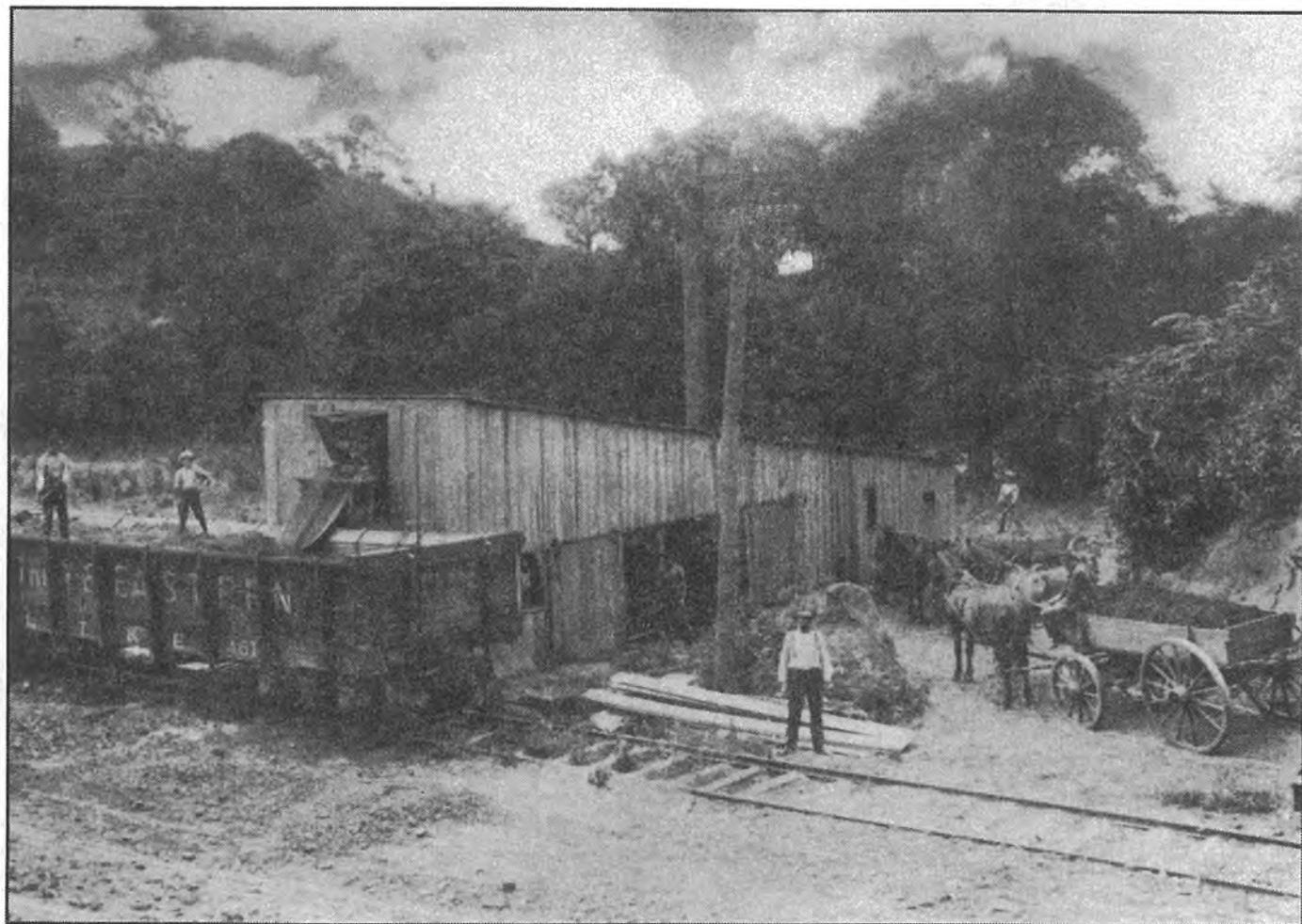


JAN NICOL

—History of—

# NICOL SAND CO.



## A HISTORY OF NICOL SAND COMPANY

By Cynthia Gale  
July, 1981



The author of this work, "A History of Nicol Sand Company," Cindy Gale (now Cindy Reinhardt) has graciously granted permission to share this PDF version of her article on the website of the Village of Arenzville. She completed the article in 1981 as part of a college English course. All copyright and other rights are retained by the author.

## BACKGROUND

To understand the work done by Nicol Sand Company over the years, it is necessary to have some knowledge of their products. Their three main products were natural-bonded molding sand, core sand and I-11 sand. During the company's 57 year history, natural-bonded molding sand was their main product until the last decade of business.

Natural-bonded molding sand (sand grains naturally encrusted with clay) is used for casting, which is the process of producing a metal object of a desired shape by pouring molten metal into a mold and allowing it to cool and harden. Core sand is also used for casting, but it is mixed with clay or other bonding agents. It is used in making hollow castings like an engine block for an example. The heat of the casting destroys the bonding agent, leaving a "free-flowing" sand to be voided from the finished casting. I-11 sand is a fine sand used in asphalt paving of streets and highways.

In the early years of the company, Gustav Nicol, Sr. shipped sand to the foundries just as it came from the ground. He wasn't asked to do any mixing. Within a few years though, the foundries began asking for a more refined product. Nicol Sand Company began mixing their sand to have a more uniform grain size. In later years, the sand was run through a series of screens to remove roots and control grain size, but this was after Gustav's time. By the late 1930's the foundries were demanding a very specific product that required testing for grain size, moisture, permeability, lime content, clay content and green strength.

Sand used for casting had to be of a certain grain size and clay content to allow permeability, that is, to allow gases that are formed when the molten metal is poured

into the sand to escape through the sides of the mold. This is also the reason moisture content must be controlled. When the molten metal hits the sand, the moisture turns to steam. If there is too much steam, it cannot escape through the side of the mold in any way except to blow a hole in the mold, causing the molten metal to spill out.

If the sand used for casting contained lime (or any other vegetable or mineral substance with a melting point below that of the metal being cast) the sand would form a glaze, and the result would be a ruined casting. The gases would have nowhere to escape and would, like the steam, put a hole in the side of the mold. For this reason, Nicol Sand Company ran tests for lime content by pouring acid on the sand sample. If it boiled up, there was lime in the sand. Although this sand could not be used for casting, sand with lime was acceptable for I-11 sand.

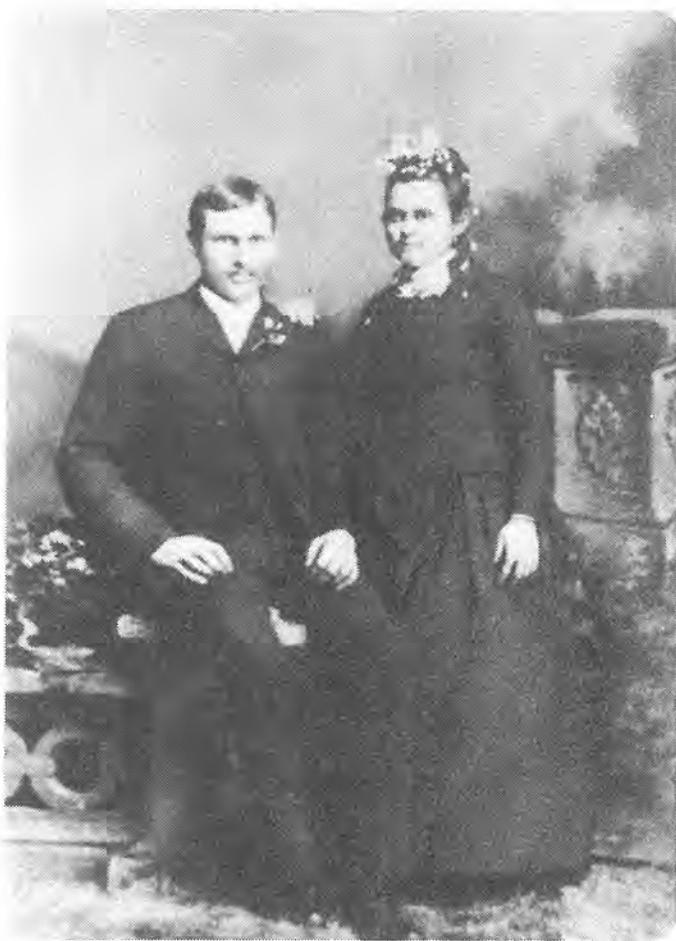
Clay content in the sand usually ran from ten to forty percent. A sand with ten percent clay could be mixed or blended with a sand containing forty percent clay to meet foundry specifications for clay content. The test for green strength was related to this. The test determined how well the sand stayed together. A biscuit of sand was tested to measure how much pressure it could take before breaking down. If needed, clay or other additives could be added to increase the strength.

