

## **Early Industries**

### **C.N. Cady**

A local machinist, Charles Norman Cady built engines to outfit cars and boats. In 1883, he established his machine shop and foundry on West Center Street, across from the Watson Wagon Works. Cady had the debut of his one-cylinder, HORSELESS carriage in 1901 in front of a crowd of astonished villagers. He later constructed an electric car for his wife, though the battery required charging after even the shortest distances. One-cylinder gas engines were Cady's focus for the first few years, and he built four cars and five trucks during that period. The truck engines ultimately made their way to New York City, where they were used in mail delivery vehicles. Unfortunately, Cady did not have the financing to pursue this endeavor on a larger scale.

Cady next turned his attention to marine engine construction. C.N. designed the one, two, three, and four cylinder engines, and Frank Shaffer made the patterns. These patterns were then sent to the foundry's molder, Arthur Smith. Cady was soon supplying engines for the boats made at the Tuttle Boat Factory. These engines were also sold along the east coast and along the St. Lawrence River. A few vintage power boats in these areas still operate with a Cady motor.

C.N. Cady also contributed to the success of the carousel in Sylvan Beach, NY. He made a steam engine for the ride. His children loved this, too, since they were always allowed to ride for free whenever they visited. (Source: CHH)

### **Canastota Glass Company (window glass)**

In April of 1881, C. Getman travelled from Cleveland, NY to meet with a village committee to discuss locating his glassworks in Canastota. Glass making began in the village later that year. Sand from Oneida Lake was a key ingredient to this endeavor. (Source: Sketches)

### **Canastota Knife Company**

Incorporated in 1874, the knife plant was located on North Peterboro Street. The company started out with an authorized capital of \$11,000, which was held by two stockholders. Over 600 knife designs were offered, including cigar cutters and special knives for removing stones from horses' hooves. At one time, the factory employed over 70 employees. The factory closed in 1895, reportedly due to an unfavorable tariff.

A reproduction of an early Canastota Knife Company catalog is available at the library. (Sources: OTS, Sketches, CRR)

### **Canastota Match Company**

The company was eventually purchased by the Diamond Match Company.

### **William Dobson, Maker of Molders' Tools**

Dobson, born in Scotland in 1867, spent his early years as an apprentice to a smith, mastering his skills on the forge, anvil, hammer, and iron. His abilities landed him a good job when he immigrated to America, settling first in Detroit, Michigan. While there, he developed his artisan skills, working in steel, iron, and brass. He eventually took to making molder's tools. In 1887, he accepted employment with

Goodwin & Burr as a tool maker. In time, he became a member of management, and he eventually gained ownership of the company.

Dobson moved with his wife and children to Canastota in 1896. He decided to continue making the celebrated "Detroit" molders' tools here. He started a partnership with Thomas Angel; the men ran their operations from a plant across from the old Chapel St. School. After this partnership dissolved in 1901, Dobson chose a new location on Spencer Street for his new plant. This facility was fully equipped for large scale manufacture, and employed 30 men at one time. Dobson's tools were sold all over the North American continent and even abroad. His business continued to thrive until its closing in 1932. Dobson started preparing for his retirement in 1930. He built a gas station, known as "Wee House", on Seneca Turnpike in Quality Hill. A small house was added on to the building, and Dobson lived there with his wife until his death in 1937.

William Dobson took an active interest in the community. He served as a Canastota village trustee for three terms and even ran for mayor in 1910. He also served on the local school board between 1913 and 1922. He was active in various fraternal and trade organizations as well, including the Masons.

### **Ellis, Joyce, & Hildreth Furniture (also known as The Ellis & Smith Company)**

Located at 117 east Center Street, this later became Lenox Furniture Shops.

### **Ideal Cut Glass Company**

Originally located in Corning, NY, (1903) the Ideal Cut Glass Company relocated to Canastota in 1905. William Hitchcock, who had once operated a jewelry store in the village, purchased the enterprise from its Corning founders, Luman Conover, Fred Johnson, and Charles Rose. The plant opened shop in the former Marvin Drill Company buildings on October 15, with 35 glass cutting stations known as "frames". Glass pieces to be cut were known as "blanks" and included a variety of items, ranging from candlesticks and coffee sets to all sorts of stemware. These items usually arrived from Corning, Belgium, or Newark, Ohio, with the heavier pieces receiving heavier cuts ("heavy cut" glass) and the more delicate pieces receiving lighter cuts ("light cut" glass). The Star Flower Pattern, patented in 1913, remains the most popular of the 80 "heavy" designs put out by the company. This is commonly referred to as the "Diamond Poinsettia", and it was the most expensive pattern offered by the company. With the conversion from gas to electric lighting, the company also found brief success in the production of lamps. A variety of designs were sold, including a lamp-aquarium.

