American Illustrating Co. Pen + Sunlight Sketches of Chatt. p. 151

CHATTANOOGA – Industries – Wheland Foundry

See Also: Tenn. R.
621.7
W

The Wheland Company . . .
78 years of Progress

ANOOGA

In Industries - Wheland Company

See also: C. Pollution - WATER - 1969, 1970, 1971, 1976

THE WHELAND FOUNDRY

Division of North American Royalties, Inc.

2800 SOUTH BROAD STREET, CHATTANOOGA, TN 37402 • (615) 265-3181

The Wheland Company was established in 1866.

Employs approximately 1,000 men and women. Hourly employees are represented by the United Steelworkers of America, AFL-CIO

Approximately 150 different grey iron castings are produced, ranging in size from 3 to 150 pounds, principally for the automotive industry.

More than 4,000,000 pounds of material is used each day in Wheland's melting facilities. This molten metal can be cast into 100,000 parts daily.

Each week, 70-75 tractor trailer trucks and 25-30 boxcars of castings are shipped from Wheland.

Iron is melted in 3 of 5 cupolas, each having a melt capacity of 25 to 60 tons per hour.

There are 6 automated molding lines at the Broad Street Plant, and 3 flaskless Disamatic lines at the Middle Street Plant.

The Core Department makes Isocure, oil and shell cores.

Cleaning Department is equipped for blast cleaning and necessary chipping and grinding operations.

Facilities include sand and metal laboratories, pattern shop, heat treating, and a stamping operation which produces steel backing plates for brake drums.

Middle Street operation was recently expanded to produce ductile iron automotive and general purpose castings in the 3 to 70 pound range. New cleaning plant encompasses 30,000 square feet. Total conversion costs $6.5 million.

DOUBLED CAPACITY

The Wheland Works Let Important Contracts.

HANDSOME NEW BRICK BUILDING

Significance of the Increased Work in the Local Cincinnati Southern Shops.

T 1-24-1900 p.5

Mr. J. W. Wheland, having decided to almost double the output of Wheland's Machine works, on Sidney street, between Lewis street and Chattanooga avenue, has awarded contracts for the erection of a brand new machine shop, to be constructed of brick, iron and lumber, two stories in height and covering 6,000 square feet. The lumber contract was awarded yesterday to Willingham & Co., and they have begun already to deliver frame building material on the site of the new building, which adjoins and connects with the Wheland Machine works. Work on this addition will begin today and will be rushed from start to finish.

The new annex will be, when finished, the largest building started since Jan. 1, 1900. When completed and ready for occupancy it will receive new machinery, and Mr. Wheland will be obliged to increase his force slightly in order to turn out more goods.

SUCCESSFUL ENTERPRISE

The Wheland Machine Co.'s Great Plant.

CAPACITY NEARLY DOUBLED IN ONE YEAR

Brief Outline of an Industry of Which the City Should Be Proud.

T1-25-01 p.6

The Wheland Machine company are making larger and more extensive improvements than any other industry in the city. By the time all of these improvements are finished, the company will have almost doubled the capacity of their plant on Lewis street.

The new brick addition was completed nearly four weeks ago, at which time notice of same appeared in The Chattanooga Times. The company is now busy installing in this new addition $3,000 worth of new machinery. The work of setting up the new machines will be finisned in about five days. The work of boring an artesian well, adjoining the plant has been finished. What is quite remarkable, the well, which penetrates down 260 feet into the silurian limestone, is fitted up with a compressed air machine, by means of which water in large quantities and of an excellent quality, is pumped direct to the boilers, or to any part of the shop by a few strokes of the compressor.

In addition to this the company has just finished the rather tedious job of installing a big electric light plant in their works, the whole of which is now illuminated after dark by numbers of arc and incandescent lights.

The installation of a new cupola is also in progress, and will soon be finished, the new affair being a vast improvement over the style of cupolas made in 1895. The Wheland people have also laid in an enormous stock for their supply department, including everything used in connection with the sawmill business.

The enormous business done by the Wheland company, and which is constantly increasing, they attribute to the development of the lumber business in the south. New sawmills and woodworking plants are going up all over the south, and in the past month the price of lumber has advanced $1 on the 1,000 feet. Yesterday the company's employes were kept busy getting out a $4,500 order for Smith & Hunt, a firm that has built a large sawmill at Buel, Ala. The Wheland people are not, however, limited to the south in their business. All last fall they sold large orders to parties and firms in Oklahoma, Iowa, Missouri and Minnesota.

Speaking of their trade yesterday, Manager Calloway stated that the company proposed to make shipments to customers on the steamer Avalon as often as possible, the boat giving them the advantage of a cheap rate to points in North Alabama, West Tennessee, Illinois, Missouri and Indiana.

CHATTANOOGA - Industries - Wheland

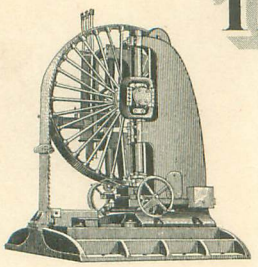
PURSE PRTG. CO.-CHATTANOOGA

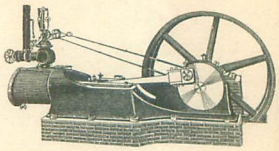
Z. W. WHELAND, Treas. & Gen'l. Mgr.
R. F. CALLAWAY, Sales Manager.

G. W. WHELAND, President.
A. D. CATLIN, Vice-President.
C. H. HUSTON, Secretary.

E. F. WHELAND, Gen'l. Supt.
W. L. CATLIN, Directing Engineer.

THE WHELAND COMPANY





MANUFACTURERS OF

COMPLETE BAND AND CIRCULAR SAW MILL EQUIPMENT

STEAM ENGINES

TRANSMISSION MACHINERY THE CATLIN KEYSEATER

CROSS ARM PIN & BRACKET MACHINERY

CABLE ADDRESS:
"RADCLIFFE" CHATTANOOGA.
"WHELAND" NEW YORK.
"CHAFOUNDRY" NEW YORK.

Western Sales Office:
PORTLAND, ORE.
Export Office:
No 2 Rector St. New York.

Main Office and Works:
CHATTANOOGA, TENN.

Feb'y 22, 1916.

ALL CONTRACTS AND AGREEMENTS SUBJECT TO STRIKES AND OTHER CAUSES BEYOND OUR CONTROL

SHOPS CLOSE INDEFINITELY

Machinists' Demands Denied by Montague Plant.

APPEARS CITY WILL LOSE A FORMIDABLE PAYROLL

Third Factory Shut Down as Result of Machinists' Strike—Wheland Company Quits Until End of War.

Seriousness of the effect of union machinists' demand for higher wages and shorter working days was accentuated yesterday when the Montague Mailing Machine company closed its machine department for what General Manager James Sloan said would be an indefinite period. In the meantime, the Montague Mailing Machine company will assemble all the completed parts it has on hand, and later will contract with northern concerns for the manufacture of its products. This factory's payroll amounts to approximately $25,000 a month.

The management expressed itself as determined not to submit to the machinists' demands, and it was said that unless they abandoned the demands the Montague Mailing Machine company virtually would cease to operate in Chattanooga until the end of the European war, when it expects to be able to secure the services of machinists turned away from factories now abnormally active in filling war orders.

The closing of the Montague Mailing Machine company's plan is the third large factory put out of operation by the striking machinists here in the last ten days. The Wheland company, machinery manufacturers, has ceased operations indefinitely and probably until the end of the war, one of its officials said last night. He said that "positively no concessions would be made to the union." The plant is picketed by the machinists.

The Montague Mailing Machine company last Saturday returned the contract offered by the machinists. The employes were paid yesterday. About 100, Mr. Sloan said, departed, and about twenty-five remained, some union and others non-union machinists. He said the plant would "take care" of the employes who ignored the union. The assembling department will put together the manufactured parts, which will be the plant's only activity.

Employer Would Forfeit Right to Discharge Men.

The machinists' demands included a contract for a wage scale of a minimum of 45 cents an hour for nine hours instead of ten a day, and a sliding scale by which the working day would be reduced to eight hours by a decrease of fifteen minutes every thirty days. They would require the employer to forfeit the right to discharge employes in his service thirty days.

Manager Sloan and O. C. Myers, representative of the employes affected, were asked last night to state the cause of the labor trouble. Mr. Myers said that he would have to wait to confer with other members of the union. Mr. Sloan said:

"On Wednesday, April 19, three employes laid down demands of the union for increased wages, shorter hours, an annual contract without right to discharge union men after reuniting in service thirty days, and the manner in which we shall run our business generally, without the union or men agreeing to anything.

"They gave us until noon Saturday, the 22d, to sign their contract, but the demands were so impossible that the contract was returned the same morning for reasons stated in our letter of that date.

"After preparing to be closed by them and arranging to pay them immediately up to the time they would walk out, I met them Friday afternoon, the 21st, to tell them personally, face to face, some of the reasons why they could not be met, and did this that there might be no misunderstanding in the breaking up of the long and close relations which have always existed between our company and its employes.

Demands Are Made While Business Is Depressed.

"I explained that we had no war emergency orders or premium contracts, but a sure, year-round business which was badly depressed by the curtailment of foreign and Canadian conditions, but had stood through the two-year war depression siege without throwing a man out of work, or reducing wages, but now if they were not satisfied they could close us down, in which event we would contract the manufacture of our machines elsewhere, and let others wrestle with dissatisfied labor until completion of war orders or the end of the war, when we would have no obligations to prevent our resuming operations with an organization selected from the immense crop of mechanics now being made of every kind of workman, and which it is reasonable to suppose will have to find other employment at the first rumor of peace or completion of war orders.

"The men appeared to have no complaint or criticism of our open-shop policy or other treatment, so they worked on until they were ordered to quit today. When they threw down their tools we paid them off to facilitate their getting away to the green fields of high wages and cheap living. They went quietly, and to every appearance of regret at being forced to go.

"I have had no negotiations of any character with any walking delegate, never heard from one until about two hours before the men were to go out today. One called over the phone, but I was too busy to see him, and told him that I wanted the men to do just as they liked."

To Mr. Sloan's statement was appended the following refusal of the contract submitted by the machinists:

Chattanooga, April 19, 1916.

W. W. Black, O. C. Myers, S. F. Hancock, Committee.

Gentlemen: We return herewith proposed agreement submitted this morning by you as representing Lodge No. 56, International Association of Machinists, which we regret our business will not permit us to accept or execute.

While we approve of organization for all proper purposes, yet we object to such misuse of same as dictating how we shall conduct our business, without assuming any responsibility for results or meeting of our payrolls.

We are unwilling to consider this or any other agreement that will prevent us from recognizing ability, and paying our employes in shop as well as other departments for quantity and quality of work produced, which we think is absolutely necessary to any efficient organization such as we are trying to maintain.

Mr. Montague Had Kept Plant in Operation.

Since during the recent long siege of depression we continued operation at heavy losses, and furnished longer hours employment than you now demand, solely for the maintenance of our employes, it is with extreme regret that we learn of any dissatisfaction among them, and that they did not come direct to us with any complaints as we have always encouraged them to do, or exercise their free privilege of quitting.

It will be entirely agreeable with us for every dissatisfied employe, or every one represented by your demand, to quit work when you direct, and after providing for all satisfied ones we will arrange to contract the manufacture of our machines elsewhere as we can do cheaper than we are producing them under present scale, and as we would have been doing for the past year but for Mr. Montague's objection to closing a Chattanooga industry and throwing our employes out of employment.

Yours truly,

Montague Mailing Machinery Company,
James Sloan, General Manager.

Demands of the machinists, as outlined in the contract furnished them by the walking delegate now in the city, were said to have been scarcely more than wages already paid at the Montague plant. Mr. Sloan said the company had operated on the theory that its employes should be paid according to what they do—according to skill and ability. Some of the diemakers received attractive wages, he said, which would not be affected seriously, but that the demands were made unacceptable from the fact the company "would have been operating at the unreasonable dictation of the machinists."

WHELAND INTERESTS BUY RIGHTS TO LUCEY'S LINE, PLAN TO RUN FULL BLAST

DOUBLE FORCE TO 150

Pay $50,000 for Patterns of Oil Well Drilling Machinery.

NEW LEADING PRODUCT SUPPLANTS SAW MILLS

Business More Than Doubled Since Mid-1935, Following Four Lean Years.

LABELED SPLENDID NOW

Company Had Been Making Few Drillers During Past Eight Years.

T 1-16-36 p. 1

The Wheland company has purchased the line of the defunct Lucey Manufacturing corporation, shifting its principal production from sawmills to oil-well drilling machinery, and from part-time operation with a small force, has gone into full-time manufacture with the number of employes more than doubled.

An official of the Wheland company yesterday described the present business as "splendid." The business was said to be among the largest ever enjoyed by the company, which is seventy years old this year, and at least double the amount of two years ago.

The capital structure of the company has been reorganized by issuance of 10,000 shares of common stock at no-par value to replace an issue of 5,000 shares of common stock at $100 par value. There is no other stock in the company. Outstanding bonds amounting to $237,000, of an original issue of $300,000, had fallen due and were refunded by a new issue bearing a reduced rate of interest.

The transaction through which Wheland acquired the line of the Lucey corporation involved two of the largest manufacturing plants in Chattanooga, in both of which Wheland and Willingham interests were represented.

The Wheland company had been manufacturing some oil well drilling machinery for eight or ten years, but its chief product was sawmills. It maintained a good business through 1930, but since 1931 its sales had been depressed and the plant was running only part-time with a small employe force.

Last March 1, it was learned yesterday, the Wheland company bought the Lucey patterns, which with its own patterns enabled the concern to manufacture a complete line of oil well drilling machinery. The Wheland company purchased Lucey's patents and good-will, took over the Lucey Export corporation, in New York City (which is managed by W. S. Evans) and started establishing sales agencies in the oil fields of the west. For the Lucey rights the Wheland company paid $50,000 to Paul J. Kent, receiver for the Chattanooga National bank. The Chattanooga National's interest in Lucey consisted of about $300,000 in stocks and bonds and a small loan, of $8,000 or $10,000, Mr. Kent said.

Starting immediately into manufacture of the full line of drilling machinery, the Wheland company has been running full-time with its increased force in the production of the new principal line and business has been "splendid," an official said.

The Lucey Manufacturing corporation, representing an investment of about $1,000,000, and with a plant area of twelve acres, once did an enormous business, selling to virtually all the oil fields in the world. It manufactured the first rotary oil well drilling machinery; eventually the rotary machinery was introduced in all oil fields. Lucey's main machine shop, in a building about 1,500 feet long by 200 feet wide, has been dismantled, and all the machinery in the plant has been sold piecemeal by the Chattanooga National receiver.

The Wheland company, with a plant space of sixteen acres, operates a grey-iron foundry, a forge shop, a wood shop, a machine shop and other units. Its officers are E. F. Wheland, president and general manager; A. C. Willingham II, vice-president, in charge of sales; Z. W. Wheland, treasurer; O. L. Martin, secretary and assistant, and O. W. Russ, assistant sales manager.

The officers of the Lucey Manufacturing company were Z. W. Wheland, president; A. C. Willingham II, vice-president and general manager, and L. C. Train, treasurer.

CHATTANOOGA - Industries - Wheland Foundry

Dan Hendy

DEPARTMENT OF THE ARMY
WATERVLIET ARSENAL
WATERVLIET, NEW YORK 12189-5000

REPLY TO
ATTENTION OF:

(518) 266-5805
March 20, 1991

Museum Technician, Watervliet Arsenal
Museum

Mr. Dan Hendy
1616 Lula Lake Road
Lookout Mountain, Georgia 30750

Dear Mr. Hendy:

I have enclosed four pages from our gun book and have highlighted the information you seek on the Wheland Company of Chatanooga, Tennessee. The information on the 90mm anti-aircraft guns was taken from British & American Artillery of World War 2, by Ian V. Hogg.

The National Archives may be of assistance to you in your search. Good luck with your project.

Sincerely,

Rosemarie A. Hutchinson
Museum Technician
Watervliet Arsenal Museum

Enclosures

CHATTANOOGA - Industries - Wheland Co. (ca. 1941)

(3,543)

90 M/M Guns M1, 90 M/M Drill Gun, T3.

C-6A, C-6A-1, C-6A-2 Nos. 2 to 37 incl.
8850 36 - 90 M/M Guns M1 with extra parts and accessories Finished 6/12/41
36 - Spare Tubes Finished 10/30/41 Turned in complete 9/25/42

8850-C 1 - Dummy Breech Mechanism for 90 M/M Gun M1. Finished 6/16/42.
~~-2-~~ Turned in complete 9/25/42

C-171-A Nos. 38 to 43 incl.
8892 6 - 90 M/M Guns M1 with extra parts and accessories, if any. Finished 6/17/41
6 - Spare Tubes. Turned in complete 10/24/41

C-190-A Nos. 44 to 79 incl.
8955 36 - 90 M/M Guns M1 with extra parts and accessories, if any. Finished 7/26/41
36 - Spare Tubes Turned in complete 11/14/41

C-193-A Nos. 80 to 115 incl.
8967 36 - 90 M/M Guns M1 with extra parts and accessories, if any. Finished 9/11/41
36 - Spare tubes. ~~Turned in complete 12/12/41~~ Re-opened 2/20/42 Turned in complete 9/25/42

C-350-1 ~~237~~ 273 Nos. 116 to 352 incl., & 805 to 840 incl.
8992 ~~-273-~~ 90 M/M Guns, M1 (with extra parts and accessories) Finished 1/15/42
~~237~~ 273
~~273-~~ ~~Spare~~ extra tubes. Turned in complete 4/30/43

8992-A Procure 4 alloy steel breech ring castings from the Ohio Steel Foundry Co., Lima, Ohio. Turned in complete 4/30/43

C-471-A-2 452 # 353 to 804 incl.
9024 ~~452~~ - 90 M/M Guns, M1, Nos. /(Purchase) (Wheland Co.) Turned in complete 4/17/43
452
~~452~~ - 90 M/M Tubes M1 (Spares) (Purchase)

C-511 Nos. 841 to 1180 incl.
9031 340 - 90 M/M Guns, M1, including extra parts. Turned in complete 5/28/43
340 - 90 M/M Tubes M1 (Spares)

C-730 Nos. 1181 to 1204 incl.
9090 24 - 90 M/M Guns, M1, including extra parts. Finished 4/11/42
Turned in complete 3/19/43
24 - 90 M/M Tubes M1 (Spares)

C-937-3 68 1272
9150 ~~155~~ - 90 M/M Guns M1, No's 1205 to ~~1359~~ incl. Turned in complete 4/9/43
68
~~155~~ - 90 M/M Tubes M1 (Spares) with Extra parts.

C-6A-2, C-171-A, C-190-A, C-193-A, C-350-1, C-1225, C-511, C-730, C-937-3
9234 Extra parts for 1271- 90 M/M Guns M1. Turned in complete 11/6/42

9234-A Procure 8 Stargages and accessories. Turned in complete 11/6/42

9273 To cover the cost of machining grooves in three Rifling Bars for 90 M/M Gun M1 for the Wheland Company. Turned on complete 7/15/41

90 M/M Gun, Ml

9282 - Manufacture or procure 50 sets - Repair Tools for 90 M/M A.A. Guns. Turned in complete 4/24/42

C-1514
9287 Nos. 1273 to 1280 incl.
8 - 90 M/M Guns, Ml with extra parts Finished 5/5/42 Turned in complete 3/19/43
8 - 90 M/M Tubes Ml (Extra) Nos. 2553 - 2560 incl.

9287-A Manufacture extra parts for 8 - 90 M/M Guns, Ml. Turned in complete 3/19/43

C-1791
73 5 - 90 M/M Guns, Ml, Nos. 1281 to 1285 incl., with extra parts. Finished 5/7/42
5 - Extra Tubes Nos. 2567 - 2571 incl. Turned in complete 3/19/43

73-A Mfr. extra parts for 5 - 90 M/M Guns Ml. Turned in complete 3/19/43

C-1873-3
125
85 ~~280~~ 2696 -- Tubes, 90 M/M Ml, Nos. 2572 to ~~2851~~ incl. (spares) Cancelled. Turned in complete 5/29/43

C-2387-2
~~867~~
125 ~~1000~~ - 90 M/M Guns, Ml, Nos. 1286 to ~~2285~~ 2152 incl. and 133 Guns M2, Nos. 433 to 565 incl. with 10 sets of extra parts. (Procure)
1000 - Extra Tubes and extra parts for 1000 Guns. (Purchase (Wheland Co.) Turned in complete 10/2/43

125-A Manufacture 90 M/M Guns, Ml. To cover the cost of additional facilities to be procured by the Wheland Company in order to increase their production to 100 Guns per month with 100 extra tubes per month. Turned in complete 10/2/43

C-2143-1
135 1 - 90 M/M Drill Gun, ~~M1~~ T3, No. 1 Turned in complete 9/18/41

C-2352-2
167 300 - Tubes, Nos. 2697 to 2996 incl., for the 90 M/M Gun, Ml (Purchase) (Gred I. Getty) Turned in complete 10/20/43

C-2956-4
170 2000 - 90 M/M Guns, Ml, with extra parts, Nos. 2287 to 4286 incl. Finished 12/29/42
~~2292~~
~~3000~~
~~3000~~ M1A1+M2 -- Extra Tubes for 90 M/M Gun, Ml, Nos. 7012 to 9011 incl. & 18022 to 18313 incl. Turned in complete 1/28/44

170-A To cover the cost of additional facilities in order to increase the production of the subject guns to a quantity of 200 complete guns per month with 200 extra tubes per month (90 M/M Guns, Ml.) Turned in complete 1/28/44

170-B Procurement of machine tools required for increased production of 90 M/M Guns Ml. Turned in complete 6/1/43

C-2978
285 12 - Tubes for 90 M/M Guns, Ml, Nos. 5000 to 5011 incl. Turned in complete 4/30/43

90 M/M Gun, Ml & M2

C-2956-~~1~~
170-C — Provide 90 M/M, Ml, Parts for Chevrolet - Flint. Finished
Turned in complete 1/28/44

170-D — Manufacture special device for locking operating crank to shaft of 90 M/M Gun, Ml. Finished 9/12/42 **Turned in complete 1/28/44**

170-E — 1 - 90 M/M Tube, Ml. (finished machined) for Midvale Company (Inspect)
Finished 12/2/42
Turned in complete 1/28/44

170-F — Salvaging 90 M/M Tubes by Chromium Plating. **Turned in complete 1/28/44**

C-3082
260-C — Manufacture misc. tools for 90 M/M Gun, Ml, in kind and quantity as listed in Field Service Requisition D-365. Turned in complete 5/23/42

C-3244-3
277 — 901 -~~900~~ - 90 M/M Guns, M1A1, Nos. 4987 to 5887 incl., **Turned in complete 1/7/44** with 9 sets of extra parts, and authorized assemblies and

1350 — ~~901~~ 900 - Spare Tubes, No's 11314 to 12663 incl. Cancelled. See Add. #42

277-A — Miscellaneous Work on 90 M/M Guns and Parts. Turned in complete 1/7/44

277-B — Manufacture Coldworking facilities for 90 M/M Guns, Ml. Turned in complete 1/7/44

277-C — 5 - Drill Fixtures for modifying 90 M/M Breech Rings in field. Turned in complete 1/7/44

C-3039-2
286 — 895 - Support, Tube, and Rammer Hook Assemblies for 90 M/M Guns, Ml. Cancelled
Turned in complete 5/28/43

C-3039-2
286-A — 10 - Drill Jigs per Drg. G-1232 for 90 M/M Gun, Ml (Purchase) Turned in complete 5/28/43

Watertown Ars. Req. 14940
352 — ~~24~~ ~~12~~ 6 - Machine, 90 M/M Gun Chill Molds for Watertown Arsenal in accordance with drawing EA-T7-28335. ~~26969~~ Turned in complete 11/20/42

C-3769-2
(357) 400 — 76 - 90 M/M Guns, M1A1, Nos. 7288 to 7363 incl. with 1 set of extra parts, including ~~108 - Extra Tubes, Nos. 19098 to 19205 incl., 90 M/M Gun, Ml.~~ Cancelled. See Add. #42
~~Turned in complete 9/17/43, 9/30/43, 11/5/43~~ ~~Re-opened 12/14/43~~
Turned in complete 2/4/44

C-4166-4
(414) 400 — 400 - 90 M/M Guns, M1A1, Nos. 8014 to 8413 incl. with 4 sets of extra parts, including ~~221 600 - Extra Tubes, Nos. 24869-to-25468-incl., 90 M/M Gun, Ml.~~ Cancelled. See Add. #33
~~Turned in complete 9/17/43, 9/30/43 11/5/43~~ May 25, 1943
Turned in complete 2/4/44 ~~Re-opened 12/16/43~~

C-3885-2
407-A — Procure Tools for 90 M/M Gun, Ml, F.S. Req. D378. **Turned in complete 2/12/44**

C-4276-2
421 — 24 - 90 M/M Guns, M1A1, Nos. 8414 to 8437 incl. with Extra Parts including
Turned in complete ~~7/23/43~~ , 10/1/43
~~66---Extra-Tubes,-Nos.-25483-to-25548-incl.,-90-M/M-Gun,-Ml-~~ Cancelled. Add. #24

425 Procure Repair Tools for 90 M/M Gun, M1, in kind and quality as specified on Watertown Arsenal Requisition 19432. Turned in complete 11/8/43

439 1 - Machine Rifling Groove in one Rifling Bar for 90 M/M Gun, M1. Turned in complete 7/17/42

10
C-4673-~~8~~ 157
513 ~~1081~~-- 90 M/M Guns, M1A1 Nos. 8438 to ~~9518~~ 8594 incl. with ~~11~~ 5 sets of Extra Parts, and
263
~~891~~ -90 M/M Guns, M2 and common parts (To be trans. on Ex.O. 557)
~~1621~~
7 ~~1850~~-- ~~Extra Tubes for 90 M/M Guns, M1, Nos. 27830 to 29450 incl~~ Extra Tube for 90 m/m Guns, M1, Nos. 2962 to 2968 ~~Spare Tubes Cancelled See Add. #26.~~ See Add. 59
Turned in complete 5/25/45

548 To Cover the cost of manufacturing 1 - Rifling Bar for 90 M/M Gun, M1, for Chevrolet - Flint. Turned in complete 7/31/42

C-5207-1
557 ~~500 - 90 M/M Guns, M1, with 5 sets of Extra Parts, and authorized assemblies (including 750 Extra Tubes) and 5 sets Initial and Extra Equipment.~~
Changed to T4E2 Suspended See Add. #15 Turned in complete 3/14/45

557-A ~~5 - Sets Initial and Extra Equipment for 90 M/M Guns, M1. (Purchase)~~
Changed to T4E2 - See Add. #10 Suspended. See. Add. #8
Turned in complete 3/14/45

570 Repair 90 M/M Gun, M1, Serial No. 2424 Turned in complete 9/25/42

C-5086
583 34 - Sets initial and extra equipment for 90 M/M Gun, M1, (Purchase)
Turned in complete 2/9/44

594 50 - Eyebolts in accordance with Drg. A25871. (Procure) Turned in complete 3/22/43

C-5178
595 Procure Spare Parts for 90 M/M A.A. Gun M1. (Equipment) Turned in complete 11/8/43

599 To cover the cost of repairing 2 - 90 M/M Guns, M1 Turned in complete 10/30/42

609 1 - 90 M/M Gun, M1, Serial No. 2344. (Repair for Columbia Machinery and Eng. Corp.
Turned in complete 12/31/42

Watertown Ars. Req. No. 3-4880
625 Manufacture Parts for 90 M/M Gun, M1. Turned in complete 12/31/42

C-5577
670 6000 - Chains, piece marked A12514-3 for 90 M/M Gun, M1. (Purchase)
RD 61618
Turned in complete 11/15/43

703 Repair 90 M/M Gun M1, Serial No. 3747 Turned in complete 4/2/43

715 Repair 90 M/M Gun M1 Serial No. 1472 Turned in complete 4/2/43

90mm Anti-Aircraft Gun

By the middle 1930s, it was obvious that the 3in AA gun was fast becoming obsolescent, and that a replacement, capable of dealing with modern aircraft, was needed. In 1938, the Coast Artillery Board demanded a gun of greater calibre, to fire a shell of at least 21lb, the upper limit of calibre being set by the need to load the gun by hand. Preliminary ballistic studies were made, which indicated that a 90mm gun firing a 24lb shell would provide the sort of performance needed, and on 9 June 1938, the development of the 90mm Gun T2 was formally initiated, followed on 18 August by approval of the Military Characteristics of the 90mm Mounting T1. Work progressed rapidly and both gun and mounting were standardized at the M1 patterns and approved for production on 21 March 1940.