At their many locations, Nicol Sand Company mined several kinds of molding sand. Their coarsest sand was from Greenville, Illinois. This was used for large castings using a metal with a high melting point. This kind of casting would generate a lot of gases, and required a greater degree of permeability than a smaller object made from a metal such as aluminum that has a lower melting point.

A skein, which is the cast iron hub of a wooden wagon wheel, is a good example of the type castings made from the coarse Greenville sand. Smaller, lighter objects would be cast with a very fine sand. This sand, primarily from the Savanna plant, was used for casting things like carburetors or aluminum washtubs. It was also used to make B-29 gun turrets during World War II.

Although the demand for natural-bonded molding sand is all but nonexistent today, it was an important influence for the Nicol family. This general information on the nature of the sand product should make it easier for the reader to understand the migrations of the Nicol family and Nicol Sand Company as they moved wherever they could find the best deposits of natural-bonded molding sand.

## HISTORY OF NICOL SAND COMPANY



Gustav Nicol, Sr. & his wife, Mary, on their wedding day in 1888. Gustav was the founder of Nicol Sand Company.

his return from Arkansas, he leased a farm on Boul's Hill in French Village, Illinois. The family's home was a log cabin on the farm. The main cabin had a dirt floor and was suitable only for storage and washing, so the family lived in an addition that was built on the side of the cabin. The addition consisted of four rooms: a bedroom and

Although Nicol Sand Company<sup>1</sup> didn't come into existence until 1903, its founder, Gustav Nicol, Sr., was in the sand business for several years prior to this time. In 1897, just after the birth of his fifth child, Albert, Gustav and his family returned to Illinois after a financially disasterous venture in Arkansas. Family legend says he went to Arkansas from Belleville, Illinois with a train car of furniture and three children. He returned four years later with "five kids and five dollars."

Gustav had always been a farmer, so upon

<sup>1</sup>The company will be referred to as Nicol Sand Company throughout this paper even though it also used the names Gust Nicol Sand Company and Arenzville Molding Sand Company.

kitchen downstairs, and two bedrooms upstairs. Gustav, his wife, Mary, and five children shared these small rooms. Later, there was a sixth child, Roy, and often Mary's brother, Ed Tribout, stayed with them also.

Besides the crowded living conditions, Gustav had other problems. When he returned from Arkansas, he had to borrow money to purchase a team of horses and a wagon. With these he was able to farm his land and haul rails for the St. Louis and O'Fallon Railroad, but he was also in debt.

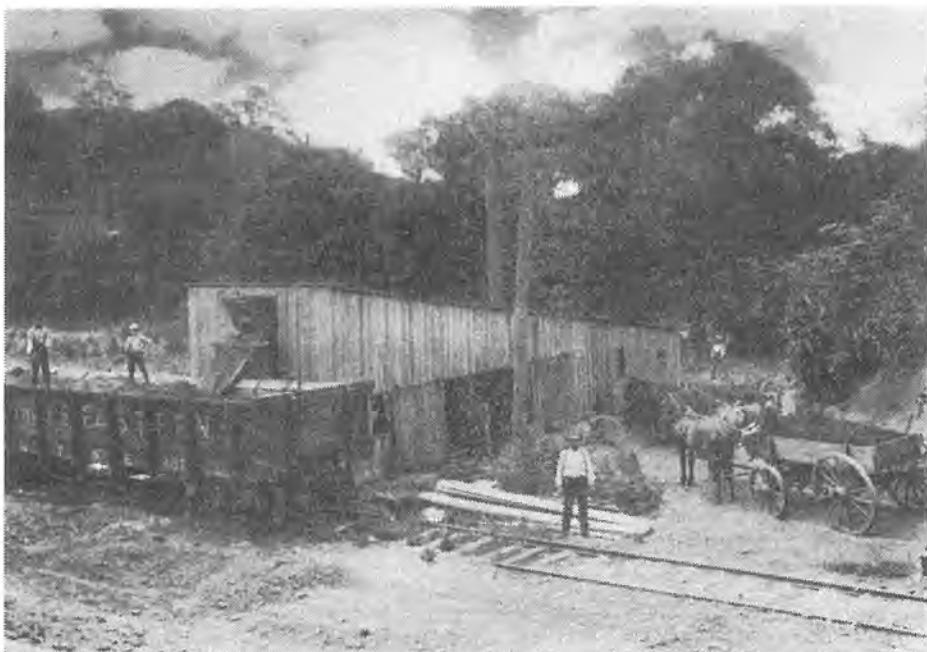
Under these circumstances, Gustav was looking for new opportunities. In 1898, a man named Meier from Belleville, Illinois approached him about a job loading sand. Gustav accepted.

Gustav loaded sand for Meier until 1903, when he formed his own business. Gustav's oldest son, Irvin Nicol, remembers when his father decided to go into business for himself. "We hitched up the wagon and went to Collinsville all along the bluff looking for sand. And he come to the sand cut down here<sup>2</sup> and found just what he wanted. So, he started selling sand for himself then. He leased them hills down there for three dollars a car load." He received eight dollars per car load when he sold it in 1903.

Until 1905, Gustav loaded sand the same way Meier had. The overburden of dirt and vegetable matter was stripped away to expose the sand. Then the sand was loaded into wagons and taken to the railroad spur nearby, where it was loaded into train cars in the same form as it came from the ground. Today, using trucks and heavy equipment, this would not be a difficult task. But, in those days, all the loading and unloading was done by hand with a pick and shovel.

<sup>2</sup>The sand cut is located on Route 157 in Collinsville, Illinois. That site is presently part of Collinsville Coal and Ice Company.

In 1905, Gustav built a mixing plant to break up the sand in order to have a more uniform product. In later years, Gustav's son Albert had a laboratory for testing and measuring sand to meet foundry specifications, but blending of the sand was the only change Gustav ever made in his product.



Collinsville mixing plant for Nicol Sand Company around 1906. Pictured left to right are: Ed Hartman, Ed Nicol, Herman Schurman, Gustav Nicol, Sr., Irvin Nicol, and Henry Hartman.

There was always a high turnover of employees in the sand business. Besides the hard labor, the work was sporadic, resulting in lay-offs between orders. During his thirteen years in Collinsville, Gustav hired dozens of men, most of whom left a short time later. Some of the men who worked with some regularity were Henry Hartman, Ed Hartman, Henry Rademeyer, Herman Schurman and Walter Bonn.<sup>3</sup> In addition, Gustav's sons, Ed and Irvin, both worked for him from the time they were young boys.