Unfortunately, the Ideal Cut Glass Company was one of many industries unable to survive the Great Depression. The company filed for bankruptcy on March 14, 1933 and closed its doors by the end of that year.

### **Lee Manufacturing Corporation**

Specializing in overstuffed chairs and couches, Lee Manufacturing Corporation located to Canastota in 1894. The enterprise moved to the former Marvin and Casler building west of the present-day Roberts Street School. The firm closed in the early 1960's.

### **Lenox Furniture Shops (see The Ellis & Smith Company)**

Incorporated in 1893, this shop produced fine quality furniture until the early 1930's.

## **Lindley Boat Works**

Having served as a designer of motor boats with the D.M. Tuttle Company for over 25 years, William H. Lindley started his own boat factory in September 1906. Choosing a site on the south east corner of Main and Canal Streets, Lindley soon offered an array of fishing boats, speed hulls, passenger steamers, and motor-less boats.

## **Marvin and Casler Company**

The Marvin and Casler Company originated with the firm of Marvin & Casler, which was organized in 1894 for the invention and development of moving picture apparatus and also to develop cameras, printing machines, and other accessories for the American Mutoscope and Biograph Company of New York.

Herman Casler had successfully perfected and patented these devices, which were the precursors to the modern motion picture machine. The original creation was a camera that used friction bands to reduce slippage. This apparatus was further developed, resulting in the Mutoscope and the Biograph, devices that were used around the world. The biograph was initially challenged by Thomas Edison as an infringement on his own motion picture machine, and the controversy was fueled by the fact that a former Edison employee joined Marvin and Casler shortly before their invention made its debut. The locals found support through the legal process, however, and the originality of their device was established.

In 1904, Marvin and Casler formed the Marvin and Casler Company. Marvin served as president, Casler as treasurer, and R.L. Cooper as secretary and manager. Harry Marvin resided in New York and operated from the company's office in the New York Times Building on Broadway and 42nd Street. Casler and Cooper remained in the village. The Canastota factory developed into one of the best machine shops in the state, where various high grade products were made. Among the items manufactured were automobile engines, name plate machines, automatic palm readers, and a twin screw drill chuck, an offset boring head for use on the milling machines. The firm also continued with its motion picture innovations, developing the wurtoscope. Many of the company's products were manufactured for European and Eastern markets.

Note: An employee of the firm, Major Harry Weed, developed the tire chain around 1898, taking his inspiration from some local owners of "horseless buggies" who wrapped rope around their tires to increase traction in the mud.

## **Marvin Rock Drill Company (see The Marvin and Casler Company)**

Founded between 1894-1895, the Marvin Rock Drill produced rock drills. The company's founders pursued a variety of interests, and the venture evolved into the Marvin and Casler Company. (Source: CHH)

## **Patten and Stafford Company**

William H. Patten was born in Westmoreland in 1837. He moved to Clockville in 1866 and engaged in the manufacture of rakes in partnership with J.L. Mausfield & Company. In 1868, the firm changed to Patten, Clark & Company and acquired a building on James Street, between Peterboro and Main Streets. When Clark retired, Norman Stafford secured a half interest in the company, and the name of the enterprise changed again in 1873, becoming the Patten and Stafford Company. Having spent many years working on a farm, Patten combined his his natural inventiveness with his knowledge of farm

operations. His dump rake was patented by the company in 1874. This tool gained great fame, becoming known as the New York Champion Rake. Other quality farm implements soon followed, including various harrows, rollers, wheelbarrows, wagon jacks, and post mauls. Patten and Stafford tools gained respect across the nation and across the Atlantic. A Patten and Stafford showroom and sales office once existed in London, England during the peak years of the company. The plant itself gained the reputation of being one of the most well equipped manufacturing facilities in the state. Patten contributed to this achievement as well; he was known to create clever devices that improved operations and saved labor costs within the factory.

Norman Stafford retired in 1904, and the business was incorporated under the laws of New York state. William Patten served as company president, Milton DeLano served as vice-president and treasurer, and Kirk B. DeLano served as secretary.

In his personal life, William Patten also served in the community as a volunteer fireman. In fact, his devotion resulted in the renaming of the fire company in his honor. He even became the chief of the Canastota Fire Department and the first president of the old Madison County Fireman's association. (Source: CB, 8/17/1907; Sketches)

## **The Rex Watson Corporation (see Watson Wagons)**

### **Sherwood Brothers Manufacturing Company, Inc.**

Famous for their children's sleds and wagons, the Sherwood Brothers were the first to incorporate shock absorbers and springs in their wagons.