The M1 gun used a monobloc auto-frettaged tube sliding in guide rails and fitted with a vertical sliding breech block. The M1 mounting was a four-outrigger platform of unusual design, since it used a single axle with two dual wheels. One outrigger was fixed to act as a towing-bar, while the other three folded up for travelling. The top carriage was fitted with hand-operated elevation and traverse gears, and with data dials for the reception of electrically-transmitted data from the Director.

On 22 May 1941, the Mount M1A1 was standardized, together with the Gun M1A1. The mount was much the same as before, except that it now had provision for remote power control, and the cradle was fitted with the Spring Rammer M8. This was a cylinder, above the gun barrel, which contained springs and a ramming rod; as the gun recoiled the spring was compressed and the ramming rod extended. The cartridge entered the breech ring, whereupon pulling a trip lever released the spring-loaded rod and rammed the round into the breech. The Gun M1A1 was the same as the M1 except for small modifications to the breech ring to incorporate some of the spring rammer gear. In fact the Spring Rammer M8 turned out to be more trouble than it was ever worth and it was invariably disconnected or removed by the gunners.

Although approved in 1941, the M1A1 equipment actually went into production late in 1940, in advance of approval and on high priority; by the time of the North African landings in 1942, more than 2,000 equipments had been made and issued. It became the standard field army AA gun and was used in every theatre of war.

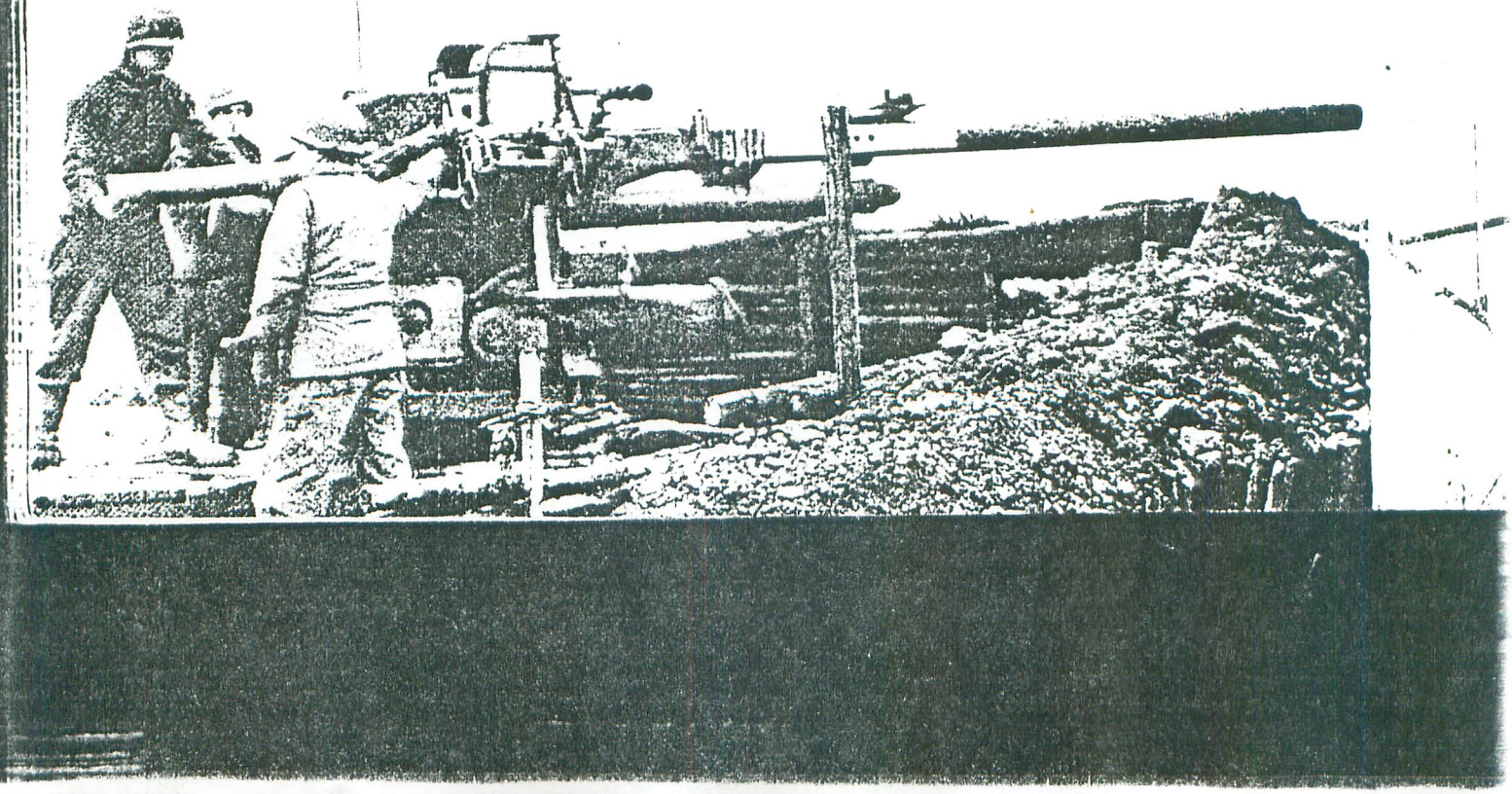
At the time of the introduction of the M1A1, the Coast Artillery requested a static mount capable of use as an anti-torpedo-boat gun in harbour defences or as a secondary role. As a result, the M3 mounting was developed, a straight-forward pedestal mount fitted with a shield. Although there were minor differences, these mounts were virtually the top carriage assembly of the mobile mount M1A1 bolted down to a holdfast in concrete.

While the M1A1 equipment was satisfactory from the pure AA point of view, the Chiefs of Staff decided that what was needed was an equipment capable of more rapid response in an emergency – the M1A1 took some time to get into action – capable of engaging ground targets, and capable of functioning as a mobile coast defence gun. Even if the M1A1 could have been got into action more rapidly, it was incapable of depressing below point blank, which ruled it out as a coast defence weapon. On 11 September 1942, the new project was begun, and on 13 May 1943, the Gun M2 on Mount M2 was standardized.

The M2 gun was much the same as the M1, except for the method of attachment of the breech ring – interrupted threads instead of a continuous one. But the Mount M2 was a considerable change; it was now a two-axle cruciform mount with outriggers, folding shields and folding platforms. It was provided with hand or remote power control of elevation and traverse. The cradle incorporated the

Top: 90mm Gu
M1A1, in trave
Gun M1A1 in p
Right: Setting
mount. Below:
Mount M2, in

Below: M1A1 mount deployed in an anti-tank position in Belgium, 1944.



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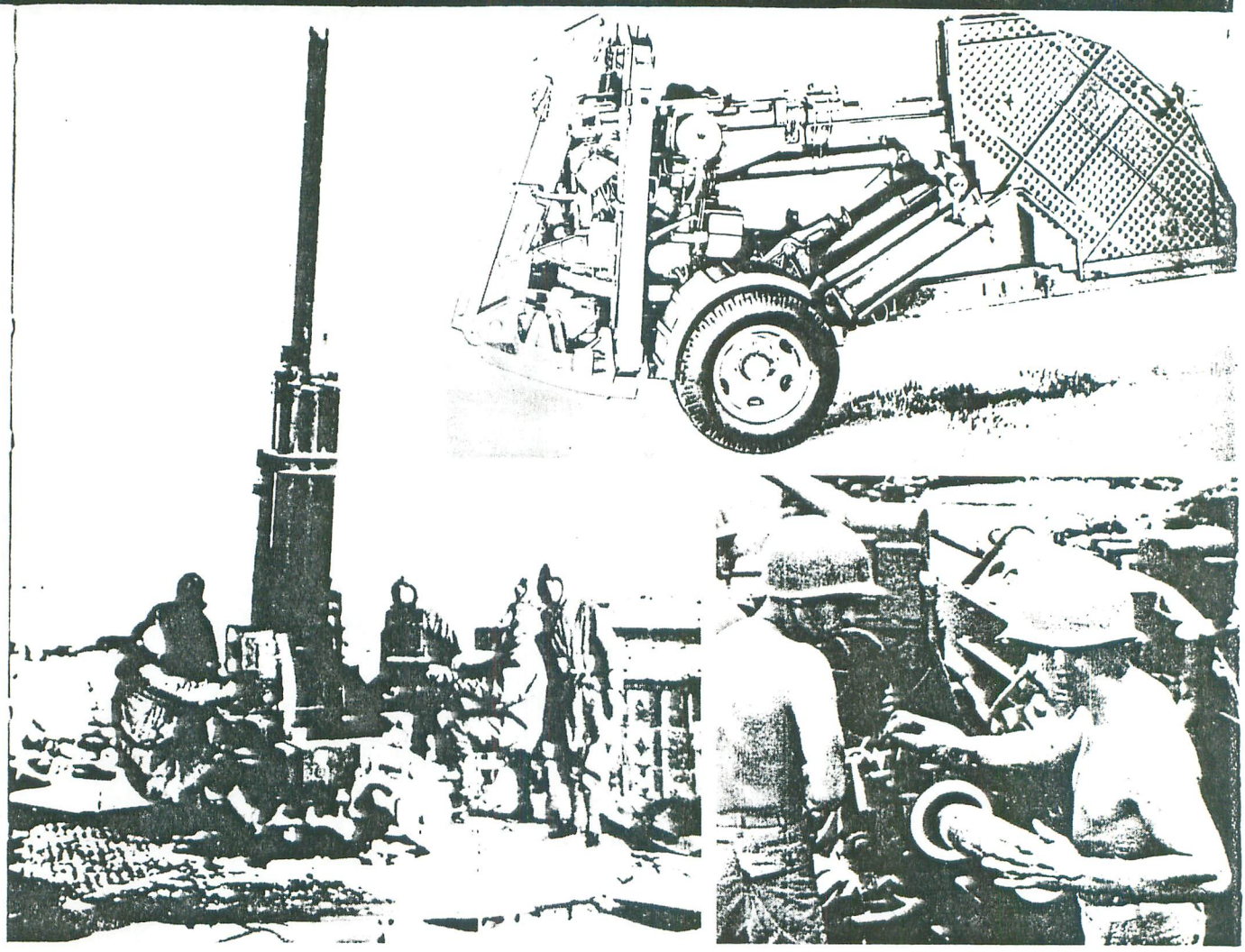
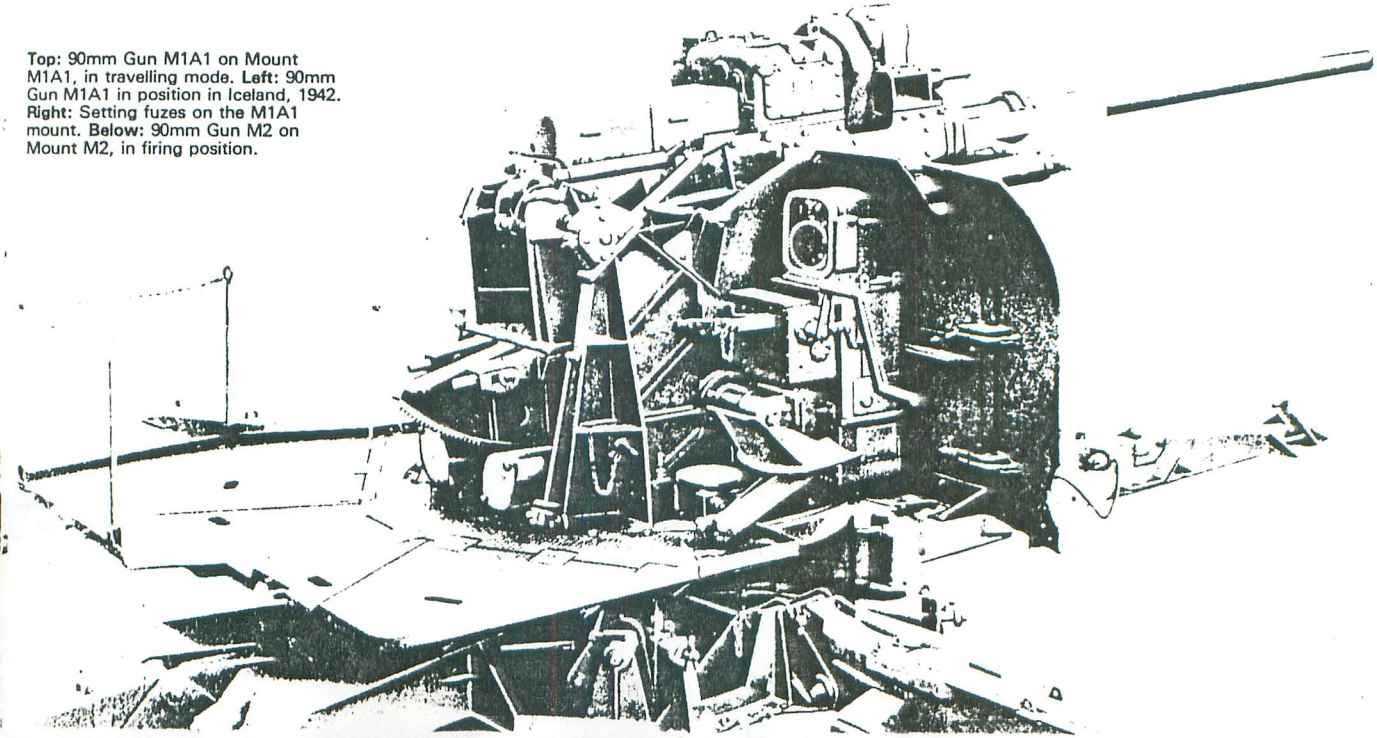




Top: 90mm Gun M1A1 on Mount M1A1, in travelling mode. **Left:** 90mm Gun M1A1 in position in Iceland, 1942. **Right:** Setting fuzes on the M1A1 mount. **Below:** 90mm Gun M2 on Mount M2, in firing position.

Fuze Setter and Rammer M20, driven by an electric motor above the gun; behind the breech were a set of diabolo-shaped rubber rollers which were rotated by the motor. To load, the nose of the shell was thrust between these rollers, which were rotating at low speed and drew the round forward. Between the rollers and the breech was a casing containing a set of jaws not unlike a drill chuck; as the round was drawn forward and the fuze entered this casing, the ramming rollers stopped, the jaws contracted to grip the fuze, and a set of knives then gripped the movable section of the fuze and rotated it to the current setting, as transmitted from the director. The jaws then opened sufficiently to clear the cartridge case, the ramming rollers accelerated to high speed, and the round was propelled into the gun breech; as the cartridge rim struck the extractors, this released the breech block, the block slammed shut, and the gun fired. As the round left the rollers, they retracted into the breech ring, and when the gun fired, the empty cartridge case ejected through the fuze setter casing, and past the rollers, which then moved in again and began rotating ready to accept the next round. For firing proximity or percussion fuzes, the fuze-setting function could be locked out of operation and the ramming rollers then rotated at high speed all the time, to ram the cartridge without interruption.

Like many such devices, it sounds a lot more complicated than it really was, and it certainly gave very little trouble in service, while it put the rate of fire up from 15 to 27rpm. At the minimum fuze setting, the firing cycle was 2.6 seconds. It is probable that the basic idea, the use of rollers, was inspired by the similar mechanism used in the German 10.5cm FlaK 38 AA gun, but the refinements of variable speeds and the incorporation of a fuze setter were original ideas.

Variants

In addition to the three basic service weapons described above, there were more variants of the 90mm gun than almost any other weapon used during the war, because it was a good high-velocity gun, in ample production, and thus made an excellent starting point for all sorts of research ideas:

M1A1E1: A project for liquid-injection cooling in order to prolong barrel life. 1944/45.

M1A1E2: M1A1 modified to take Fisa Protectors. 1944.

M3: Tank and self-propelled gun.

M3E2: M3 with chromium-plated bore. Eight guns, with varying thicknesses of chromium, were prepared for wear trials at Aberdeen Proving Ground in November 1944.

T5: A 60-calibre gun with Probertized bore (RD Rifling – see p 108 for a description of this rifling, applied to the British 3.7in AA gun) and having a projectile with driving and centring bands. To work at 42,000lb/sq in chamber pressure (the M2 worked at 38,000) and give 3,350ft/sec with a 23.67lb shell. The project began in November 1943 and was successfully completed.

T6: 60-calibre gun, as for the T5, with conventional rifling. Trial firings showed severe tearing and stripping of the shell driving bands, and scoring of the shell body. Work was stopped late in 1943.

T7: Tank development, later standardized as the M3.

T8: A modified M1 for use on the Carriage T5. (See p 90).

T14: M3 modified to use a concentric recoil system.

T15: Development to provide a gun with a better armour-penetration than the M3. To give 3,000 ft/sec with the APC Shell M82, and to be used in SP guns. (See p 91).

T16: A Hyper-velocity AA gun to give 3,500ft/sec with a 25lb shell at 42,000lb breech pressure. This was a 70-calibre gun, and the project, begun in August 1944, continued into the post-war years.

T16E1: As T16, but for Fisa Protectors.

T16E2: As T16, but with chromed bore, 10-groove rifling and pre-engraved projectiles. It was found difficult to measure a ten-groove barrel by using the standard types of bore gauge, however, and the design was later changed to 12 grooves. Continued after the war.

T18: High-velocity anti-tank gun. (See p 91).

T19: M1A1 gun fitted with a 'Crane Liner' for 64 inches of the barrel and chamber in order to decrease wear. 1944.

T20: Anti-tank gun (See p 91).

T21: Anti-tank gun. (See p 91).

T22: A 90mm gun with a 105mm chamber, proposed as a high-velocity anti-tank gun. (See p 91).

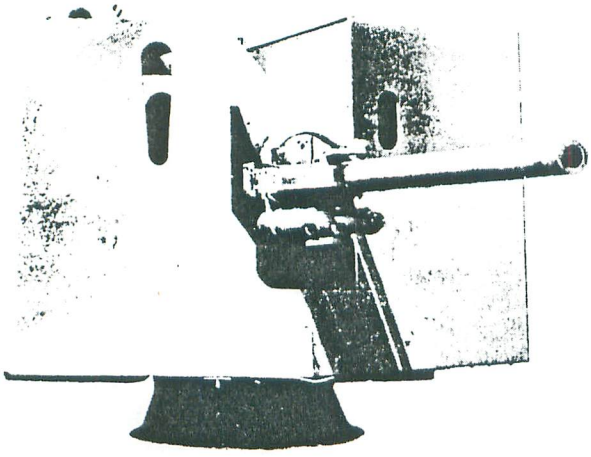
T54: Variant of the T15E2. (See p 91).

T60: A 'hotted-up' T54. (See p 91).

Mountings:

T3: Static turret mounting for dual-role AA/Coast firing. To give −8° +80° elevation. October 1941. With modified shielding this became the M3 mount in June 1943.

T6: Improved M3 with heavier shielding and −10° depression. Development began in April 1943, but because of lessened demand for static guns, the



Above: 90mm Gun M1 on Mount M3, for coast defence.

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2. Round st
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Data

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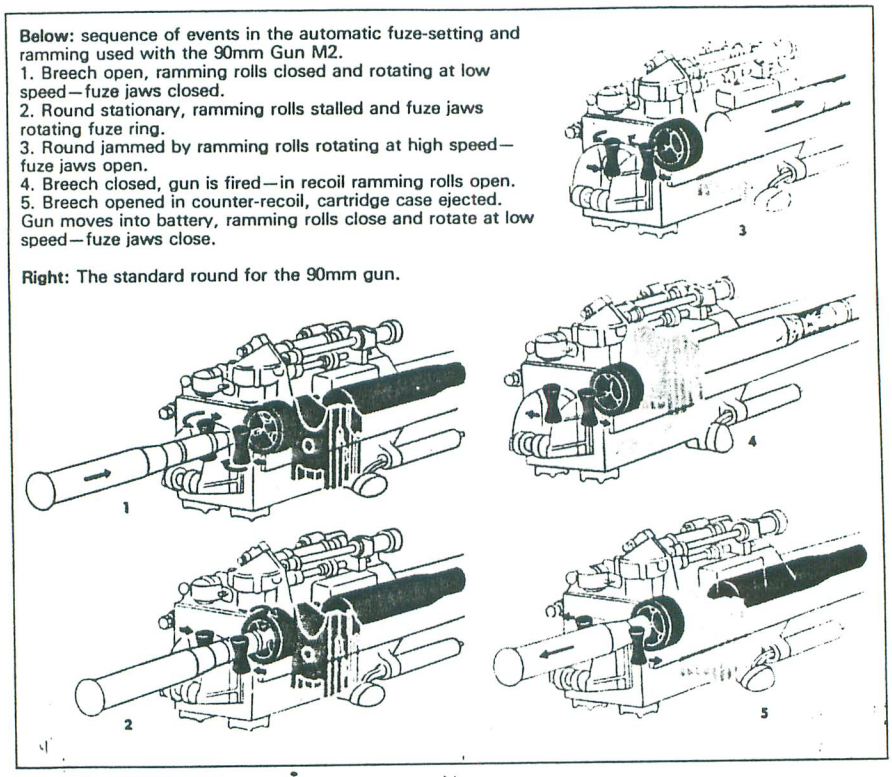
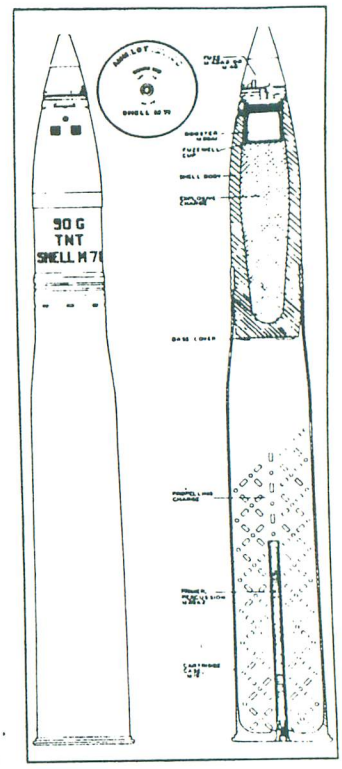


Below: sequence of events in the automatic fuze-setting and ramming used with the 90mm Gun M2.
1. Breech open, ramming rolls closed and rotating at low speed—fuze jaws closed.
2. Round stationary, ramming rolls stalled and fuze jaws rotating fuze ring.
3. Round jammed by ramming rolls rotating at high speed—fuze jaws open.
4. Breech closed, gun is fired—in recoil ramming rolls open.
5. Breech opened in counter-recoil, cartridge case ejected. Gun moves into battery, ramming rolls close and rotate at low speed—fuze jaws close.

Right: The standard round for the 90mm gun.



project was ended in April 1944.
Most of the development on mountings in this calibre related to anti-tank guns, and is detailed in the anti-tank section.

Data

Gun M1A1, on Mount M1A1:
Weight of gun and breech mechanism: 2,445lb.
Total length: 186.15in.
Length of bore: 181.05in (50 cal).
Rifling: 32 grooves, uniform RH 1/32.
Breech mechanism: Vertical sliding block, semi-automatic, percussion fired.
Elevation: 0° to +80°.
Traverse: 360°.
Recoil system: Hydropneumatic, variable 26in–44in.
Weight in action: 19,000lb.
Rate of fire: Hand 15rpm; power 25rpm.
Gun M2, on Mount M2 as above except:
Elevation: −10° +80°.
Recoil system: Hydropneumatic, variable 29in–45in.
Weight in action. 32,300lb.
Rate of fire: 27rpm.
Gun M1A1, on Mount M3 as for Gun M1A1 on Mount M1A1 except:
Elevation: −8° +80°.
Weight in action: 17,000lb.

Performance (identical for M1A1 or M2 guns) firing standard 23.4lb HE shell.
Muzzle velocity: 2,700ft/sec.
Maximum horizontal range: 19,500 yards.
Maximum ceiling: 39,500ft.
Effective ceiling: 33,800ft (with 30sec fuze).

Ammunition fixed, cased charges.

Propelling charge. The propelling charge varied according to the projectile in use, so as to extract the maximum velocity, and the nominal weights are noted below with each shell. The cartridge case M19 (brass) or M19B1 (steel, drawn) was used, which was 23.7in long and carried a percussion primer in its base.

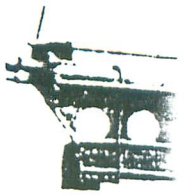
Shell, HE, M58. This was the original shell for the 90mm gun, the 21lb projectile called for by the CA Board in 1938. As originally assembled, it had a velocity of 2,800ft/sec, but this turned out to be too much, since the shell was too thin in its wall section to withstand the acceleration and invariably set down beneath the driving band, giving rise to irregular ballistics if nothing worse. As a corrective measure, the charge was slightly reduced to 6.82lb of NH powder to give 2,700ft/sec and the shell was re-designed with a slightly thicker wall and given a final heat tempering treatment in manufacture to make it stronger.

The M58 contained 2.67lb of cast TNT or 2.43lb of Amatol 50/50, with the Time Fuze M43. Ammonal (2.22lb) and Trimonite (2.76lb) were also approved loadings, but it is not thought that these were employed in any number. An M58B1 shell was also approved as a manufacturing alternative, the only difference being that the bottom of the internal cavity was flat instead of hemispherical.

Shell, HE, M71. An improved shell developed during the war, this became the standard anti-aircraft projectile. It weighed 23.40lb and was filled with 2.04lb of TNT, with the Time Fuze M43. A streamlined shell, it could also be fitted with the Percussion Fuze M48 for ground firing. The propelling charge used with the M71 shell was 7.31lb in order to achieve the standard velocity with the heavier shell.

