

YOUNGSTOWN STATE UNIVERSITY

ORAL HISTORY PROGRAM

History of Industry in Youngstown

Business History

O. H. 625

GEORGE REISS

Interviewed

by

Joseph Drobney

on

June 30, 1986

YOUNGSTOWN STATE UNIVERSITY

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INTERVIEWEE: GEORGE REISS

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SUBJECT: steel mill, early operations, effect of closings,
standard slag

DATE: June 30, 1986

D: This is an interview with George R. Reiss for the Ohio Historical Society, by Joe Drobney on June 30, 1986, in Niles, Ohio.

Mr. Reiss, to begin with, could you tell me a little about your early life, growing up, in Niles. For example, your early schooling.

R: In the early part of this century, the country was criss-crossed with a complex of high speed electric railways. For example, you could ride on these railways at 60 to 80 mile an hour speeds from Youngstown to Cleveland and Detroit, or Cleveland to Columbus to Cincinnati. The Niles Car & Manufacturing Company of Niles manufactured especially fine cars, mainly with wood bodies, for these roads, and employed highly-skilled cabinetmakers for finish work. My father, an expert cabinetmaker, came to Niles to work in this plant.

I was born in Niles in 1903 some time after my father came here. I attended school--Warren Avenue and then McKinley High--in Niles. In those days, there were few, if any, child labor laws; I began working at a very early age, summer vacations and after school.

One of my first jobs was at age twelve as a laborer at the DeForest Sheet & Tin Plate Company plant, now part of LTV Steel. The other laborers in the gang were grown men. I couldn't take the pace very long, so I got a job helping to make large size electric light bulbs in the Niles glass plant, now part of General Electric. In those days, the bulbs were made by hand. A workman gathered a bit of molten glass from a huge vat onto the end of a long tube; then another workman put

the glass into a mold near his feet and blew into the tube to form the bulb. A few crews, each of four persons, made the much larger bulbs. Now machines do that work. One summer I worked in the Baltimore & Ohio Railroad's Niles freight house. The duties included cleaning up the office, transferring less-than-carload freight between cars, and loading or unloading baggage, mail, or express on the "Hootle Bug", the daily passenger train that ran between Youngstown and Painesville on the B & O's Lake subdivision.

How did I become interested in writing about how people earned their livelihood . . . Niles had one of the Mahoning Valley's early blast furnaces, later a part of U. S. Steel Corps. In those days, some blast furnaces cast their molten iron into beds of sand--a long trough with smaller trough leading off. The process was known as "the sow" and "the pigs"; the iron cooling in the main trough was the sow and the smaller chunks were the pigs. Although modern blast furnaces now send their iron in molten state direct to the steel furnaces or to "pigging machines", the iron product is still labeled "pig iron".

As a small boy, I liked to sit on the nearby Erie Railroad embankment and watch that blast furnace casting its iron. That began my deep interest in iron and steel making.

A little side note: In 1926, I worked briefly in helping the Niles Daily Times put out a special business section. During that time, I wrote, on Niles Times stationery, to U. S. Steel to request a photo of that blast furnace. Later, when U. S. Steel was shutting down its Ohio Works in Youngstown, in the early 1980's, a U. S. Steel secretary, a friend of mine, found that letter and sent it back to me.

In the early part of this century, much of the communications were still by Morse--or land wire--telegraphy, although long distance telephone was catching on. The two major telegraph companies, Western Union Telegraph Company and Postal Telegraph Company, had offices in virtually all the important towns; and the railroads used Morse telegraph for dispatching trains and for other company communications. The stockbrokers also used Morse telegraph operators who received stock quotations in dots and dashes and marked up the quotations on huge boards in the broker offices' board rooms. The newspaper also got their news on Morse telegraph wires from the Associated Press, United Press, or International News Service. Using certain methods of abbreviation known as "Philips' Code", these press wires could attain high speeds, and the press telegraphers then were "the cream of the crop," usually getting much higher pay than the railroad or Western Union or Postal telegraphers.

On the Western Union or Postal systems, the smaller cities such as Niles or even Youngstown poured their telegrams into major "relay" offices, such as Cleveland, Detroit, New York, or Chicago, from which the telegrams were "relayed" to their destinations. Although in the early 1920's automatic telegraph machines had begun replacing the telegraphers on some of the "mainline" wires Western Union still had about 300 to 400 telegraphers in its Cleveland relay office; rival Postal Telegraph had perhaps 100 to 150.