### **The Smith & Ellis Company (also known as Lenox Furniture Shops)**

With some prior success in the furniture business, Samuel C. Smith and Arthur N. Ellis came to Canastota in 1894. This firm was well known for its high grade china closets, buffets, and roll top desks. Book cases were also produced. Over 50 styles of china closets and buffets were produced in oak and mahogany, many with embellishments of plate glass, leaded glass, or French mirrors. In 1903, the growing success of the company called for more work space and a larger work force. The factory, which had taken over the old casket factory building, was no longer big enough to accommodate the new factory's production. Additions were added to both the main factory and the dry kiln and store house. A new power plant was needed as well. Additional men were hired. The original \$10,000 capital stock of the company grew to \$125,000 in less than 15 years.

In 1906, Smith sold most of his stock in the firm. He retired from his management position but stayed involved with the company through his new position on the board of directors. Ellis continued as an active production manager. He was well known in Canastota, having once served as the village's water commissioner and later as the president of the village.

Other officers of the company included C.A. Joyce, who was secretary, and A.H. Hildreth, who served as the company's treasurer. These men would later gain a bigger stake in the company, as is reflected in the renaming of the company to the Ellis, Joyce, and Hildreth Company. The company later became the Lenox Furniture Shops. (Source: CB, 8/17/1907; Sketches)

### **D.M. Tuttle Company**

Daniel M. Tuttle, a practicing lawyer in Oneida, took a quick interest in the new technology of the late nineteenth century--namely cars and motor boats. He devoted his spare time to the study of gas engines and planned for better methods of utilizing gasoline in the production of power. Mr. Tuttle moved to Canastota and patiently experimented for several years. He turned out this first engine in 1896. The following year, he had a model constructed by C.N. Cady of an 8 horse power engine weighing 350 pounds and standing 2 1/2 feet high. It was a two-stroke motor that didn't use cams or valves. Mr. Tuttle, unlike many inventive geniuses, was a good businessman and sought to develop the practical side of his invention. He immediately began to build marine engines for boats of various sizes on an extensive scale in Canastota. For the first few years, the work of building the engines was hired out on contract, but this was not entirely satisfactory. In 1899, a desirable location was secured on the back of the canal and adjacent to the New York Central Railroad where Tuttle erected his plant. Here, motor boat construction proceeded hand in hand with engine production.

Tuttle's enterprise grew quickly. Several additions to the building were soon required, and his workforce also steadily increased. Mr. Tuttle was not satisfied to rest on his laurels; he continued to make various improvements to the Tuttle motors. The engines ranged from 2 to 48 horsepower, the latter having 4 cylinders. Tuttle adapted to changing boat designs, offering boats in varying sizes and price ranges. Soon, his engines were unrivaled for their strength, durability, simplicity, and ease of operation. (Source: CB, 8/17/1907; CB, 6/12/1897)

### **Watson Wagons (also known as Rex Watson Corporation)**

David Watson moved from Stratford, CT to Canastota NY in 1893. The wagon proved very popular, and the plant was expanded in the early 1900's. Watson Wagons were used heavily in France and South America during World War I. Watson sold his plant in 1908 to Levi Chapman and A.A. Keesler, who continued with wagon production and later diversified into the manufacture of motor tractors (1915), trailers, and school bus bodies (1933). The name of the company changed to Rex Watson in 1926. The company celebrated its golden anniversary in 1936, with a special feature featured in the May 8, 1936 edition of the Canastota Bee Journal, highlighting more of the company's history and accomplishments. Below is an edited version of this article.

### **Westlake**

An outgrowth of the C.N. Cady Company. (Source: Sketches)

#### **Source Codes:**

CB/CBJ: Canastota Bee Journal

CHH: Canastota Historical Highlights of 175 Years in Words & Pictures, 1810-1985

CRR: Country Roads Revisited

OTS: Onions, Tomahawks, and Spoons

Sketches: Sketches of the Old Town of Lenox

## **Rex-Watson Corporation**

### **Golden Anniversary 1886-1936**

*Article taken from a supplement published in the Canastota Bee Journal on May 8, 1936. It has been edited.*

