

five veins. The company makes very favorable terms to their lessors. They lay the tracks to the mines charging a rental for their use. The operator has only to build his tipples and haulage tracks to be ready to begin business. The officers are J. D. Tuggle, president; John G. Matthews, vice-president; J. F. Stanfill, secretary; J. P. Gaddie, general manager.



MATTHEWS JELICO TRESTLE CROSSING HUGHES JELICO TRACKS

MATTHEWS JELICO COAL COMPANY

BARBOURVILLE, KENTUCKY

Mr. John G. Matthews, of Barbourville, who is president of the First National Bank of that city and one of the principal stockholders of the Ely Jellico Coal Company, has leased 300 acres of the latter company's land and is now actively engaged in opening it up. While he contracts for all the coal under the tract, he will at present operate only in two seams—the Jellico and Blue Gem. The lessees already have the track graded and the rails laid to his tipples, except the trestle, which spans the tracks of the Hughes Jellico Coal Company at their

tipple. This trestle is 24 1-2 feet high and 400 feet long, and with the one mile of track which connects it with the Louisville & Nashville Railroad, cost \$15,000.

Mr. Matthews in this venture is following Benj. Franklin's maxim closely, "That anything that is worth doing at all, is worth doing well."

The improvements he is putting in belong to the substantial and enduring class, and the cottages he is erecting for the use of his employees are far above the average, both in size and finish. The site he has chosen for his residences is most admirably adapted for the purpose. Nature seems to have focussed her gifts in a bunch here for an ideal mining camp. The site is a plateau about one-third way up the mountain side, commanding a magnificent view and level almost as a floor, with perfect drainage from three sides, convenient to both tipple and mine entrance. The tract is platted and regularly laid out, giving each house plenty of room with a nice yard. The houses are so arranged as to give each family an unusual degree of privacy. In fact he is sparing no pains to make the home surroundings of his people as cheerful and healthful as he can make them under the conditions surrounding a mining camp.

Mr. Matthews will spend \$30,000 in putting the plant in shape before he begins operations and will have a capacity of 12,000 tons per month.

The coal produced from the Jellico seam for all purposes is pretty hard to beat and always finds a ready market at its market value. The Blue Gem is a different coal of a high grade domestic quality, has but few equals in any market, is scarce and commands a higher price. It is high in carbon and consequently has great heating capacity, is free from foreign substance and therefore burns to fine ashes and produces less smoke.

The general office, telegraph office and shipping point is Ely's, Knox county, Kentucky. Mr. Matthews' individual address is Barbourville, Kentucky, where he resides with his family. He is a member of the Knox county bar and president of the First National Bank of Barbourville. As a business man he has been very successful, and is the owner of much property, both real and personal, aside from his holdings of coal lands. After he had finished his education at Vanderbilt Law School, Nashville, Tennessee, and had been admitted to the bar, he found the family inheritance incumbered for all it would bring,

he put his shoulder to the wheel and did not rest until he had cleared that property, and did not rest then and has not rested since, though it would be an untruth to say that he takes no recreation. He does not belong to the class that do not feel well unless resting most of the time. He is a worker, progressive and aggressive, and possesses a marked degree of business acumen that would make him a conspicuous figure in any community. He is just in the prime of life and his best years are before him. He comes of an old Kentucky family and is a native of Knox county. His grandfather Benj. Eve, and his great uncle Judge Joseph Eve and great uncle John Barbour located the town of Barbourville in April, 1792, and named it in honor of John Barbour.

This has been the family home ever since. Mr. Matthews represents the Eleventh Congressional district on the Board of the A. & M. College, a State institution located at Lexington. During Governor

Bradley's term of office he was a colonel on his staff, and in that capacity assisted in dedicating the Kentucky monument at Chickamauga Park. Some members of the family have taken an active and honorable part in every national conflict since Kentucky became a state. His father rose to the position of colonel during the civil war, commanding the Forty-ninth Kentucky regiment in the Federal army. He has the full confidence of his neighbors and the business world wherever he is known.



FIRST NATIONAL BANK
BARBOURVILLE, KY.

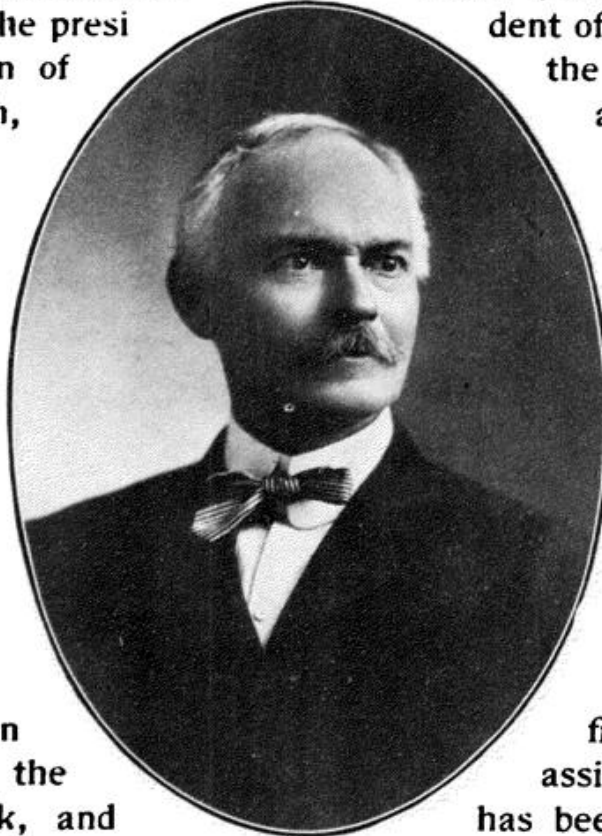
FIRST NATIONAL BANK

BAROBURVILLE, KENTUCKY

This institution was organized in 1902 succeeding to the business of the Cumberland Valley Bank which was established in 1888. John G. Matthews is president and one of the largest stockholders; Wm. Lock is cashier and George A. Lock assistant.