At age fourteen or fifteen, I learned to read the dots and dashes; then for a couple of high school summer vacations, I worked as a telegrapher in Postal's Cleveland relay office.

From Postal's sixth floor office at W. 6th Street and Superior Avenue, I could watch Great Lakes ships maneuvering in the Cuyahoga River; that and handling Great Lakes ship lines' telegrams gave me a lifelong interest in Great Lakes transportation as a hobby, which later gave me somewhat of a reputation as quite knowledgeable about the lake shipping industry. Later, as a guest, I made perhaps thirty or so trips on iron ore carriers up the lakes and five or six round trips on the ore carriers on through the St. Lawrence Seaway.

After high school, I worked as a telegrapher for a couple of years in Cleveland, Youngstown and elsewhere, finally becoming a telegrapher for the Associated Press in the Youngstown Vindicator offices. I left to try my hand as a reporter in Youngstown, Cleveland, Niles, and Springfield, Ohio, finally winding up as a telegrapher for Consolidated Press at the Youngstown Vindicator. Although I worked in the Vindicator's telegraph room, I did not work directly for the paper. I was employed and paid by Consolidated Press, a financial and background service headed by David Lawrence, then a widely known political columnist.

That wire service had an unusual reputation--it operated one of the speediest telegraph wires in the world. I was only about twenty-one. It employed a lot of highly priced columnists, also carried the foreign service of the Chicago Daily News, which has a highly priced staff of widely known writers such as: John Gunther, later a famous travel book author; Paul Scott Mowerer and his brother, Edgar Ansel Mowerer, and Negley Farson and others. The Chicago editor later became editor and publisher of Lawrence's famous paper, U.S. News and World Report.

Several of CPA's editors took a little shine to me and began buying articles from me for the service. I would telegraph my stories by Western Union to CPA's New York office. Then the next day, I would copy some long dispatches, say for example, one headed by John Gunther, Special Correspondent of the Vindicator and Consolidated Press, copyrighted, and

perhaps datelined Moscow, or one similarly by-lined by another famous writer, perhaps datelined Rome or Madrid or Paris. Then perhaps I would copy a long dispatch by George Reiss, Special Correspondent of the Vindicator and Consolidated Press, copyrighted and datelined Youngstown, Ohio.

The puzzled editors out in the Vindicator newsroom at first believed I was pulling a gag. But I wasn't; I was being paid for those pieces and quite well, too. Those pieces resulted in the Vindicator inviting me to join its staff at a pay rate well above that of usually more experienced reporters. I remained on the Vindicator staff for the next 58 years, most of the time as business editor and aviation editor--through an unusual lot of very interesting experiences and meeting many of the country's top business and political figures, as well as many foreign experiences.

In those days, the mid 1920's, the Youngstown area was one of the country's most important steel centers. It was especially known for its production of hand rolled steel sheets used in the auto and home appliance and other industries.

Each hand mill consisted of a stand with two rolls and a heating furnace and a crew of eight workmen. The sheet bars were heated to white hot temperatures; then a workman, using long-handled tongs, would extract a white hot sheet bar from the furnace; other workmen, also equipped with long handled tongs, passed the bar between the rolls. The roller generally tightened the space between the two rolls as the hot bar was being squeezed thinner and thinner, finally into a single long sheet. The eight men on a single hot mill could squeeze the sheet bars into perhaps a ton of sheets per hour--a hard and hot hour.

Then came a couple young engineers employed by American Rolling Mill Company, now ARMCO. They designed the strip mill, a train of such roll stands. Now, with a crew of workmen to operate the controls, a huge steel slab, white hot, could be passed mechanically through the train of rolls to emerge as a coil of strip or a pile of sheets, cut to length, weighing perhaps up to 40 tons.

Now a big modern hot strip mill, operated by perhaps 10 or 15 workmen housed in air-conditioned control rooms, might roll up to 6,000 to 8,000 tons of strip or cut sheets in an hour, especially high-grade strip or sheets to exact measurement, the work that would have required quite a few thousand men to do back in 1927. But then in 1927, few folks could visualize that, except me.