Shell, APC, M82. A piercing shell with penetrating and ballistic caps, weighing 24.06lb with a filling of 0.31lb Explosive D and a Base Fuze M68. Fired with a propelling charge of 7.31lb, it achieved a muzzle velocity of 2,670ft/sec and could penetrate 5.12in of homogeneous plate at 500 yards, or 5.5in of face-hardened plate at the same range.

Shot, AP, M77. This was the substitute standard anti-tank round which was originally produced and then rapidly replaced by the M82 above. It was rather unusual in US service, in that it was a plain steel shot with tracer and no explosive content. The propelling charge of 7.31lb gave 2,700ft/sec velocity, and the penetration into homogeneous plate was 5.6in at 500 yards.



105mm Anti-Aircraft Gun

During the early 1920s, American development of an AA gun concentrated on the 4.7in model, but it was soon felt that this was going to prove a cumbersome weapon and that something smaller than 4.7in, but larger than 3in would be welcome. Late in 1924, development of a 105mm gun got under way.[1] This resulted in the 105mm Gun M1927 on Mount M1926 which, after slight modification, was standardized as the Gun M1 on Mount M1 in 1927.[2] The principal difference between the M1927 and the M1 lay in the construction of the gun; the M1927 was a monobloc auto-frettaged gun, while the M1 used an auto-frettaged loose liner. At this time, there were considerable differences of opinion about gun construction, and a third design, using a loose liner, but non-auto-frettaged and of much heavier construction was approved as the Gun M2. After extensive comparative trials, it was determined that the loose-liner system showed no advantage in this particular gun, and in the interest of economy it was decided to revert to the monobloc design. This was standardized as the M3 in 1933; the M1 was made obsolete, and the M2 was never standardized.

After all this, no more than fourteen M3 guns were made, in 1937–38, the majority of which went to the Panama Canal Zone. In 1944/45, they were replaced by 120mm guns, and declared obsolete in February 1945, one of the few American weapons to be discarded before the war ended.

The M3 gun was a 60-calibre monobloc gun of conventional form, with a vertical sliding block breech. It was fitted with a mechanical rammer and loading tray, supported by a cantilever arm overhanging the breech; the rammer was operated by air, compressed in a special cylinder during recoil movement of the gun. By using this rammer, a sustained rate of fire of 20rpm could be maintained, with short bursts of 30rpm, if the shell fuzes had been pre-set. In practice, the need to set the fuzes independently, in a separate setting machine, kept the rate of fire down to about 15rpm.

Source References
1. Ordnance Committee Minute 4389 of 15 January 1925.
2. Ordnance Committee Minute 6594 of 17 November 1927.

The Mount M1 was a simple pedestal, anchored to a holdfast set in concrete in an emplacement. Elevation and traverse were set by hand controls according to data displayed on electrical-transmission dials.

While the 105mm M3 was, in itself, a sound enough design, the fact remained that its performance was not sufficiently better than that of the later 90mm gun to make it worthwhile perpetuating, and since the 120mm, which was concurrently developed, was offering better performance for a relatively small increase in weight, the 105mm fell between two stools and suffered accordingly.

Variants

No variant models entered service, but there were a number of interesting experimental projects.

T4: An improvement on the M3, 65 calibres long, to give 3,000ft/sec at 42,000lb/sq in chamber pressure. Development began in 1943 and continued post-war until cancelled in 1946.

T4E1: Originally a T4 with hand-operated breech, as a potential SP gun. Later used as designation for a T4 with the chamber modified for Fisa Protectors.

T4E2: T4 with left-hand twist rifling for ballistic research, 1944.

T4E3: T4 with experimental breech mechanism 1945.

T5: New design, for use in tanks. 48 calibres long, 2,800ft/sec, developed in 1944.

T5E1: T5 lengthened to 65 calibres to produce 3,000 ft/sec. Procurement of 1,152 guns authorized in August 1945, but cancelled shortly afterwards.

T5E2: Tank and heavy SP gun. Basically the T5E2 with a muzzle brake. Later became the T8.

T6: AA high-velocity design to obtain 3,500ft/sec. 1944/45.

T6E1: T6 with Fisa Protectors.

T6E2: T6 with chromium-plated bore, 10 grooves and pre-engraved projectiles.

T8: Towed anti-tank gun project. (See p 92).

T18: High-velocity anti-tank gun project.

Carriage T3: A mobile carriage, similar to that of the 90mm gun, which mounted the T4 gun.

Data Gun M3, c
Weight of gun a
Total length: 25
Length of bore:
Rifling: 36 groo
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automatic, per
Elevation: −5°
Traverse: 360°.
Recoil system: I
Weight in action
Rate of fire: 15-

Performance firi
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MILLION TO GO INTO EXPANSION OF WHELAND CO.

Mechanized Foundry to Make Iron Castings for Auto, Other Industries

OUTPUT TO LEAD SOUTH

T 4-11-46p.1

BY FRED SCHNEIDER

The Wheland Company will expand its foundry operations to five times the present output through the expenditure of more than $1,000,000, Gordon P. Street, president of the company, announced yesterday.

Orders have been placed for machinery of the very latest type to provide a fully mechanized foundry for the mass production of gray iron castings for the automotive industry and other large users of castings, he explained.

The new foundry will have a capacity of 350 tons of finished castings in a 16-hour day of operations, Street disclosed. This output will be larger than in any gray iron casting foundry in the entire South, including the Birmingham district.

With the new foundry in operation, employment by the Wheland Company here will be increased by about 500, bringing the total employment to approximately 900, which compares with a peak employment during the war of 1,200.

No New Buildings

No new buildings will be required in the expansion program, the entire expenditure going for equipment. During the war new buildings were erected at the plant at Broad and Arch streets for the manufacture of guns and landing windlasses and other products. This space will be used for the new foundry.

The new foundry will be designed and equipped for the continuous, assembly-line method of production of casting, with machines handling the product from the pouring of the molten iron from the furnace until the completed casting is loaded for shipment.

Material-handling and conveyor equipment will be manufactured and installed by C. O. Bartlett & Snow Company of Cleveland, Ohio.

Wheland will produce castings in large quantities, ranging in size from a few pounds to the largest required by other manufacturers using gray iron castings in their products, the president said. The castings will not be finished or machined here. This will be done by the manufacturer who contracts with Wheland.

Producing Many Years

"The Wheland Company has been producing castings many years, and what we are doing now is to greatly expand our operations to help fill a tremendous demand," Street said. "Today there are comparatively few sources from which manufacturers can obtain casting in large quantity, and the production is far short of the needs.

"In the past we have made castings for International Harvester, W. K. Kellogg Company, Delco, General Motors and many other large users of castings. Among orders now on our books is one from General Motors for a large number of castings to be supplied to various Chevrolet plants.

"I want to correct any impression that we are expanding our facilities because of the General Motors business alone, for this is not true. We will produce castings for other automobile companies and various other types of industries, including those manufacturing farm equipment, refrigerators, stoves and valves and fittings, to mention only a few of them.

Automotive Products

"In the automotive field we will be equipped to turn out such things as brake drums, clutch housings, fly wheels and many other types of castings. We will specialize in turning out large quantities of a certain casting item and would not take an order for just a few units since our set-up will be designed for mass production.

"During the war, grey iron castings came back into their own with a huge volume of them being required for various types of war equipment. We supplied a large quantity of these castings. With the end of the war, we gave consideration to development of business to keep the Wheland Company's production and employment at peak level.

"Last October we determined that the production of grey iron castings offers a huge field. Since that time we have been carefully planning our expansion program and we now are ready to proceed at once with the development. In expanding the foundry department we will continue our other lines of production, including oil well and sawmill equipment."

Street announced that H. F. Criscom, a native Chattanoogan, who has had many years of experience in the foundry business, has been named Wheland Company foundry manager. Griscom was vice-president and sales manager of the Ross-Meehan Foundries here several years.

Karl L. Landgrebe Jr., a native of Birmingham, Ala., will be foundry superintendent. He comes to Wheland directly from the production foundry of the Ford Motor Company's River Rouge plant at Dearborn, Mich., Street said.

C. C. Lay, a native of Hampton, Ky., formerly controller of the Marshall Stove Company of Lewisburg, Tenn., has been named controller of the Wheland Company. E. F. Wheland is chairman of the board of the Wheland Company and in addition to Street, its president, other officers are C. W. Wheland, vice-president, and O. L. Martin, secretary and treasurer.

Financing for the expansion program was handled through the Hamilton National Bank.

The Wheland Company, one of Chattanooga's oldest industries, was founded by the late George W. Wheland in Athens, Tenn., in 1866.

WHELAND COMPANY USES GAS WIDELY

Firm Originally Repaired Farm Machinery at Shop in Athens in 1866

T8-16-50 p.35

The Wheland Company, already one of Chattanooga's large gas users, now is carefully studying improvements in efficiency which might be possible now that natural gas is available here, it has been announced.

The organization, which has one of the nation's largest and most modern production foundries, already is using gas in its many industrial operations.

The Wheland Company was founded in 1866 in Athens, Tenn., by George W. Wheland to repair farm machinery and manufacture hollow ware castings. Seven years later, Wheland purchased two acres of land on the Tennessee River here and erected a large frame building which houses a machine shop, foundry, blacksmith shop and pattern shop.

The original plant made grist mills, cane mills and water wheels and continued to operate a repair shop for farm equipment. In 1880 Wheland began the manufacture of small steam engines, many of which are still in operation in remote areas of the country. Production was further diversified by adding sawmills.

Built War Materials

The entry of the United States in World War I I saw the Wheland Company well equipped to serve its country in the manufacture of badly needed war materials. Ninety-five per cent of capacity of the plant was devoted to the war effort.

With the signing of the Armistice the Wheland Company renewed production of its peacetime equipment. In 1926, high-pressure slush pumps or oil well drilling were added to the company's line and a short time later the manufacture of a complete line of rotary drilling equipment was initiated, including blocks, rotary tables, swivels and drawworks.

Recalled to the production front line in World War II, the company contributed a stream of equipment to the flood that drowned fascism. Shortly after, ownership and control of the Wheland Company was acquired by Gordon P. Street. Under his able direction the company regained its eminent position as a supplier of sawmill and rotary drilling equipment.

Employs 1,000

Today, 84 years after its founding, the Wheland Company extends over an area of 16 acres and employs more than 1,000 people. Northern and eastern markets are supplied daily with many carloads of finished gray iron castings.

To insure efficient production of this tremendous volume, the most modern methods are adopted. Gas is an essential in this operation. In the production foundry, the continuous-fire coke ovens use gas. The giant cupolas are started by igniting the cupola charge with gas. Nonferrous metals used in maintenance and pattern work are melted with gas. Foundry ladles are gas heated. In the laboratory, extensive use is made of gas in making chemical determinations and in sand testing.

Wheland's manufacturing division heats parts of its plants by gas-fired unit heaters and employs gas at many points in the production of oil field rotary drilling equipment and sawmills and auxiliary machinery. Preheating and brazing require considerable amounts of gas heat.

Now that natural gas is available in Chattanooga, other uses of gas are under study. A wide range of forging and heat treating operations may be converted to gas. The firing of powerhouse boilers by gas may prove economical and more efficient and is being carefully weighed, it was stated.

Tenn. Industrial Planning Newsletter 6/1/1951 p.4

Tenn. B 818 CanTrell: Selections ... "Regarding some ---"

The Wheland Co.

Chattanooga - Industries -

Chattanooga - Industries - Wheland Co.

WHELAND READIES $85,000 EXPANSION

T 7/27/1950

Board Also Welcomes Two New Members, Gaither and New Yorker

The board of directors of the Wheland Company yesterday authorized an $85,000 expansion program and welcomed two new directors who were attending their first board session following their recent election at a stockholders session.

The new board members are William G. Maloney, director of corporate finance of the New York City investment banking house of Hemphill, Noyes, Graham, Parsons & Co., and John P. Gaither, Chattanooga attorney of the firm of McCoy, Witt & Abernathy.

Gordon P. Street, Wheland president, said that the board was enlarged to gain the benefit of outside viewpoints. Other members of the board besides Street and the two new directors are E. F. Wheland, chairman; Z. W. Wheland, C. W. Wheland and Albert Taber, all widely known Chattanoogans.

The expansion program will consist of additional core room facilities which will enable the Wheland Company to manufacture a wider range of castings for the automobile and household appliance industries. The expansion will increase capacity of the department by 10 per cent.

An addition will be built to a present building to provide about 8,000 square feet of floor space. The balance of the expenditure will be in new equipment for the department.

In connection with the board meeting held in the plant offices, the directors went for an inspection tour of the big industry. There the directors viewed the newly Wheland developed console oil well drilling outfit. Several of the huge machines already are in use in the oil fields, it was explained. They also visited the foundry and other departments of the big industry.

Maloney has been connected with the New York investment and banking house for the past 11 years. He explained that he will visit Chattanooga periodically to attend meetings of the board.

Gaither has been a resident of Chattanooga since 1940 after he was returned to civilian life after three years of service in the navy. Formerly of Memphis, he was connected with the Tennessee Valley Authority legal department from 1939 to 1942, having entered the service in 1943.

He has been connected with the McCoy, Witt & Abernathy firm since 1948.

WHELAND PROJECT

Times Jan 27 1951

Minimum Cost of Structure on Signal Mountain Road Estimated $15 Million

40-ACRE TRACT CHOSEN

Lies Between Turn-Off to Baylor, 'W' Road—Firm Has Letter Contract

BY FRED SCHNEIDER

The Wheland Company is preparing plans to build a large plant to manufacture guns for the army ordnance department, Gordon P. Street, Wheland president, announced yesterday.

Col. J. H. Reynolds, chief of the Cincinnati Ordnance District, told The Times from his headquarters in Cincinnati that the total cost would run "at least $15,000,000."

Street revealed that an option has been taken on a site comprising about 40 acres on the east side of Signal Mountain Road extending from a point near the Baylor School turnoff to about the W Road turnoff.

On the opposite side of the road from the site are two coal loading platforms and several other developments. The site itself is vacant. It extends east from Signal Mountain Road to Runyan Drive. Frontage on the main highway is about 3,000 feet.

Street said that "many details have yet to be worked out before this expansion takes place."

Col. Reynolds reviewed construction of the plant as "a sure thing." He stated that the Chattanooga company has been given a letter contract that carries with it authority to proceed.

The Wheland Company, through President Street, issued the following statement:

"Certain letters have been given The Wheland Company by the ordnance department, U.S. Army, to enable the company to quickly expand its facilities, if necessary, to manufacture for the Army, ordnance equipment.

"A great many details have yet to be worked out before this expansion will take place. This work would be carried on under a new division of The Wheland Company, to be known as The Southern Ordnance Division of The Wheland Company. At the present time the company's engineers are working with the engineers of Giffels, Vallet & Rossetti, Detroit, Mich., on plant layout, which firm of engineers and architects have done similar work for The Wheland Company in the past.

'Steel Mill Site'

"It is possible The Wheland Company will build an ordnance plant north of the river on the Signal Mountain Road, on property lying to the right of Highway No. 27 just past the Baylor School turnoff and which parallels tracks of the Chattanooga Traction Company to about the W Road turnoff. This property is sometimes known as the steel mill site where the late C. E. James at one time contemplated building a steel plant.

"The company at this time is unable to give any information as to the type of work which is involved or the number of employes that will be needed, nor is it in position to give any indication as to the volume of work which is under consideration.

"We are grateful to the people of the Wheland organization whose work now and in the past has helped to establish our reputation so that it is possible for us to be favorably considered by the Ordnance Department for again doing work for them."

Street said that for reasons of security he could not elaborate on the statement and could not give any idea as to the number to be employed, the type production and other details.

Col. Reynolds would give no other details beyond stating that the Wheland Company would produce guns similar to those it manufactured during World War II.

WORK STARTED AT GUN PLANT

T 3/

Ground Broken for Building on Signal Road—Wheland Company in Charge

Ground has been broken for the new, multi-million dollar gun plant being constructed by The Wheland Company on Signal Mountain Highway at Runyan Drive, Gordon P. Street, Wheland president, announced yesterday.

The manufacturing building will be a one-story structure containing approximately 200,000 square feet of floor space. It will be of structural steel, brick and rippled glass, the official said.

The layout includes a two-story office structure approximately 40 feet by 120 feet, connected with a two-story service building 40 feet by 360 feet. The service building in turn will connect with the manufacturing area.

Giffels & Vallet of Detroit, industrial architects and engineers, are completing the plans for a modern and beautiful plant, Street said. Gordon L. Smith, Chattanooga architect, has been retained by The Wheland Company as supervising architect.

The buildings have been designed to blend into and enhance the beauty of the surroundings, it was explained. The 46-acre tract, which lies along the east side of Signal Mountain Road, will be completely landscaped and will be an asset to the area, the official said. Design includes the elimination of smoke, dust or fumes.

Ample parking facilities off the road will be provided for employes. Shift changes will be scheduled to avoid peak periods of traffic entering and leaving Chattanooga.

Stein Construction Company of this city now is grading the area and will do the concrete work. Steel erection will be handled by the Virginia Bridge and Iron Company. Contracts for other phases of construction will be let as rapidly as possible.

The first floor of the office structure will contain a reception room, personnel office, hospital for examination and first aid and purchasing office. General and administrative offices will be on the second floor.

The first floor of the service area will contain locker and shower rooms and cafeteria. Above it will be assembly room, shop service offices such as production control, inspection, plant engineers and other shop supervisory offices.

The manufacturing plant will be served by cranes and an inside railroad track. The building will be so located that plant traffic will be handled by a road network within the grounds entered through a single main entrance. Considerable thought has been given to handling plant traffic so as to minimize mingling with normal traffic in the area.

No other information was available from the Wheland Company. It was understood from other sources that Wheland is building the plant and the Government is furnishing machine tools.

Although Wheland officials have given no figures as to cost, Col. J. H. Reynolds, chief of the Cincinnati Ordnance District, when plans for the plant were first announced, estimated the combined expenditure by Wheland and the Government would be at least $15,000,000. He also said that the plant would turn out anti-aircraft and anti-tank guns of the type produced by Wheland during World War II.

In answer to an inquiry as to when the plant would be completed, Street said that there were so many factors over which the company has no control that no prediction can be made at this time. However, it is known that every effort is being made to get the manufacturing facility in operation as soon as possible.

OFFICIAL PRAISES WORK ON FACTORY

T 7/7/42-1

Progress at Gun Plant Here Commended by Colonel

Progress being made at the site for the Wheland Company's multi-million-dollar gun plant drew praise yesterday from Lt.-Col. J. H. Reynolds, deputy director of the Cincinnati ordnance district.

The colonel spent the day in Chattanooga conferring with Wheland officials and during the afternoon visited the site for the project, which is on Signal Mountain Boulevard between the Baylor School and "W" turn-off roads.

"I am pleased with the location and with the progress that is being made," said Col. Reynolds after he had witnessed the operation of king-size earth-moving equipment in leveling off and filling in the tract.

"The Ordnance Department, both in Cincinnati and Washington, is working closely with the Wheland Company to assist in preventing any delays in getting materials and equipment to get the plant completed and in operation as quickly as possible. The purpose of my visit was to see what progress is being made and to help out with any problems that may have developed."

Col. Reynolds revealed that the Cincinnati ordnance district expects eventually to establish a regional office in Chattanooga when the procurement load with industries in the area builds up higher to make the branch here advisable.

During World War II, the department maintained an office here which looked after millions of dollars worth of equipment and materials made under contract with area industries.

STATE AUTHORIZES SPUR AT GUN PLANT

T 6/6/42-1

Commissioner Signs Contract Allowing Trains to Cross During Daytime Period

From Times Nashville Bureau.

NASHVILLE, June 5—A contract authorizing a spur track and grade crossing to serve the Wheland company's new gun plant on State Highway 8 between Chattanooga and Signal Mountain was signed today by State Highway Commissioner Charles F. Wayland Jr.

The track will be built by the Chattanooga Traction Company, a subsidiary of the Southern Railway System. The contract authorizing it had been signed previously by attorney for the Southern Railway, and only Waylands' signature was needed to complete the agreement.

L. N. Means, state highway department office engineer, said the contract authorizes trains to move across the highway any time between 9 a.m. and 3 p.m. EST. Originally the highway department demanded that all crossings be made between 5:15 and 6:15 a.m., the hours of least traffic over the highway, which connects Chattanooga with Signal Mountain and Whitwell. Railroad officials objected to this because it would have required an additional crew to handle the switching of cars.

The Wheland Company also appealed to the highway department, stating that all necessary rail traffic between the plant and the main lines could not be handled in a single hour so early in the morning. The railroad wanted the switching hours set so that the same crews which handle traffic to the Signal Mountain Portland Cement Company plant can also handle cars going to and from the new gun plant.

Means said that traffic is not heavy over the highway between 9 a.m. and 3 p.m., that all trains will be required to stop before proceeding across the road and that one flagman will be required to stop traffic in each direction. The road is a four-lane highway.

It is a generally known fact that during the last war Wheland was an important producer of 90-mm. anti-aircraft and anti-tank guns, and that its excellent performance on this work is a matter of record.

The Chattanooga concern, which is a pioneer local industry, having been founded in 1866, earned high ratings on quality and speed output. It unquestionably is true that many of the personnel, both executive and worker, that produced guns before still are on the job.

In the last World War, Wheland also turned out windlasses for the Maritime Commission as a subcontractor for a contract held by Street Brothers Machine Company. Figures on Wheland's production during World War II have never been revealed.

The fact that the plant's output was devoted to war production for a four-year period would indicate that its contribution ran into millions of dollars.

Principal products of the company now are castings, sawmill outfits and oil well drilling machinery.

Col. Reynolds explained that his estimate cost figure of at least $15,000,000 for the ordnance plant included both sums to be spent by Wheland and amounts to be spent by the Government in purchasing certain of the machinery to use.

SOUTHERN HEEL TO OPEN PLANT AT SPRINGFIELD

Southern Heel Co. announced early last month selection of Springfield for its new manufacturing operations, scheduled to begin Aug. 1 with initial employment of 80 workers and annual payroll of about $200,000. The company, a newly organized Tennessee firm, will manufacture wooden wedges and heels for women's shoes. Products of the plant will be sold to various shoe manufacturers, but the firm will be primarily a supplier for General Shoe Corp. of Nashville, according to the Springfield Herald.

The new industry will occupy a two-story brick building formerly used as a dehydration plant by the Kentucky-Tennessee Cooperative Association. The City of Springfield plans to sell locally $50,000 in bonds, under the new State Industrial Building Revenue Bond Act, for purchase and remodeling of the building, which will be leased to the heel company for 10 to 12 years. Some $200,000 in machinery and equipment will be installed by the company, the Herald states.

H. W. Darragh, president of Southern Heel Co., is formerly of Portsmouth, O., and is reportedly an authority in this field of manufacture. His location at Springfield is the result of several months of negotiations with the local Chamber of Commerce, after a survey of various other Middle Tennessee communities.

* * *

INDUSTRIAL INQUIRIES

Below is latest information available on the present status of selected industrial projects serviced by this Division between August 1950 and May 1951, including most of those listed in the Newsletter. As indicated, several of these projects are still pending. In addition, this Division is currently working with three companies whose locational surveys have narrowed to a few points in the State.

356. Pharmaceutical - located at Chattanooga
392. Glass Products - located in South Carolina
401. Leather Products - located in Tennessee
410. Steel Mill - located in Tennessee
411. Garments - project abandoned
412. Rubber Products - located in Alabama
417. Pharmaceutical - investigations continuing
419. Textiles - located at McMinnville
423. Textiles - project abandoned
432. Glass Products - investigations continuing
440. Pharmaceutical - located in Kentucky
450. Appliances - investigations continuing
454. Garments - investigations continuing
455. Metal Products - investigations continuing
467. Electric Products - investigations continuing
473. Wooden Heels - located at Springfield

Cancel: 385, Electrical Products; 418-425-430-436-445, Garments; 424, Conduits; 446, Machinery.

* * *

GETTING ACQUAINTED WITH TENNESSEE INDUSTRY -

The Wheland Company

The Wheland Co., one of Chattanooga's largest and most important manufacturers, is among the oldest industrial operations in Tennessee. The business was started at Athens in 1866 by George W. Wheland to repair farm machinery and to manufacture hollow ware castings. Seven years later, seeking a larger market, Mr. Wheland moved to Chattanooga, establishing a machine shop, foundry, blacksmith and pattern shop there on a two-acre site along the Tennessee River.

The Chattanooga plant originally manufactured grist and cane mills and water wheels, in addition to considerable repair work on farm equipment. In 1880 the company began production of small steam engines, many of which are still in operation in remote sections of the country. Sawmills subsequently were added to the manufacturing line and are still a major production item. Manufacture of high-pressure slush pumps for oil-well drilling was begun in 1926 and, shortly thereafter, a complete line of rotary drilling equipment was added, including blocks, rotary tables, swivels and drawworks. Drilling equipment today is another of Wheland's major production items. Since 1945 Wheland has been conducting a program of redesign and improvement of its oil well drilling equipment, has introduced completely new slush pumps, and has developed automatic and semi-automatic sawmill machinery.

During World War I, Wheland manufactured lathes for turning shells and anchor windlasses for ships, devoting about 95% of its capacity to this effort. In World War II, the company again undertook numerous war production jobs, including guns, shells and anchor windlasses.

After 85 years of operation, The Wheland Co. presently occupies 16 acres of land and employs more than 1000 people. It is currently expanding facilities at Chattanooga by construction of a $15-million plant to manufacture guns for Army Ordnance (see March Newsletter).

Gordon P. Street is president of the company, having assumed control of the organization about 1946. At that time, Wheland undertook a $1-million expansion of its gray-iron foundry whose 450-ton daily capacity was reported to be the largest in the South. Much of the foundry production is used by the automotive and household appliance industries. The company is a tremendous consumer of natural gas in these foundry operations.

* * *

AEDC PLANS TWO WIND TUNNELS

Two separate wind tunnel testing units are being planned for the Arnold Engineering Development Center at Tullahoma. The transonic wind tunnel is being constructed under the present appropriation, and a supersonic tunnel will be erected later when additional Federal funds are approved, the Chattanooga Times reports.

An airstrip for testing airplanes, engines, and other aircraft at AEDC is being designed, the Times indicated last month. The Air Force has budgeted $8,500,000 for the airstrip and its operating facilities. Approximately 750 acres on the western edge of the AEDC reservation are being cleared prior to construction of the 10,000-ft. airstrip.

* * *

Tenn. Industrial Planning Newsletter
June 1 1951

WHELAND PROPOSES ALUMINUM PROJECT WORTH $90 MILLION

T-10/25/1952

ONE PLANT IN AREA

$70,000,000 Mill Here May Be Combined With Second at South Atlantic Port

EMPLOYES AT 600-1,000

Company Would Produce an Estimated 40% of U.S. Planned Expansion

BY FRED SCHNEIDER

Negotiations are under way with Government agencies for the Wheland Company to become a major producer of primary aluminum for the defense program.

Gordon P. Street, Wheland president, revealed yesterday that the proposed development would involve an expenditure of an estimated $70,000,000 or $90,000,000.

One plan would mean building a $70,000,000 plant in the Chattanooga area to manufacture aluminum from alumina.

The $90,000,000 project would involve the erection of this plant plus a plant at a South Atlantic seaport to take the bauxite ore brought by ocean vessels and produce alumina.