The bank is conservatively managed and has the confidence of the public in the highest degree.

Some particulars concerning the resources of the president of the bank appears in the description of the Matthews Jellico and nothing more here further than the MattheWs Jellico and nothing more here further than garded as among ciers of this end Mr. Lock, the and favorably out the country and reared on here, and has banking busi- and with this organization. appreciates the and is conserva- financial matters. assistant cashier, is a has been with the bank He is an accurate and expert accountant and well up on banking matters. He has an old head on young shoulders.

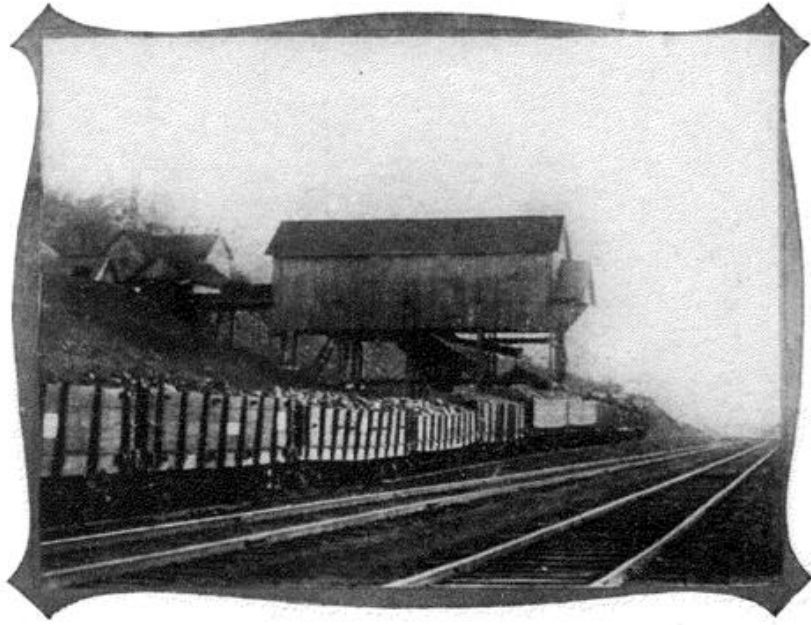


WILLIAM LOCK

They confine themselves strictly to a legitimate banking business, foster no wildcat enterprises and scrutinize their loans very closely.

They do the leading banking business in Knox county. They make a specialty of collections, both at home and abroad. Issue drafts or letters of credit on either American and European cities.

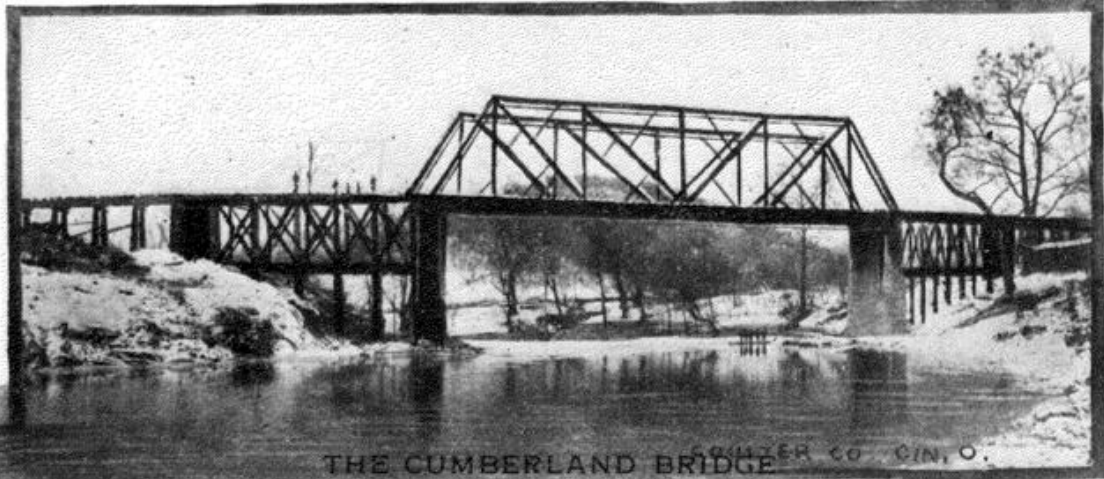
Accounts are solicited, either great or small.



BASTIN COAL COMPANY

BARBOURVILLE, KENTUCKY

This mine was formerly known as the Knox Gem Mine. They are working in the Blue Gem coal seam, and here it is found in its greatest thickness. The vein here is three feet thick. No analysis of this coal is required. It stands so high up on the list of very high grade domestic coal and has such a reputation, both at home and abroad, that it commands a price that is considerably higher than the average coal will bring, and this mine sells practically all its product in nearby towns in this State. This seam is a high grade coal wherever found, but in many places it is so thin it is barely workable. Mr. K. F. Bagley is the general manager of the mine and he has it in fine physical condition, and there are few mines that turn out such a large proportion of their product that grades first-class lump. Their proportion of small coal is very light—their output is 700 to 1,000 tons per month. The mine is admirably located for economical production. It faces the Louisville & Nashville main line and the opening is not over fifty yards from the main track and just high enough up the hill to bring the mine opening on a level with the tipple. The seam also dips toward the tipple and this is another advantage as it gives them an easy haul.



THE CUMBERLAND BRIDGE BELL JELICO CO. CINCINNATI, O.