#### **From Dump Wagons to School Buses in 50 Years**

*It is a long cry from the luxurious modern school buses that now issue from the \$200,000 plant of the Rex-Watson Corporation of Canastota back through the years to the first crude dumping wagon that was built slowly and painstakingly by hand in a small barn at Stratford, Herkimer county. Almost fifty years have passed since the first dumping wagon was made. No one at that time would have believed that fifty years would see the dumping wagon business develop to the manufacture of buses to carry children from their homes to schools many miles away. Among the disbelievers would be the late David S. Watson, founder of the company, but even he would be satisfied to know that the buses made in his former factory are just as staunch, honest, and necessary in their day as the dumping wagons that he designed and manufactured were in his day.*

*The Watsons lived in Stratford, where the father of a growing young family worked by day in a small piano board factory and nights and holidays in his barn to build a wagon that would dump its load automatically. He had an idea of such a vehicle that was different from any of the few then on the market, and little by little, he worked at his invention, making many of the parts by hand. It was in 1886 that he was finally satisfied with his first dump wagon and began to seek out a market for it.*

#### **First Demonstration at Little Falls**

*There was an opportunity to give an exhibition of the working of the wagon at Little Falls. Watson had the new wagon, all nicely painted, drawn to that city for the demonstration. It brought the Watson Wagon to the notice of a Little Falls manufacturer and a banker, D.H. Burrell, whose practical eye saw the possibilities; he saw that the new wagon was not impractical and freakish as the others declared. Watson revamped his wagon, remedying the defects of the prototype. Mr. Burrell purchased it, and used it in grading a road. He stated to David Watson that the wagon had saved him \$2000 in labor bills.*

*This first sale paved the way for the launching of a new factory to manufacture Watson dumping wagons. Burrell had such faith in them and in the integrity of Mr. Watson that he financed the starting of the factory. After looking over several locations, David Watson decided to bring his new business venture to Canastota, where he bought what was then known as the "mop handle factory" in the western part of Canastota.*

#### **Canastota Plant Started in 1893**

*The Watsons came to Canastota in 1893 and lived on Stocking Street for several years. There were five children in the family, Blanch, May, Fred, Grace, and Nellie. For the first two years, it was pretty hard sledding at the new factory. Only about a dozen men were employed. Mr. Watson was general manager, office force, superintendent, and sales force. One by one, the wagons were made, sold, and shipped. If there were no orders for his men to fill, Watson started out on the road to drum up some business. It wasn't too difficult, since the wagons were good ones; they operated perfectly and stood up under all kinds of tests. The wheels were made of best oak and for many years made entirely by hand as well. The rims were set after the old style used by wheel makers for generations; tempered in a fire built in the yard of the factory.*

*Business steadily increased. Year by year, the force of employees increased, and new equipment was installed. Finally, it became necessary to enlarge the business and expand the factory. The two-story mop factory, which was 82 feet long and 35 feet wide, had been already enlarged during the second year of its occupancy. The ever growing demand for the wagons made better manufacturing facilities necessary. This called for more capital than Mr. Watson could command, which brings us to the second chapter of the firm.*

### ***Incorporated for \$40,000***

*At that time, Albert A. Kessler was a young man living in Syracuse who had become interested in the Canastota plant. At his suggestion, Mr. Watson took his problem to Levi S. Chapman, a promoter from Syracuse, who had organized many successful corporations. Chapman saw possibilities in the young and growing concern and organized a company with an authorized capitalization of \$40,000, of which \$25,000 paid in cash and \$15,000 represented stock issued to Mr. Watson in payment for his patents. Of the \$25,000 paid in cash, \$15,000 was used to pay off the real estate and chattel mortgage held by Mr. Burrell, leaving the new company only \$10,000 of actual capital with which to carry on the business.*

*The directors included several good businessmen and investors of Canastota, among them William H. Patten, Norman Stafford, LeGrand Colton, and J. Clarence Rasbach. Jacob and Charles E. Crouse, John Lyman, Thomas J. Leach and others were from Syracuse. Only a few men are left who worked in the Watson factory in those early years, and only two are still working for the concern in its present guise. They are George Harrison and Hall Robinson. Both of these men lived in Newport and came to Canastota about six months after Mr. Watson started making dumping wagons here. Mr. Harrison came as foreman of the woodworking department, while Mr. Robinson was foreman of the paint shop. With Mr. Robinson came his father, the late George Robinson, and his brother G. Elverd Robinson, both painters.*