Fifth U.S. Producer

The Wheland operation, if carried out, would make it the fifth alumnium producer in the United States. The Aluminum Company of America, with large operations near Maryville, Tenn., Reynolds Metals and Kaiser Aluminum are the only companies in production now. However, facilities are being built by Anaconda Copper Company in connection with the Harvey Machine Tool Company.

Street explained that in the concentration process about four pounds of bauxite produces about two pounds of alumina. The latter would be shipped by barge or rail to the plant in this area for the manufacture of basic aluminum.

Under the proposal, the Wheland Company would produce about 180,000,000 pounds of aluminum ingot annually as a part of a primary aluminum-production expansion goal of 200,000 short tons a year.

The goal was set by the Defense Production Administration and announced Oct. 1, when it also invited American business concerns to send in firm proposals immediately if they wished to participate in the aluminum expansion.

Second Plan Asked

After receiving the invitation, Street said that the Wheland Company worked up its proposal for the $70,000,000 plant. In the discussion with officials of Government agencies in Washington this week, the company was requested to enlarge its proposition and come back with one for the two plants.

The Wheland president said that the company would do this as soon as the necessary studies and data could be obtained by engineers of the company. This would probably be within a week or 10 days, and it is anticipated that final decision will be reached in a month or six weeks.

According to information, three other companies also have made proposals to participate in the increased aluminum output. They are Kennecott Copper, Olin Industries and Spartan Aircraft.

Other Plants Considered

The amount proposed by the Wheland Company would figure around 40 per cent of the total increase sought by the Government. Proposals of more than one company, of course, could be approved by the Government.

Street said that Wheland is anxious to proceed with its expansion and that he anticipated no difficulty in financing the aluminum development.

The plant proposed for the Chattanooga area would be one of the largest users of electric power in the entire Tennessee Valley, Street said. He would not be more specific.

Sites within the Chattanooga area, in Tennessee, Alabama and Georgia have been considered, but no selection has been made. The site would have to include about 150 acres.

The availability of power at the low Tennessee Valley Authority rates is among the factors favoring the aluminum industry for this area, it was explained.

Street stated that whether barge or rail transportation for alumina would be employed depended upon where the plant is located and other factors. Special moisture-proof barges would be required for waterway transportation.

The Wheland executive said that if the plans now under consideration are worked out a seperate aluminum division of the Wheland would be formed.

The two proposed plants would mean employment to from 600 to 1,000 persons he said. The plant would be Wheland-owned and operated and after the defense need for aluminum is passed they would turn to civilian production, he said.

The Wheland Company is the owner of the big gun plant, which it built on Signal Mountain Road, and which it is operating for the production of antiaircraft and antitank guns.

The company has established a high reputation with Government agencies for its excellent achievements both in World War II and in the present defense program. For one thing, it built its ordnance plant and got it operating in record time, a much shorted period than ordnance officials had anticipated, it is stated.

Because of its record, the company is apparently in very favorable position to share in the aluminum expansion program.

In addition to guns turned out by its ordnance division, the company is a large producer of castings for automotive industry and of sawmill and oil-well drilling equipment. It is one of Chattanooga's oldest concerns.

Ingot is Product

Street explained that under the plan the local company would not make finished products, but would turn out aluminum ingnot, which would be supplied to other manufacturers fabricating products for defense.

In its announcement the DPA said that the previous expansion goal, which called for a total domestic capacity of 1,546,000 short tons of primary aluminum by Jan. 1, 1955, is revised to 1,746,000 short tons, representing an increase of 13 per cent. In 1950 the domestic production was 710,000 short tons of primary aluminum.

Taking into account aluminum imports from Canada and other sources and secondary aluminum production from scrap, it is estimated the total aluminum supply available to the United States will reach 2,375,000 short tons per year compared with 1,206,700 short tons in 1950.

Chattanooga - Industries - Wheland Company

CHATTANOOGA - Industries - Wheland Co. (1952)

pansion will be reduced to manageable proportions."

Anderson said that the Munitions Board has greatly enlarged its stockpile objective for aluminum and that the attainment of this objective will be facilitated by this expansion if all-out mobilization is not required in the near future.

With TVA Power

"The facilities are estimated to cost upwards of $70,000,000 and are exepcted to be supplied with power by TVA and to commence operations late in 1954. The project will be privately financed.

"DPA said that the perfected Wheland installation would complete accomplishment of the 200,000-ton third-round increase in aluminum expansion announced last October.

"Olin Idustries of East Alton, Ill., was the first of the participants in the third-round increase and was issued a certificate for facilities to produce 110,000 tons of primary aluminum last November. The Harvey Machine Company of Torrance, Calif., was the second receiving a certificate in late December for the production of 54,000 tons annually.

"Thus, there remained unfilled only 36,000 tons of capacity of the required 200,000 tons of additional expansion. DPA explained that it was negotiating with Wheland on the basis of a plant to produce not less than 50,000 tons of primary aluminum since this is the smallest-size plant economically feasible.

"When Wheland begins production, DPA pointed out, there will be seven producers of primary aluminum in the United States. Aluminum Company of America, Reynolds Metals Company and Kaiser Aluminum Company were the so-called 'Big Three' aluminum producers at the start of the postwar expansion program.

"Later entries into this field were the Anaconda Copper Mining Company, Olin Industries and Harvey Machine Company.

"The first and second rounds of post-Korean expansion brought the domestic capacity goal to 1,546,000 short tons of primary aluminum by Jan. 1, 1055. The third round came on Oct. 1, 1952, when DPA announced the goal had been revised upward to call for an increase in capacity of 200,000 short tons per year.

"The enlarged goal calls for a domestic capacity of approximately 1,746,000 short tons by 1955. In 1950 domestic capacity was 719 short tons, excluding imports from Canada and from other sources.

DPA GIVES WHELAND AUTHORITY TO BUILD BIG ALUMINUM PLANT

T 1/31/53

TO COST $70,000,000

$50,000,000 for Reduction Unit—Will Be Within 150 Miles of City

WITH JOBS FOR OVER 600

Will Use Billion KWH Each Year—Alumina Facility Will Go to Coast

BY FRED SCHNEIDER

The Wheland Company of Chattanooga will construct a $70,000,000 facility to produce 50,000 tons of primary aluminum annually, the Defense Production Administration announced yesterday in Washington.

The project includes a $50,000,000 reduction plant in the Tennessee Valley area, to be supplied electric power by the Tennessee Valley Authority and a $20,000,000 alumina (ore concentration) plant at a coastal or deep-water point.

DPA said that its arrangement with Wheland will complete the nation's "third round" of aluminum expansion for defense purposes.

In Chattanooga, Gordon P. Street, Wheland's president, issued the following statement:

"We have no comment to make other than to say we are pleased with the way the project is progressing. We now are devoting our attention to financial problems that are incident to such a contemplated expansion.

Site Yet to Be Chosen

"The locations for the plants have not been definitely decided upon and this matter will not seriously be considered until some future date."

Street stated, however, that it is planned to locate the reduction plant within a 150-mile radius of Chattanooga. He would not be more specific. He said that a number of sites have been considered, some of them on the Tennessee River and others not supplied with water transportation.

It was estimated by a source here that a 50,000-ton aluminum plant would require about 1,000,000,000 kilowatt hours of electricity annually. This compares with 1,485,000,000 kilowatt hours used by customers of the Electric Power Board of Chattanooga during 1952.

The 1,000,000,000 kilowatt-hour figure includes the reduction plant only. The ore plant would not be a large consumer of electric power. The aluminum plant load would be about 115,000 kilowatts or 153,000 horsepower to operate on a 100 per cent load factor to produce 50,000 tons of aluminum annually, it was estimated.

Three Factors

The plant would require from 600 to 700 persons for its operation. There would be three major factors to be considered in the location of such a plant, the availability of power, transportation and labor.

A seacoast or deep-water point would be sought for the alumina plant to take advantage of the lower transporation costs on the bauxite which would be brought in from foreign areas. Such a location would eliminate the reshipment of the bauxite to a plant which would concentrate it for use in the aluminum-producing furnaces.

In the statement issued in Washington the DPA said that tentative arrangements (another report on the announcement omitted the word "tentative") to complete the recently established third round of expansion in the primary aluminum industry had been made.

"Acting Administrator Ralph S. Trigg said that preliminary negotiations have been completed with the Wheland Company regarding an application for a certifcate of necessity for rapid amortization for facilities to produce primary aluminum," the release to the press said.

"These facilities will probably be located in the Tennessee Valley and are expected to produce not less than 50,000 short tons of primary aluminum annually.

Samuel W. Anderson, deputy administrator for aluminum, said that "as a matter of public policy, we will attempt to secure this expansion from new domestic producers, if possible. It is hoped the expansion can be accomplished without the necessity of making guarantees, but accelerated tax amortization will be available.

Time Stressed

"The requirements for aluminum for all-out mobilization recently established by the Munitions Board are so large and accelerate so sharply that it is clearly necessary to move at once to secure additional capacity to protect the country from a crippling bottleneck in the event of war.

"If no action is taken now," Anderson continued, "the huge expansion which would have to be undertaken after the outbreak of war would impose an almost impossible burden upon the country. Even with this decision, further capacity will be necessary if war should come in the next three years, but the size of such an ex-

Chattanooga - Industries - Wheland Company

CHATTANOOGA - Industries - Wheland Co. (1953)

"It is estimated that the total aluminum supply available to the United States will reach approximately 2,390,000 short tons by Jan. 1, 1955, as compared with 1,206,700 short tons (including imports) in 1950."

The Wheland Company is one of Chattanooga's large industrial organizations. A little more than a year ago it completed and got its $15,000,000 ordnance plant in operation on Signal Mountain Boulevard. The plant produces anti-tank and anti-aircraft guns.

At the company's Broad Street plant there is one of the country's most modern continuous production foundries engaged in making castings for the automotive industry and other departments manufacture oil well drilling and sawmill equipment.

During World War II the company was a large producer of guns as well as other items for the war effort.

WHELAND TO BUILD NEW FOUNDRY HERE AT $3,500,000 COST

I 5/24/56

ON BROAD STREET

Facilities Are to Be Fully Mechanized to Meet Need for Added Capacity

TO FINANCE $6,900,000

Company to Make Its First Offering of Securities for Public Sale

By FRED SCHNEIDER

Plans by the Wheland Co. to obtain $6,900,000 in new financing and to build a new, fully mechanized foundry in Chattanooga at an estimated cost of 3½ million dollars were announced yesterday by Gordon P. Street, Wheland president.

The new foundry will be built on land immediately adjacent to the company's modern foundry, which is a large supplier of automotive brake drums and other castings and is located just off South Broad Street, Street said.

The company also plans to acquire additional machinery and equipment for installation in its ordnance division plant on Signal Mountain Road to take care of its expanding aircraft parts business, he stated.

Street also revealed that the company plans to relocate its manufacturing facilities for oil well and sawmill equipment, now located adjacent to the foundry. It was reported that the space of these buildings will be taken over by the new foundry.

Street declined to given any hint as to where the company expects to locate its oil well and sawmill manufacturing facilities. It is known that representatives of the company have visited several cities in the Southwest in considering possible sites.

Some Additional Employes

The Wheland Co. normally employs about 2,000 in its plants here. Street said the expansion program here would mean some increase in employment but he did not give an estimate as to the number to be added.

In his announcement, Street stated the company is planning the sale of two million dollars in debentures and 136,000 shares of common stock. This will be the first time the company ever has made an offering of its securities to the public.

A registration statement has been filed with the Securities and Exchange Commission covering a proposed offer of two million dollars of subordinate debentures, due June 1, 1976 and 136,000 shares of common stock, par value $5, through the investment firms of Hemphill, Noyes & Co., New York City; Courts & Co., Atlanta, and Equitable Securities Co., Nashville.

Of the 136,000 shares of common stock, 75,000 shares are being sold by the company and 61,000 shares by Street. After the sale, Street will still own 208,528 shares of common stock, or 50.21 per cent of the outstanding common, it was explained.

"The proceeds from the sale of the debentures and the company's portion of the common stock, together with the proceeds from 1½ million dollars in first mortgage bonds, which are being placed with the Northwestern Mutual Life Insurance Co., 1½ million dollars in first-mortgage bonds for the purchase of which the company has a 12-month commitment from Equitable Life Assurance Society of the United States and proceeds from a $900,000 three-year bank loan will be used to retire the company's outstanding Series A and B 5 per cent first-mortgage bonds and the remainder, about $3,550,000, will be applied to the expansion program," Street stated.

The three-year bank loan has been arranged with J. P. Morgan & Co., Inc.; the Citizens and Southern National Bank of Atlanta and the Hamilton National Bank of Chattanooga.

The company's expansion has been marked in recent years and it is anticipated that this expansion will be accelerated in the immediate future, the Wheland president said.

Since the present management, under Street, began in November of 1945, the company's profits have been realized in its first full year of operation and in each subsequent year. Annual sales over the period have been developed from approximately two million dollars to about $23,600,000 for the fiscal year ended April 30, 1956, which are expected to produce net income after taxes of some $800,000, it was pointed out.

From 1866 until 1926, the company's activities were concentrated almost entirely on the manufacture and sale of sawmills and related machinery. In 1926, the company entered the oil field rotary drilling business, but total volume remained comparatively small.

During World War II the company increased its sales volume through the manufacture of 90-mm guns for the U.S. Army but sales dropped off with the termination of defense contracts.

In 1945, Street took over the company as president and in 1946 Wheland entered the production foundry business with a contract for the casting of automobile drums. In 1951, the company reentered the ordnance field on a regular peacetime basis and built a new plant to house the ordnance production and the administrative offices on Signal Mountain Road.

The year 1955 saw the company entering the business of machining the heavier metal structure members required by modern airplanes, with work successfully accomplished on aluminum alloys, steel forgings and titanium alloys and now commencing machining of high-tensile steel aircraft parts.

Big Brake-Drum Maker

For nine years, the company has been the principal supplier of brake drums to one of the major automobile manufacturers and last year produced its 50 millionth brake drum, it was pointed out.

For five years, Wheland has been a leading supplier of automatic transmission housings for another major automotive producer. Since 1951, it also has been one of the regular producers of 40-mm and 90-mm cannon for the ordnance department of the U.S. Army.

"The company proposes, in order to meet additional capacity demands, to construct a new fully mechanized foundry with two additional molding locks, melting facilities and cleaning capacity on land immediately adjacent to its present foundry at an estimated cost of $3,500,000," Street said. "This is the principal purpose of the present public offering.

"In June, 1955, the company began to use the metal machining facilities of its ordnance division in precision shaping of solid aluminum structural parts for aircraft.

"The company plans to acquire additional machinery and equipment for this expanding business and to relocate and modernize its manufacturing facilities for oil well and sawmill equipment and expects to use the remainder of the proceeds of this financing for this purpose."

CHATTANOOGA - Industries - Wheland Co. (1956)

FACTORY SITE IN SOUTHWEST WHELAND AIM

T. 2 17 56

Huge Chattanooga Industry Considers Building Plant in Texas or Oklahoma

BIG EXPANSION IS PLAN

Street Declines to Indicate Whether Any Facilities to Be Moved From Here

By FRED SCHNEIDER

The Wheland Co., one of Chattanooga's largest industries, is considering establishing a manufacturing plant in the Southwest as part of a 7½-million-dollar expansion program, President Gordon P. Street announced yesterday.

The official revealed that company representatives now are conducting studies in Texas and Oklahoma and that until this survey work is completed it is impossible to say what facilities might be located in the Southwest.

He also declined to state whether any of the Chattanooga facilities or operations would be moved to the projected manufacturing unit.

The company is a leading producer of the most modern oil well-drilling equipment of the rotary type and it is known that Wheland enjoys a large volume of business in that oil-producing area of the country.

The company also is a leading producer of sawmill equipment, of castings, especially for the automotive industry, and, in addition, operates a large ordnance plant on Signal Mountain Boulevard. Its foundry, located off Broad Street, is recognized as one of the most modern in the entire country and is of the continuous production type.

Confirmed by Street

Street verified the information received by The Chattanooga Times in a dispatch from Wichita Falls, Tex., to the effect that Wheland representatives are visiting the Southwest with regard to the proposed plant.

"The report that The Wheland Co. is considering an expansion into the Southwest is correct," the official said here. "We have projected our operation over the next five years and our studies disclose that our present Chattanooga facilities are not adequate for the volume of business expected.

"The physical expansion which we believe necessary will require the expenditure of at least 7½ million dollars over five years, with the great portion allocated for this year and negotiations now are under way on financial aspects of the expansion.

"The company representatives now in Oklahoma and Texas are surveying possible plant locations and have been in conference with officials of several cities in that area. Until the studies are completed it is impossible to say what facilities might be located in the Southwest."

Street declined to elaborate on this statement. He would not discuss any possible future expansion that might be under consideration in Chattanooga.

The report from Wichita Falls was as follows:

"Representatives of The Wheland Co. of Chattanooga have been in the Southwest for several days gathering facts as to the advisability and practicability of moving certain manufacturing operations of that company to this area.

"It is understood that this study is a part of a major plan of expansion for The Wheland Co. and that preliminary studies have indicated that a Southwestern production unit might offer marketing and cost advantages.

"In general, the facilities contemplated would be approximately a five-acre tract with buildings providing about 85,000 square feet of manufacturing area. Such an operation would initially employ about 100 to 125 people in addition to the staff brought from Chattanooga."

The dispatch concluded with background material on the history and operations of the company, which is one of the oldest manufacturing concerns in Chattanooga and the entire state. It will celebrate its 90th anniversary this year.

It was reported from Wichita Falls that the Wheland representatives left that city by company plane late yesterday to continue their fact-gathering in the Southwest.

WHELAND TO MAKE B58 COMPONENTS

T 2 22 56

One of 21 Companies Given Task of Supplying Parts of Supersonic Bomber

The Wheland Co. of Chattanooga will make some of the parts here for the U.S. Air Force's new B58, the supersonic bomber now in initial production by the Convair Division of General Dynamics Corp.

A. C. Esenwein, vice president and manager of Convair-Fort Worth, announced yesterday from Fort Worth that Wheland is one of 21 companies engaged to supply thousands of parts and components for the new plane.

The bomber is being built under the Air Force's "weapon system concept," which places with Convair responsibility not only for the airframe but for finding, developing, buying and installing all items of equipment (except engines) previously furnished by the government, Esenwein said.

The contract with Convair is another step in Wheland's increasing production of aircraft parts, it was pointed out.

The company's ordnance division, with plant on Signal Mountain Road, has for some time produced flap track rib assemblies for Lockheed's four-engine turboprop cargo ship, the Hercules, in addition to parts for other major aircraft companies.

Wheland officials did not elaborate on the Esenwein announcement. No amount involved or the type work to be done here was revealed. It was stated that the Convair order would not mean expansion of the ordnance division plant or additions to its personnel.

CHATTANOOGA - Industries - Wheland Co. (1956)

WHELAND FIRM TO BUILD HERE

T. 9/3/56

New Division Planned in City—Entire Operation to Remain in Area

By FRED SCHNEIDER

The Wheland Co. will establish a new division in Chattanooga and will continue to carry on all of its manufacturing operations here, it was revealed last night.

When reached by telephone, Gordon P. Street, Wheland president, confirmed the report that the company had altered its plans to move part of its operation—the manufacturing division which produces oil well and sawmill equipment—from this city.

The division was to have been relocated to provide space for the projected new $3,500,000 fully-mechanized foundry to be built adjacent to the company's present modern foundry at the Broad Street site.

Under the new plan the space will be made available for the new foundry by eliminating both the manufacturing and ordnance divisions and establishing the new Wheland Products Division to occupy the present ordnance division plant on Signal Mountain Road.

Street stated that this would necessitate physical changes and modification of the present Signal Mountain Road facilities and possibly the erection of further buildings on the premises.

The president added that indications were that the new Wheland Products Division would be able to offer employment to all employes in the ordnance and manufacturing divisions.

When asked when this move would take place, Street said that directors of the company had directed its officers to make the move with all possible speed in preparation for the foundry expansion and in order that the program of the new Wheland Products Division be put in operation as soon as possible.

Street stated that the directors meet Friday and, after reviewing various proposals which had been received by the company from cities in Texas and Oklahoma to locate a part of its operation there and re-examining its own operation, decided to keep the entire operation in Chattanooga.

See Page Seven, Column One

The Wheland president reported that factors leading to reversal of the company's previous decision to move a substantial portion of its Chattanooga operations elsewhere involved re-examination of the company's products, markets and the readjustment of ordnance contracts.

He said that the directors felt that the contemplated expansion of the foundry division requires that the division occupy all of the company's Broad Street plant.

The board further decided that because of changes in products, markets and methods of manufacturing, both the company's present manufacturing and ordnance divisions would be eliminated and an entirely new division, to be known as the Wheland Products Division, would be established immediately with the new division to be located at the company's Signal Mountain Boulevard premises.

Sought Financing

Street announced plans for the company to obtain $6,900,000 in new financing and to build the new foundry here on May 24. At the same time he revealed plans for relocating the manufacturing facilities for oil well and sawmill equipment.

On July 12, Street announced that the company's plans for a public offering of securities in connection with financing the program for company expansion had been temporarily postponed. He explained that the company had not changed its plans in so far as its contemplated expansion was concerned and this would take place in time to meet the increasing orders of Wheland's customers.

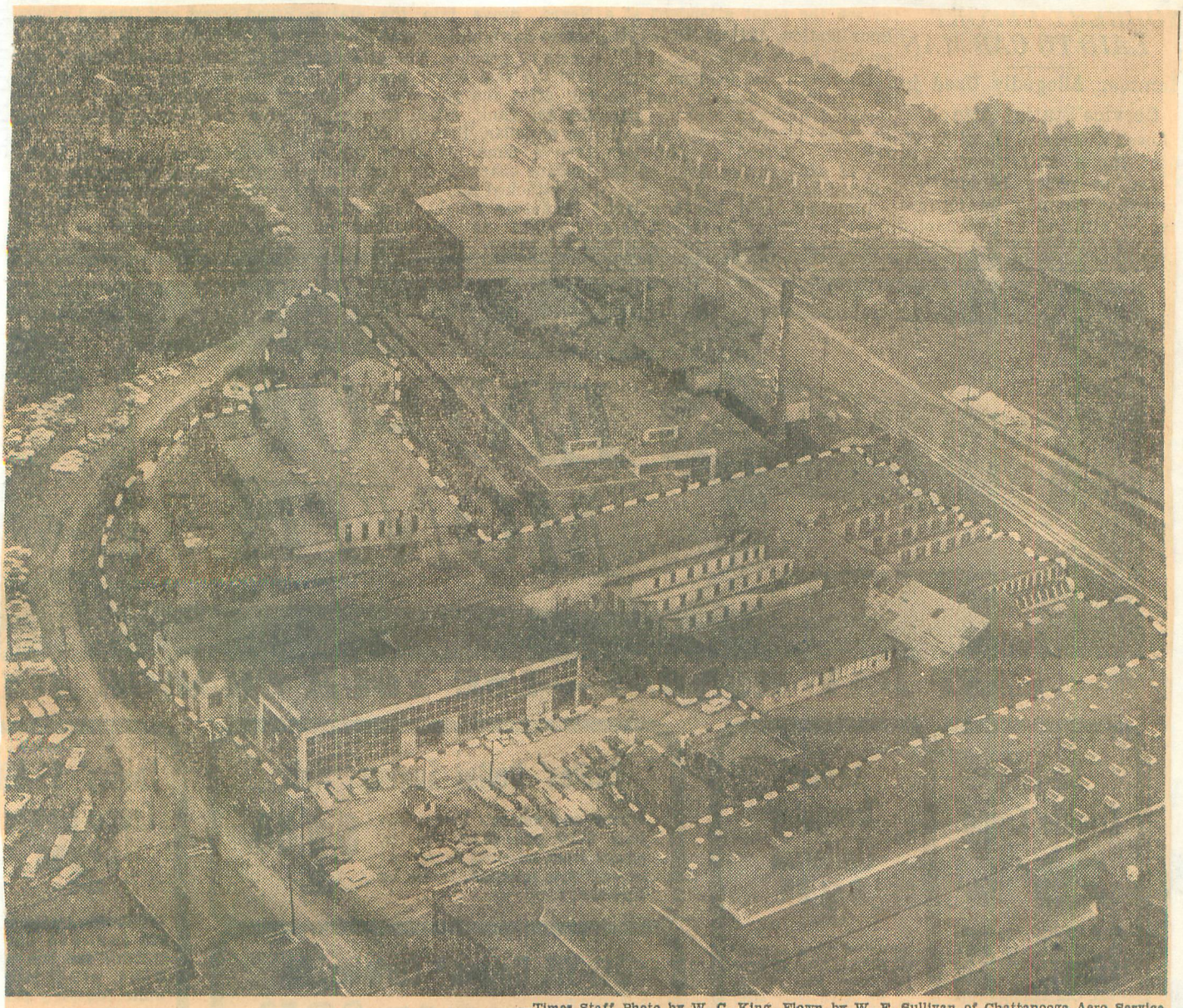
At the time Street said the cost of obtaining increased capital appeared to company officials to be unreasonably high and that in view of the fact that there was no urgent need for additional capital except to expand production facilities, it appeared advisable to postpone the offering of the company's securities until early fall or such later time as increased capital could be obtained at reasonable cost.

Established in 1866, The Wheland Co. is one of the region's oldest industries. From that time to 1926 the company concentrated on the manufacture of sawmill and related machinery and in the latter year entered the rotary drilling business.

During World War II, the company increased its sales volume through the manufacture of 90-mm guns for the U. S. Army. Street took over the company as president in 1945 and in 1946 Wheland entered the production foundry business with a contract for the casting of automobile brake drums.

In 1951 the company re-entered the ordnance field and built the modern ordnance plant. The year 1955 saw the company entering the business of machining the heavier metal structure members required by modern airplanes with work successfully accomplished on several metals, including the newer alloys.

For nine years the company has been the principal supplier of brake drums to one of the leading automobile manufacturers. The company normally employs about 2,000 in its plants here.



—Times Staff Photo by W. C. King, Flown by W. F. Sullivan of Chattanooga Aero Service.

SITE FOR $3,500,000 FOUNDRY—The buildings shown inside the dotted lines will be razed or moved to provide space for the new $3,500,000 fully mechanized foundry which the Wheland Co. plans to build adjacent to its present modern foundry. The present foundry is the group of buildings extending from the tall Wheland stack to beyond the building from which smoke is rising. The buildings to be removed now house the oil-well drilling and sawmill equipment manufacturing facilities to be relocated in another city. A glimpse of Chattanooga Creek is seen at the upper left and of the Tennessee River at the upper right. The Wheland property extends from just west of Broad Street to the railway tracks shown in the picture. The building in the immediate foreground is a part of Combustion Engineering, Inc., plants. T. 5/27/56

METAL IS BALED BY SCRAP PRESS

T 1/16/58

Entire Automobile Reduced to Package 1½x2x6 Ft. in Wheland Product

A press that is big and powerful enough to reduce an entire passenger automobile, less engine and axles, to a compact bale of scrap has been developed by The Wheland Co.