<sup>3</sup>Walter Bonn and William Greese (who will be mentioned later) were both son-in-laws of Gustav Nicol, Sr.

All the time Gustav was mining sand in Collinsville, he was aware that sand deposits are eventually depleted, so he was constantly looking for new deposits. One of the first he found and worked was in Columbia, Illinois. Ed and Irvin Nicol were sent to work this pit<sup>4</sup>, while Gustav remained in Collinsville. The Columbia deposit was worked for two years, in 1913 and 1914.

Prior to this time, Gustav traded orders with a sand man from Greenville, Illinois named Charles "Sandy" Varenhold (Spelling may be incorrect). The sand in Greenville was a very coarse sand, so when Gustav got an order for coarse sand, he gave it to Varenhold. In return, Varenhold gave Gustav his orders for the finer Collinsville sand. After 1914 however, this arrangement no longer existed, since it was at this time that Gustav expanded his business and began leasing land in Greenville from Ed Dressler and Jim Miller. Now when an order came in for coarse sand, Irvin Nicol would catch the train to Greenville and load the sand. By 1916, Irvin had moved to Greenville, and they had a permanent operation going there.

The year 1916 brought other changes for the business. The office of Nicol Sand Company remained in Gustav's home at 817 W. Clay Street in Collinsville,<sup>5</sup> but mining operations in Collinsville were discontinued. At the same time, they started mining a large deposit of sand that extended irregularly some two miles north from Arenzville, Illinois along the lower slopes of the valley wall. In a short family history written by Ida Nicol in the 1960's, she told about the discovery of sand in Arenzville. "One

<sup>4</sup>Ed Nicol's life was influenced by the Sand Company's work in Columbia, since he met his first wife while working there.

<sup>5</sup>The office was located in a garage at the back of their yard. Roy Nicol kept the books most of the time, but Louise Nicol helped out when she became old enough.

day when his father (Albert Nicol's father) was cleaning out a boxcar a hobo told him that there were sand hills between Beardstown and Arenzville, Ill. His father took a trip by train to investigate the hobo's story and through the train windows he noticed some beautiful sand hills near Arenzville. So, on the way back, he stopped to investigate those sand (hills), and found them to be good moulding sand. Later he started a good moulding sand business in Arenzville." (Although this story sounds almost too charming to be true, it has been verified by several family members who were around when the discovery was made.)



Back row (l to r): Henry Hartman and Ed Nicol; Front row: Albert Nicol and unknown man

Irvin was sent north to start the Arenzville operation, but after a few weeks, he was needed in Greenville, so Ed Nicol became the manager at Arenzville. About a year later, Ed joined the army (WW I) and Albert Nicol entered the sand business for the first time. At the young age of 20 he became manager of the Arenzville branch of Nicol Sand Company.<sup>6</sup>

During these early years in the sand business there was only one serious accident. The accident occurred at the Greenville

<sup>6</sup>One of the first things Albert did when he arrived in Arenzville was to find a room. He found a wife at the same time when he rented a room from Frederick Nobis and later married his daughter, Ida.

pit on January 31, 1918 when Walter File of Greenville was injured when a sand bank collapsed. Mr. File, along with several other men, was loading a wagon when a bank of sand they thought was frozen suddenly began to slide. According to a newspaper a count at the time, (Greenville Advocate, 4 Feb 1918, Page 1) File was "struck in the groin with a large piece of frozen dirt." A doctor was called immediately and File was taken to his home in Greenville. The doctor was forced to drive slowly because of File's injuries, so by the time they reached the warmth of a fire, File was suffering from both shock and exposure. Although he at first seemed to be recovering, File's condition suddenly deteriorated and he died that same evening. Death was attributed to the effects of the shock as well as a heart condition. Fortunately, accidents in the sand business were rare, and there was never another that resulted in loss of life.

The years during World War I and immediately afterward brought success to the Nicol business. The days of log cabin living had been gone for several years. Gustav's daughter Louise remembers, "When I was confirmed in 1920, that was some of the best years my father had. He took in \$50,000 that year." That was a lot of money for the time but largely due to poor investments, Gustav was unable to save any of this money.

It's easier to see how the business was run in those days by looking at each part of the operation separately. Gustav Nicol, Sr. ran the office in Collinsville and did some sales work, although most of their orders were through sand brokers like Manley Sand Co., Carpenter Brothers Sand Company or Warren Sand Company. There were always two pits in operation after the move to Arenzville in 1916.<sup>7</sup> Albert and Irvin were the plant managers.

<sup>7</sup>Sand was also mined in Mulberry Grove and Kinderhook, Il, but not in significant amounts. Also, in 1912 sand was found in Wanda Illinois & Gustav purchased a 99 year lease on 20 acres of ground for \$3000. The sand proved worthless.



The Gustav Nicol home and headquarters for Nicol Sand Company until the 1930's. Family members are standing on porch.

During the 1920's the Greenville and Arenzville operations became very different. In Greenville, which was managed by Irvin Nicol, the biggest change was in the method of mining sand. Greenville had purchased some large Armleider trucks in 1918 that turned out to be very expensive failures. The trucks were too heavy to move on sand. Their big solid tires dug into the sand or slipped. By 1920, these were traded in for lighter, ton and a half Ford trucks which worked very well.

Also during the 1920's they began experimenting with mechanical shovels. The first they tried was a steam shovel which proved as disasterous as the Armleider trucks. Men could be hired to do the work for less than it cost to run that shovel. Next, in 1924, they tried a gasoline powered shovel which was a big success.

Although Irvin Nicol was manager of this branch throughout the 1920's, the location of the pit did not remain the same. Until 1922, they worked a pit near the Catholic Cemetery in Greenville. Then, from 1922-1926 they worked a



Both of these pictures, although taken in Arenzville, show equipment primarily used in Greenville. In the photo above Irvin Nicol is shown operating his gas shovel which was brought up from Greenville especially to help mine road rock for cemetery hill road in Arenzville. He caused quite a sensation when he brought his "machine" to town. Below is one of the ill-fated Armleder trucks. The men have been identified as (l to r) Bob Hamm, Henry Hartman (?), Bill Dufelmeier, and Leo Jones.



sand deposit about  $1\frac{1}{2}$  miles east of Tamalco, Illinois in Bond County. After 1926, he returned to Greenville, but worked a new area near the present day Greenville hospital. ✓

After Irvin got the gasoline powered shovel, less physical labor was needed to load the sand, so few of the workers names are remembered. Two known workers from this time were Ed Nicol, who went back and forth between Arenzville and Greenville, and Walter Bonn.

While Greenville was making all these advances, Albert was still loading sand with pick and shovel in Arenzville. The mechanical shovel worked well on Greenville's thick uniform veins of sand, but the Arenzville sand lay in narrower strata. During the

1920's and 1930's, there just was no machine with the precision to pick up one layer of sand and leave the unwanted layers alone.

Arenzville was also behind Greenville in getting trucks, but by the early 1920's, the horses were gone. This was when Henry Hartman, who had been with the company since the beginning, retired. Henry had always taken care of the horses, so when Albert's brother-



Albert Nicol

in-law, Julius Nobis, purchased the horses, Henry went along with them and became a farmhand the rest of his life.

As in the other sand operations, there were many employees in Arenzville during the 1920's. Besides Henry Hartman, there were Otto Lovekamp, Bob Hamm, Bill Lovekamp, Leo Jones, and Bill Dufelmeier, to name a few. Ed Nicol also returned to Arenzville to work for a short time. There were many others, but their names have been forgotten over the years.