BELL JELICO COAL COMPANY

PINEVILLE, KENTUCKY

The company is incorporated with a paid up capital of \$100,000. The general office is at Pineville, Kentucky. Mines located at Greasy Creek, near Four Mile, which is their shipping point and telegraph station. R. G. Yingling, of Williamsburg, Pennsylvania, is the president of the company; M. L. Chadman, of Lancaster, Pennsylvania, is treasurer, and A. C. Blowers is the general manager in active control of the business; Fred G. Tice is secretary and in charge of the store and books. The two latter reside in Pineville. The property consists of 1400 acres derelaid with several the largest area being Blue Gem vein which hills, covers nearly About forty feet Jellico seam cover tion of the tract, that comes the Van somewhat smaller ac lico, while high up on celebrated Dean seam, ness of seven feet and 400 acres. The coal seam, which is the only yet mined and put on the



F. G. TICE

in one tract which is unworkable seams of coal, that of the famous lays low down in the the entire property. higher up is the ing a large propor- then still above derpool vein with a reage than the Jel- the mountain is the which has a thick- covers an area of about coming from the Dean coal this company has as market, is of fine quality

both for steam and domestic purposes. It is admitted by some dealers to even surpass the celebrated Blue Gem which is the banner domestic coal of the South, but which is expensive to mine on account of the thinness of the seam. Excepting this latter named coal, it brings on the market generally twenty-five cents per ton more than any other coal for domestic use.

Of the merits we mention; low in ash, clinkerless, free burning, not requiring poking or teasing customary in the use of other coals, and semi-smokeless, not making the dirt from soot that other

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work has been so actively pushed that they began shipping coal

about the middle of February of the present year. This is a great

record when the amount of construction work required is considered.

They have built 2 1-4 miles railroad, 500 feet of trestle work and

a 210 foot span bridge over the Cumberland river, the piers supporting

the bridge are concrete. All the railroad work is in accordance with

the latest standard specifications of the Louisville & Nashville Rail-

road.

The work was all done under the personal supervision of Mr.



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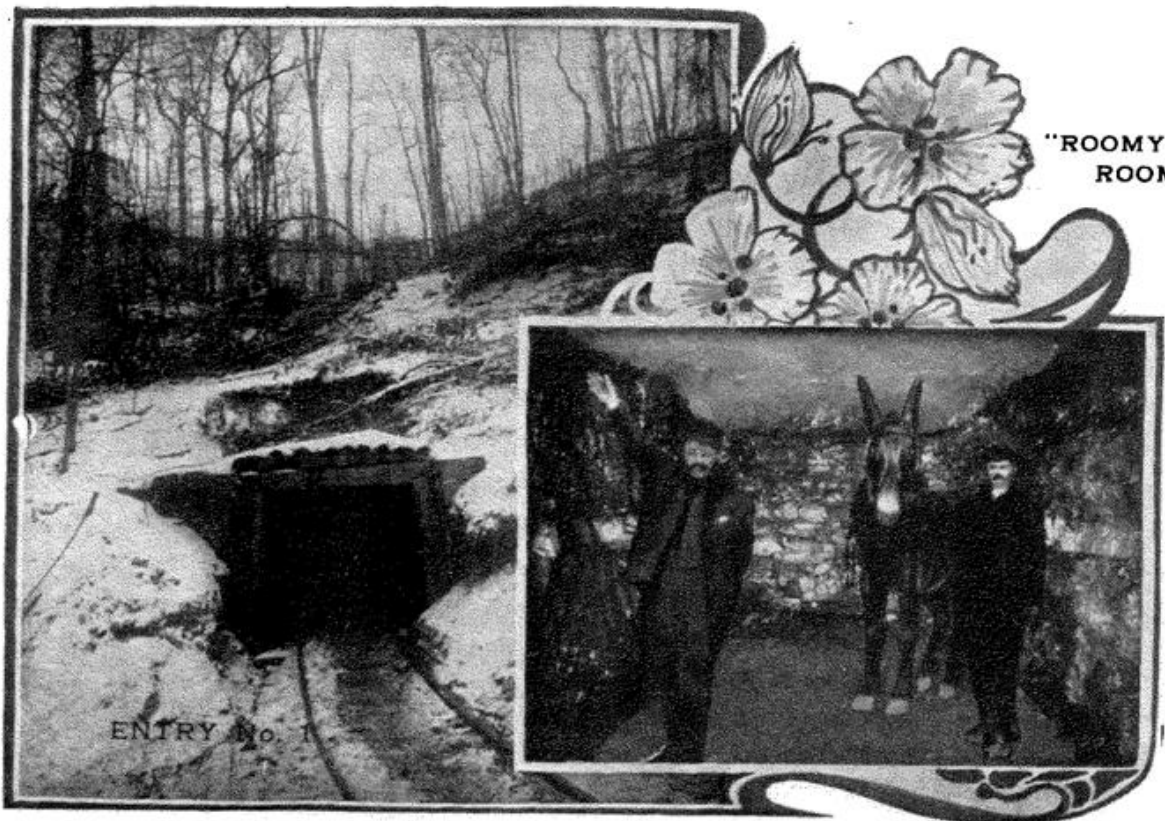
they began shipping coal



Blowers, the general manager, and was pushed with energy and perseverance through all kinds of weather. He had able assistants in Mr. R. G. Yingling, the field superintendent, and Mr. E. S. Ward, the mining engineer, Mr. F. G. Tice, the secretary, having charge of the store and books.