The first of the new hydraulic baling presses, called The Wheland Duomatic Baler, was completed during 1957, Gordon P. Street, Wheland president, announced.

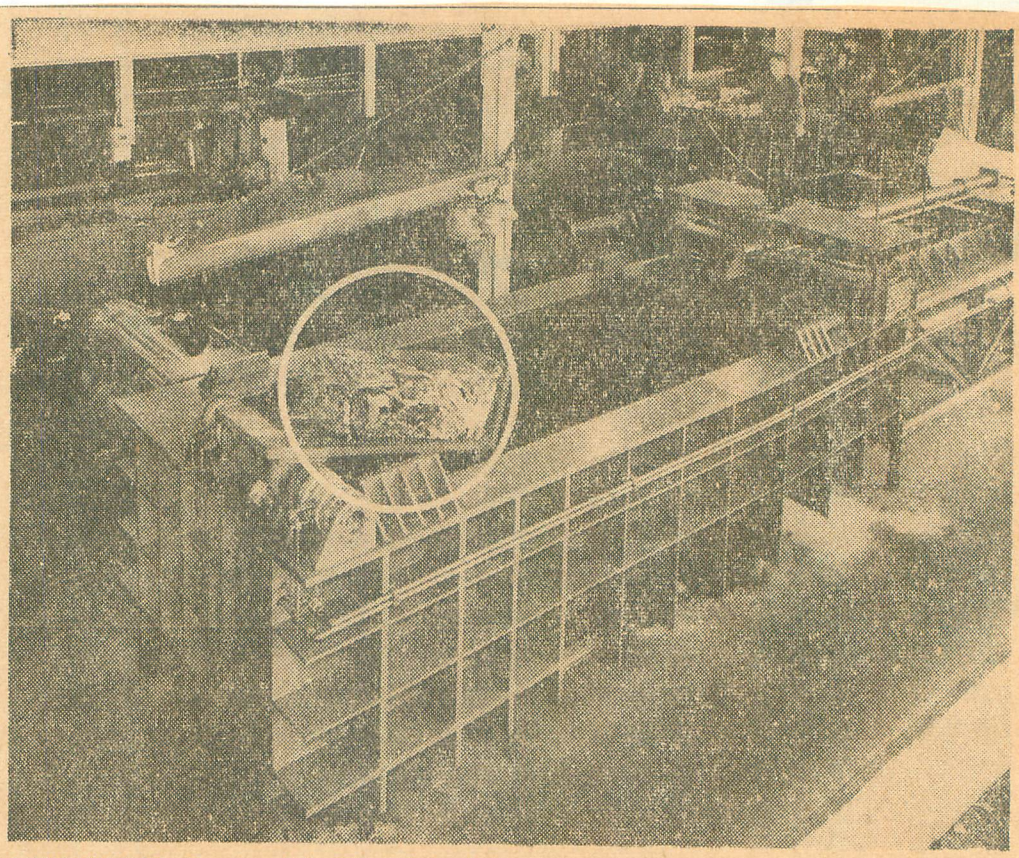
The automobile is dropped into a hopper big enough to contain the largest passenger car body. A heavy lid slides shut and is locked into place automatically. A ram driven by hydraulic power then presses the car, or other salvage metal load, into a small area at the front of the hopper.

A second hydraulic ram then moves in from the side and compresses from that direction. The result is a bale of metal compressed into an area one and one-half feet by two feet by six feet, Street explained. The bale is automatically ejected and the press is ready for another cycle.

This is the first of a series of large-capacity baling presses under design study at Wheland. The presses are to be marketed on a national and world-wide basis.

Design of a new-type slush pump for use in drilling oil wells has been completed and production of the pilot model of this new design is scheduled for completion during the first half of 1958. The pump will then be field tested in various oil fields. It is designed to increase output and to provide smoother, more even pressure.

Street said that increased attention to engineering and development of new products was the most significant achievement of the company in 1957.



AUTO BALER: Developed by The Wheland Co., this press is powerful and large enough to reduce a complete passenger automobile, less engine and axles, to the small bale shown in the circle. The company is placing emphasis on engineering and development of new products.

CHATTANOOGA - Industries - Wheland Co. (1958)

GORDON L. SMITH JR.

GORDON SMITH JR. TO WHELAND POST

T8/28/58

Elected as Secretary of Concern, to Continue in Drill Sales Capacity

Gordon L. Smith Jr. was elected secretary of The Wheland Co. at a recent meeting of the board of directors, Gordon P. Street, Wheland president, announced Wednesday.

Smith fills the vacancy created by the death of C. W. Wheland, one of Chattanooga's most widely known industrialists and civic leaders.

A native of Chattanooga, Smith was graduated from McCallie School and Duke University, Durham, N.C. He joined Wheland in August 1948 as a trainee in the department assembling rotary oil drilling equipment. He later was made supervisor of production planning and material control in the manufacturing division.

He served as assistant sales manager of rotary drilling equipment from 1953 to 1957 when he was named manager of rotary drilling equipment sales. He will continue in this capacity in addition to his duties as secretary of the company, it was explained.

Smith is a member of the board of directors of the Kiwanis Club of Chattanooga and is a member of the Junior Chamber of Commerce, the Chattanooga Golf and Country Club and the First Presbyterian Church. He, Mrs. Smith and their two sons, Gordon L. III and Preston Lowrance Smith, live at 1501 Sunset Road, Riverview.

Sales Manager for Wheland

Robert C. Gundaker has been appointed marketing manager for the products division of The Wheland Co., Gordon P. Street, Wheland president, announced Saturday.

Gundaker previously had been vice president in charge of sales of Chattanooga Royal Co. and prior to accepting that post in May 1958 had been connected with Sunbeam Corp. for 11 years.

During his association with Sunbeam he had held the position of assistant general sales manager for five years, was regional sales manager for three years and for the rest of the time held various field assignments.

Previously he had been connected with the Graybar Electric Co. and the Manning-Bowman Co. in sales capacities except for the time spent in the military service.

He is a graduate of Bucknell University. Gundaker's wife is the former Miss Martha Jones of Chattanooga. They have one child. The Gundakers are members of the Church of the Good Shepherd on Lookout Mountain. They reside on Lula Lake Road.

R. C. GUNDAKER

T7/3/60

forward with WHELAND in the

Dynamo of Dixie in Sixty

T1-7-1960 p.43

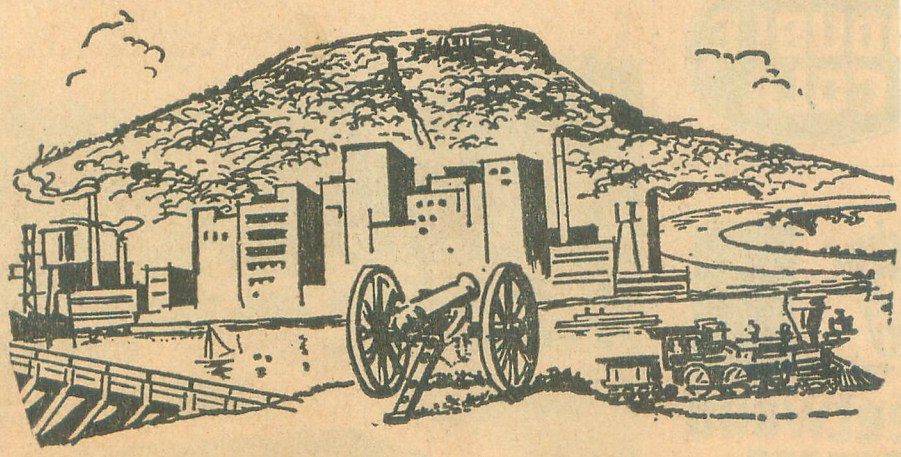
 INDUSTRIES-WHELAND

ESTABLISHED IN 1886

TRADE WHELAND MARK

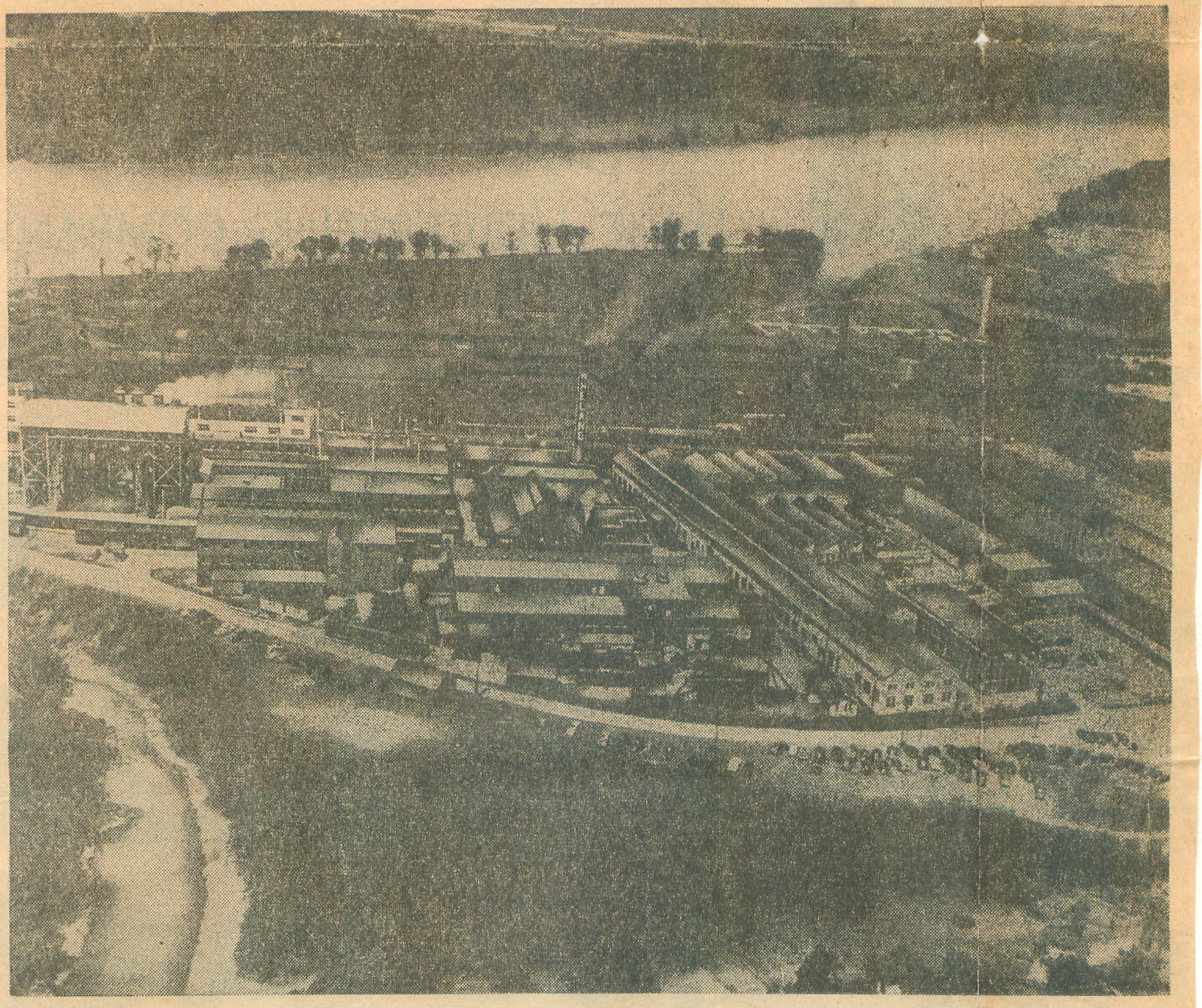
CHATTANOOGA

The Wheland Company's Birthplace

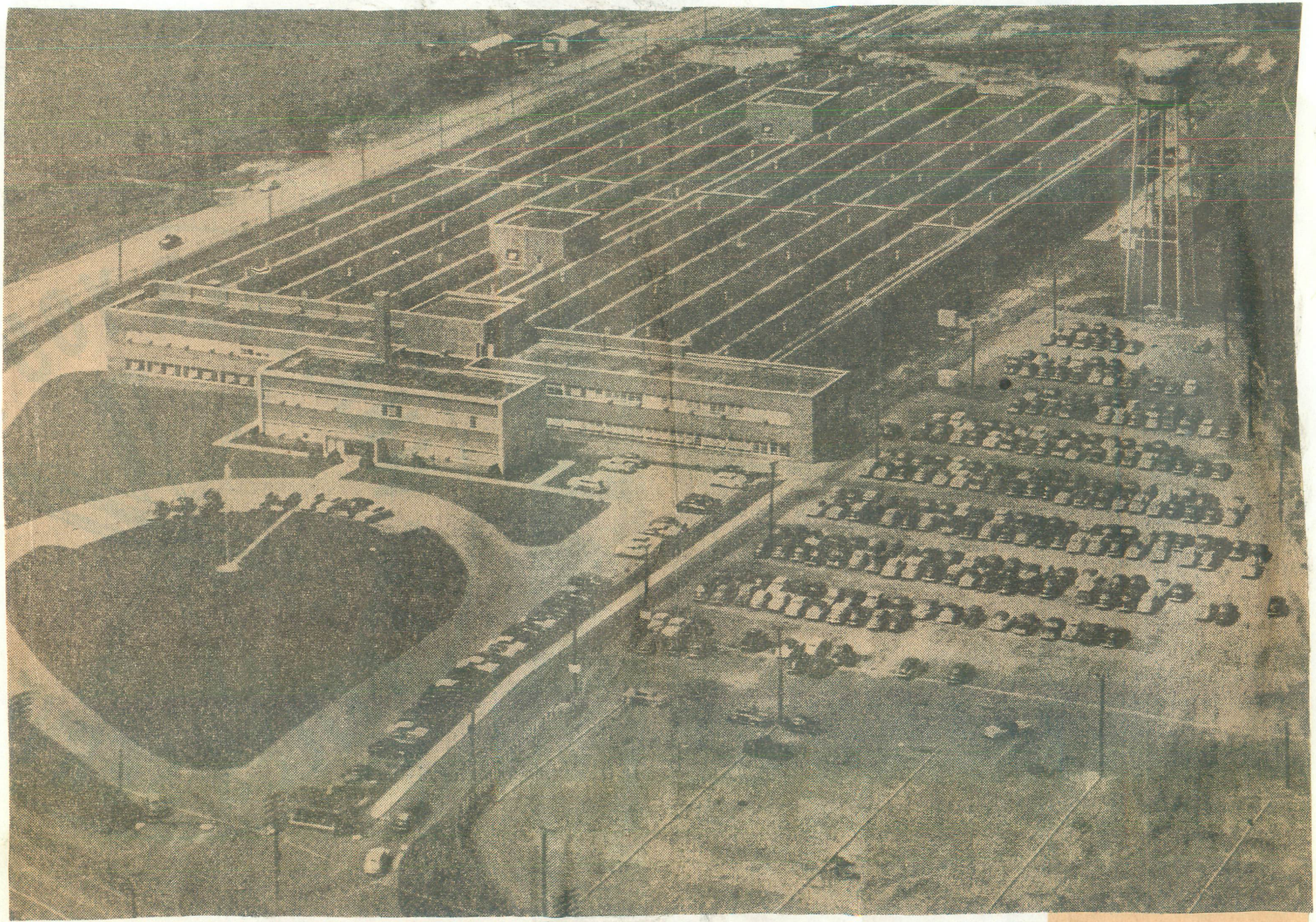


The Picture Window of the South

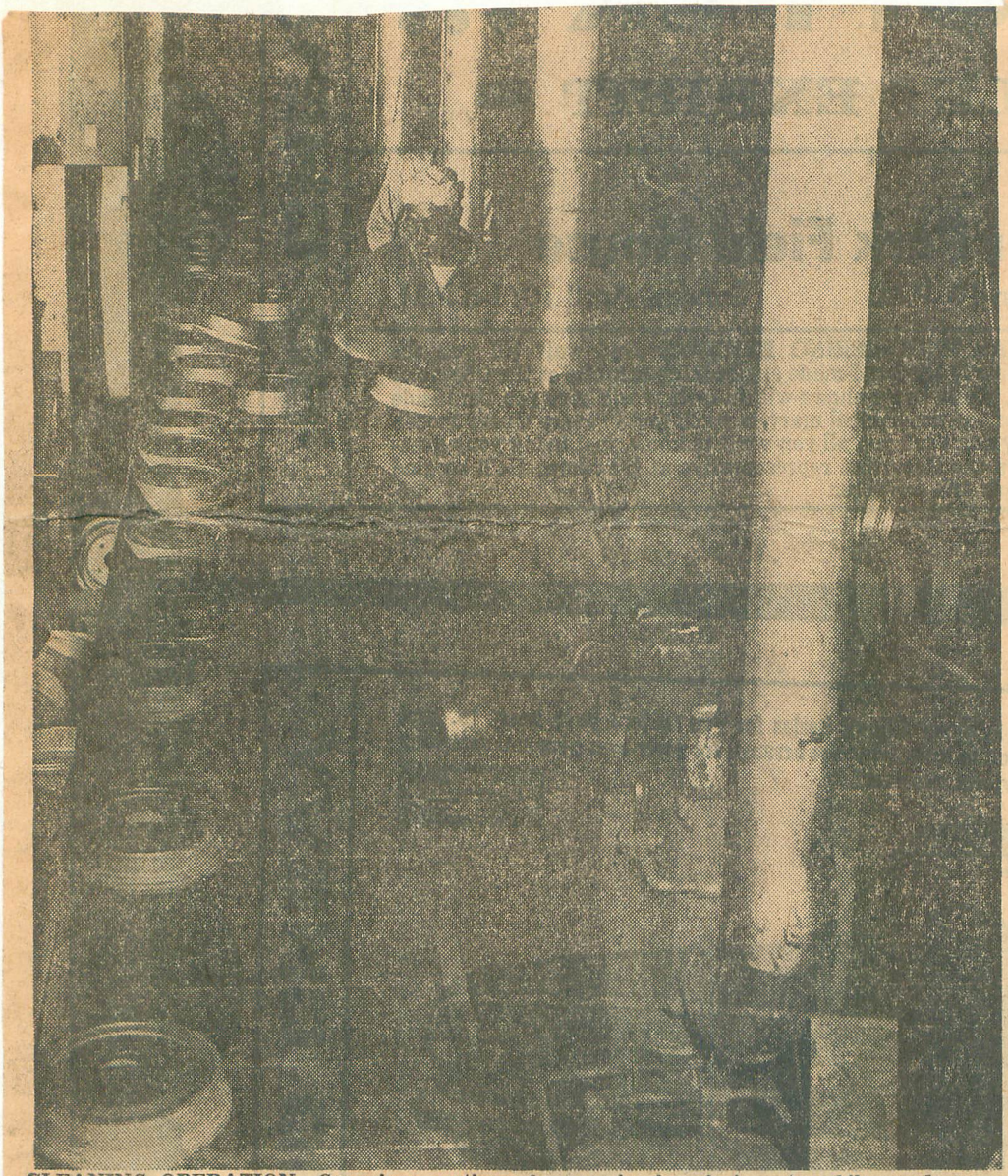
OVER



Broad Street Plant



North Chattanooga Plant



CLEANING OPERATION—Gray iron castings for use in America's automobiles undergo a cleaning operation before being placed on a conveyor belt to the inspecting department of Wheland Company.

N.F.P. 4/6/60

Wheland Company A Big Producer

By GEORGE BURNHAM

Detroit may have put the nation on wheels, but Chattanooga-made brakes and transmissions enable them to shift into high gear or stop on 15 cents—inflation making it hardly worthwhile to stop on a dime.

And upholstery fabrics created here provide many automobiles with impressive looks, along with "that new car smell," an invaluable intangible of world economy.

Over 50 per cent of the 70 million cars in America today have one or more parts made in Chattanooga at the Wheland Co.

The same estimate applies to all automobiles manufactured in the United States since 1946.

BRAKE DRUMS

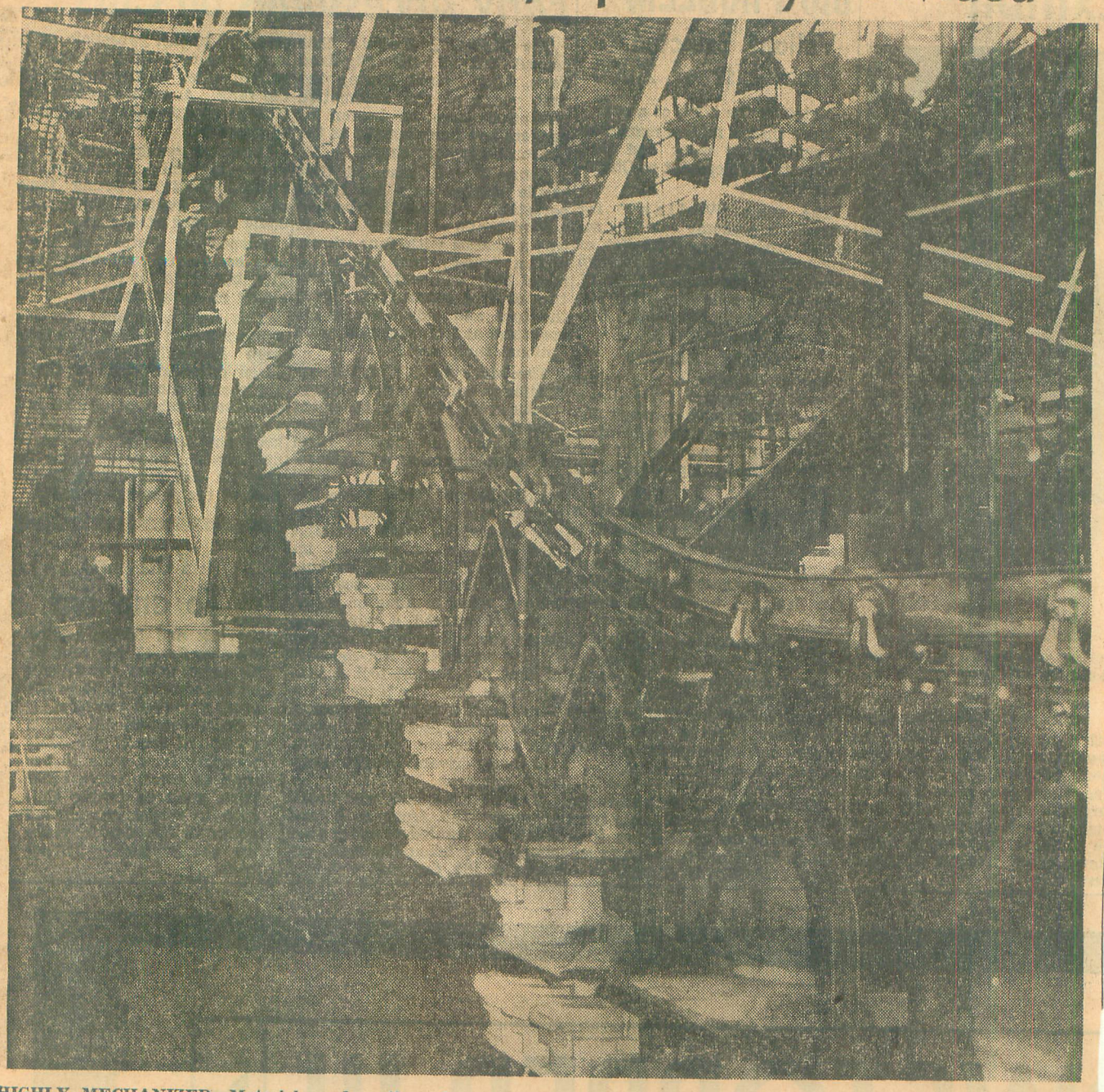
Wheland Co.'s foundry division, a principal supplier of brake drums for leading auto manufacturers, casts a large percentage of drums for one of the low-price cars. The company also produces cast iron liners for finned aluminum brake drums of medium-priced cars, automatic transmission parts for various cars and truck transmission parts.

The Wheland foundry operation, employing about 600 people at the plant on South Broad street, is highly mechanized. Two of the molding loops are automated.

Other Chattanooga industrial giants also contribute parts in the automobile jigsaw. Du Pont's big nylon plant supplies fibers to the industry for tires and upholstery.

Peerless Woolen Mills has furnished much of the cloth for the inside finishing of cars.

Chattanooga Leading Supplier of Car Parts; Brakes, Transmissions, Upholstery Provided



HIGHLY MECHANIZED—Materials and castings for automobile parts are moved by automatic conveyors at the Wheland Company's foundry division.

CONGRESS IN STIR, GROUP WILL PROBE WHELAND CO. CASE

T 3/30/61

McNamara Rules Contract to California Company Held Up Indefinitely

BID OFF ONLY $10,000

Hebert's Subcommittee to Check for Irregularities in Award on Trucks

From Chattanooga Times Bureau

WASHINGTON — Congressional interest in the narrow margin by which the Wheland Co. of Chattanooga was outbid on a $40 million truck contract is expanding and Secretary of Defense Robert McNamara has ordered that the contract be stopped indefinitely until the congressional questions have been answered.

A House Armed Services subcommittee under Rep. Edward Hebert, D-La., who is probing irregularities in the defense contract award process, is going to look into the steps by which the contract for 1,500 M113 troop carriers was awarded to the Food Machinery Co. of San Jose, Calif.

One of the factors which engaged the committee's interest is the reported fact that a former assistant secretary of the Army in charge of ordnance, Frank Higgins, was a consultant for the company which won the contract with a bid $10,000 lower than Wheland's.

To Quiz Subcontractor

Another aspect of the contract under study is the charge by Wheland that one subcontractor bid $60,000 higher to the Chattanooga firm than to Food and Machinery on identical parts of the contract. All the subcontract bids submitted to both the principal companies are under study by the General Accounting Office.

The Wheland officials are providing investigators with a study they have prepared to show the "proper evaluation factors" in the contracts. This suggests that the Wheland contract was in fact considerably lower than the one which won the award.

Veterans in these matters report that a congressional stir over an apparent injustice in the awards is often successful in causing a reversal, particularly if there is a suspicion of veniality in the award process.

CHATTANOOGA - Industries - Wheland Co.

Kefauver Urging Wheland Award

T 4/12/61

From Chattanooga Times Bureau

WASHINGTON—Sen. Estes Kefauver will meet Monday with Secretary of Defense McNamara to urge that the contract for 1,500 medium Army vehicles be awarded to the Wheland Co. of Chattanooga.

McNamara has stopped award of the contract to the American Food Machinery Co. of San Jose on Kefauver's request. The Chattanooga firm's bid was only $10,000 above the winner of the $40 million dollar contract and Kefauver is maintaining that all or part of the contract should be diverted to Chattanooga because it is an area of labor surplus.

But officials do not believe that the award to the low bidder can be reversed on these grounds. The contracts set aside for depressed areas have to be designated as set-aside contracts before bids are requested and this was not done in this instance.

Gordon Street Buys All Stock Of Wheland Co.

T 7/4/61

By FRED SCHNEIDER

The Wheland Co., Chattanooga's oldest industry, has been merged into Gordon Street, Inc., a company that has owned a substantial majority of Wheland stock for a number of years, Gordon P. Street announced Friday.

Effective today the two major operations of Wheland will become Wheland division of Gordon Street, Inc. "The Wheland Co." name will no longer be used.