On November 19, 1927, Gust Nicol Sand Company became an Illinois Corporation. (Illinois Certificate # 31627) The object of the corporation was listed as "the loading, shipping, and selling of sand." Their assets included leaseholds, loading stations and equipment in Arenzville and Greenville, Illinois. One hundred and fifty shares of no par, common stock were issued at \$1000 per share. These shares were all purchased by family members. Gustav Nicol, Sr.



Nicol family portrait taken in 1929. Pictured in front row (left to right): Howard Nicol, Gustav Nicol, Sr., Mary Tribout Nicol, Gustav Nicol, Jr. Back row: Elmer Nicol, Alma Nicol Grese, Roy Nicol, Ida Nicol Bonn, Albert Nicol, Sr., Elsie Nicol Michael, Irvin Nicol, Louise Nicol Meier, Edward Nicol

owned 60 shares, and the following of his children and sons-in-law each owned ten shares: Edward Nicol, Roy Nicol, Irvin Nicol, Albert Nicol, William Grese, Walter Bonn, Louise M. Nicol, Howard Nicol, and Elsie Nicol. The last three names on this list were still living at home when the corporation was formed, so it is assumed Gustav paid for their shares since they had no money of their own. The first board of directors also consisted of all family members. They were: William Grese, Gustav Nicol, Sr., Albert Nicol, Irvin Nicol and Roy Nicol.

NAME	NUMBER	ADDRESS	NUMBER OF SHARES	AMOUNT SUB- SCRIBED	AMOUNT PAID IN
		STREET CITY STATE			
Gustav Nicol	817 West Clay	Collinsville Ill.	Sixty	\$6000.00	\$6000.00
Edward Nicol	920 W. Clay	Collinsville Ill	1000.00	1000.00	
Roy J. Nicol	Summer Blvd	Collinsville Ill	1000.00	1000.00	
Irvin Nicol	Franklin St	Greenville Ill	1000.00	1000.00	
Albert A. Nicol	Box 117	Arenzville Ill	1000.00	1000.00	
W. F. C. Grese	403 A East Main St	Collinsville Ill	1000.00	1000.00	
Walter L. Bonn	815 Powell Ave	Collinsville Ill	1000.00	1000.00	
Louise M. Nicol	817 W. Clay St	Collinsville Ill	1000.00	1000.00	
Howard Nicol	817 W. Clay	Collinsville Ill	1000.00	1000.00	
Elsie Nicol	817 W. Clay St	Collinsville Ill	1000.00	1000.00	
					00
				150.00	150.00

The above signatures are taken from the corporation certificate dated November 19, 1927.

In 1927 when the corporation was formed, the company was still doing well. The family wasn't rich, but they had everything they needed. Then came the stockmarket crash of 1929. According to Irvin, they loaded 660 cars of sand in Greenville for the year 1929. In 1930 the full force of the Depression was felt when they loaded only 30 cars of sand.

When the depression came the family was hit hard. Business dropped to practically nothing, leaving them with many unpaid bills. Sometime between late 1929 and 1930, Albert took over most of the debts in exchange for the Arenzville operation. This helped the financial situation for the rest of the family, but even with these bills gone, Gustav had lost the house in Collinsville by 1933.

The Depression marked the end of the Greenville operation. This branch remained on the books as an active corporation until October 6, 1942, but they never loaded more than 45 cars a year after the stockmarket crashed. The family members who had invested in the corporation all lost their money.

Irvin Nicol, having a family to support, left the company in 1930 to find work elsewhere. Gustav, Sr. then ran what was left of the company until 1931 when Gustav, Jr. came to work for him. As Gustav, Jr. recalled, "When I started, there really was no business left. In fact, I worked from 1931 to 1934 and then went to work for the county because they didn't have enough work to support me. Grandpa (Gustav, Sr.) was paying me \$15 a week whenever he could. And sometimes I got it, and sometimes I didn't."

Usually, when there was an order to load, Gustav, Jr. would call on two local men, Bud Beims and Charlie Willman, to help him load, but there were times when they couldn't afford to hire anyone else, and he would find himself loading

the sand alone. Other times, when there were orders to fill, people like William Grese or Walter Bonn would come over from Collinsville to work a day or two. On summer vacations, Elmer Nicol might come to work with Frank Moore and some of his other friends. Also, by the mid-1930's, Gustav, Sr. was living in Greenville and helped out when he could. (Sometime during the early 1930's Gustav, Sr. was injured when he was pinned between a truck and the sand bank. His injuries were not thought to be serious at the time, but there were effects later on. He also had a heart attack during the 1930's but it is unclear when this happened. At any rate, he was unable to do much work with the business after this.)

Roy Nicol supervised the work in Greenville after Gustav, Jr. left in 1934. Roy had always kept the books, so now when an order came in he would contact Bud Beims or Charlie Willman, who would fill the orders for him using Nicol equipment.

With Greenville's operations all but closed, Arenzville was the only going concern left. During the 1930's, its business was terribly slow. Albert's oldest son, Wilbur, wrote, "During the Depression years (1929-1939), Dad struggled to bring the Nicol Sand Company from near bankruptcy to a solid financial business. I have many vivid memories of these, my teenage years. For example, going along with Dad to Quincy or Litchfield on 'drumming trips' when he called on foundries selling his sand. Dad also put in a lot of physical work with pick and shovel."

There were few things the family had to buy during those Depression years, but still the sand business alone wasn't enough to support the family. They lived with Albert's mother-in-law, so there were no housing costs. Food was always plentiful thanks to a large garden, home butchering

of hogs in winter, raising their own chickens, hunting wild game, and fishing in the local rivers and streams. They only needed to buy staples from Zulauf's store in Arenzville, such as flour, sugar and coffee, but even these were often purchased on credit. Wilbur wrote, "We were just desperately poor. The thing that made it bearable was that everyone was in the same straits."

The sand business was just not providing enough cash to provide for a family with seven children. Albert's oldest daughter, Muriel, wrote, "I can remember Dad going to the post office (Box 117) every day, hoping against hope that he might get an order. Usually he didn't." When there were no orders, Albert tried to find other work. He tried selling insurance at one time, but wasn't too successful with that. During the summers he would hire out to farmers and help cut and thrash grain. In the winters when there were no orders he would cut wood with one of his workers, Roy McCloud. One day they would cut for Albert, and the next day for Roy.

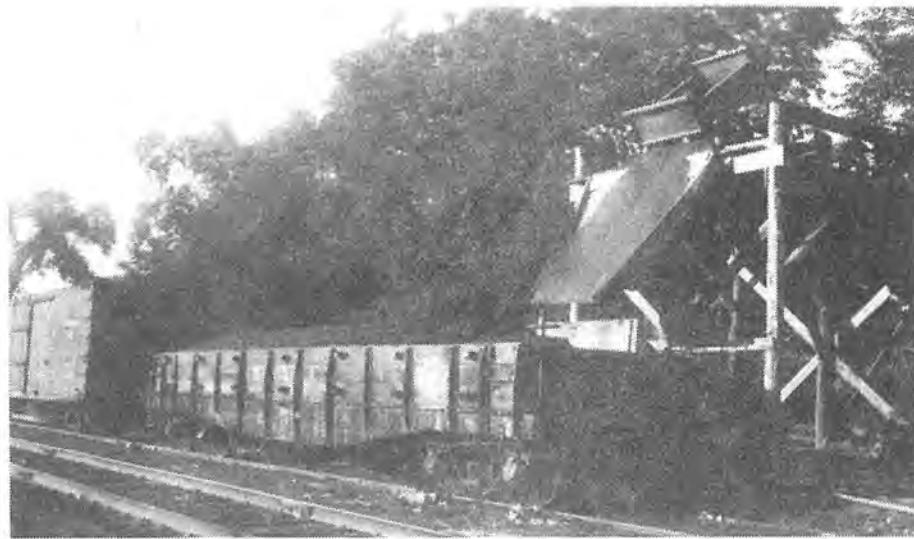
Business never ceased completely during this period. According to Roy McCloud who worked for Albert from 1930 to 1941, they'd get an order, fill it, and then wait until another came in. Sometimes that could be a week or more. It usually took six men to load a 30-40 ton car of sand in a day in the early thirties. (In the late thirties, before automation, it took about 10 men to load three fifty ton cars in a day.) If the men worked a full six day week, they were paid \$18.00. In winter, they sometimes worked 10-11 hours in a day to finish a car of sand. The reason it took longer in winter was because of the frozen ground. Muriel wrote, "During the winter when they did have work, they often had to open the frozen banks by dynamiting the frost out of the ground. Everytime they used dynamite, Dad