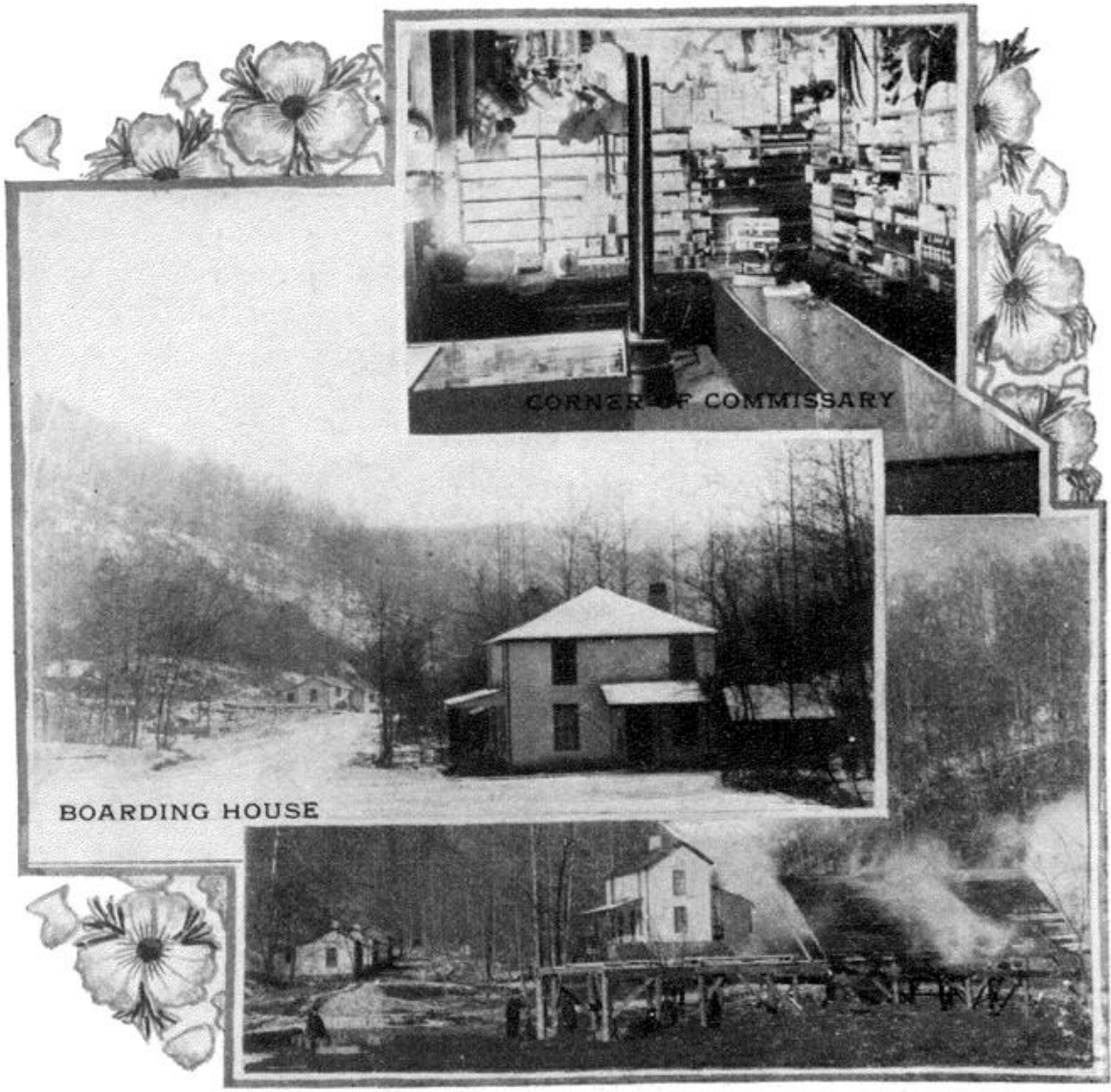
At present they have over one hundred feet of entry driven and their capacity now is about 200 tons per day, but this will be increased as fast as room can be made for men, until they reach an output of 1000 tons daily.

So far the improvements made have in round figures cost \$65,000, but they have something to show for the outlay they have made. Their