Street was president of The Wheland Co. and now is president of the corporation which bears his name. The Wheland Co. was established in 1866 and has operated under the Wheland name continuously since then.

In the future the Broad Street operation will be known as "Wheland Foundry, Division of Gordon Street, Inc." and the plant on Signal Mountain Boulevard will be "Wheland Products, Division of Gordon Street, Inc.

Street said that the consolidation into Gordon Street, Inc., was effected by acquisition of all the Wheland common stock the Street corporation did not own already. This was accomplished by an exchange of stock but the basis or number of shares was not revealed.

Officers and directors of the Street organization previously were officers or directors of Wheland. Besides Street as president, officers are Karl Landgrebe and H. V. McDougall, vice presidents; C. C. Lay, treasurer, and Gordon L. Smith Jr., secretary.

The directors are Street, Lay, Smith, Gordon P. Street Jr., John P. Gaither and C. W. Wheland, all of Chattanooga, and W. G. Maloney of New York City.

Street said the policies and products of the company will not be changed nor will the personnel in the two divisions be affected by the merger.

The products plant manufactures oil well and sawmill equipment which is sold over this country and abroad. It also is engaged in contract work for the federal government. The foundry is engaged primarily in the production of castings for the automotive industry.

The Wheland Co. was founded in 1866 at Athens, Tenn., where it first made hollow ware castings and repaired farm machinery. The business grew and the late George W. Wheland, the founder, sought a larger market. He decided to move to Chattanooga.

2 Acres in 1873

In 1873 he bought two acres which now constitute a part of the site of the foundry on South Broad. He built a large frame building. In it he put a machine shop, foundry, blacksmith shop and pattern shop. He repaired farm equipment and made grist mills, cane mills and water wheels.

The Wheland Machine Works had been in operation hardly a year when, in 1875 one of the worst floods in the history of the city descended and practically inundated Chattanooga and the surrounding section. The entire first floor of the plant, housing the machine shop, was completely covered by the flood waters for almost a week. Receding waters left the plant a mass of mud, debris and apparently ruined machinery.

Those were indeed dark and dismal days for George W. Wheland who viewed the scene with utter discouragement and visions of financial ruin. But it's an ill wind that blows no one good, for practically every grist mill in the area had been destroyed by the flood. And soon the Wheland Machine Works was flooded again — but this time with orders for water and grist mills.

In 1880, Wheland began manufacturing small steam engines, some of which are still running today. Then came a great need for lumber, and there were plenty of trees in the Southeast. So Wheland started making sawmills. Today Wheland is one of the oldest and largest manufacturers of sawmill machinery.

In 1911 The Wheland Machine Works consolidated with the Chattanooga Machinery Co. and changed the firm name to The Wheland Co. By World War I, The Wheland Co. had good equipment and an exceptionally capable staff. This organization quickly turned to war work, with 95 per cent of the plant making lathes for turning shells and making anchor windlasses for ships.

Back to Peace Products

As soon as the Armistice was signed, The Wheland Co. returned to the manufacture of its peacetime equipment.

In 1926 Wheland started making oil well drilling equipment, first turning out high-pressure slush pumps. Blocks, rotaries, swivels and drawworks were added later.

George W. Wheland was active in the business until his death in 1929, at which time his son, E. F. Wheland, became the company's second president.

When World War II came, Wheland again went wholeheartedly into war work. Guns, shells and anchor windlasses were produced with speed and quality.

Prime contractor for the windlasses was Street Bros. Machine Co., in which Gordon P. Street was actively engaged with his father.

After World War II, when the Whelands decided to lessen their responsibilities, it was only natural that they should turn to Gordon P. Street, who had worked so closely with their organization. As a result, Street became financially interested in The Wheland Co. and in 1945 was elected its third president.

Once again The Wheland Co. was faced with the problem of converting equipment and organization to peacetime work. A modern production foundry was set up in the building formerly used for the gun plant. The initial production foundry was capable of producing 4,000 tons of grey iron castings a month. It was ready to run on Jan. 1, 1947.

10,000-Ton Capacity

Wheland now has one of the largest independent foundries in the country, with a capacity of 10,000 tons a month. One 16-pound casting comes off the conveyor at the rate of 1,500 per hour. About half the cars on American highways today have in them one or more parts which were made by Wheland.

After the Korea crisis broke out in 1950, The Wheland Co. was again called upon to produce guns for the military. Since the production foundry was in full operation at the former gun plant, it was decided to create a new facility for gun-making. In May 1951 ground was broken for the new building on Signal Mountain Road. In January 1952 Wheland finished its first 90mm gun while the building was still not completely closed in. Since that time the company has produced many 90mm guns, as well as 75mm and 40mm.

Constantly seeking other avenues of production, when the need for guns lessened, Wheland started producing high precision subassemblies for aircraft and missiles.

CHATTANOOGA - Industries - Wheland Co.

WHELAND YIELDS SAWMILL RIGHTS TO BREWSTER CO.

T/31/62

Manufacture, Distribution of Oil-Well Equipment Also in Transfer

NO FIGURES REVEALED

Transaction Places Street Firm in Position to Get Larger Contracts

By FRED SCHNEIDER

The manufacturing and distribution rights of all Wheland oil-field and sawmill equipment Tuesday were acquired by the Brewster Co., Inc., of Shreveport, La., from Wheland Products, division of Gordon Street, Inc.

Announcement of the transaction was made in a joint statement by Gordon P. Street, president of Gordon Street, Inc., and Harry B. Marioneaux, president of the Brewster company.

The equipment now is made in Wheland's Signal Mountain plant originally constructed for large-volume work in the defense area, Street pointed out. Now the oil-well and sawmill equipment will be made and sold by Brewster in Shreveport.

More Business Soon

"This realignment is planned to place the Wheland plant in a better competitive position and it is expected that defense business will be rapidly and substantially increased," Street added.

He said that only a small percentage of the plant's production has been devoted to the oil-field and sawmill equipment and that only a few workers would be affected by the transfer of this production to another company.

"Moving out of the oil and sawmill distribution fields will enable us to concentrate on the manufacture of production-line equipment for the automotive, aircraft and missiles industries," Street announced.

"Brewster's location in Shreveport is advantageous for serving a large number of Wheland sawmill customers. Brewster has long been a major factor in the production of oil-field drilling equipment and certain Wheland items will ideally supplement Brewster's present well-established line."

Over 50 Years

The Wheland division manufactures and sells oil-field and sawmill equipment. Both Wheland and Brewster have been manufacturers of oil-field equipment for more than 50 years. The addition of Wheland products will give the Brewster Co. a full range of pumps and heavy machinery for drilling and production of oil.

The parts depot maintained by Wheland in the mid-continent oil area also will be taken over by Brewster.

Street would not reveal the amount involved in the transaction or give current figures on employment at the products division plant located on Signal Mountain Boulevard.

The Wheland business is one of Chattanooga's oldest industrial enterprises. It has two plants, the new facility on Signal Mountain Boulevard and the foundry division located off Broad Street, the original location, where castings are made for the automotive industry and for other uses.

RESTUDY IS URGED ON WHELAND'S BID

T3/29/61

Kefauver Asks Probe of $40 Million Pact Award to West Coast Firm

By CHARLES BARTLETT

Chattanooga Times Bureau

WASHINGTON — Secretary of the Army Elvis Stahr issued a stop order on a $40 million contract for the Food Machinery Co. of San Jose, Calif., Tuesday after Sen. Estes Kefauver asked a Senate investigation of the award.

Kefauver asked the Senate Preparedness Investigating Subcommittee to inquire into the award on grounds that the

See Page Two, Column Eight

Wheland Co. of Chattanooga had bid almost as low and is located in an area of substantial labor surplus.

The difference on the bid, which involved 1,500 M113 troop carriers, was said to have been only $7,000. The winning bid was $40,607,751 by the firm in San Jose. which is not a labor surplus area. President Kennedy has asked that government contracts be placed whenever possible in these areas.

Kefauver urged Sen. John Stennis, D-Miss., chairman of the subcommittee, to make an immediate inquiry into the matter and was assured that the staff will examine into it.

(Gordon P. Street, president of the Wheland Co., said Tuesday night the information on the bidding is "essentially correct" but that he had no further comment on the matter at present.

(Mayor Olgiati, informed of Secretary Stahr's stop order, said he "would be very happy if the Chattanooga company is awarded a $40 million contract.")

A Salute to Industry:

Gordon Street, Inc. Has New Name, Proud Heritage

This is the second of seven articles prepared by The Chattanooga Times in support of the community-wide "Salute to Industry" week that begins Sunday, June 3. The articles spotlight the city's oldest manufacturing firms to underscore the long-range contribution of the area's industrial leadership in fostering vision, development and growth for community advancement. Tomorrow: Robert Scholze Tannery.)

Wheland Made Its Reputation In Peace, War

T 5-29-62 p.4

By FRED SCHNEIDER

In 1875 a wild Tennessee River all but destroyed the hopes of George W. Wheland and the little foundry and machine shop he had placed in operation hardly a year before.

Looking over the mass of mud, debris and apparently ruined machinery in his factory, Wheland did not realize that his plant would be flooded again before the damage could be repaired.

The flood, one of the worst in Chattanooga's history, had destroyed practically every grist mill in the area, and soon Wheland Machine Works was receiving a deluge of orders for water wheels and grist mills.

That was the beginning of a Chattanooga concern that has achieved notable success by changing with the times — from the manufacture of grist mills to anti-aircraft guns in wartime to brake drums, other automotive castings and missile components in peacetime. Oil-well equipment and sawmill machinery are among other products the company has made.

Thus, although Gordon Street, Inc., is a relatively new name among Chattanooga industries, its forerunner, the Wheland Co., was the earliest local industry and is perhaps one of the city's most widely known.

Last July, Wheland was merged into Gordon Street, Inc., the company that had owned a substantial majority of Wheland stock for a number of years. Founded in 1866 at Athens, Tenn., the Wheland Co. first made hollow castings and repaired farm machinery.

This business grew and George W. Wheland looked around for a larger market. He decided on Chattanooga. In 1873 he bought two of the acres where the Wheland Foundry, division of Gordon Street, Inc., now is located on South Broad Street and built a big frame building.

In it he put a machine shop, foundry, blacksmith shop and pattern shop. He repaired farm equipment and made grist mills, cane mills and water wheels.

The machine works had been in operation hardly a year when the flood practically inundated Chattanooga and the surrounding section. The first floor of the plant was completely covered by the flood waters for a week.

In 1880 Wheland began manufacturing small steam engines, some of which still are running today. Then came a great need for lumber and there were plenty of trees in the Southeast. So Wheland started making sawmills.

In 1911 the Wheland Machine Works was consolidated with the Chattanooga Machinery Co., and the name changed to the Wheland Co. By World War I, the Wheland Co. had good equipment and an exceptionally capable staff. This organization quickly turned to war work, with 95 per cent of the plant making lathes for turning wheels and making anchor windlasses for ships.

As soon as the armistice was signed, the Wheland Co. returned to the manufacture of peace-time equipment. The company developed many new ideas for sawmills and pioneered the use of tapered roller-bearing use in sawmill equipment.

In 1926 Wheland started making oil-well drilling equipment, first turning out high-pressure slush pumps. Blocks, rotaries, swivels and drawworks were added later. By 1956 one of the Wheland drawworks comprised a full railroad-car load when it was shipped to the Texas oil fields. A huge slush pump made another carload on the same trip.

George W. Wheland was active in the business until his death in 1929. Then his son, E. F. Wheland, became the company's second president.

Z. W. Wheland, also a son of the founder, was associated with the company as one of its top officials over a long period of years. He became one of Chattanooga's outstanding civic leaders and was active in a number of organizations and movements.

When World War II came, Wheland again wholeheartedly went into war work. Guns, shells and anchor windlasses were produced with speed and quality.

Prime contractor for the windlasses was Street Bros. Machine Co., in which Gordon P. Street was actively engaged with his father.

After World War II when the Whelands decided to lessen their responsibilities, it was only natural that they should turn to Gordon P. Street, who had worked closely with their organization.

Street became financially interested in the Wheland Co. and in 1945 was elected the third president to serve in the history of the organization.

Once again the Wheland company was faced with the problem of converting its equipment and organization to peacetime work. A modern production foundry was set up in the building formerly used for the gun plant. The initial production foundry was capable of producing 4,000 tons of gray iron castings a month. It was ready to run on Jan. 1, 1947.

The Wheland foundry division now has one of the largest independent foundries in the country with a capacity of 10,000 tons of castings a month. One 20-pound casting comes off the conveyor at the rate of 1,600 per hour.

About half the automobiles on American highways today have one or more parts which were cast in the Wheland foundry.

The foundry is continuously installing the most modern production equipment and the newest methods such as high pressure molding of core shells.

In addition to producing castings for the automotive industry, the foundry in recent years has made considerable headway in diversifying its productions. It currently is turning out parts for the air conditioning industry and the farm tool industry.

Stamping Plant

As an adjunct to the casting of some parts which incorporate stampings, the company in 1961 installed a stamping plant and now produces approximately 450,000 stampings per month. The molded strip steel used in this process comes from steel mills in nearby Alabama.

After the Korean crisis broke out in 1950, the Wheland Co. was again called upon to produce guns for the military. Since the production foundry was in full operation at the former gun plant, it was decided to create a new facility for gun-making.

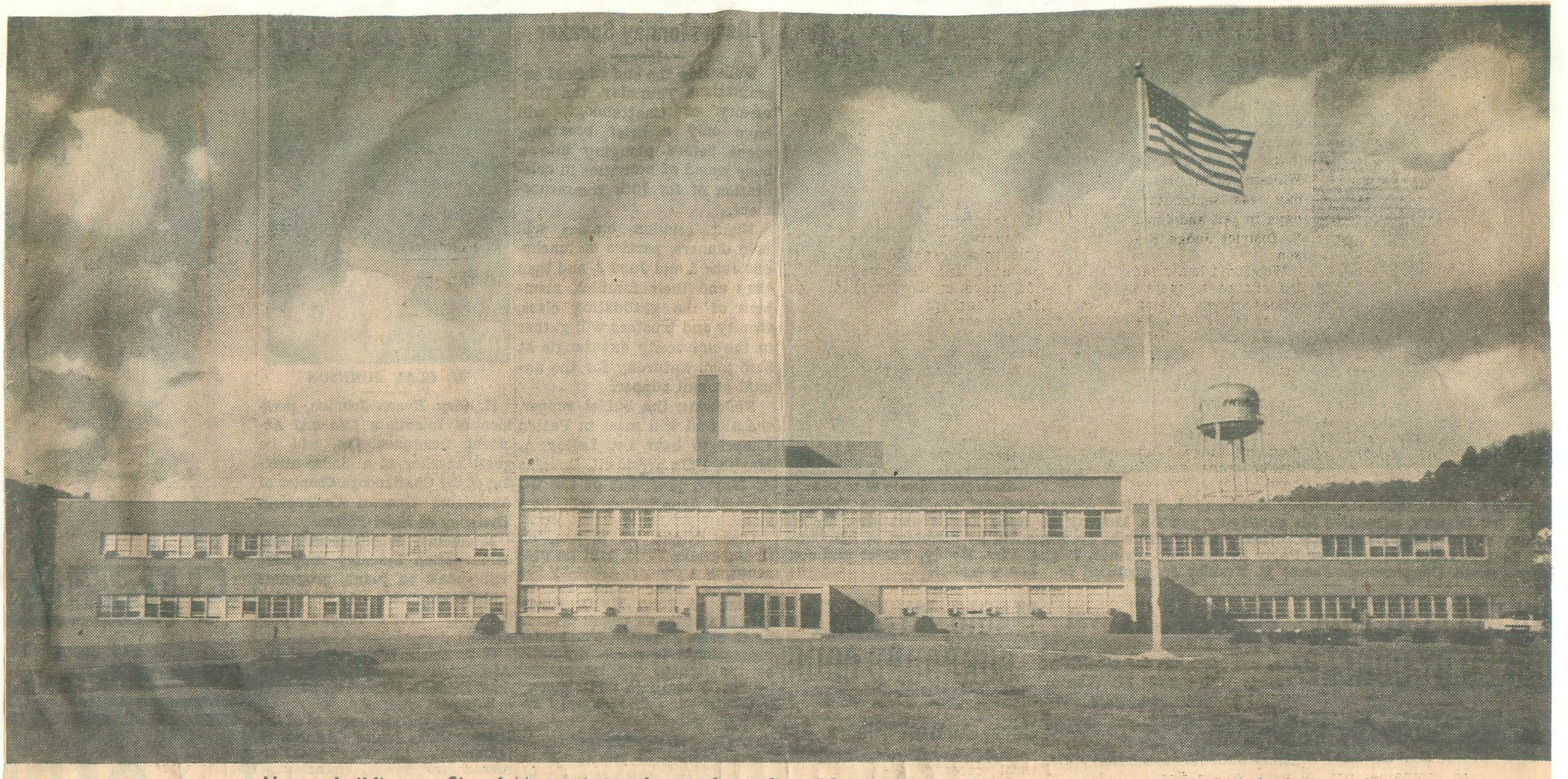
In May 1951, ground was broken for the new building on Signal Mountain Road. In January 1952 Wheland finished its first 90mm gun while the building still was not completely closed in. Since that time the company has produced many 90mm guns as well as 75mm and 40mm.

Constantly seeking other avenues of production when the need for guns lessened, Wheland started producing high precision subassemblies for aircraft. The company has turned out structural parts for the wings and fuselages of such planes as the Grumman Navy fighter, "Tiger Jet"; Convair Air Force supersonic bomber, "The Hustler"; Glenn L. Martin giant jet seaplane, "The Sea Master," and Lockheed's four-engine turboprop cargo ship, "The Hercules."

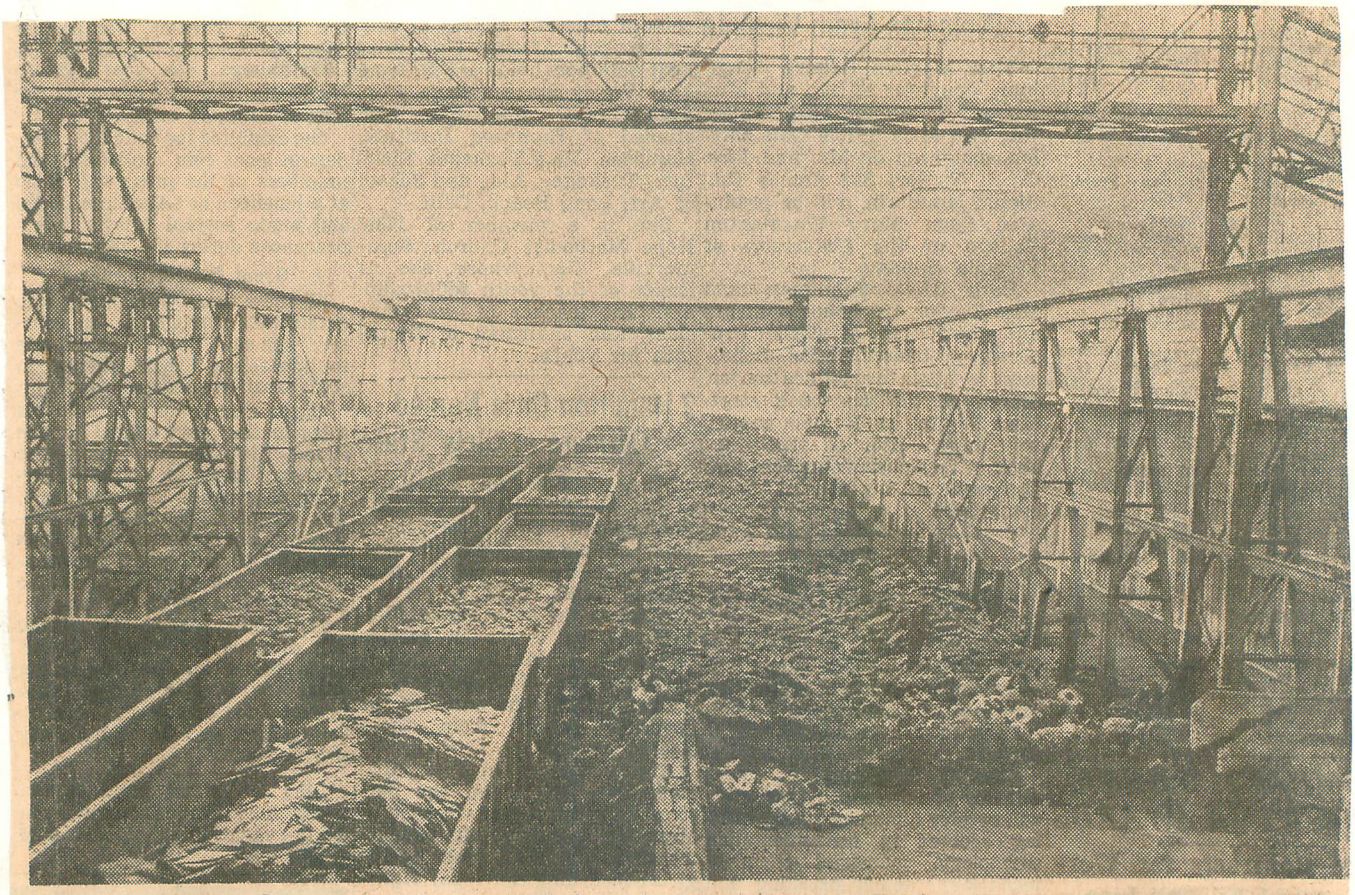
The Wheland Products division, Gordon Street, Inc., is a subcontractor to Thiokol Chemical Corp. to furnish components for solid fuel missiles. Through certain manufacturing processes, the division has made a substantial contribution to missile development.

CHATTANOOGA - Industries - Wheland Foundry

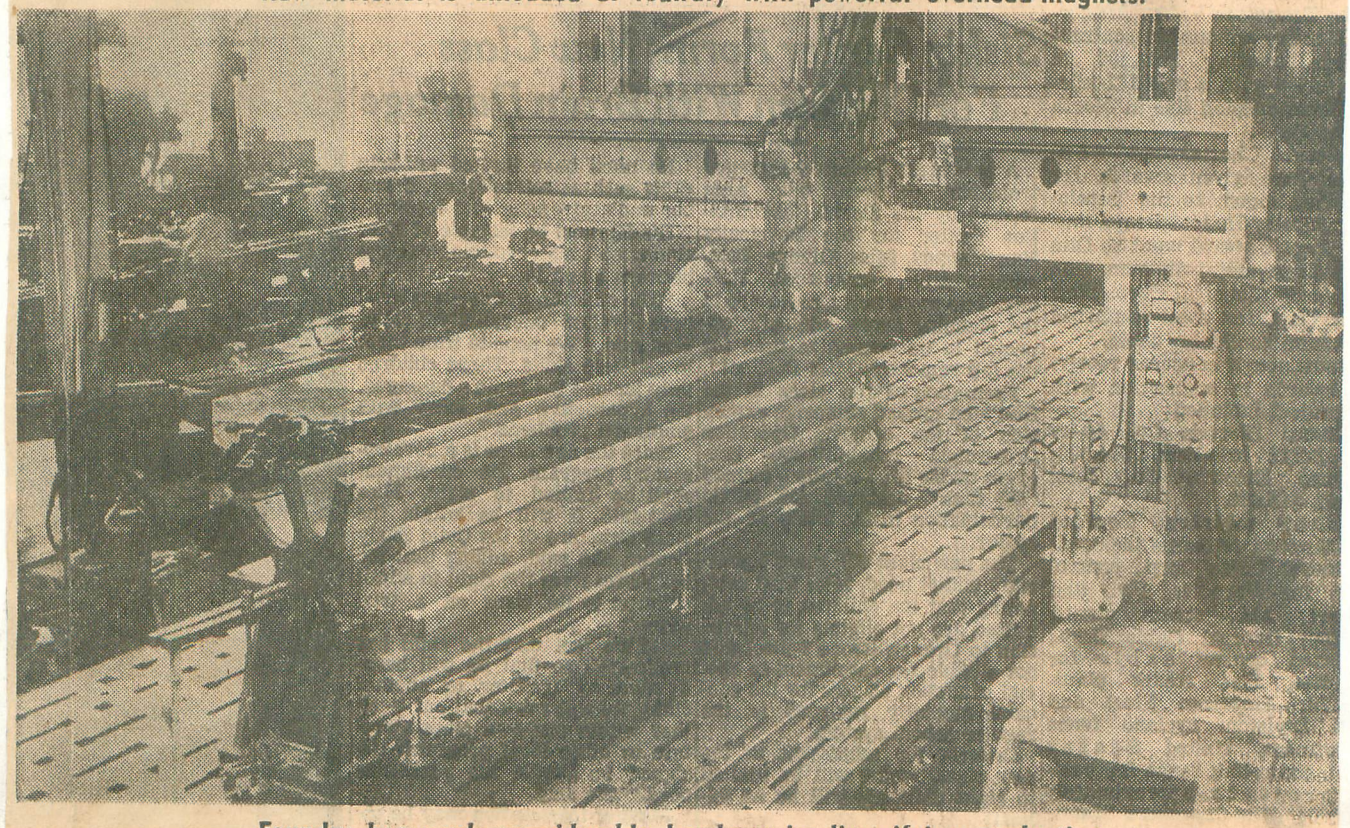
DVL



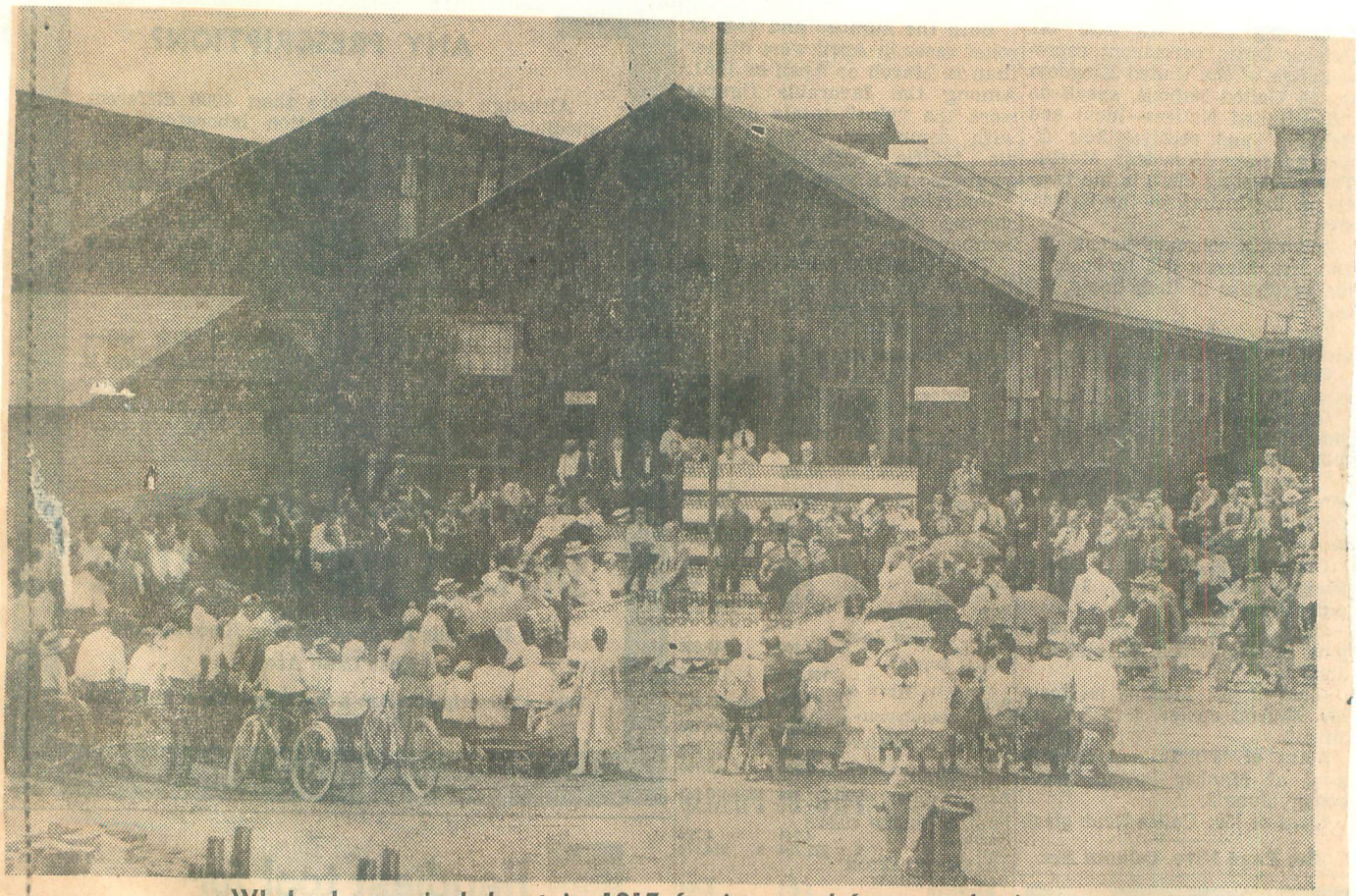
Newest building on Signal Mountain road turned out first 90mm gun even before construction was finished.