### ***Stories Told of the Old Days***

*Many interesting stories are told of the company's early days. Mr. Watson was the idol of his men. He never believed in laying off his men in slack times, and he was always rather irritated when they did not report for work, even when it was not necessary. In those days the highest paid man in the factory received \$1.75 for a day of ten hours. Mr. Harrison, head of the woodworking department, has a wage of \$1.37 a day. But at that time dumping wagons were selling for much less than in later years. The yard capacity wagon sold for \$104; the largest ones went up to \$275. They were sold to municipalities for use as garbage and ash wagons and to contractors for grading. The building of good roads was then in its infancy, but many good road contractors bought them. It is said that they were so cheap that contractors often abandoned them at the end of the season, sparing themselves the expense of having them drawn back to headquarters for storage. It is also said that Watson Wagons were used in the construction of parts of the West Shore Railroad.*

*Those who worked for him in the early days remember his business trips. Many times when he came back late in the afternoon with some orders in his pocket, he would take off his good clothes, slip into overalls, send someone home to fetch his supper, and then set to work. Often 3 A.M. found him still working at the factory. Every morning he went through the factory and stopped for a "good morning" with each employee. If he had been away for a few days he always stopped for a handshake. For some years, no girls were employed in the office, but after a time, they began to invade that part of the factory. Mrs. Ross Woodworth was in the office for some years. She was then Miss Mabel Lewis. She was followed in the later years by Miss Addie Murphy of Oneida, Miss Jessie Wood of Higginsville, and finally by Mrs.*

*Ruth Farnam, who is still in the office. The whole plant was still one big family during those early years. Receipt of a good sized order was cause for rejoicing among all the employees.*

### **Output Hits 3500 Wagons a Year**

*Old records reveal that Mr. Watson and his men built about sixty wagons during the factory's first year of business. The following year, the output was increased to 120 wagons. This was considered a good record at the time, but it looked small in the later years when the output rose to about 3500 a year with factory running day and night. Another early employee was Edward Worden who came from Taberg with his family. He continued with the firm for many years but purchased a farm on New Boston Street in later life which he occupied until his death some years ago. Others who were identified with those early days of wagon making were William Bromfield, Myron Gardinier, George Vreeland, Charles Wolfe, John Hiney and the Humphreys, Edward, Ralph and Alonzo. The latter became superintendent in later years and still remains in that position with the present concern of bus makers.*

### **Bad Fire in 1901**

*The first disaster to the struggling little company was in 1901, when the plant was almost completely destroyed by fire. Luckily, the business was going so well that a new three story building was erected at once. Two years later, this had to be enlarged; by the end of the next year, enough buildings had been added to double the previous capacity.*

*The next tragedy of the Watson company occurred in 1903, when there was a boiler explosion which killed two employees, George Galway and Owen Thomas. The force of the explosion killed the two men instantly and shook all the buildings on the west side of the village. Both men were trusted employees and well liked. Genuine sympathy for the families was felt all through the village. As a result of the disaster, management ordered the construction of a larger boiler room to accommodate a larger and more modern boiler.*

*There was a lack of storage room in the plant during these years. In a busy winter season, all the available storage space would be filled; the wagons had to be stored out in the yards with roofing built over them like sheds. Sometimes these roofs consisted only of a board or two. When spring orders came in, the wagons were shipped by the dozens, and soon the yards were empty again. When the Canastota Window Glass Factory finally closed its doors for good, Watson purchased the facility primarily in order to salvage material and equipment. Dry kilns were made from salvaged lumber at the site, as more of these had been needed to speed up Watson's production.*

### **Plant Capacity Doubled**

*In 1904, the business had outgrown its quarters yet again. Construction quickly started, which doubled the factory's capacity. In 1906, a blacksmith's shop had to be built. The old method of building a fire in the yard to set the rims on the wheels had long since been abandoned for more modern ways. It was not until 1910 that the business took the step that put it in the class with bigger concerns. Until now, the office had been a very ordinary one, not very convenient and not very well equipped. However, as the force of officials and white collar workers increased, with the advertising, promotion and sales departments requiring ever increasing space, a new office building was built. It was a very imposing building containing rooms for all the heads of departments, a fireplace in the general manager's office, chandeliers, rugs, and more important still, the latest office equipment. By now, the company had acquired a considerable acreage with buildings on all of it.*

## **The Famous Watson Whistle**

No history of the Watson Wagon Company is complete without a mention of the Watson whistle that played tunes. This whistle was installed very early in the history of the Watson Wagon Company, probably around 1900. For years it was the pride of Canastota, as no other factory in central New York boasted a whistle that could play up and down the scale. It was used to call the men together in the morning and again at noon. Edwin Jones, one of the early employees of the company, was the engineer whose duty it was to blow the whistle. As he was a musician of ability, it was one of his hobbies to experiment by playing different tunes. He became somewhat of an expert, able to play a variety of songs. After the close of the World War, when Armistice Day was first celebrated, Mr. Jones surprised and pleased the people of Canastota by playing "America" and "Home, Sweet Home" on his whistle. This became a tradition for several years. The tone of the Watson siren was not only clear and sweet but was also very penetrating and could be heard for a long distance.