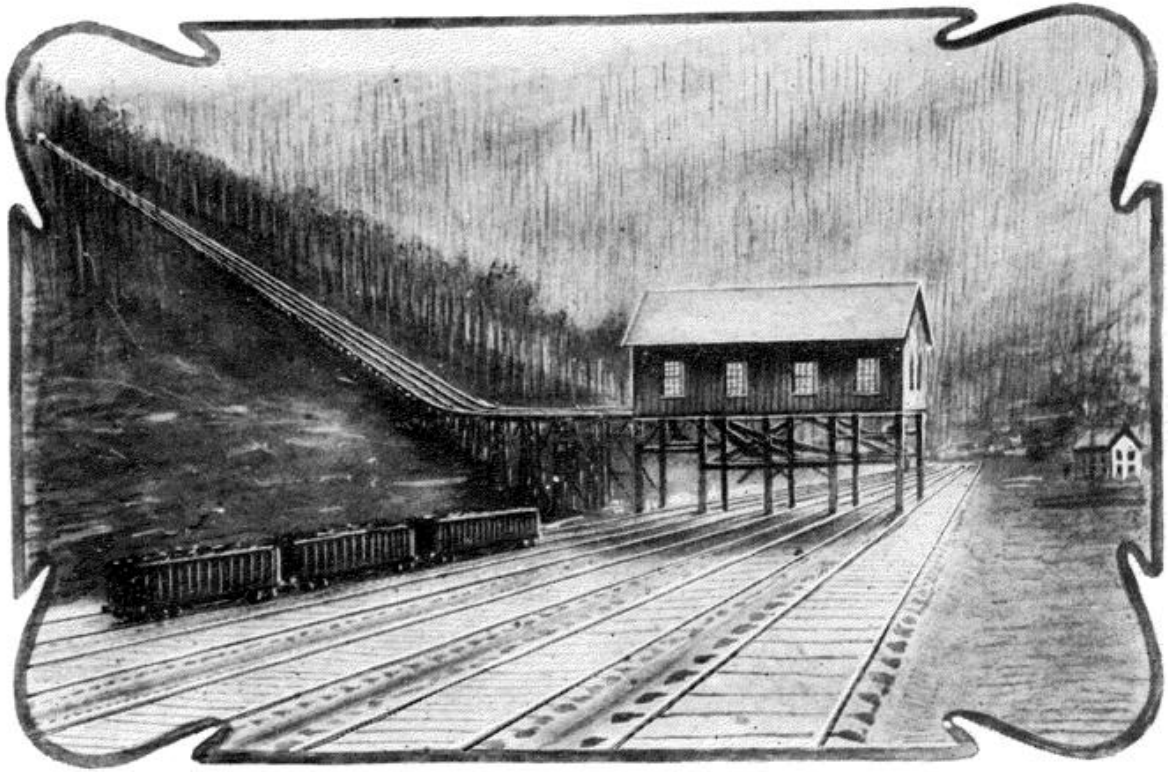


equipment is all of the modern kind and the works of a permanent and enduring class. There is nothing here of the temporary flimsy character so commonly seen about newly developed mines. The residences for their employees are very neat and clean in appearance and as well constructed as those in any ordinary village. The two things the management seems to have kept in view was economy and rapidity in handling their output and the health, comfort and convenience of their help. The company will give their especial attention to the preparation of a nice, clean lump coal for domestic trade for which they will find a ready market throughout Kentucky and territory north of the Ohio river.

The great merit of this tract of coal has been known for years, but on account of the great expense in bridging the Cumberland and con-



LOOKING UP THE VALLEY



BELL JELICO TIPPLE AND YARDS

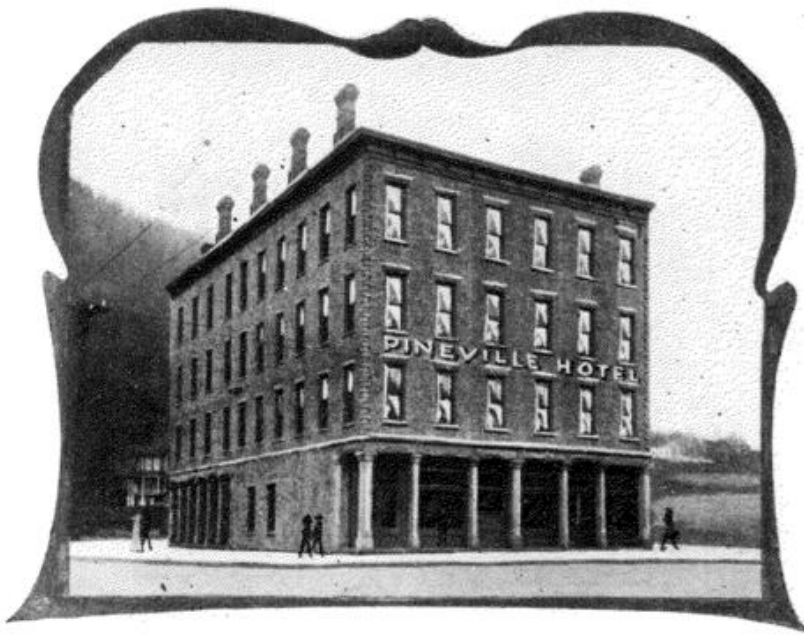
structing the railway to it has heretofore been neglected. Now that they have provided an outlet other owners in that field are preparing to develop their property which will come out over this company's tracks.

THE NEW PINEVILLE HOTEL

R. L. PARK, PROPRIETOR

The name New Pineville was not assumed simply because there was a change of management. There has been a change of proprietors and the house itself is new in everything except the brick walls, newly papered throughout, new furniture, new carpets, new plumbing, steam heat and electric lights in every room, bath and toilet rooms on every floor, hot and cold water and all accessories of a modern up-to-date hotel of the first class.

The house is not only first-class in all of its appointments, but it is also first-class in its service. Mr. Park is manager as well as proprietor. He has had several years experience in the business in first-class hostelries, and knows what good trade expect and how to meet



the demand. Both he and his wife give their close personal attention to the business in every detail, and every room in the hotel evinces the fact. Order and cleanliness is the inflexible rule of the house, and the rule obtains everywhere from the office to the kitchen, and from the dining room to the garret. The rooms are all large, airy and well furnished; the halls and stairways are all laid with heavy velvet carpet, while the chamber floors are mostly covered with room-size rugs of good quality. The culinary department of the house is in skillful hands. The tables are supplied with the best the market affords and it is prepared in a manner that is as inviting as it is palatable. Patrons of this hotel never feel that they have paid a first-class rate for a third-class service. One gets all they pay for here, both in refreshments and solid comfort, and in this respect it stands alone here. There is no other hotel in Pineville that even approximates it in either services or conveniences.

It is located near the business center of the town and is the most convenient for commercial trade. There are two large well lighted sample rooms and a FREE BUS to and from all trains. Rates \$2.00 per day.

Travelers and persons seeking recreation will find both here under the most favorable conditions. Clear



Creek Springs are only two and a half miles from the hotel and it is a most delightful drive. The waters of these springs contain a very large per cent of the following well known remedial agents: Lime carbonate, magnesia carbonate, lime sulphate, magnesia sulphate alumen silicate, phosphoric acid.