would get terrible, terrible headaches. He always thought it was the smell or smoke, because if he stayed completely away from it until the smell and smoke were gone it was usually OK. He didn't like to have someone else work with the dynamite because it was dangerous." In later years they used less dynamite when they learned to cover the ground during winter with three or four feet of straw to keep the frost at a minimum.

Roy McCloud was only one of many employees at Nicol Sand Company during the 1930's. A few of the regulars were Wilma Witte (secretary), Luther Lovekamp, Clyde Wheeler, George Newberry, Johnny Lutkhas, Edwin Lovekamp, Ray Cararon, Bob Roegge, Olaf Brockhouse and Charles Long<sup>8</sup>. Many men in Arenzville worked for Albert at one time or another, as he had a "primary source" of employment for the small town. In those times, the 25¢-30¢ an hour he was offering for wages was considered good money.

Even with the work slowdown, the business continued to show progress. Up until the mid-1930's, the sand was loaded into trucks, hauled to the train, and then shoveled off the trucks into the train cars. A big improvement was made when they built a dump on the hill above the tracks. With this addition, they were able to back up the truck, dump the sand, and then let gravity move the sand down the chute into the train cars below. Later, Albert fashioned a "mill" from some old threshing machine cylinders to improve his product by grinding the lumps and blending. Following this

<sup>8</sup>Charles Long and Albert were involved in an accident in the late thirties. In the sand business at that time, keeping your tools sharp was very important, since it made the work easier. One day while waiting for the truck to return, Charles was sharpening his shovel and when he was finished he gave it a toss to show Albert how well it was done. Unfortunately, the shovel landed on Albert's foot and nearly cut off his big toe. He was laid up for several weeks due to the injury, but it eventually healed.



Sand dump in Arenzville, Illinois (1930's)

was the purchase of a small Steadman Mill. Foundry technology by this time had advanced to demand the testing of sand for clay content, strength and permeability, so Albert set up a small laboratory to do this work.

Also about this time (late thirties), Albert made business connections with Manley Sand Company of Rockton, Illinois who were sand producers, but also sand brokers in the total foundry sand field. As Albert's son, Wilbur, wrote, "They came to depend on Dad to furnish their 'fine' sand line. To Dad the advantage was to relieve himself of the selling part of the business so that he could concentrate on the production end. Also, Dad could through Manleys get such large customers as International Harvester, John Deere, etc."

By 1938-1939, just as the economy was heating up on the threshold of World War II, the sand deposits around Arenzville were nearly depleted. At the same time, the sand deposits in the Savanna, Illinois area were discovered

by one of the Manley brothers.<sup>9</sup> Their strategic location near foundry centers and on two railroad lines was recognized at once. Because of Albert's experience and ability, Manley asked him to develop these deposits for them.



This photo, taken in front of the mill & bunkhouse in Savanna, Illinois in May of 1940, shows (L to R) Everette Carpenter, Albert Nicol, Dwight Manley, ? Carpenter, Lyle Manley, and Wilbur Nicol.

Although Albert was actually the manager, in his absence Wilbur Nicol was put in charge of the Savanna plant. Despite dwindling reserves of sand in Arenzville, Albert was reluctant to move his family. He had strong ties to Arenzville, and was particularly concerned that Savanna had no Lutheran school for his younger children. Albert began training

<sup>9</sup>M. S. Littlefield wrote in his 1925 publication Natural Bonded Molding Sand Resources in Illinois that "no workable deposits of natural-bonded molding sand were found in Carroll County" which is where Savanna is located. That statement was proven false.

Wilbur to take over the Savanna plant so that he would be able to spend less time on the road and more time with his family.

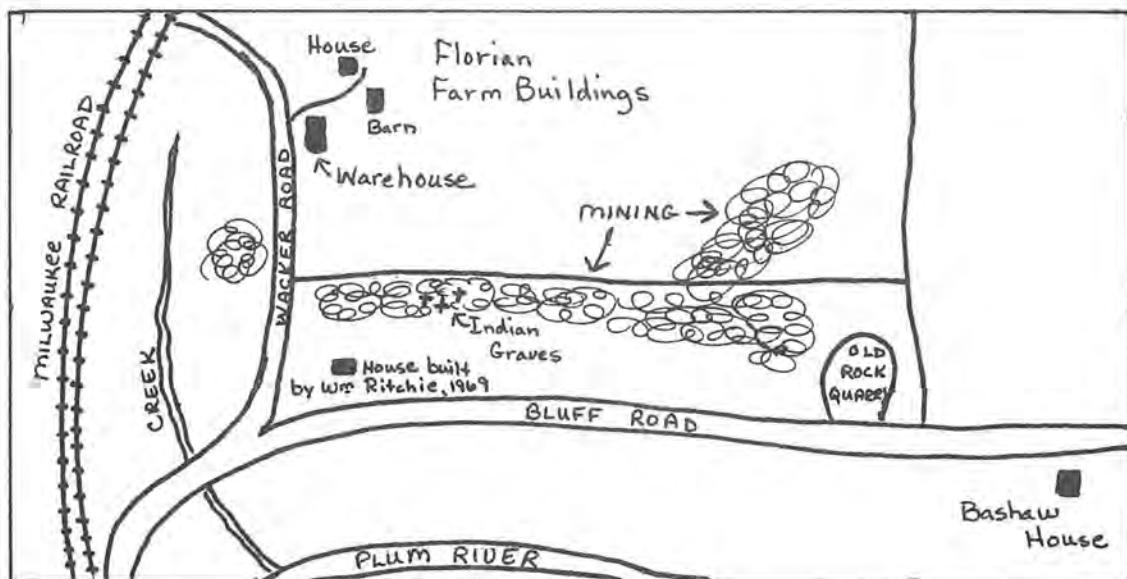
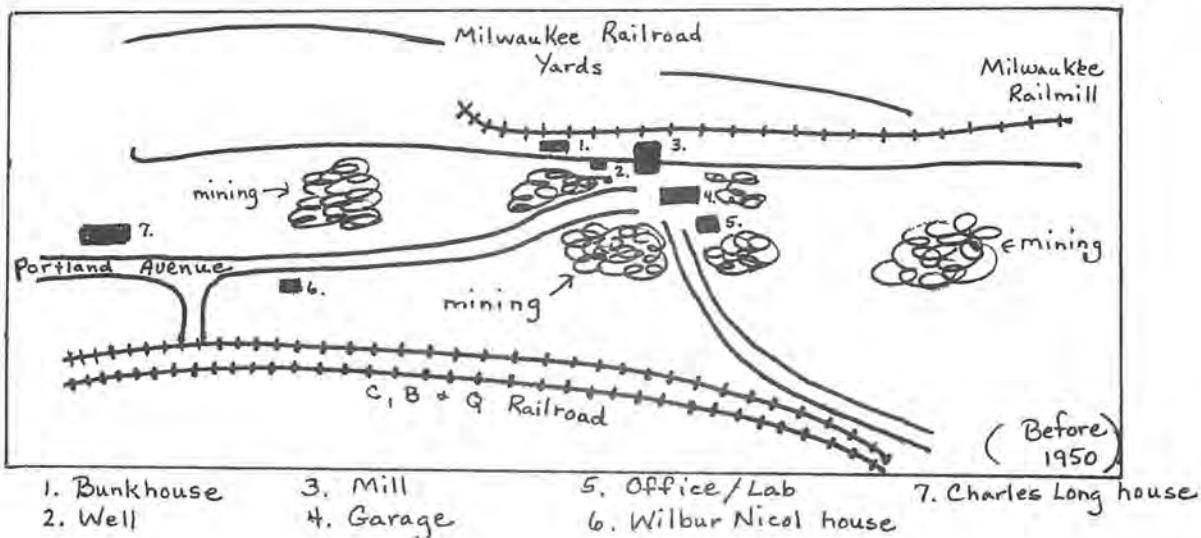
Savanna's sand proved to be of excellent quality and in great quantities. Wilbur wrote in one letter, "We found some exceptionally fine sand on the Gridley property (site of Savanna's present Methodist Church). The Milwaukee Railroad property where the mill was built was also a sizeable deposit. Then we opened up the deposits on the Mamie Florian farm.<sup>10</sup> We also mined some sand on the Earl Boothby property, site of the present city dump. The Savanna deposits were unique in that they varied in grain size from the very finest to medium coarse, thus giving us a product for the smallest aluminum and bronze castings to those for grey and malleable iron."