## **Change in Ownership**

A great change took place in the Watson Wagon Company in 1908. The founder of the company, David S. Watson, sold out his interest in the business and retired. In the fifteen years that had passed since he rented the old mop stick factory and began building dump wagons, he had seen the business grow to undreamed of proportions; from twelve men to a great, hustling factory; from an output of less than a hundred wagons a year to many thousands. The proposition to retire with a comfortable fortune for his old age appealed to him, so he turned over his interest and patents. He then started working on a new idea that he had been playing with for some time, that of fire prevention equipment in factories.

During his tenure at the factory, many changes had occurred in the Watson family. Following the death of his wife, David married a second time, his bride being Miss Carrie Lee, a sister of Charles A. Lee, who was the head of the Lee Chair Company in Oneida at that time. Three of his daughters were now grown and married. Sadly, he had lost his son, Fred to a ruptured appendix. Fred died while visiting the St. Louis Exposition with George Robinson to exhibit a wagon. It had been intended that he learn the wagon business and take over his father's role upon the elder's retirement. Another daughter, Grace, who had been in poor health for years, also died during this period.

Prosperity allowed the family to move from their first home on Stocking Street to the former Jarvis house on James Street, which Mr. Watson remodeled and changed to suit modern needs. This handsome home was also eventually sold as well, with David Watson taking a new home in Oneida, where he lived until his death.

## **Keesler Joins Watson Firm**

A.A. Keesler came to the Watson firm when the company was organized in 1899, starting out as the secretary and working his way to the position of general manager. When Mr. Watson retired, his holdings were purchased by Levi Chapman and Keesler. Charles E. Crouse of Syracuse was then president of the corporation, but in 1908, Mr. Keesler was made president as well as general manager. During the next several years, Mr. Keesler traveled all over the United States, forming personal acquaintances with large contractors in almost every city of the nation. His remarkable ability, given freely to the company, caused the business to grow steadily year after year. Net profits were less than \$3000 in 1899; by 1909, net profits had grown to \$80,000. This figure doubled by 1918. Keesler continued as president until 1918, when America went into the World War.

*During these prosperous years when the world was still using horse drawn dumping wagons and the factory was running at full speed, there were many other employees of the office and factory who served faithfully and well. Among them was Alonzo L. Humphrey, who entered the factory as a boy of 19, and in 1912, was made superintendent of the factory, a position he still holds today under Rex-Watson management. He left the employment of Mr. Watson for a few years, working for the Lee Chair Company and as a superintendent of an Auburn wagon company, but he ultimately returned to his old position here. C.W. Pancoast was superintendent before Mr. Humphrey. Others who served long terms of service under the regime of Mr. Watson and his successors included Earle C. Brown, Clyde Keesler, Fred a Clock, Leland E. Burrell, Edwin G. Walton, Lyman M. Caldwell, Louis O. Leaf. Fred Keesler was made foreman of the shipping department when the Watson Company was organized and remained for years.*

### **Original Dumping Wagon Burned**

*It was during the period when Mr. Pancoast was superintendent that the original dumping wagon passed out of the picture. The company had exhibited at the State Fair in Syracuse for some years; the original wagon was a part of this exhibit, used to demonstrate the improvements that had been made over the years. Thinking that the old model was of no further use, Mr. Pancoast had it burned rather than haul it back to Canastota.*

### **Watson Wagons in the War**

*When the war was first underway in Europe, around 1914, the modes of heavy transportation began to me revised to fit war needs. The Watson Company began experimenting along new lines. Its first effort was to produce a power dump wagon with a front wheel drive but it was found that these wagons could not be turned in a short space, owing to their long wheel base and by the fact that they were constantly in difficult positions. Their manufacture had to be abandoned, even though the experiments had mounted to the round sum of \$25,000. In 1915, the manufacture of a five-ton motor tractor was underway, and these were made for some time. Another pioneer project of the company was the manufacture of trailers, with a train behind a tractor hauling two or three yards of material in each wagon.*

*When the United States finally entered the World War, the factory had fully anticipated the military's need for dumping wagons. A.A. Keesler had combed the markets all through the east and the midwest for lumber and other materials. The entire plant was offered to the government, and thousands of the Canastota wagons were shipped directly to France. There, they were used for road construction on the American front and entered the city of Metz with the first Army of Occupation.*