PINEVILLE INVESTMENT ASSOCIATION

This company is the owner of the hotel property. The association was organized for the sole purpose of providing adequate hotel accommodations for the city. They purchased the four-story brick building formerly used as a dormitory for the Theodore Harris Institute, located on the corner of Kentucky avenue and Oak street, nearly the center of



the town as it stands to-day. The building is large and constructed on modern hygienic designs and admirably adapted for hotel purposes. The only departure from the modern first-class hotel is that the rooms are about twice the size ordinarily found in even the best hotels, but this is

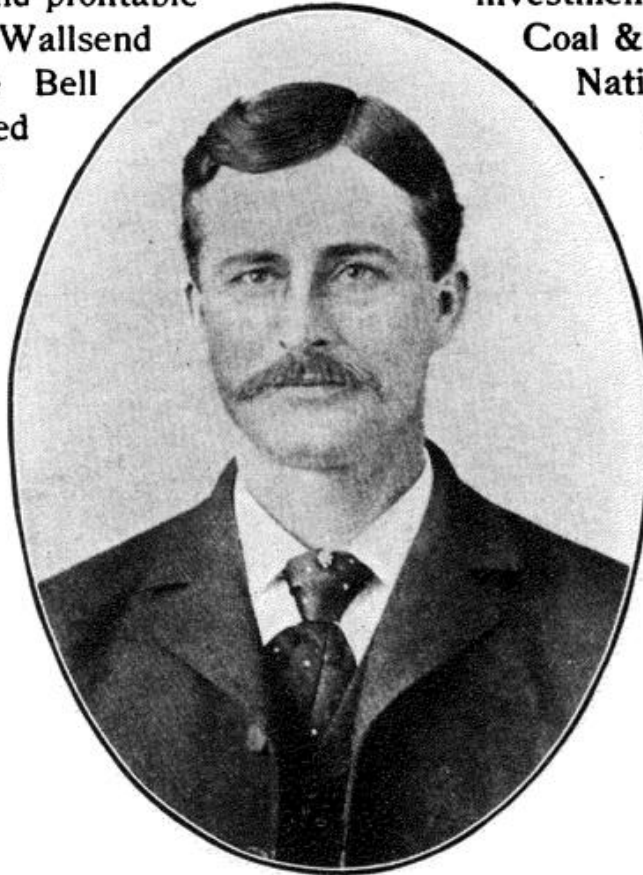
not an objection, it is an advantage. The hallways are wide, the ceilings high and the house is perfectly ventilated.

When the association took the property they began extensive improvements; the house was re-papered, re-painted, a steam heating plant was put in with sufficient capacity to thoroughly heat the house in the coldest weather. The plumbing was modernized, additional bath and toilet rooms were put in, sample rooms fitted up and made, in fact in all its parts to compare favorably with the best hotels in the State. The stockholders of the company are Dr. Tilman Ramsey, president; T. J. Asher, vice-president; D. C. Burchfield and D. B. Logan. Mr. Logan is one of the principal shareholders and occupies a suite of rooms on the ground floor of the building for his law office. He organized this

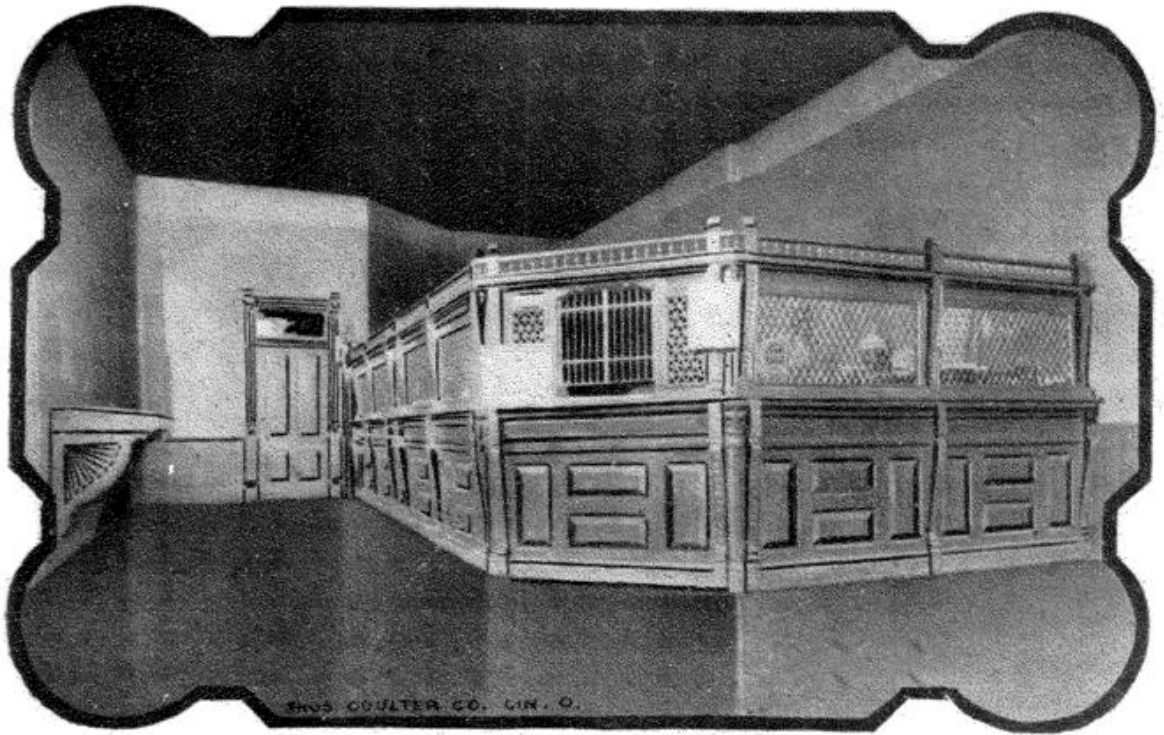


GUEST ROOM IN THE PINEVILLE HOTEL

company, and is recognized as one of the leading public-spirited citizens of this section of the State. Of unassuming manners and quiet habits; he is a hustler, well versed in the opportunities that are open here for safe and profitable investment. He is vice-president of the Wallsend Coal & Coke Company, director in the Bell National Bank and largely interested in several local business enterprises and city real estate.