World War II brought a big boost in the foundry sand business. Before the war, the sand business catered to customers such as International Harvester, John Deere, J. I. Case, Maytag and many smaller firms. During the war they shipped exclusively to defense plants. Maytag, who manufactured B-29 gun turrets instead of washtubs during the war, at one time was calling for 3 car loads of sand per week from Nicol Sand Company. Wilbur Nicol was given a draft deferment for two years because of the Maytag account.

Although the war helped business, it also caused some problems. The Savanna Ordnance Depot was expanding because of the war and the railroad and construction industries were also expanding. The result was a shortage of both manpower

<sup>10</sup> About one and a half miles from the junction of Bluff and Wacker Roads, on the hillside above Bluff Road, Indian graves were uncovered while mining sand. (On the Florian Farm) The graves were covered again and they moved farther down the bluff to continue mining. (See maps on next page for location of graves and mining sites.)

## SAND DEPOSITS - SAVANNA, ILLINOIS



These sketches show some of the sand deposits in the Savanna, Illinois area that were mined between 1941 and 1961. Sketches were copies from a letter written by Wilbur Nicol (July 14, 1979).

and housing in the Savanna area. This was one of the main reasons they decided to "import" men from Arenzville where the going wage was 25¢ an hour, compared to the 40¢-50¢ an hour being paid in Savanna.

They built a shed-type bunkhouse to sleep twelve men. There were three main areas in the bunkhouse: One end had bunkbeds for sleeping, the center had kitchen facilities, and the far end was Albert's office. They sometimes had a cook, often the wives of some of their workers like Nellie Lewis or Ruth Spears, but other times they were left to do their own cooking.



The original mill and bunkhouse in Savanna, Illinois. Building above these (in back) is garage built in the late 1940's

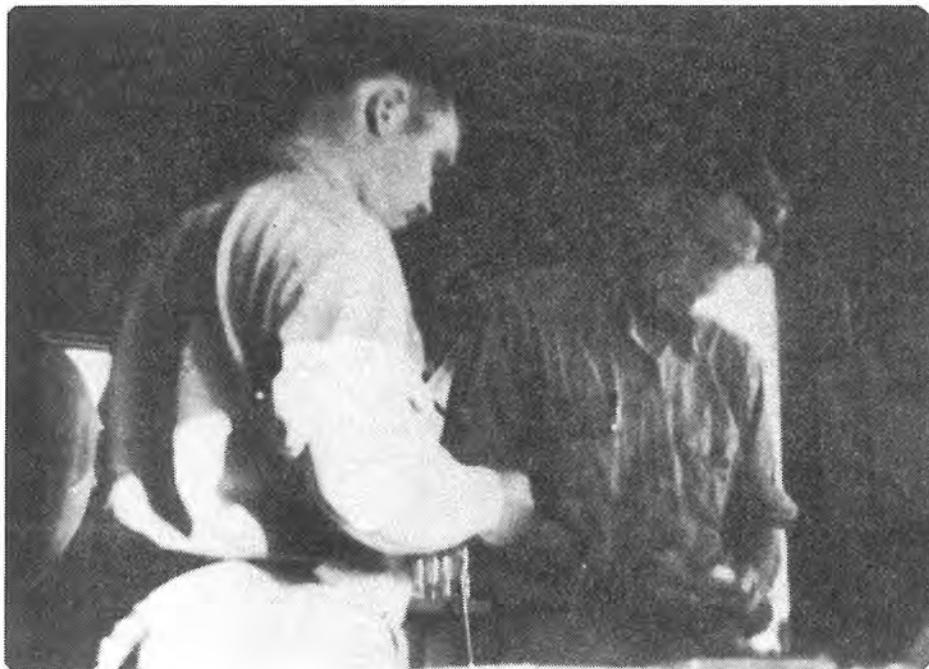
During the bunkhouse years, the men came to Savanna to work during the week, and drove home to Arenzville on weekends. At one time, as many as sixteen men were commuting to work in Savanna, where they lived in the bunkhouse. A few of the men who lived in the bunkhouse during this time were Bob Roegge, Clyde Wheeler, Billy Charlesworth, Charlie Herbert, and Luther Lovekamp. Lee Nicol also worked in Savanna from his graduation in 1942 until May, 1943 when he went into the army. He wrote, "There were a lot of kids like me that worked there from graduation until army time. Some that I can think of were Wayne Schone, Dean



BUNKHOUSE  
LIVING  
(1940)



Bunkhouse living had most of the necessities, but few of the luxuries of life. Above, Luther Lovekamp washes up for the day. At right, Clyde Wheeler indicates the type bathroom facilities available. Below, Albert Nicol (left) and Bill Charlesworth take a turn at kitchen duty.



Zulauf, Chester Lutkehus, Marlin Winkleman, Doc Hansmeyer, Glen Lovekamp and Red Peck. We all drove back and forth from Savanna to Arenzville on weekends.

As business increased, the commuting workers became more and more of a problem, but this was relieved somewhat with the purchase of a newly invented tractor end-loader.

Melvin Musch, a farmboy with tractor experience, was hired to operate the first end-loader, which proved to be a good investment. For the first time, the sand could be loaded with a power shovel instead of being shoveled by hand, so the demand for labor was reduced. In 1943, Albert bought two houses in Savanna, one in Highland Park and the other in Chestnut Park, and persuaded Charles Long and Werner Lovekamp to move to Savanna with their families to work at the mill. By this time Wilbur had married and had a home in Savanna and Luther Lovekamp was living in Savanna, so they were able to abandon the bunkhouse system.

When Albert bought the new end-loader, he had problems finding drivers for it. In 1943, he asked his brother, Elmer Nicol, to come north to help out. This was shortly after the bunkhouse system was discontinued, so Elmer and his wife and children took up residence in the bunkhouse. Elmer stayed only a short time (9-10 months) before returning to Collinsville. The bunkhouse was not an ideal place to raise a family.