In my youthful exuberance and lack of knowledge, I wrote a long piece predicting that this would revolutionize the

steel and auto industries, making it possible to form auto bodies out of a single sheet, and freeing thousands of workmen from the difficult chores too. I telegraphed my lengthy piece to CPA's New York office. The piece did not come back over the CPA wire the next day, nor the next day, not the following day. Then I received a letter of explanation from the New York office. The editor explained that the piece had predicted such a radical change that the cautious editor had submitted it to the American Iron & Steel Institute's experts in New York. Their verdict: "This piece was written by a dumb kid in Youngstown who doesn't know any better; the hand mill method of rolling iron or steel sheets was invented in Wales about 250 years ago and there is nothing in sight to indicate there will be a radical change in the foreseeable future." I was properly chagrined and vowed never to be so rash in my predications in the future. Many years lapsed, but I had not forgotten the ill-fated piece and all the things I had predicted to rashly come to pass. Then one night I had dinner at the Shenango Inn in Sharon with James A. Roemer, chairman-president of Sharon Steel Corp., his father Henry A. Roemer, chairman of Sharon Steel's executive committee, and a few others. Sharon Steel's management had arranged to buy a fine 72-inch hot strip mill from Jones & Laughlin Steel Corp., have it rebuilt to a 60-inch mill and install it at its Roemer Works, since changed to the Victor Posner Works. So I told the little group about my ill-fated piece of 1927. "Hey," said Jim Roemer, "Let's have some fun with that." At the time an article in the news concerned a Philadelphia church. During the Revolutionary War in 1776, British troops were stationed in the churchyard. The troops tore down the church's wood fence to build bonfires. So now the church was billing the British government for the value of the fence plus accumulated interest, about \$10 plus about \$1 million in interest. Roemer was a director of the iron and steel institute. He suggested that I bill the institute for the pay I would have received for the piece, plus accumulated interest. And he would have some fun with it at the institute directors' next meeting. But I was afraid the gag would get out of hand, might prove embarrassing. But Bill Verity, then chairman of ARMCO Steel and a pretty fair punster, heard in some way about the incident. One day, an ARMCO executive flew to Youngstown and arrived at the Vindicator. He presented me a huge framed proclamation. The proclamation signed by Verity, the chairman of an ad hoc committee, was to rise up in any Iron and Steel Institute meeting at any time and say, "I told you so!"

I've been writing for well over 60 years about the Youngstown district, particularly on iron and steel business, aviation, and water and rail transportation; perhaps I've begun to qualify a little as somewhat of an expert of this district's part in those industries and on the people who built them.

It has been enlightening and a lot of fun. My work in covering iron and steel, aviation, and the automobile industries over the years enabled me to do a lot of traveling, to get on many interesting events, to meet a lot of interesting people. In writing for the Vindicator and other publications, I've been back and forth to California, Florida, and other continental U. S. places that I've long ago lost count of. I've been to Europe at least thirty times, to the Mid-East a couple of times, to Soviet Russia, to Scandinavia, to South Africa a couple of times, to the Bikini atomic bomb tests, to Japan, all around South America, and one complete trip around the world. I also been to Taiwan a few times, to the Korean War, over the Alaskan pipeline, on iron ore carriers at least thirty times up the Great Lakes and five or six times through the St. Lawrence Seaway. I've been on towboats and other vessels up and down the Ohio and Mississippi Rivers. I've visited the steel mills all over this country and in Japan, Taiwan, South Africa, Germany, France, and elsewhere, an auto plant in South Africa, all over this country, Germany, England, and Canada, the iron ore properties in Minnesota and upper Michigan, New York State and Labrador. It has been a lot of fun. As I look back, I believe I would not have wanted to do anything else for a livelihood.

D: What was the attraction that brought the iron and steel industry to the Youngstown area?

R: Maybe I should begin at the beginning. When the early settlers moved west of the Appalachians, they found the area covered with bountiful hardwood forests. The settlers needed iron for their cooking utensils, plows, and other purposes, so they built the first blast furnaces, small units that could produce only a few hundred pounds at a time. They chopped the plentiful hardwood trees, burned them to produce charcoal, scooped raw kidney ores from the creek beds, and found limestone near the surface. The first blast furnace was on Yellow Creek at Struthers. The Heaton Furnace at Niles was among the early furnaces.

As these furnaces proved very profitable, more and larger furnaces were built. As the forests which provided the charcoal were depleted, the furnaces turned to using high-grade coal; then eventually they bought more efficient coke from the Pennsylvania beehive coke plants. As production grew, they began bringing in iron ore, via the Great Lakes ships, from the newly developed iron ore mines of upper Michigan and Minnesota. By the turn of the century, the Youngstown area had become the country's number one iron producing area.