D. B. LOGAN

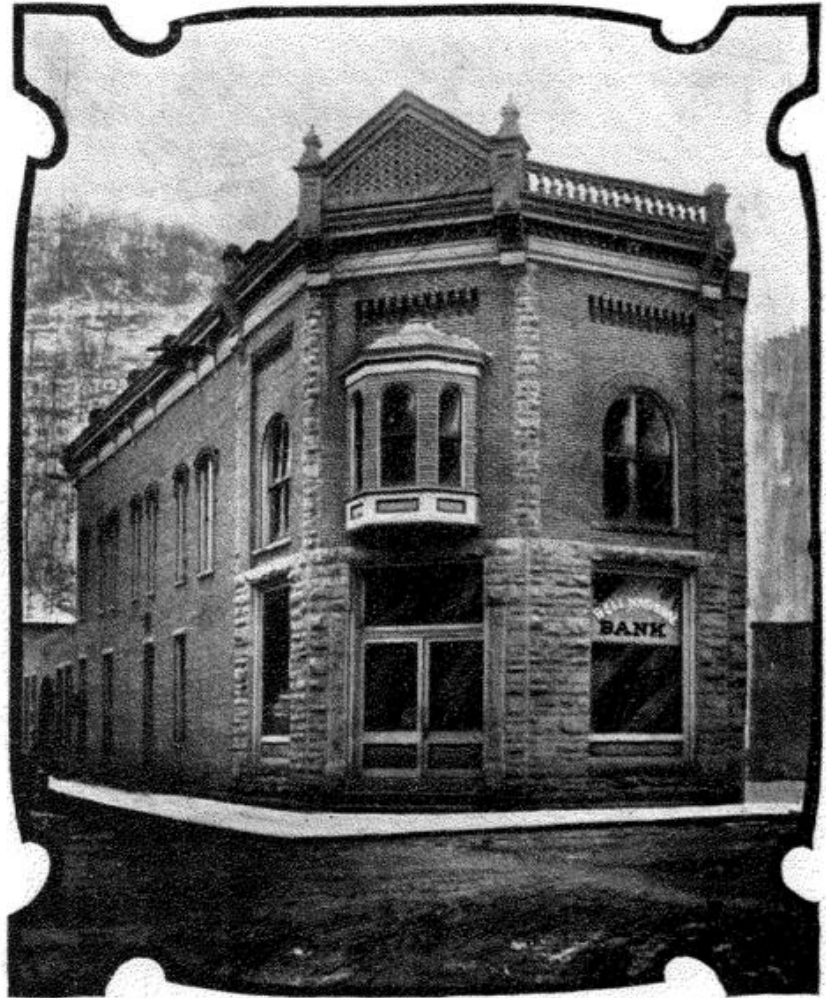


BELL NATIONAL BANK

PINEVILLE, KENTUCKY

This bank was organized in 1904 and began business April 1st of the same year. They succeeded to the business of the First National Bank which was organized in 1891 and after weathering the financial storms of 1892-3 went into voluntary liquidation in 1898. The capital stock of the bank is \$25,000 fully paid in. The bank is doing a fine business and it has been a growing one from the time these people took hold of it. The solidity and safety of a bank of issue and deposit is not so much in the size of its capital stock as it is in the character, integrity and business qualifications of its management. The officers of this bank is the best guarantee of its safety. The board of directors are C. J. Johnson, T. F. Gibson, T. R. Ware, W. R. Wood, E. G. Conant, D. B. Logan. All are solid citizens of Bell county. D. B. Logan is president; C. J. Johnson is vice-president and E. G. Conant is cashier. Each are safe and conservative in their business methods, but the word conservatism as here used does not imply old fogysm. Mr. Logan, the president, is a man of affairs—one of the prominent members of the bar of Eastern Kentucky and a successful business man. Though yet comparatively a young man, he has accumulated a good deal

of property, and no man in Eastern Kentucky knows better than he the value of realty and the improvement thereon. They do a general banking business on a strictly legitimate basis. issue drafts and letters of credit available in any banking town or city of this or foreign countries. They make a specialty of collections. Accounts are solicited and interest paid upon time deposits.