### **Watson Products Corporation Formed**

*The next big change in the old Watson company was its 1919 reorganization into the Watson Products Corporation. At this time, two other Canastota companies, the Sherwood Brothers Manufacturing Company and the Marvin and Casler Company, merged with Watson. The Empire Axle Company of Dunkirk also joined the corporation. Each company continued to use its own plant.*

*The Sherwood concern was formed in Canastota in 1914 by John and William Sherwood. They made boys carts and sleds under patents taken out by William Sherwood. The factory occupied the plant of the old Patten and Stafford Wheel Rake Company on James St. One of the reasons Sherwood chose to consolidate was to take advantage of the scrap lumber which resulted after the woodwork for Watson's wagons was complete. These small pieces, all of the highest grade of lumber, could be incorporated into the small parts needed for the carts and sleds. Formerly, this waste material had been sold as firewood.*

*The Marvin and Casler firm was older than the Sherwood Brothers. It was incorporated in 1904 by Harry Marvin and Herman Casler. The latter had successfully perfected and patented the first moving picture camera, which was developed into the Biograph and became the foundation of all future motion picture machines. Later, the factory developed into one of the best machine shops in the state, where various high grade products were made. The Casler twin screw drill chuck, an offset boring head for use on the milling machines was among these products. The chief reason for the acquisition of this company was to secure the services of Herman Casler, whose ability as an engineer was well known. His talents would be a vital asset when it came to working out many engineering problems incidental to the production of new lines of manufacture.*

*The Empire Axle Company's output was worm-drive motor truck axles, which came into favor just before and during the war. The company's product was being used in automotive apparatus of all descriptions.*

### **Rex-Watson Name Taken in 1926**

*In 1926, the firm became the Rex-Watson Corporation, and the three subsidiaries were dropped. The trend of the times had been steadily moving toward commercial motor truck bodies, and as time passed, the Watson factory gave more and more of its attention to this line of manufacturing. In 1933, the focus shifted completely to the production of truck and special bus bodies, and the factory was gradually remodeled to suit this product. It is believed that the industry is still in its infancy, and there is every reason to think that the Canastota plant will have the same success with modern buses as it formerly did with dumping wagons.*

### **Model Industrial Teamwork**

*Until a few years ago, school bus construction was a "hit-or-miss" operation, with no satisfactory relationship of body plans and chassis specifications. Consequently, bus prices were unreasonably high, with each job often involving a complicated meeting of unsuited parts. The results were far from satisfactory. In the face of these conditions, Rex-Watson formed an association with the Stewart Motor Corporation of Buffalo. Combining the skill and broad experience gained through many years, Rex-Watson and Stewart have developed a line of school buses which embody all the essentials of comfort, convenience, and performance combined with many new safety devices and other exclusive features. Avoiding the mistakes made by others, this has proved especially fortunate.*

### **The New 1936 Rex-Watson Bus**

*There is considerable romance built around the ideas that prompted engineering of the Rex-Watson Safety Bus for 1936. President R. Imhofe called together all those responsible for construction of the new bus--all of his designers, engineers, plant superintendent, Harold Tomlinson, and purchasing agent, Herbert W. Brown. These men were instructed that the new bus must combine beauty, comfort, safety and economy of maintenance, with no one aspect being sacrificed for the benefit of any other, with safety being the obvious exception. Imhofe stressed that he expected the highest safety standards in every bus, hoping that all children would have as safe a ride as Imhofe would demand in the bus ridden by his own child. This was certainly a commendable spirit on the part of the Rex-Watson president, and his message caused a scratching of heads, and burning of much midnight oil to meet his rigid stipulations. His organizations responded as would the "thoroughbreds" they are, and they developed many ideas for equipment, as well as structural innovations. It is said by experienced engineers, and impartial manufacturers, that the 1936 Rex-Watson Bus certainly justifies its "Safety" emblem that is mounted on the rear of the bus.*

### **All Work Carefully Inspected**

Now that the engineers have completed their responsibilities for laying out all the features and specifications, they are spending a good portions of their time in the shop, and its various departments, checking on each and every body under construction, to see that it fully complies with their blueprints. One of the engineers, in a spirit of jollity that comes with a job well done, was talking with a Bee-Journal reporter and commented, "When next year comes and it is time to start the 1937 bus and build up from the present one, I'm going to resign my position." When asked why, he replied that "the present standard of safety, comfort, beauty and economy built into this job is so high; it will be exceedingly difficult to build from". He joked that he was going to get a job in a wheel barrow factory then, so he could start building from the ground up again.