In the 1800's, Henry Bessemer developed a method of converting

the iron into steel. For many purposes, steel was preferred over iron. Many Bessemer converters were built, particularly in the Pittsburgh area. Pittsburgh eventually became the country's largest steel producing area. The Youngstown area blast furnace operators needed a market for their excess iron output. Henry A. Butler, for whom the art gallery is named, represented a number of the Youngstown area blast furnace operators. He made frequent trips to Pittsburgh to sell their iron to the Pittsburgh steelmakers. The Youngstown area blast furnace operators finally realized they needed markets nearer home. The first Youngstown steel company, Ohio Steel Company, was organized and built in Youngstown's west side, which later developed into United Steel Corp's Ohio Works. When that steel plant, plus some independent rolling mills--the upper and lower union mills--were sold into what became part of U. S. Steel, many Youngstown investors got a lot of money for their holdings. With this money, they developed a number of diversified companies, among them: Ohio Leather at Girard, Standard Textile Products which made lineoleum and tablecloths, Republic Rubber, and General Fireproofing Company and others.

The Youngstown area really became important as a steel center in the early 1900's. About 1903, the Youngstown Iron Sheet & Tube Company was organized by a group of Youngstown investors, who included James A. Campbell, who once headed the Youngstown Ice Company and then some rolling mills. The group included some folks from the Pickens Mather & Company of Cleveland, and that company had a strong relationship with Sheet & Tube for its entire lifetime. Sheet & Tube within a few years dropped the "Iron" from its name, and eventually became the country's third largest steel company by acquiring, in 1923, the Youngstown-organized Brier Hill Steel Company as its Brier Hill Works, and a company in Indiana Harbor, Indiana which became its Indiana Harbor Works which still is probably LTV Steel's strongest unit, and some other facilities. Republic Iron and Steel Company was organized early in the century by merging some smaller local companies including the Brown Bonnell Company. Cyrus S. Eaton, a Cleveland financier, had a strong interest in Republic Iron and Steel and had some big plans for it. He achieved some of those big plans too.

A story is told of how Warren-headquartered Trumbull Steel Company, headed by Jonathan Warner of Youngstown got into some financial troubles. So Eaton, who in 1927 was little known in the steel industry, negotiated a purchase of Trumbull Steel. To pay for it, he drew up his personal check for \$27 million. When someone raised a question about such a large check on a personal account, Eaton suggested, "Just check my bank on whether it is good." It was and Trumbull Steel was merged into Republic Iron & Steel as its Warren Works. Incidentally, it is now the largest Mahoning Valley facility of LTV Steel.

Later, about 1929, Eaton was the guiding hand in organizing Republic Steel Corporation by merging Republic Iron & Steel and some other obscure and mid-sized companies in Buffalo, Chicago, Canton and elsewhere. In the early Depression days, Republic had some hard going, but it eventually emerged as one of the country's strongest and the third largest steelmaker. But still later, some financial problems. It was acquired by LTV Corp., as part of its LTV Steel Corp., which included Jones & Laughlin Steel Corp., which previously had acquired Youngstown Sheet & Tube from Lykes Corp.

When Bethlehem Steel Corp. made its first effort to acquire Youngstown Sheet & Tube--apparently its main objective was to get an inexpensive entry, via the Indian Harbor Works, into the rapidly growing Chicago district steel marketplace--it was vigorously opposed by Eaton, including a bitter battle in the Mahoning County Common Pleas Court. Eaton apparently had visions of using his Republic Steel and Sheet & Tube into the giant steel company he had envisioned to challenge the industry giant, U. S. Steel Corp.

Then there was Sharon Steel Hoop Company which was organized mainly to produce steel hoops for barrels. Sharon Steel Hoop eventually had its own blast furnace and steel works at Lowellville and a hand sheet mill plant at Youngstown in what is now the Cold Metal Products Company plant. After World War II, U. S. Steel Corp. acquired Farrell Works at Farrell, Pennsylvania. Sharon eventually dropped "Hoop" out of its name and the Farrell Works--later renamed the Roemer Works and still later the Victor Posner Works--is its major iron and steel industry.

In the early half of this century, the Youngstown area fairly bristled with steel companies, many of them rather small units wrapped around hand rolling mills: DeForest Sheet & Tin Plate, Newton Steel, Waddell Steel, Mahoning Valley Steel, Thomas Steel, Falcon Steel, Western Reserve Steel, Liberty Steel, and others. Many hand rolling mills were in Niles accounting in part for Niles' large Welsh population. (The Welsh had invented the hand process of rolling iron and then steel into sheets perhaps 300 years ago.)