Raw material is unloaded at foundry with powerful overhead magnets.

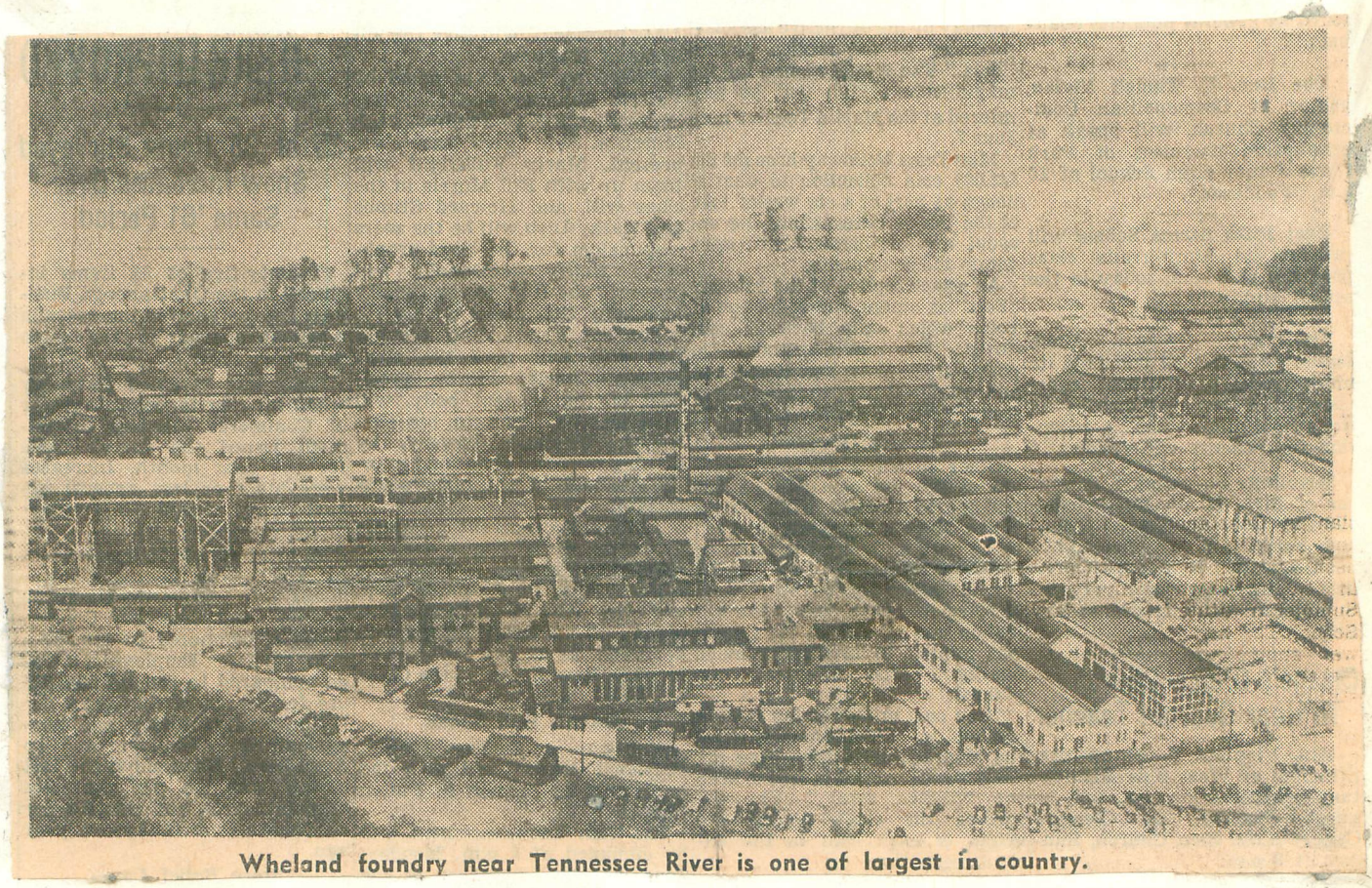


Foundry has made considerable headway in diversifying production.



Wheland was singled out in 1917 for its war defense production.

Gun boring and profiling lathes guarantee precision work at new facility.



Wheland foundry near Tennessee River is one of largest in country.

Wheland Gets U.S. Right To Produce French Tank

T10/4/63

Gold Flow, Integrated NATO System Enter Into Agreement on 13-Ton Version of Highly Mobile, Versatile AMX

By SANFORD LEWIS

Wheland Products, one of two divisions operated in Chattanooga by Gordon Street Inc., Thursday afternoon announced a precedent-breaking agreement which will put production of a French-designed light tank on United States soil.

In making the announcement, Gordon P. Street, president, said the agreement covers a license from the French government to produce the AMX 13-ton light tank, which has previously been manufactured only in France.

At the same time, Street said his company does not have a contract with any foreign government as yet for the tanks and that the license does not cover the 30-ton AMX tank.

"The agreement covers only the 13-ton family of the AMX armored vehicle system and since the agreement has just been signed," he said, "the company is still working out manufacturing details."

Wheland has not approached or been approached by any government for specific orders to deliver the vehicles, he explained, but it will soon be in a position to make proposals which will result in eventual co-production with the French government.

The manufacturer stated that this agreement marks the first time a nation has granted a license to manufacture its tank design to a firm in another country.

The license was assigned to Wheland Products by Gen. A. Buchalet, head of SOFMA, a French corporation partially owned by the French government and devoted to the development of French military industrial production.

"This demonstrates a sincere effort by both the French government and French industry, in cooperation with a leading manufacturer in America, to help reverse the outflow of U.S. gold in accordance with the United States balance of payments program," he said.

President Kennedy, he pointed out, only recently strongly urged both U.S. industry and American allies to cooperate in increasing the exports of the United States.

"The French government originated the plan both as a means of alleviating the balance of payments to the U.S. and to introduce an integrated weapons system used by other NATO countries to the Department of Defense," Street said.

Contacted in Washington Thursday night concerning the agreement's possible effects on the balance of payments program, a Treasury Department spokesman said:

"In so far as the Treasury department is concerned, if this agreement will result in the purchase of armored vehicles in the U.S. which would otherwise go to another country, it might therefore be assumed that this will help the balance of payments program and we would be favorably disposed.

"When it does not assist the balance of payments program, our interest wanes."

He commented that the department has been aware that the negotiations have been unde way and was told that this would result in substantial orders. Admitting that the department is not acquainted with "all the details" of the agreement, he noted that the "net advantage of payment to the U.S. resulting from agreement would be of interest to us."

Street heavily emphasized that the company will not be directly competing with any present French manufacturing firms.

"The only time we will make these tanks for a foreign government is when it has available funds through the U.S. military assistance program which it is expected to spend for American-produced products and wants to purchase vehicles in the AMX family," he explained.

"We are not in competition with the French government. We are only after those orders they can't handle. We are helping them, in effect, get orders they could not otherwise."

2-Year Negotiations

Negotiations on the government have been under way for approximately two years by Wheland, which is among the nation's largest foundries and has been certified by the Department of Defense as qualified to produce armored vehicles and other defense materials.

Street said the Wheland Products firm also has the right to offer the AMX system to the U.S. Army. "According to official sources," he said, "the U.S. has already conducted preliminary tests on AMX combat vehicles."

The company president declined to comment on a possible date when the vehicles would go into production here or concerning how much of the tanks would actually be made here.

"We have no order yet," he stated, "and until we do, we don't know when production will start, and production details are still in the planning stage."

He also noted it would be impossible to reveal an estimate on how much business—dollar-wise—the agreement would bring to his firm.

The 13-ton AMX tank is the basic vehicle of a French system which consists of armored personnel and cargo carriers; self-propelled artillery, including mortars, howitzers and rocket launchers; and engineer vehicles such as scissors bridge, dozers and recovery and repair units.

Transportable by C-130

The AMX armored system is currently the only one in the world fully transportable by land, sea and air. It can be placed inside the American C-130 transport plane, which means greater striking range and speed, Street commented.

Every piece of combat equipment in the system, he said, has a common chassis and power train, which allows 80 per cent of the parts to be interchangeable.

AMX equipment is now used by NATO and free nations including, France, Belgium, Holland, Switzerland, Austria, Israel, India, Indonesia and a number of Latin American countries. It has been battle-proven in Israel and India. The AMX 13-ton light tank is considered more ideal than heavier armored vehicles for the rapid transport needed over extremely narrow roads, streets and bridges of Europe and Asia. It possesses fire power which can engage successfully any tank placed on the battlefield by a potential enemy, Street said.

The low silhouette, speed and agility of the vehicles in the AMX family allow them to present a difficult target to hit, the announcement said, in contrast to tanks currently being used by both the United States and Soviet armies.

"We are extremely proud of being able to make this agreement," Street concluded, "and are very optimistic concerning potential orders with various NATO and free world nations."

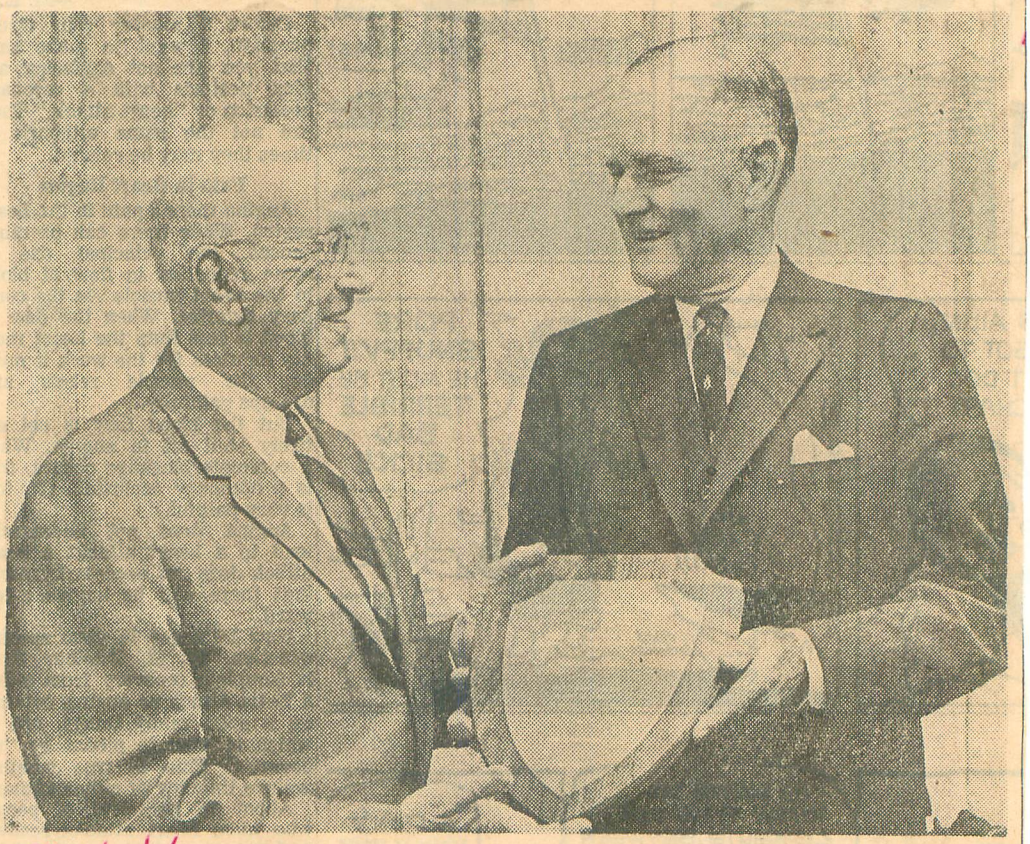
—Times Staff Photo by Harold Haven.

Officials of Gordon Street Inc., pause for a moment at Thursday afternoon press conference announcing agreement with French government to manufacture the 13-ton AMX light tank. Seated is Gordon P. Street, president; standing from left are H. V. McDougall, vice president in charge of production; Gordon L. Smith Jr., secretary; and Lawrence E. Skelly, director of defense contracts. The vehicles have previously been produced only by the French.

THE AMX 13-ton tank, above, with the 105 mm gun is the only fully land, sea and air transportable armored vehicle in the world which can be used with existing aircraft. The AMX system contains five types of armored vehicles including those designed for engineering purposes and troop carrying. It is considered the most complete tank family of its type.

CHATTANOOGA - Industries - Wheland (Div. of Gordon Street Inc.)

Wheland Division Honored for 100-Year Service



—Times Staff Photo by Jim Mooney.

GEORGE T. RICHARDSON, GORDON STREET

T5-14-66

The Wheland Division of Gordon Street Inc. Friday was honored for its "accumulated 100 years of truly significant leadership in aiding and promoting the growth development of Greater Chattanooga."

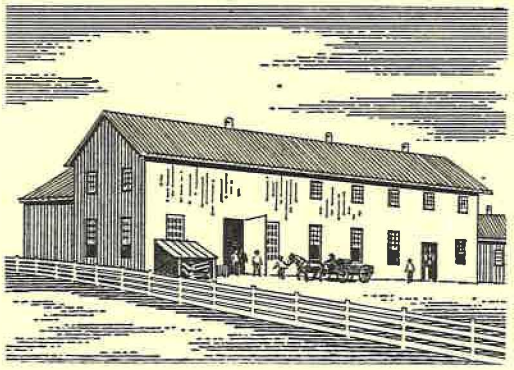
The tribute was engraved on a bronze plaque which was presented to President Gordon Street in the offices of the industrial concern in the James Building.

The presentation was by George T. Richardson, general chairman of the Industrial Development Committee of the Greater Chattanooga Chamber of Commerce. Also present representing the committee were Bill Teuton, manager, and W. G. Davies, assistant manager.

The Wheland industry had its beginning in Athens, Tenn., in 1866 when the late George W. Wheland established a repair shop and general foundry. In 1873 the infant business moved to Chattanooga. The foundry business has grown until today the Wheland Foundry Division is one of the largest independent producers of gray iron castings. Only recently, Street announced a multimillion-dollar expansion program for the foundry.

In observance of its 100 years, the history of the company has been prepared in the form of a booklet which tells of the various products that have been turned out by the company in the process of its development.

One Hundred Years



The South was badly in need of skill and ability to produce the basic necessities.

DURING the War Between the States, George W. Wheland of the Federal Army served in East Tennessee. He liked the beautiful country, found its climate delightful and saw the business opportunities it offered. In 1866 he came back to the area and started a repair shop and general foundry in Athens, Tennessee.

A hundred years have seen this modest business grow and change beyond his wildest dreams.

His general foundry evolved into the Wheland Foundry Division of Gordon Street, Inc., at Chattanooga, Tennessee, one of the nation's largest independent producers of grey iron castings. The parts and repair service evolved into another division of Gordon Street, Inc., which produced intricate sub-assemblies for airframes, complex catapult parts to launch modern fighters and bombers from the decks of atomic powered aircraft carriers and into sophisticated components involved in testing and evaluating modern space craft, missiles and rockets. These products developed such specialized and critical manufacturing facilities that one hundred years after Mr. Wheland started his repair shop, this lusty descendant division was sold to an aerospace manufacturer to speed progress on still more sophisticated aerospace devices vital to the defense of our country.

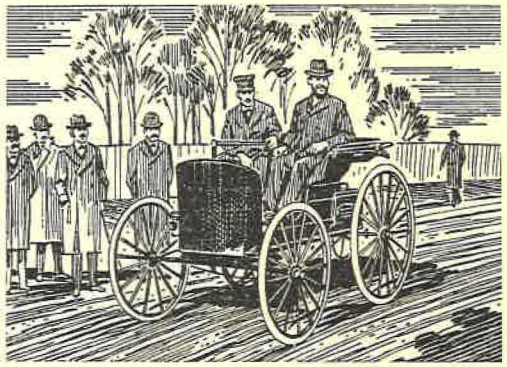
Another of the product lines of this division developed into a totally unrelated field that served to greatly enlarge the scope of operations of Gordon Street, Inc., and spread its representatives across the mid-continent.

One of the truths of history is that wars produce great bursts of scientific progress and major upheavals in the lives of individuals and companies. In looking back on the history of Gordon Street, Inc., and of its Wheland Divisions, wars and their scientific developments dominated many of the advances.

In 1873 the infant business was moved to Chattanooga, Tennessee. There the modest repair parts business expanded to meet the needs of the day, making mill equipment for grinding grain and sawing lumber and pouring castings for water wheels.

The Texas Rangers were established in 1874 as this infant business was building its new Chattanooga home.

As the economy of the South grew, it became obvious that mills must not be tied to water power. So the company made steam engines to power grist mills and sawmills. This new concept allowed the mills to be placed in the best locations, rather than being tied to stream side sites.



Few people believed that this noisy contraption would ever amount to anything.

In 1892 the Duryea brothers produced the first gasoline-fueled automobile in America . . . the Texas Railroad Commission was established that same year . . . widely separated events which were to play major parts in the future of this business.

Wheland built high quality products. Growth was slow. The same war which brought Mr. Wheland to the South had left prostrate the economy of that area. The plantation economy of the South was gone. The South had few men with mechanical ability or with business ability. Gradually men emerged in the South who were engineers, innovators, entrepreneurs. The march of the years slowly revealed that two of the successful men of this type were G. W. Wheland and J. H. Street.

In 1901 Spindletop blew in and created a furor throughout the nation. But no one dreamed that this wild oil well would alter the course of these Chattanooga enterprises.

In the early days of World War I, Street Brothers Machine Company of Chattanooga, designer and manufacturer of boom and dragline equipment, became a prime contractor for anchor windlasses for the U. S. Navy emergency fleet. There was such a great demand for these windlasses that the Wheland facilities also were brought into this production and soon both their plants were 95 per cent occupied by war work.

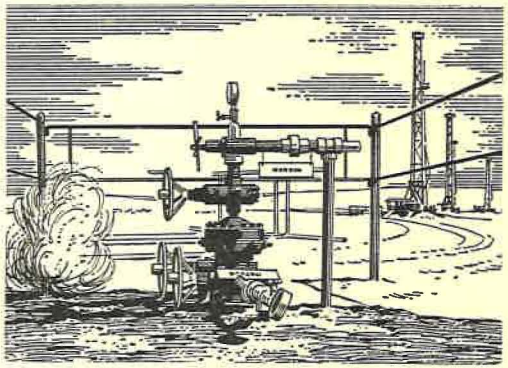
Mr. Wheland and Mr. Street enjoyed a cordial personal relationship and it was natural that soon after World War I, Mr. Street's son, Gordon, spent his summer vacation as office boy and general factotum in the thriving Wheland plant.

Many pieces of advanced equipment, including the first tapered roller bearing band mill, were pioneered in this plant. In the mid 1920's, the firm started the manufacture of certain items of oil well drilling equipment on a contract basis. As a diversification move, about 1938 the company added oil well drilling equipment to its own line of products.

In 1938 the first offshore well was drilled in Louisiana.

World War II again brought Wheland and Street Brothers into cooperative effort. By this time Mr. George Wheland's son, E. F. Wheland had become the second president and his grandson, Charles W. Wheland the chief production executive at Wheland and Gordon P. Street had become the executive head of Street Brothers. Under their leadership, guns, shells and anchor windlasses were produced in quantity and with efficiency that startled some of the other prime contractors. Some of those contractors were major automobile manufacturers who had occasion to make direct comparisons of quality and cost factors and thus gain great respect for this relatively small Southern firm.

By the end of World War II, Gordon P. Street had become closely involved in the management of the company. The Wheland family evidenced a desire to get out of the machinery manufacturing business. Gordon P. Street was



Gordon Street, Inc. has been a leader in multiple-level oil well completions.

elected president and chief executive in 1945. At the same time arrangements were made so that Mr. Street could acquire ownership.

Since the company had been 100 per cent on war work, their normal products had not been up-dated for almost five years. It was determined to drive the company forward on two main fronts. One was aggressive engineering and design to put their sawmill and oil field equipment into the forefront. The other was diversification into other manufacturing fields. Both efforts were highly successful though neither developed exactly along the anticipated lines.

Equipment for the oil field is large, complex and costly. Sales of new designs are helped by a record of successful operation in the oil field. To get new equipment promptly into use under conditions that would permit close observation, Mr. Street started petroleum exploration as a personal venture. He participated in certain oil ventures which involved the use of the company's newest equipment.

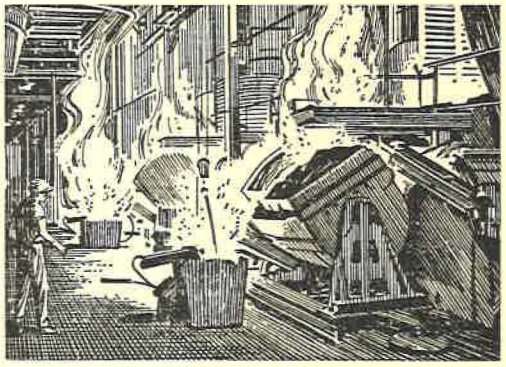
As sometimes happens, in a few years the tail began to wag the dog. Investments in various oil fields proved far more rewarding than the manufacture of machinery. This personal venture developed into operations in a number of states, principally in the mid-continent. Gordon L. Smith, Jr., then in charge of Oil Field Equipment Sales, found more and more of his time devoted to work in the oil fields. As this portion of the family enterprises continued to grow, it became of increasing interest to Gordon P. Street, Jr. He directed his education toward specialization in the oil and gas business. This included special study at the University of Oklahoma and actual field study and work in several oil fields.

When the personally owned petroleum activities proved more rewarding than the manufacture of machinery, it became logical to sell the oil field machinery interests to

a firm located in the mid-continent. The personal petroleum interests of Gordon P. Street were combined with the foundry and manufacturing enterprises to form Gordon Street, Inc. Speedy communications provided by the modern airplane and the telephone permit the oil and gas activities to be efficiently directed from central offices in Chattanooga. The principal petroleum interests of the company are in West Texas, New Mexico, Louisiana, and Oklahoma though activities are carried on in several other states, including Kansas and even Tennessee. Gordon Street, Inc., currently has representatives in Tulsa, Oklahoma; Midland, Fort Worth and Houston, Texas; and Lafayette, Louisiana. In accordance with custom, when Gordon Street brought in a discovery well in West Texas in 1962 this new field was named the Gordon Street Field.

Among other problems facing the company in the immediate post World War II years was what to do with a large manufacturing facility housing their gun plant.

It will be recalled that a foundry had been one of the first activities of the business. That foundry had grown through the years, and supplied castings for company products and for other manufacturers in the immediate area. Castings are heavy and transportation time and cost are important in this highly competitive business.



The production foundry is highly mechanized and quality is continuously and accurately controlled.

During World War II the South made great strides in manufacturing. The area also was one of the first in the nation in percentage growth as a market and in growth of per-capita purchasing power. For that reason, many national manufacturers set up assembly plants to serve the South. The company saw an opportunity to preempt a post-war position as a mass producer of grey iron castings. In spite of a good bit of shaking of gray heads on the part of business men of the area, the former gun plant was equipped as an ultra-modern production foundry and contracts were secured to keep it running. First one, then two, then three, then four loops grew in what is now the Wheland Foundry Division of Gordon Street, Inc.

Under two capable foundry men, Karl L. Landgrebe and Charles Chisolm, the foundry pioneered many practices which spread through the industry. One innovation was the high pressure molding of core shells. Some of the castings incorporate steel stampings. Accordingly Gordon Street, Inc., added a stamping plant which currently produces about half a million stamped parts in a normal month. In the foundry twenty pound castings come off the conveyor at 1600 per hour. A normal day's production requires approximately a train load to ship finished castings out and bring coke, pig iron, scrap, steel strip and other raw materials in. Modernizing, improving and adding facilities is a continuous program in this highly competitive operation. This foundry is located at some distance from principal markets for grey iron castings. Only by the utmost efficiency in production and by careful maintenance of its excellent reputation for the quality of its castings can this foundry hope to attract and hold volume business. To date, their success is indicated by the fact that half the automobiles in America have one or more castings produced by the Wheland Foundry Division of Gordon Street, Inc.

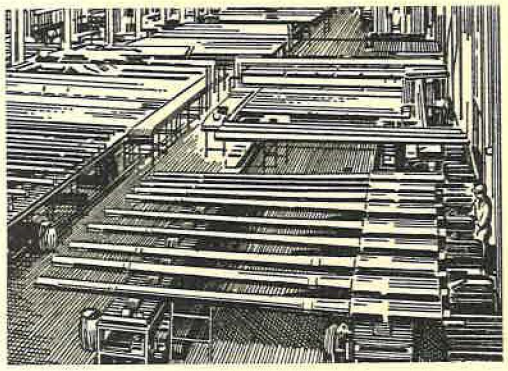
Thus a hundred years after Mr. Wheland started his

modest foundry and repair shop the business has evolved into an ultra-modern foundry serving the eastern half of the continent and a lusty oil and gas business operating primarily in the western half.

In looking back over the past hundred years to see how Gordon Street, Inc., arrived at its present position there are several bench marks of progress.

In every national emergency the company has devoted its full energies and resources to national defense. An outstanding example occurred in the Korean emergency in 1950. The War Department asked the company to reconvert the production foundry to a gun plant. They replied that it would be faster and more economical to build a new plant especially adapted to gun production. Based on a telegram of intent, the company built a new plant with private capital and in nine months was cutting chips on gun barrels, even before the building was fully enclosed. That plant was sold to an aerospace firm in 1966 to speed production on material vital to the Viet Nam operation.