### **A 1936 Tour Through the Largest School Bus Factory in the U.S.**

Going through the Rex-Watson factory, you can understand the quality relation between the buses they make and the old dump wagons that David Watson made in the same factory. His fundamental idea is there yet. He made his dump wagons "on honor", and his successors are building buses on the same principle. There is not much allure about a bus in its early stages. It is not until it gets a coat of enamel and a chassis that it gets interesting. Lumber for the buses comes from all parts of the country. The buyers comb the land for just the right materials; some have to be strong and others pliable and all have to be as indestructible as wood can grow. It is surprising how many small pieces of wood go into the making of a big bus. Men work at saws cutting out small pieces that look as though they might be suitable for a child's cart. But they all have a place, even in the biggest models designed for transcontinental trips.

There is one part of the factory where no workman or visitor stays very long. This is the steam room, where all parts that need shaping are taken for their steam bath. They enter an air-tight room where the steam reaches temperatures up to 600 degrees. Once permeated, they are put in a drying room, where they are bent and clamped to patterns and left to dry in extreme heat. When this process is complete, they are as hard as iron and exactly the right shape to fit into their proper place on the bus body.

Except for the framework, a bus is mostly all steel. The pieces are cut to fit, just as a woman cuts out a dress pattern, and then they are "ironed". The dented and irregular pieces of steel are put over an oval and held by a workman who stands on a platform with a pedal under his foot. When he presses the pedal, a weight comes down swiftly on the wrinkled steel, pressing it as if it were wax. It is a fast operation, with the thump, thump, thump similar to a steel riveter in a boiler factory. The workman keeps turning the piece of steel until every irregularity is gone, and it is as smooth and even as a piece of satin.

After the steel is put on the bus, the welders take over filling the seams. When this is completed, there is not an aperture as big as a pin point in the roof or the sides where a drop of water could possibly leak through, no matter how penetrating the rain or snow.

### **Upholstery Room Interesting**

The upholstery room is a quiet place compared with the departments where men are sawing, hammering and welding. Here are huge piles of hairflex and leather with which the bus seats are covered. Hairflex has been adopted as the best filler because it is the most sanitary. It is made of chemically treated hair and, in addition to being clean, it is the most resilient material for the purpose, never matting or getting

out of shape. First, springs are mounted on the backs and bottoms of the seats, then the hairflex is added for padding, and finally, the seats are upholstered in leather. This leather is the genuine article. It lasts for many years, notwithstanding the hard usage that bus seats get. The color may be blue, red, brown, green, tan, or any color that the buyer of a bus may fancy. The makers of buses and school buses especially, know a lot of things about the psychology of a youngster. When a child sits in a bus seat, the back of the seat in front of him offers a great temptation to write with chalk or pencil, or to carve with a jack-knife. When leather was used, bus owners frequently had to send them back to the factory for repairs. After a while, Rex-Watson learned that steel seat backs attractively painted to match the leather were better for all concerned. Sometimes, there is a design placed on the back, either the American flag or a picture representing some phase of history.

### **New Grab Handle**

There is a new grab handle on the end of the seats next to the aisles. It was found that children often put their whole hand through the grab handle resulting in broken bones. Now, the Canastota made buses have no holes in the handles. The leather covering for the seats and backs is sewn on power sewing machines. All the stitching is concealed so there is no thread on the outside to wear out and start rips. The men who run the sewing machines also make weather strips for the emergency door, with a cord inside, thus keeping out all drafts and cold as completely as if there was no door there. The glass for the windows is put in without the usual frail putty to hold it. It is placed in a heavy extruded aluminum sash. All windows and windshields are shatter proof glass, thus minimizing accidents from broken glass.

### **Paint is Sprayed On**

The next to last stop for a bus at the factory is the paint room, where no paint brushes or paint splotches can be found. Yet, there are seven finishing coats on a bus before it is completed. The first is an acid priming coat on the steel to take off any grease that might remain after the processes of the machine shop. Then, the finishing starts. The bus body is sandpapered, water sanded, and enameled twice. This is the most painstaking job of all, because there are several colors on each bus-- the body colors, the striping, and the lettering. So during the striping, or "trimming", phase, the rest of the bus is covered, or "masked", with wrapping paper. The edges where the two colors are joined are done as carefully as one would paint a picture, so there is not a chance for an uneven line. Then, off comes the masking. The paint is all put on with a sprayer, which avoids any runs or dripping.

### **Final Inspection Given**

Before the bus goes out to a purchaser, it is put through a last minute overhauling. Here, the workmen go over it with a fine toothed comb to find any possible flaws in the finish. Upon a successful inspection, the bus heads out in all the glory of unspotted enamel, glittering wheels and lustrous glass.