At one time Sheet & Tube was headquartered on Central Square's Stambaugh Building and Republic Steel's top headquarters was across the square in the Central Tower. Stambaugh, Union Bank, Dollar Bank, and the Central Tower buildings fairly bristled with steel or steel-related companies. The Youngstown Club then was credited with being one of the country's principal gathering places for highly ranked steel executives. The Youngstown district mills were considered the training schools for the country's principle steel executives. Among the U. S. Steel chairmen who

once labored in the Youngstown area were Ben Fairless, E. H. Gott, and Ed Speer. Many others who got early training in Youngstown rose to high places elsewhere in the industry, including Charles M. Beeghly who became chairman of Jones & Laughlin.

During World War II, the Youngstown district had steel making capacity of between thirteen and fifteen million tons; it had 26 blast furnaces, 83 open hearths, 3 Bessemer converter plants, and 11 electric furnaces. The industry employed some 65,000 to 70,000 in this relatively small and concentrated area.

During my years on the Vindicator staff, I spent most of those years of covering business news, particularly steel news, and I became widely acquainted with the country's top ranking steel executives, spending considerable time, too, on visits to the country's principle steel plant or raw materials sources such as the coal and iron ore properties, and also visiting steel plants in Germany, Japan, Taiwan, South Africa, and elsewhere.

A bit of irony . . . A year or two before I retired in November of 1985, I attended the American Iron & Steel Institute's annual meeting at the Waldorf Astoria Hotel in New York as I had done regularly over the years. But at that affair, the institute threw a press luncheon to recognize me as one of the more knowledgeable steel writers. I then returned to the area that had lost most of its steel industry and there was little more steel news for me to write.

For many, many years the Vindicator had published a weekly report, usually on Fridays, of the number of blast furnaces, open hearths, and other steel making units that were operating and then the scheduled number for the following week. The figures usually were supplied by executives in the steel companies. During the worst of the Depression, the steel operations fell off sharply. Only a few units operated. So the steel company executives got their heads together, reported that they no longer would supply the number of units operating or scheduled to operate. Were we licked? No. My predecessor as business editor, Ernest N. Nemenyi, worked out a scheme. Once a week or so we would make a trip around to the steel mills, watch for the smoke or haze coming from the stacks. That revealed which units were operating and which were idle and we would figure out, as we did before, the percentage operating rate. Finally, the steel companies gave in and again supplied us with the number of units operating. The sizes of the various units, which we knew, enabled us to figure the operating rate.

For years I supplied the weekly steel operating rate to the

magazine Steel and to Wall Street Journal. And the Youngstown Chamber of Commerce began publishing the Youngstown area steel operating figures, along with a number of other business figures until the Chamber secretary complained to the Vindicator management that the paper's steel operating estimates were inaccurate. They didn't jive with the Chamber's reports. I checked with the iron and steel institute on the regular reports of actual production furnished by the mills. It developed our estimates usually were within one-half to one percent of actual production. Then it developed that the Chamber was getting its figures from the Steel magazine--the figures I had been furnishing Steel, except that the Chamber's figures usually were obtained usually a month or two after I had reported them. Someone's face was red! Occasionally, I got opportunities to get a red face too.

Just after World War II, a serious shortage of steel developed. So some larger steel consumers began buying up some smaller steel companies. I had a tip that General Electric Company was buying Mahoning Valley Steel Company, a hand sheet mill plant, of Hiles. I worked overly hard in trying to insure a Vindicator article wouldn't be erroneous or would upset the plan and, for my trouble, I got beat out of a clear scoop. Then I got a tip--not only a tip, but clear-cut information--that Borg-Warner Company had signed an agreement to buy Copperweld Steel of Warren. It was in the bag; my news source assured me it was okay. To insure that it would be a clear-cut scoop, that no one else would have a chance at the story until the next day, I didn't ask too many questions in too many places; I wrote the piece and set it for use on page one of the Vindicator for the following Sunday. Then I furnished it for use, after the Vindicator, to Wall Street Journal. Then the following Monday all hell broke loose. The chairman of Copperweld telephoned me, raging angry. There was no such deal. "And," he said, "Wall Street Journal has assured me that you will never write another word for that paper!" But the Wall Street Journal editor assured me that wasn't so; I was in good graces still with the paper. Still red-faced, I visited a few days later with one of my important sources, Frank Purnell, chairman of Youngstown Sheet & Tube Co. Incidentally, Purnell was NOT the source of my information about Copperweld-Borg-Warner. And he had seen the Sunday story. "The day you wrote the piece," he laughed, "it was completely accurate. The day it was published, it no longer held true." Then he explained that Elliott Ingersoll, the president of Borg-Warner's steel division, had been calling on him frequently about the pending purchase. Then one day, he said Ingersoll told him that the agreement was signed, subject to Copperweld and Borg-Warner getting an agreement with the government's Defense Plant Corporation on some facilities the DPC had built at Copperweld during World War II. And now Purnell said, Ingersoll informed that Borg-Warner wanted