Things were going smoothly for the two plants until Wilbur lost his deferment in October, 1944. For a short time, Albert tried to run both plants himself, but it was physically impossible for one man to maintain two plants 190 miles apart. There were the added problems of finding available cars, gasoline and tires for the many trips back and forth between plants. Even with an "A" card allowing him to buy gasoline and tires without rationing restraints, there were just none to be found.

It was about this time that Harold Buck entered the sand business.<sup>11</sup> About a week before Harold married Albert's daughter, Muriel, Albert approached him about moving to Savanna to work for him. Muriel said of those times, "Dad needed help desperately and Buck was (classified) 4-F since he is deaf in one ear. So, our plans changed and we moved to Savanna in January of 1945."

Muriel went on to describe their first few months in Savanna. "The town was overflowing with people and everyone, even the farmers who had empty rooms, or even a shed they could empty, rented them out to SAD (Savanna Army Depot) employees and their families. Needless to say, there was no place for Buck and I to rent, so we moved into the bunk-house down by the sand mill, along with Dad, Bob Roegge, and a couple other workers." They slept, cooked, ate their meals, and tested sand, all in the same building. Muriel took care of the office, as she had done for a while in Arenzville, until August of 1945 when Albert hired Miriam Kreuder as secretary.

Fortunately, this arrangement didn't last long. In the Spring of 1945, Albert bought a house on Chicago Avenue and with great reluctance moved his family to Savanna.<sup>12</sup> Bob Roegge, who had been a regular employee until now, decided to quit rather than make a permanent move to Savanna, so for the remainder of the war, the main workers were Albert, Charles Long, Harold Buck, Luther Lovekamp, Jim Brown, and Werner Lovekamp. Albert's three sons that were old enough to work in the business were all in the service.

<sup>11</sup>One of the first things that happened to Harold Buck in the sand business was an accident. They were working on the end-loader one day when a crowbar slipped out, flew through the air and hit Harold in the head. He was lucky his only injuries were broken teeth. As a result, he's had false teeth since he was 21 years old.

<sup>12</sup>Harold and Muriel also lived at the house on Chicago Avenue for a while, until they moved out to the Florian farm where Harold began farming.



Albert Nicol family in 1942, 3 years before they made the move to Savanna. Front Row (l to r): Shirley Nicol (Ritchie), Albert Nicol, Sr., Ida Nobis Nicol, Dwight Nicol Back Row: Muriel Nicol (Buck), Wilbur Nicol, Leland Nicol, Albert Nicol, Jr., Joyce Nicol (Goss)

Albert bought two other pieces of property in Savanna in addition to the houses for Longs and Lovekamps, and his own home. After paying royalties of 15¢ a ton for several years, he purchased the 80 acre Florian Farm and the 55 acres around his mill that were formerly the property of the Milwaukee Railroad.

Another technological improvement, in addition to the end-loader, was made during the 1940's that is worth mentioning. About 1942-1943, Albert bought a rotary dryer. Until this time they had always been at the mercy of the weather. On wet days they loaded wet sand and on dry days they loaded dry sand. The sand now went through a series of screens, which took the roots out, through the dryer, and out on a conveyor belt. This was one of the last major changes in the molding sand production process. This isn't meant to

say that the old ways used by Gustav Nicol in 1898 were not still being used. Wilbur Nicol remembers an incident that demonstrates just how accurate these old fashioned methods could be.

The early testing method for checking quality control of the sand was to feel it. They would look at it and rub it between their fingers to determine how much clay was in it or how coarse the sand was. By the early 1940's they had tests for all these things which could, for the most part, be performed on the spot. There was one particular test, however, that took a day or so to complete. One day when Wilbur was working in Savanna, Albert came up from Arenzville to make sure everything was running as it should. When he felt the sand Wilbur was loading, he said it was too coarse. Wilbur couldn't understand this since tests of sand loaded only a day or two before had shown the sand was all right. Albert kept insisting the sand was too coarse, until the test results came back a day or so later, proving Wilbur was right. They found eventually that the difference in opinion came from the fact that Albert had just gotten new glasses with bifocals. Once he was adjusted to these, his judgement again became accurate. As Wilbur said, "That demonstrates the art of feeling sand."

After the war, business remained good, even without the work for defense plants. The Nicol boys who were in service, Wilbur, Albert, Jr., and Lee, all returned home and went to work for the sand company. Albert Nicol, Jr. stayed only a short time before moving away, leaving Wilbur and Lee to work with Albert.

In the years that followed, Albert did some expanding. In 1948, Wilbur and Paul Rury of Savanna built a 30 by 60 foot concrete building on the land above the plant. The building was to be used as a garage and repair shop.



Garage/Repair shop built in 1948; Office built in 1950 when the new plant was built.

Shortly after it was built, the whole front end of the building was knocked out. Wilbur Nicol said, "This was when we had those International tractors, and I had something go wrong with one of them out in the pit. And it was raining, (so, being in a hurry,) I put the tools in the dipper of the tractor. And I'm backing into the shed, looking over my shoulder, and never realized I had that dipper up too high. And I hooked the top of that door and tore the whole front end of that building in. And I just got through building it. Oh, I could have cried. I couldn't even go back and look at it for a while, but nothing rested until I built her back up again."<sup>13</sup>

In July of 1949, Wilbur decided to leave the sand business and start farming. Albert was very unhappy with Wilbur's decision and it caused some hard feelings at the time, but Wilbur felt there just wasn't room for so many Nicols in the sand business. It wasn't big enough. After

<sup>13</sup>The garage is presently owned by Terry James of Savanna and is used as an auto body shop. The building looks about the same now as it did when it was built in 1948. Results of Wilbur's accident can hardly be detected.

Wilbur's departure, Albert and Lee were the only family members left in the sand company on a full time basis. Albert's youngest son, Dwight, worked there part-time after school and during summer vacations during high school but not on a regular basis.

The year 1950 brought major changes to Nicol Sand Company. The Milwaukee Railroad decided to expand their yards, so the old plant and bunkhouse had to be torn down. Lee Nicol told how they were able to stay in business while moving their milling equipment. "The railroad let us load thirty cars of sand ahead and they put them on a side track so that we could bill them as orders came in. We then tore the plant down and moved the machinery to the new location. We set the machinery and started moving sand. The buildings were built around the machinery. It was just six weeks from the time we loaded the last car load of sand from the old plant till we loaded the first car from the new plant. For the six weeks we were down we shipped the thirty cars that were loaded ahead and then trucked our sand to Manley's plant in Byron, Illinois and processed it there. We would truck sand over all day while they made their sand. When they shut down for the day, we would run our sand through their plant."<sup>14</sup>

At the same time, they also built a new 20 by 30 foot office and laboratory where they could run complete tests on every car of sand they shipped, including clay tests, screen tests, permeability tests, moisture tests, and green strength tests.

In a 1964 trial transcript where Albert testified as an expert witness, Albert described the new plant.<sup>15</sup> "It consisted of a metal building 40 by 120 feet long. We had a

<sup>15</sup>State of Illinois vs. Bill Chadwick

<sup>14</sup>Extra men were hired so they could work 24 hours a day loading the train cars ahead of time. Two of the extra men were Spiros Thomas and one of the Kampus men.

dryer in there that was 40 feet long and  $6\frac{1}{2}$  feet in diameter. We had a vibrating screen in there. We had a Steadman mill in there. We had conveyors carrying sand directly from the dryer to the screens and the mill. We had feeds where we backed trucks in and dumped sand feeds that you could regulate to put a certain amount of whatever grade you wanted to into the plant."