MIDDLESBORO DISTILLING COMPANY

MIDDLESBOROUGH, KENTUCKY

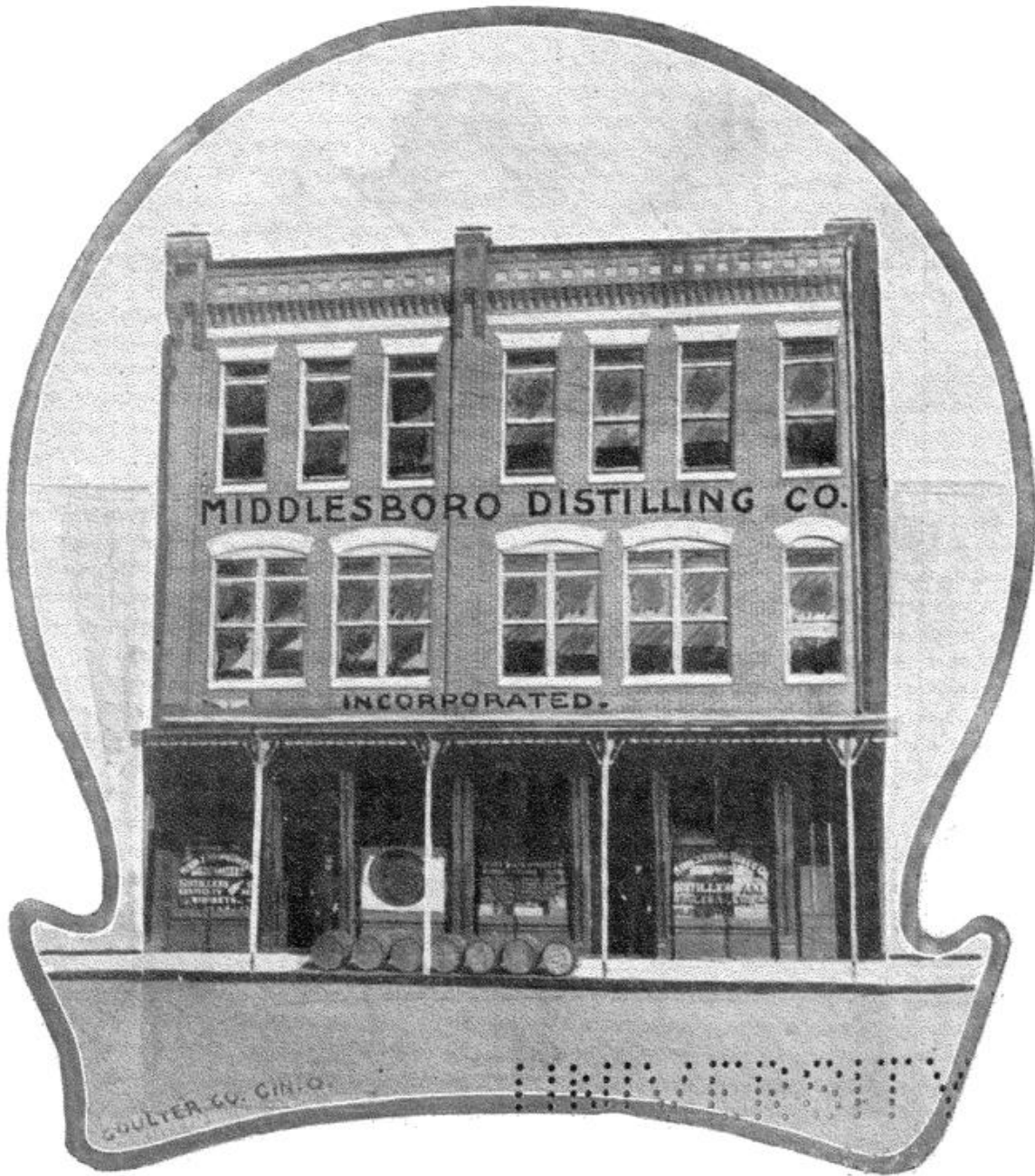
This company was originally incorporated by Col. David G. Colson, H. P. Ball and M. S. Overton and began business January 1, 1901. The business was conducted by these individuals until December, 1903, when Mr. John B. Hurst purchased the holdings of Col. Colson and was made secretary, treasurer and business manager of the wholesale department. The plant, while not large, is one of the most complete in America. Their capacity is limited, but their facilities for turning out high grade products is unsurpassed the world over, as evidenced by the fact that their corn whisky took the highest prize last year at the Louisiana Purchase Exposition. Their machinery and distilling appliances are all new and of the modern kind, and the best obtainable. They use home-grown grain of No. 1 quality and



JOHN B. HURST

their water comes from mountain springs and is chemically pure and clear as sunlight. Mr. S. M. Overton, who has charge of the distilling department, knows the business from A to Z, being a practical distiller of several years experience. Under these favorable conditions their products soon took a prominent position wherever introduced, and increasing demand necessitated an increase in capital large enough to handle the product of the plant when run at its full capacity. In August, 1904, the capitalization was increased to \$10,000 fully paid up, and some new shareholders came into the concern. J. Goodfriend became president; H. P. Ball, vice-president; J. B. Hurst, secretary and treasurer; S. M. Overton, general manager of the distilling plant. They distill only a very high grade of corn whisky, but are wholesale dealers in, and distributors of various grades of fine Kentucky whisky, wines, gins, etc. Their office and warerooms are in the Gorman block, this city. The distillery is at the foot of Fern Lake, one mile from town.

That their claim for superiority rests on a solid basis, the subjoined copy of a letter from the Secretary and Director of Exhibits of the St. Louis World's Fair will conclusively prove:



Kentucky Building World's Fair St. Louis, Mo., 1904.

Dear Sirs : We have the honor to inform you that your exhibit of Corn Whisky received the Gold Medal. This award was made by the International Department jury, and the Superior jury. We trust this information will be pleasing.

Yours very truly.

R. E. HUGHES.

Secretary and Director of Exhibits.

October 18 1904.

The fact must be remembered that in winning this award for the purest and highest quality of corn whisky, they were in competition with exhibits of like class of goods from all over the world and hence it

is not a mere local achievement. It is another shining star in Kentucky's already brilliant diadem and will add to the fame and prosperity of both this community and the State.

The wholesale department of the business is meeting with very gratifying success. In the few short months they have been in this line of business they have grown to the largest distributors in the State outside of Louisville, and their trade now completely covers the southern Appalachian coal fields, including the cities of Nashville, Birmingham, Chattanooga, Atlanta, Knoxville, Bristol, Asheville, N. C., and Bluefield, West Virginia.

Already the demands of their business is beyond their capacity, and the coming summer will witness the enlargement of their distillery to double its present capacity. The management is composed of men who are well known locally. They are progressive and wide-awake, and what the future development of their business means for the weal of the Magic City can now only be approximated, but that the enterprise is destined to cut a figure in the future of the town cannot now be doubted.

PLANT OF THE MIDDLESBORO DISTILLING COMPANY