out of the deal. "Easy," Purnell said he told Ingersoll. "Go to Washington. Make the DPC people think you want Copperweld very badly. Then antagonize them, and they'll block you." And that, he said, is what happened between the time I wrote the piece and the time it was published. Copperweld management was extremely unhappy since it wanted the sale. "Why," I asked, "don't you buy Copperweld?" Purnell snorted, "Me buy Copperweld? I wouldn't have that 'blank, blank' dog as a gift!" Well, in retrospect, Copperweld still exists; Purnell's Sheet & Tube is long gone.

After the war, I looked in on numerous delegations of Japanese. Each member was usually an intense little black-haired fellow, eagerly snapping photos or writing hurriedly on his notebook to the Youngstown area steel mills, or to manufacturers of steel plant equipment, such as Wean and others. The visits usually followed with a dinner that evening at the Youngstown Club. The local executives usually were very polite to the visitors, but privately they got a lot of amusement from them, not expecting the Japanese visitors to absorb much. But they did.

Some ten or twelve years ago, I got an invitation from the Japan Iron and Steel Federation to visit some Japanese steel mills. My wife accompanied me to Japan, and we had lunch in Tokyo with the federation's representative, who outlined a tour for me. The tour was to include a trip to a new Japanese mill some 800 miles from Tokyo. I declined to go so far so my tour included some steel mills nearer, in Nagoya and Osaka and elsewhere. I saw some remarkably modern new facilities.

One thing I learned long ago as a newsman: If you believe "No" will be the answer to your question and you don't want to accept "No" then don't ask the question. So on the first steel plant visit I took my wife Marge along. And, as I expected, I noticed a lot of lifted eyebrows. As I had suspected, women, at least at that time, just did not visit Japanese steel mills. Early the next morning in our room at the Royal Osaka Hotel, our telephone awakened us. I couldn't understand the caller. So Marge took over the call. It proved to be the federation's representative in Tokyo. He explained, "It is not customary for women to tour Japanese steel mills. You are still invited to visit the steel mill today, but your wife isn't." Marge spent the eventful day in the hotel room. Shortly after we returned home, I got a letter from the federation representative. "Here are the photos I promised to send you. Please inform your good wife I enjoyed the luncheon with her in Tokyo." And then the punch line . . . "I'm sorry you didn't stay long enough in Japan to see our prize mill." And shortly afterward, I finally got the message of what he was really trying to show me. An article in American Metal Market reported that a new

blast furnace at Kokan Steel Works had just been blown in, setting a new world's record by producing more than 12,000 metric tons of iron in one day. A couple days later, American Metal Market reported the furnace had broken its previous record; then a few days later, it happened again.

A year or so later I visited Bethlehem Steel's new Burns Harbor Works built as the largest "green fields" steel mill--Bethlehem's move after it had failed to get Sheet & Tube's Indiana Harbor Works through two efforts to acquire Sheet & Tube. A guide pointed out one of the two new blast furnaces. It, he explained, had set a new Western Hemisphere production record by casting 5,700 net tons in a day.

Those post-war Japanese visitors to Youngstown . . . Apparently, they did their homework quite efficiently. When Youngstown Sheet & Tube, under Jones & Laughlin Steel, spent \$65 million to upgrade its Campbell Works seamless mill, its engineering drawings were passed on by the Japanese pipe mill experts who came to Campbell to supervise rebuilding and starting up the mill. Sheet & Tube spent another \$165 million on installing a Japanese designed and built slab caster, described as "the Western Hemisphere's most modern caster" at the Indiana Harbor Works. The Japanese, unlike United Steelworkers, have a lot of money available for steel modernization.

So what has happened to the once booming Youngstown district, once the second largest steel making area, then fourth largest? Among the first setback was the switch from the beehive ovens to by-products coke plants. The beehive ovens, located near coal mines, burn coal into coke, then ship the lightweight coke to their users. The by-products plants make coke more efficiently and recover the valuable by-products, a great step in efficiency for the steel mills, but a greater boom for Youngstown's competitors with lower shipping costs. Next came low-cost water transportation. Youngstown didn't have it. A succession of other factors--a U. S. Supreme Court decision making virtually every mill a basing point, President John F. Kennedy's confrontation with U. S. Steel Chairman Roger Blough to beat down needed steel price increases to help pay for technological improvements, the Environmental Protection Agency's harsh "clean up" rules . . .