New sand mill built in 1950 after the Milwaukee Railroad decided to expand their yards.

Around 1950, the business stepped up their production of sands other than natural-bonded molding sand. Now they began furnishing sand for blacktop. It was a fine sand, used in the final layer of blacktop. Lee wrote, "The first job that used our sand was Chicago Avenue in Savanna when it was widened and blacktopped, and Route 64 between Mt. Carroll, Illinois and Polo Junction, also Mt. Morris (Illinois) to Rochelle. We trucked sand to Freeport (Illinois) for streets in Freeport also."

The sand business continued to operate successfully during the 1950's with the main workers being Lee Nicol, Charles Long, Luther Lovekamp, Robert "Barney" Phialmlee, Bob Walker and Dave Truninger. Two of the secretaries during the 1950's were Norma Jean Simon and Sharon Byers. There were a few other workers during that time, but they turned over every year or so, and their names have been forgotten. As in the 1940's, two of their largest customers were still Maytag and International Harvester. They also sold to Muskegon Piston Ring Company and Frank's Foundries.

In January of 1960, Albert arranged a deal with Portage Manley Sand Company to sell Nicol Sand Company. Value was listed at \$35,000 for the buildings and 55 acres around the plant, plus \$30,000 for the rolling equipment. There was a farm north of Savanna that Albert wanted to purchase that was available for the same price as he was asking for the plant and land around it, \$35,000. For tax purposes, Manley purchased this farm and traded it to Albert in exchange for the sand property and buildings. The money for the rolling equipment was separate from this. The transaction also didn't include the Florian farm Albert purchased in 1943.

After the final sale, Albert signed a contract with Manley to work in an advisory capacity and to assist in managing the Savanna plant. He also agreed not to work for any other sand dealer during that time. When the Savanna pit was closed in



Pictured at left are Albert Nicol and his wife, Ida, shortly after his retirement.

July of 1962, Albert became responsible for upkeep of the property until his contract expired in January of 1964 when he retired. The men working for Albert when the plant closed were hired by Manley at their plant in Oregon, Illinois, but only one, Lee Nicol, stayed on for any length of time.

This marked the end of the Nicol Sand Company, but there is still evidence of its existence around today. Some of their strip mining can still be seen. Although most of this ground has been leveled, landscapes were changed. Several generations of Nicols found their spouses and raised their children in towns they might never have known if it wasn't for the sand business. And finally, one Nicol remains in the family tradition. Lee Nicol is still a "sand man" with Manley Sand Company near Stevensville, Michigan.

## THE NICOL FAMILY

\*Denotes family member who either worked for the sand company, or whose spouse worked in the sand business.

\*Gustav George Casper Nicol married Mary Catherine Tribout (1865-1948) (1868-1960)

## Their Children:

Emil William (1889-1889)  
 \*Alma Catherine (Greese) (1890-1960)  
 \*Ida Estelle (Bonn) (1892-1962)  
 \*Irvin Walter (1893- )  
 \*Edward Sylvester (1895- )  
 \*Albert Adolph (1897-1971)  
 \*Royal James Lewis (1900- )  
 Theodore Arnold and twin sister (1902-1902)  
 Elsie Pauline Lillian (Michael) (1903-1948)  
 \*Louise Margeurite (Meier) (1906- )  
 Carl William Howard (1909-1981)  
 \*Gustav Melvin (1911- )  
 \*Elmer Oscar (1913-1968)

\*Albert Adolph Nicol married Ida Louise Nobis (1897-1971) (1897- )

## Their Children:

\*Wilbur Charles (1920- )  
 \*Muriel Mildred (buck) (1923- )  
 \*Leland Walter (1925- )  
 \*Albert Arthur (1927- )  
 \*Joyce Louise (Goss) (1929- )  
 Shirley May (Ritchie) (1933- )  
 \*Dwight Leroy (1937- )

Although these lists show all the immediate family that worked in the business at one time or another, there were many more distant relatives that also worked for the sand company, like the Roegges and the Lovekamps. Also, there were many, like the Long family, that became as close as family. (I remember one of the disappointments of my childhood was finding out Charlie and Betty Long were Not my aunt and uncle.)

## EMPLOYEES

The following list was taken from a salary ledger of Nicol Sand Company covering the years 1943-1949.

NAME	DATES OF EMPLOYMENT
Beard, Gerald	Sept & Nov, 1943
Brown, James David	Sept, 1945 - Dec, 1949
Buck, Harold Clyde	Jan, 1945 - Aug, 1946 Feb-Apr, 1948 Oct, 1948 - Apr, 1949
Buck, Muriel Mildred	Jan-Nov, 1943 Aug, 1944 - Apr, 1945
Cox, Ralph	Jan-Mar, 1944
Goss, Darwin	Jul & Aug, 1949
Hartman, Vernetta Beck	Oct, 1948 - Dec, 1949
Herbert, Charles	Jan-Mar, 1943
Hummel, George	April, 1945
Kreuder, Miriam	July, 1945 - May, 1946
Long, Charles D.	Mar, 1943 - Dec, 1949
Long, Jess	Mar, 1945
Lovekamp, Luther	Jan, 1946-May, 1947 Apr, 1948-Dec, 1949
Lovekamp, Werner	Mar, 1943-Mar, 1946
Miller, Lois Jeanne	May, 1946-Dec, 1947
Morgan, Jim	April-Jun, 1945
Musch, Melvin C.	Mar, 1943 & Part-time throughout 1944
Nicol, Albert A., Jr.	March-Nov, 1943 Jan-Dec, 1944 Sept, 1946-Mar, 1948 Nov, 1948-Feb, 1949
Nicol, Joyce Dawne	Sept, 1946-Aug, 1948
Nicol, Joyce Louise	Jan, 1948-May, 1948
Nicol, Leland W.	Jan-May, 1943 (Army) Jan, 1946-Dec, 1949
Nicol, Wilbur C.	Jan, 1943-Sept, 1944 (army)
Paul, Theodore	Oct & Nov, 1944
Phialmlee, Robert	Jun, 1947-Dec, 1949
Ritter, Eileen	Apr-Jun, 1945
Roegge, Robert P.	Jan, 1943-May, 1945
Rury, Paul A.	May, 1947-Jan-1948
Schone, Phyllis Maxine	Apr & May, 1943
Schone, Wayne	Jan, 1943 (Army)
Spears, James	Jan, 1943-Dec, 1944
Stinson, Irwin	Jan, 1943-Dec, 1943
Taylor, James	Oct, 1948-Apr, 1949
Thompson, Jeanne	Jul, 1948-Dec, 1949
Trude, Donald L.	Oct, 1946-May, 1947
Truninger, David L.	Oct, 1946-Aug, 1947

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NAME	DATES OF EMPLOYMENT
Walker, Robert D.	May, 1947-Jan, 1949
Wheaton, Esther Bernice	Oct & Nov, 1943
Witte, Olga Marjorie	Nov, 1943-Aug, 1944
Witte, Wilma	Jan-Mar, 1943
Zulauf, Malcolm Keith	Sept-Oct, 1943 Mar, 1944



## CITY LOCATIONS:

1. Columbia	5. Greenville	9. Springfield
2. French Village	6. Mulberry Grove	10. Moline
3. Collinsville	7. Kinderhook	11. Savanna
4. Tamalco	8. Arenzville	12. Chicago

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Muriel Buck	Irvin Nicol
Charles Long	Leland Nicol
Louise Nicol Meier	Wilbur Nicol
Gustav Nicol, Jr.	Shirley Nicol Ritchie
Ida Nobis Nicol	William Ritchie