And what happened to the district's role as one of Ohio's more important rail centers? The development of the scheduled airlines and of major highways, a switch of much freight from rail to trucks, decline of the Youngstown and Pittsburgh steelmaking facilities, there's very little left of the area's once superb rail system. Once it included the Pennsylvania, Erie, New York Central, Baltimore & Ohio, Youngstown & Southern,

and Youngstown & Northern. There's little left.

Lyke's Corporation's take-over of Sheet & Tube proved a major disaster, although a serious effort to knock it over was made. William J. Brown, then editor and publisher of the Vindicator, sought to prevent that take-over. He sent Clingan Jackson, then political editor and a power in Ohio politics, and me to see then Governor James Rhoades, then to the U. S. Department of Justice in Washington. But Lykes had done its "homework." A little "now-it-can-be-told" item . . . In our sessions with the Justice Department personnel, one representative asked Jackson and me, "On what grounds could we base an intervention into the proposed merger?" Grasping at straws, I said, "Sheet & Tube makes steel plants and Lykes Brothers Steamship builds many ships." "Won't do!" said the federal man, "Not the same kind of plates." So the merger went through. Some years elapsed. Frank Nemec, who became president of Lykes Corp. and chairman of Sheet & Tube, called a session with some Vindicator representatives at the Youngstown Club to explain some Sheet & Tube problems. As we left the meeting, Nemec showed me a mock-up of Lykes' forthcoming annual report. On its cover it featured a photo of one of some new barge-carrying ships being built for Lykes. The barges alone would require 30,000 tons of plates. "Too bad," I said with my tongue in my cheek (Nemec wasn't supposed to know about the session with the Justice Department) "that Sheet & Tube isn't able to roll those plates." "Who in the hell," blasted Nemec, "says we can't roll those plates?" Lykes' troubles with Sheet & Tube mounted and then came "Black Monday", the day Sheet & Tube announced plans to close the huge Campbell Works, to move the headquarters. Lykes finally was merged into LTV Corp., and Sheet & Tube was fitted into LTV's Jones & Laughlin Steel. Eventually Lykes Corp. acquired ailing Republic Steel Corp. So Jones & Laughlin along with its remnants of Sheet & Tube, were merged with Republic to form LTV Steel, a subsidiary of LTV Corp. Now LTV's bankruptcy is well-known.

- D: We were talking about the univeristy's Kilcawley, Beeghly and Bliss Halls, about the families that built Standard Slag Co.
- R: The old blast furnaces put layers or iron ore or pellets, limestone and coke into the top, then blew a hot blast of air through the burden. As the burden melts, the lighter limestone rises, screening out the impurities, and heavier molten iron sinks. As the iron is poured off, then the slag layers. The limestone and the waste it has screened then is poured off.

Years ago, the blast furnaces had trouble finding enough hollows in which to dump this by-product waste. Then came Leon A. Beeghly and his associates. They found innumerable uses for the slag--for railroad blast, driveways and roadways,

aggregate for making concrete, roofing material. One company even was organized to ship the hot slag, like whipping cream, to form insulation material. Standard Slag organized numerous other companies--slag firms, trucking firms, building materials. It even mines iron ore, gold and other materials in the west.

Beeghly, Bliss and Kilcawley were resourceful, far-sighted fellows, and with their slag earnings they helped develop many other types of companies. One of the most interesting . . . Many years ago, A. P. Steckel and Howard Lamb figured out the answer to a problem that long troubled the steel engineers how to cold roll steel. They patented it as the Steckel process. The Beeghly Group, with Steckel and Lamb, organized the Cold Metal Products Company to exploit the fabulously profitable process. Virtually every important steel firm installed Steckel mills. When the mill burned down, they took over Sharon Steel Hoops Co's old hand sheet rolling mill in S. Montgomery Avenue, organized Cold Metal Products Co. to roll and market steel strip. As the Steckel patents began expiring, they were turned over to Youngstown University. But Cold Metal Products Co., under some changed management now, is operating very successfully.

A sidelight on one of L. A. Beeghly's sons, Charles M. Beeghly. He was sales manager for Cold Metal Products. A number of years ago, Charles Beeghly went to Jones & Laughlin Steel. He rose to its presidency and then became its chairman. After Jones & Laughlin was absorbed by LTV Corp, he retired. And J&L, after its merger with Sheet & Tube, under LTV's wing of course, sold Cold Metal Process.

Another son of L. A. Beeghly is chairman-president of Standard Slag. Standard has interests in numerous other companies: Metal Carbides which it sold recently to a Swiss company, Pinney Dock at Ashtabula, and many others.

After World War II, supplies of high-grade direct shipping iron ores neared being exhausted. Steel engineers developed methods of extracting iron ore particles from taconite, the plentiful flint-like rock of the iron ore regions. That formed the iron into pellets, much richer than best raw ores. That saved enormously in lake and rail shipping charges, and greatly improved blast furnace iron output so that they produced less slag. Then later so many steel mills with their blast furnaces shut down. Standard is still shipping slag from the former U. S. Steel slag dump at McDonald, from its own "Mt. Bliss" near Lordstown, and from some of the old dumps that were untouched for many generations.

Another sidelight, years ago I was doing much free-lance magazine writing, particularly for aviation publications. A few stories I wrote were on an increasing need for small

airfields, close in to their cities to avoid long taxi rides for air travelers. The Niles Chamber of Commerce asked me to serve as chairman of an airport committee; other members included some Niles businessmen, including James A. Roemer, then president of Niles Rolling Mill Company (now RMI) and later chairman-president of Sharon Steel Corp. We hit on the idea of using Standard Slag's Salt Springs Road (Fifth Avenue) dump, just about three blocks from Niles' downtown area. Beeghly offered to donate the use of the dump for \$1 a year. But wisely he refused to sell it. The site would require only a few hundred dollars, which the businessmen offered to contribute. But Niles City Council didn't accept and I didn't get my projected magazine article. Standard Slag since has begun removing the slag.

D: Could we talk about industry union relations, say about the "Little Steel" strike of the late 1930's?

R: I was really never close to covering union news, although I had many opportunities to see what went on in the mills. In my early days of news reporting, most steelworkers were on the job, twelve hours a day, seven days a week--Hot, difficult, dangerous work for very little pay. When the shifts changed over a weekend, one shift worked straight through 24 hours, and the other had 24 hours off. Pay rates often ranged from 15 to 30 cents per hour and there were no fringe benefits such as pensions, hospitalization, vacations, et cetera. But wages rose somewhat, the hours were shortened and then came the fringe benefits. Republic Steel, Sheet & Tube, and some other companies were struck by the CIO-Steelworkers Organizing Committee in 1937. It was a bitter period. Much has been written about the strike. Eventually the steel firms were organized, and the steelworkers are represented today by the United Steelworkers of America. The steel executives of the early days usually were tough, hard-boiled operating men though, and unapproachable by most newsmen, that is until you got to know them and understood a little more about their businesses. And eventually I became quite good friends with many, debacle by me.

Just after World War II, a serious steel shortage developed. Some large steel users began buying up small steel firms to assure themselves of steel supplies. By being overly careful, I got beat of any important scoop or exclusive story. I resolved I wouldn't be beat the next time.

D: A little more about happenings in the steel industry.

R: One factor that played an important role in modernizing the steel industry, World War II sharply depleted known reserves of high-grade iron ore in the Minnesota-Wisconsin area. So the industry, with Sheet & Tube among the leaders, developed a method of extracting iron from the large resources of

taconite in that area. Taconite is a hard, flint-like material. The reserachers developed a method of breaking up the taconite, grinding it to face powder fineness, then extracting the iron and discarding the worthless material. The iron particles were rolled in heated barrels or drums to become pellets, much richer than the best of the direct shipping irons. That brought about enormous economies in shipping the material by rail and lake ships, also in the blast furnaces. The furnaces produced more iron, and much less slag, with big savings in the use of expensive coke.

So Standard Slag Co., and other slag companies, had so much less slag to sell. And now this area's once numerous blast furnaces . . . Well, there are only two blast furnaces left in operation, LTV Steel's large furnace at Warren and Sharon Steel's one operating unit at Farrell.

- D: We've been talking mainly about the steel industry. I wonder if we could get around to union-industry relations?
- R: Well, I never was very active in covering union activities. I did do a little in writing about the 1937 strike, but not much. I was particularly interested in writing about the way Republic steel used a fleet of airplanes, based at Cleveland Airport, to haul supplies in and out of Republic's Warren Works.

END OF INTERVIEW