This is an example of the aggressive drive forward and the spirit of enterprise which permits the company to progress in highly competitive fields.



The new gun plant was in active production within nine months.

None of this could be possible without a skilled, alert and enthusiastic staff. Gordon Street, Inc., people are noted for their team work and for their company loyalty.

The interests of its people have always been uppermost in the company's plans. It was one of the first in the South to have a group insurance plan. This plan is administered by a leading insurance company which recently presented a plaque commemorating 40 years of continuous coverage of the employees. Forty years ago this coverage involved insurance of $160,000. Today Gordon Street, Inc., employees and their families are covered by the company for an aggregate of several millions of dollars of life insurance under one of the oldest continuous insurance programs in American industry. The hospital and surgical plan of the company was also one of the industry's first. The value to the employees of this help in time of sickness or accident is indicated by the fact that Gordon Street, Inc., employees have received benefits of more than $1,500,000 during the past 25 years. This pioneering and comprehensive coverage of employees is one indication of the respect evidenced for the welfare and human dignity of GSI personnel.

1966 marks one hundred years since Mr. Wheland opened his original business in Tennessee. Three presidents have served to guide that company through wars, depres-

For forty years, employees have been protected by a pioneer insurance program.

sions, prosperity. The company has changed with the times from grist mill parts to automobile and aerospace components . . . from water power to steam power to the extraction and marketing of gas and oil. As opportunities have evolved, there have been men to see and seize those opportunities. The forward thrust of the GSI organization today gives promise that the next hundred years will be even more eventful and thrilling.

DIRECTORS 1966

JOHN P. GAITHER — KARL L. LANDGREBE

WILLIAM G. MALONEY, *New York*

GORDON L. SMITH, JR. — GORDON P. STREET

GORDON P. STREET, JR. — CHARLES W. WHELAND

GSI

GORDON STREET, Inc.

CHATTANOOGA, TENNESSEE

Wheland Plant Here Adds 3rd Furnace, Cites Benefits in Production of Castings

Special Unit Keeps Hot Metal Available

NFP 1-12-67

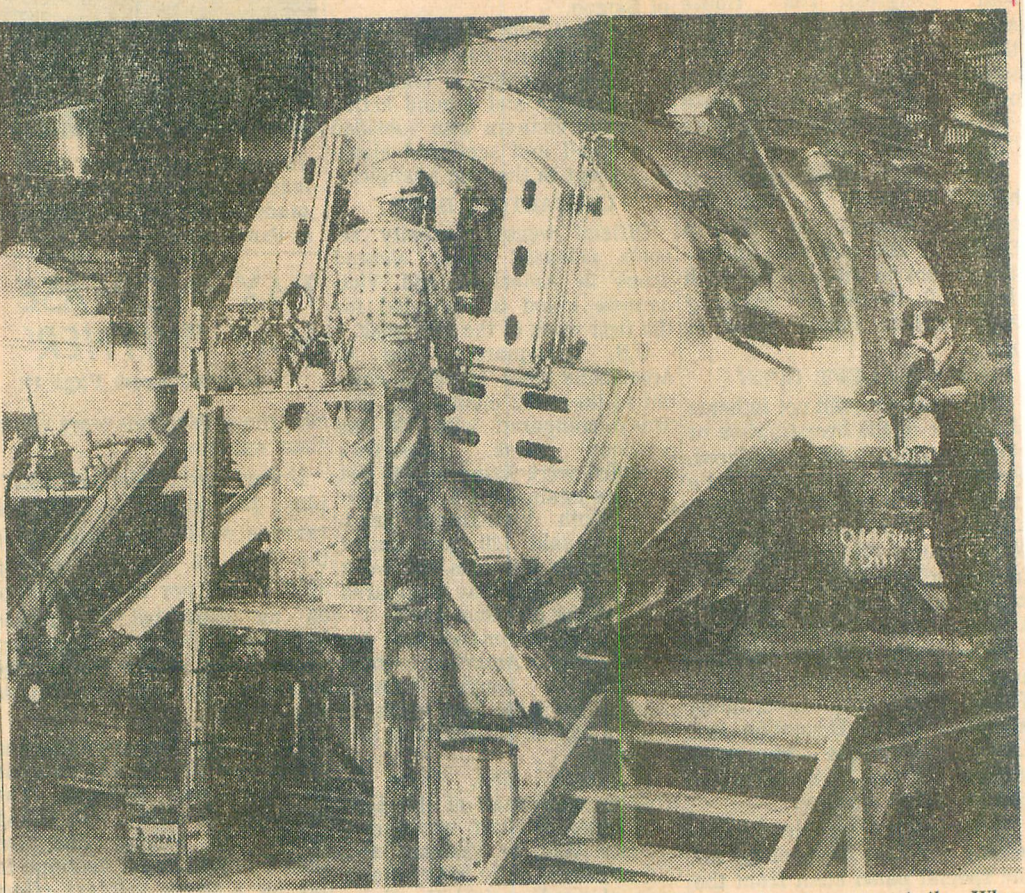
The Wheland Foundry, a division of Gordon Street Inc., has added a third horizontal channel induction furnace to its foundry here.

Wheland, a major supplier to the automotive industry, is using all three of its channel furnaces in the duplexing of gray iron from cupolas.

This latest addition to Wheland's battery of drum furnaces is a 600 KW, 25-ton capacity unit (20-ton pour) supplied by Inductotherm Linemelt Corp. of Rancocas, N.J. Linemelt also supplied Wheland's first duplexing unit in 1964.

Wheland Foundry finds the use of channel equipment advantageous in keeping a supply of metal constantly available at correct pouring temperature and proper analysis, according to Karl L. Landgrebe, vice president and general manager. This serves several purposes. There is hot metal available at the beginning of the first shift and molding crews are never held up. There is sufficient volume flexibility to handle any number and size of molds. And the period during which the metal is held in the channel furnace aids in refining the grain structure of the iron.

Production and quality of castings have increased since the introduction of these channel furnaces, according to Mr. Landgrebe, and it is easier to schedule work when a continuous supply of metal is always on hand for tapping. Inductotherm Linemelt manufactures a full line of vertical and horizontal channel furnaces from 1½ tons to 250 tons capacity.



NEW DUPLEXING UNIT—This is the new horizontal channel induction furnace at the Wheland Co., a major supplier to the automotive industry.

Strike May Affect 800 At Wheland

NFP 2-22-67

The nationwide shutdown of automotive operations by General Motors Corp. which began today will probably affect "up to 800 employes" at the Wheland Foundry in Chattanooga, it was announced by the company's vice president.

Paul Landgrebe said, "At this time we do not know the full details, but undoubtedly we will be affected by the shutdown."

Wheland for the past 20 years had been constructing brake drums for Chevrolet, brake linings for Buick and disc brakes for special Chevrolet models.

Mr. Landgrebe stated he had "talked with Detroit this morning" but would not know what per cent of a cutback in production would be ordered.

He said it might be in the "pieces of equipment or in personnel."

General Motors started shutting down its automotive operations because of a wildcat strike at the Fisher Body parts factory in Mansfield, Ohia.

800 IDLE AT WHELAND

Walk Off Jobs After Talks Fail

NFP 3.2.67

Some 800 workers have been idled by a strike called Wednesday against the Wheland Foundry, a division of Gordon Street Inc., and there is no indication when a new contract agreement will be reached, a company spokesman said today.

The walkout occurred after negotiators worked for two months in an attempt to reach an accord on a new pact which would avert a strike at the plant, which is one of the city's oldest industries.

United Steelworkers Local 3967 called the strike following a vote by the membership at the CIO Center on Vine Street. The local adheres to a "no contract, no work" policy as established by the CIO.

"We regret that this work stoppage has ended 11 years of satisfactory relations," a company spokesman said as pickets were posted at the plant's entrances. He added that no further meetings have been scheduled.

3 Promoted at Wheland

WILLIAM A. PAYNE

JOE N. WEIR

FORREST R. SCOGIN

VFPI-20-68

Three managerial promotions at the Wheland Foundry, Division of Gordon Street Inc., have been announced by K. L. Landgrebe, vice president-general manager. They are:

William A. Payne, to superintendent of the melting department.

Joe N. Weir, to plant metallurgist.

Forrest R. Scogin, to chief inspector.

Mr. Payne was employed by the Wheland Foundry in 1946. He resides at 717 North Lake Ter. in Rossville and is married to the former Doris J. Fisher. He is a Marine veteran of World War II and was engaged in some of the famous battles of the South Pacific.

Mr. Weir has been with the Wheland Foundry more than 15 years. He resides at 4805 Hunter Trail, Chattanooga, and is married to the former Martha Ann Hamrick. He is a veteran, serving nearly two years in the armed forces.

Mr. Scogin has been employed by the Wheland Foundry since 1946. He resides at 4216 Rogers Road, Chattanooga, and is married to the former Thelma Lorayne Allen. He is a veteran of World War II and served nearly two years in the Pacific islands.

All of these men are active members of the American Foundrymen's Society and have completed advanced courses in their respective fields through the Training and Research Institute of the American Foundrymen's Society.

WHELAND HOLDS GROUNDBREAKING

Marks Beginning of New Multipurpose Building for the Foundry

T7-16-69

Groundbreaking ceremonies Tuesday marked the beginning of the construction of a new $200,000 multipurpose building for the Wheland Foundry, a division of North American Royalties, Inc.

The new facility, displaying an ultra-modren look, will house a locker-and-shower area for the foundry's 1,000 employes in a large two-story circular portion of the structure. Jack Raper, personnel director, explained that employes will use the facilities to shower and change clothes before going home.

Personnel and credit union offices will be housed in a one-story structure adjacent to the shower and locker area. Up until this time these offices have been located in trailers which were on the foundry grounds.

John Wallace of Hamp & Wallace, Architects, designed the 10,000 square foot structure to bring a more aesthetic look to the city's industrial area.

General contractor for the project, John Martin Co., Inc., has set November as the completion date.

Gray iron castings are the main product of the Wheland Foundry, which has until recently, been operated by Gordon Street Inc. North American Royalties, Inc., and the Street Company have recently consumated a merger with North American as the surviving enterprise.

Formerly headquartered in Bismark, N.D., North American now has its base in the James Building here.

Chattanooga - Industries - Wheland Foundry

Fight Disrupts Work At Wheland Foundry

C. Post 10.13.69

By RON CULBERSON

Wheland Foundry Division of North American Royalties Inc. was closed this weekend after workmen walked out Friday afternoon when a fellow workman was discharged after he was involved in a fist fight in the plant.

Thirty-five per cent of the plant's work force reported for work today as the dispute continued.

Both United Steel Workers and company officials have issued statements calling the strike "illegal and unauthorized."

"We are urging people to come back to work and handle the dispute through the contract procedure," a company official said.

Normally a day shift has some 500 workers, but today company officials reported only 165 reported for work.

The second shift of Friday's work scheduled and all Saturday work was canceled.

Workmen walked out of the plant when a white workman was fired for fighting with a colored foreman Thursday, but the colored foreman was not fired.

Strikers have said there was nothing racial about the dispute, saying all they want is fair and equal treatment of both men.

"All we want is equal rights and equal treatment. We either want the man that was fired put back to work or we want the other man that was involved in the fight to receive the same punishment," strikers said Saturday.

Both white and blacks were seen in the protesting group of workmen.

William H. Crawford, staff representative of the United Steel Workers Union, urged workmen to return to ther jobs saying those who don't could be "subject to disciplinary action for violation of the contract."

Saturday 80 persons reported for work and 78 of those were colored. Today of the 165 reporting only five were white.

Wheland's Anti-Pollution Plan

NEP 0117 '70

In a most important announcement yesterday, the Wheland Foundry division of North American Royalties Inc. reminded the people of the Chattanooga area once more of the great cost of controlling air pollution and the conscientious cooperation this major company is giving in seeking solution to a most pressing problem.

Wheland revealed plans for spending 2.4 million dollars to bring its emissions into compliance with the strict new ordinance that has been adopted to improve the quality of local air. And the company is going to do its part well ahead of the legal requirement.

There are several industrial operations that are vital to Chattanooga's economic well-being, providing jobs for thousands of local people and serving in many generous and constructive ways as corporate good citizens. Some, by the nature of their operations, contribute to the sometimes poor quality of the air in our beautiful but pollution - troublesome "bowl" formed by surrounding mountains that cut off cleansing air flow through the valleys.

There is a need to adapt these welcome industrial operations by control methods that will overcome the unwelcome pollution. That is what is going to be done.

The problem is one that requires careful engineering planning to be sure the installations are sufficient. Time is required to obtain the needed equipment and install it. Big money is essential to finance it.

The Wheland program is by no means its first step to minimize water and air pollution. It has spent hundreds of thousands of dollars already. But the announcement of the additional 2.4 - million - dollar plan makes this the second largest pollution control program ever undertaken in this area. Only the big Federal program at the Volunteer Army Ammunition Plant is larger.

Foundries melt down ore in tremendous heat processes that produce what laymen may describe as smoke and particles in the air. Wheland plans new production equipment and new filtration methods, employing "bag houses" to give what might be called a vacuum cleaning and water quenching of its emissions to take the objectionable qualities from them, at the same time cutting the invisible carbon monoxide releases.

The result should be better operations for the plant, along with relief from particle and smoke releases that would be legally objectionable.

The first phase of the new program is expected to be operative by Dec. 1 of next year. The second phase is scheduled for completion by Oct. 15, 1972. The expenditures are broken down into 1.24 million dollars for two huge "bag houses" and 1.160 million dollars for a new melting system.

The Wheland plans represent a major step forward in our community's efforts to overcome air pollution. Other manufacturers will be following suit. It should be remembered, however, that during a recent period when most major sources of industrial pollution were closed down for the weekend, we experienced our highest coefficient of haze readings. This should make us aware that there are other factors than industry, that the problem is many-sided, that varied progress will be needed to accomplish the goal of our people that the quality of air will be greatly improved.

There is evidence in many quarters of concern, cooperation and constructive efforts, for which all may be thankful.

CHATTANOOGA – INDUSTRIES – WHELAND CO.

WHELAND TO ADD GIANT 'VACUUM' TO CLEANSE AIR

CALLED LARGEST

New Pollution Equipment Expected to Cost $2.8 Million

T 11-17-70

By SALLY LATHAM

A "vacuum cleaner," the largest ever built, will begin cleaning up the sooty air over the Wheland Foundry a year from now.

Plans for the air pollution control system were presented by Wheland on Monday to Dr. Robert B. Neel, director of the Chattanooga - Hamilton County Air Pollution Control Bureau.

The over-all plans call for installation of two "bag houses," devices which operate like vacuum cleaners, at a cost of $1,240,000, and a new melting system costing $1,600,000. The first bag house is expected to go into operation Dec. 1, 1971, with the second functioning by Oct. 15, 1972.

The system is expected to reduce the smoke emission from the foundry to less than 10 per cent of the amount allowable under the new air pollution ordinance, according to Karl Landgrebe, vice president and general manager of Wheland.

The size and capacity of the bag houses are greater than any other ever constructed for controlling emissions from cupolas. The engineering will be done by Harsell Engineering Corp. of California.

The design is the result of six months of scouting all over the country by Wheland personnel. They consulted with five manufacturers of control equipment.

The firms were asked to submit proposals for solving the foundry's pollution problems, and after a study of the proposals, Wheland officials chose the Harsell design over less expensive plans. The bag house method, they felt, would enable them to comply more fully with the No. 1 Ringelmann opacity limit added to the air pollution ordinance last September.

Thomas L. Harsell Jr., president of the firm, is an independent consulting engineer. He has designed complete control systems for 29 foundries throughout the world.

Contracts for construction and materials will be given to area companies, Landgrebe said.

The first bag house will be installed on Wheland's cupolas five and six, replacing inadequate control equipment. The design of the system calls for installation of two six-million BTU-per-hour natural gas burners. These will burn out any oil or other combustibles in the stack gases and will convert all carbon monoxide to carbon dioxide.

Water-sealed caps will top both cupolas, channeling all gases from the melting operation through the emission control equipment. Gases will be passed through refractory-lined ducts to a quencher where they will be cooled to 450 to 500 degrees. The cooled gases then will pass through a fan and move to the bag house via large ducts.

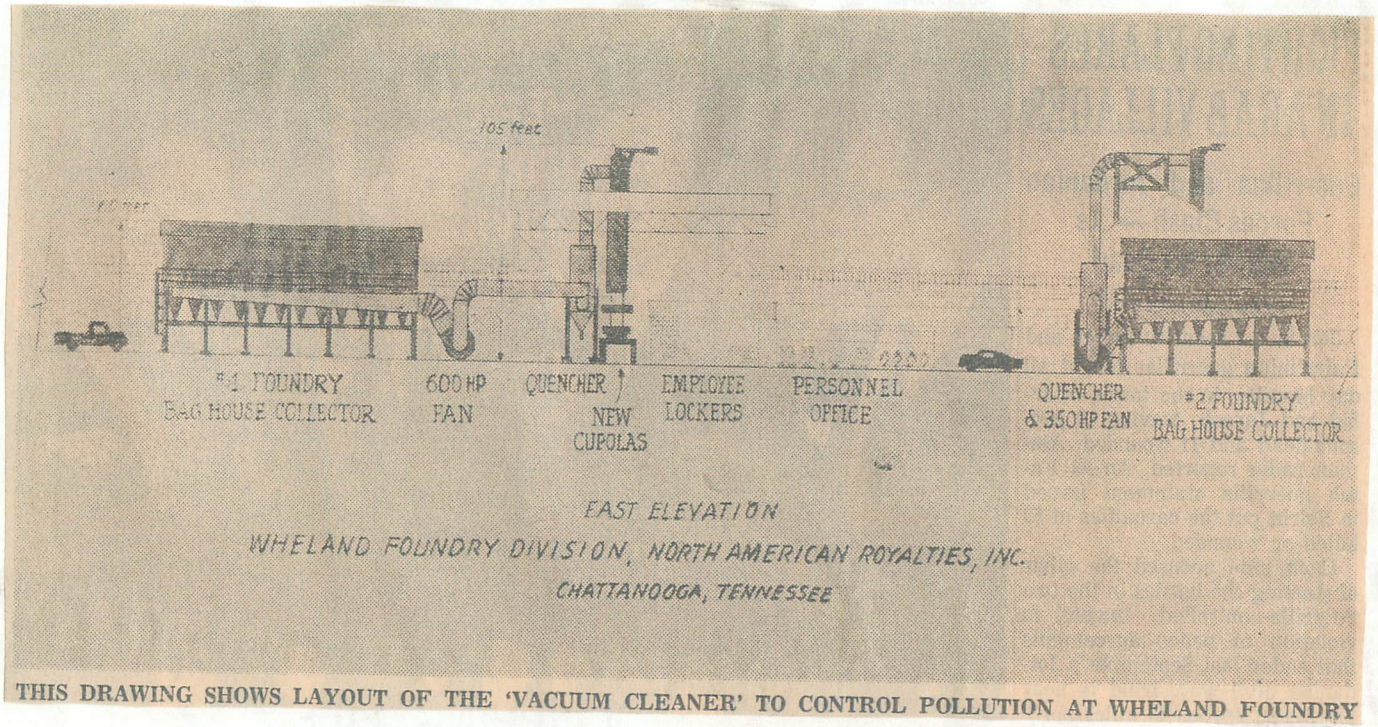
The bag house will contain 14 sections with 60 bags to each section. The dirty gases will be directed to the bags by a system of manifolds, pipes and valves. The gases filter through the bags, leaving the dirt behind, and the gas coming out of the structure into the atmosphere will be clean.

The accumulation of debris left in the bag will be shaken out automatically, dropping the pollution that people are now breathing into hoppers for safe and sanitary disposal.

The new melting system will replace the existing four cupolas with two others much larger and of more modern design, Landgrebe said.

The system is designed to eliminate any possible water pollution by use of a large settling tank.

Over



THIS DRAWING SHOWS LAYOUT OF THE 'VACUUM CLEANER' TO CONTROL POLLUTION AT WHELAND FOUNDRY

Emissions Units Being Replaced At Wheland Co.

5-18-71

By SPRINGER GIBSON

Wheland Foundry division of North American Royalties Inc. has started tearing out old and inefficient air pollution control equipment at its No. 2 foundry in preparation for the installation of a bag house system of control, Karl Landgrebe, vice president for foundry operations, said Monday.

The work is the beginning of a $1,240,000 program to reduce emissions at Wheland to the point where they are within the No. 1 Ringelmann restriction of equivalent opacity.

At the same time Wheland will be spending $1,160,000 in the installation of two new cupolas to replace the four present ones in the No. 1 foundry.

Landgrebe said the new control system in the No. 2 foundry should be in operation by late fall.

Wheland installed the present control equipment, a low pressure wet scrubber, on its No. 2 foundry in 1966-67 as a pilot project.

The company has not been satisfied with the performance. In the meantime, the Chattanooga-Hamilton County Air Pollution Control Board established much stiffer standards for particulate emissions.

This led the company to drop the wet scrubber approach to control and go to the bag house system which officials believe to be the most efficient means of reducing pollutants to the point where they meet the No. 1 Ringelmann test.

Landgrebe said the construction time for installing the new controls in the No. 2 foundry is about four months. The official said an additional month to six weeks will be required to get the bugs out of the operation so that it will be performing at maximum efficiency.

Getting Ready

Preparations are being made to pour the foundation for the quencher unit. The quencher unit's function is to cool the hot gases from the foundry operation and knock out the heavier particulate. The cooled gases will then go through the series of bag houses where most of the remaining particulate is trapped.

"After we complete the work on the No. 2 foundry," Landgrebe said, "we will start tearing out the four old cupolas in the No. 1 foundry and replacing them with two new cupolas. We will install bag houses for the control of the emissions on the new cupolas."

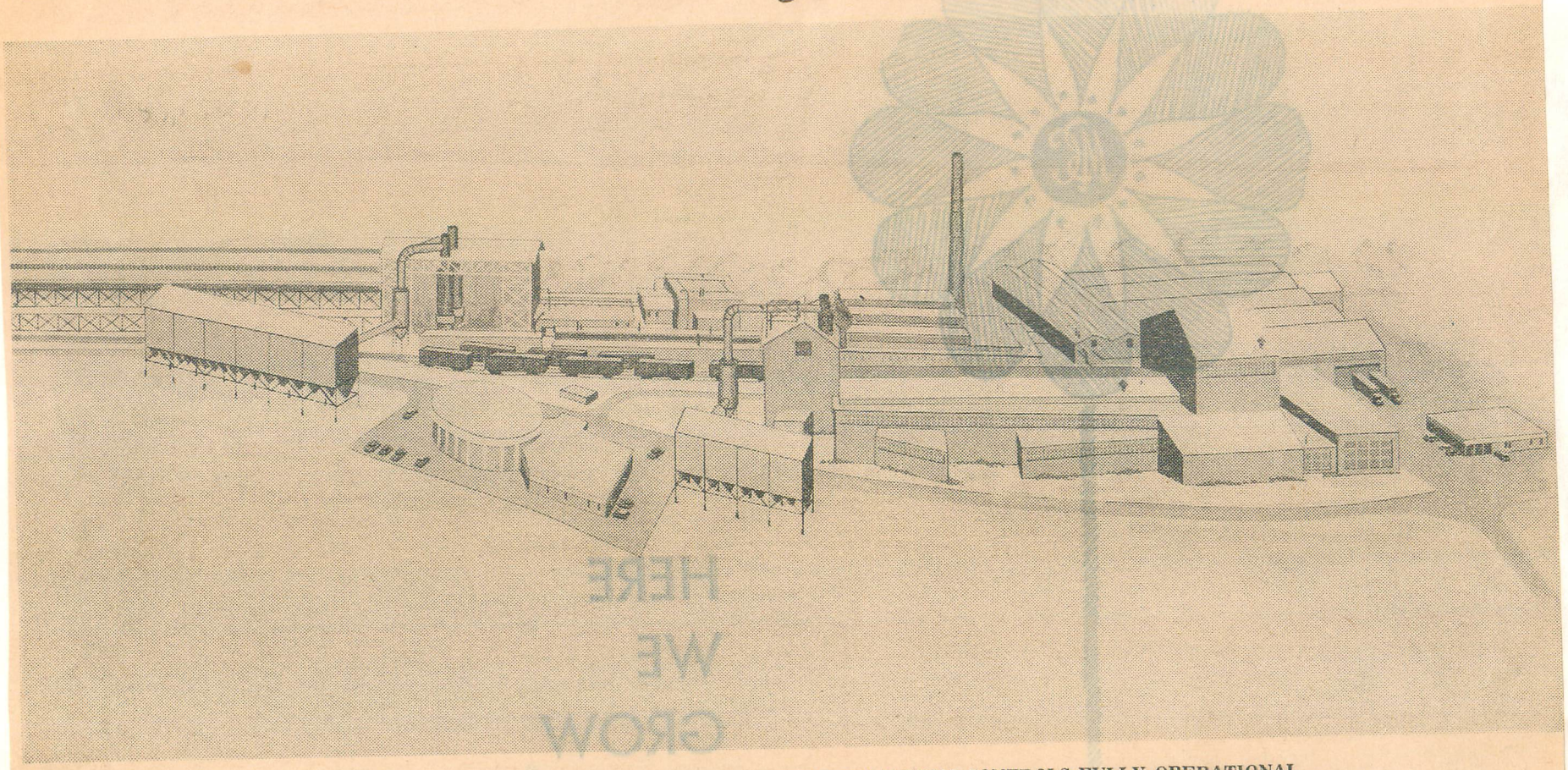
Landgrebe said the company's program will put it in compliance with the air pollution control ordinance by the deadline of Oct. 14, 1972.

Giving Reports

While the company is required to meet the No. 2 Ringelmann restriction by Oct. 14, 1972 and is not required to reduce emissions to comply with No. 1 Ringelmann until July 1, 1974, Landgrebe said the bag house system is designed to reduce the pollutants to the No. 1 standard and this will be done before a year from next October.

"We have been giving the air pollution control bureau monthly reports on our program," Landgrebe said, "and we are a little ahead of the schedule that we first presented."

Wheland Foundry Notes Progress



ARTIST'S CONCEPT OF WHELAND FOUNDRY WITH POLLUTION CONTROLS FULLY OPERATIONAL

T 7-27-71 Sup. P. 43

The Wheland Foundry has made major contributions to cleaner water and air in the Chattanooga area according to Karl Landgrebe, chief executive of The Wheland Foundry Division of North American Royalties, Inc.

Already some 80 per cent of the process water used in the foundry is purified and returned to Chattanooga Creek. Additional process equipment is well along in construction and by the end of 1971 the foundry will re-cycle 100 per cent of its process water and return only clean water to the creek.

Landgrebe commented that their rapid progress on clean water and clean air is possible only because Wheland executives under the leadership of Gordon P. Street have historically taken a lead on these controls long before the problem became universally recognized and "pollution" became a popular rallying cry.

A foundry by nature creates environmental problems, he noted. Smoke, fumes, dust and heat are a necessary part of melting metal and casting it into a mold. Only recently have Federal and local officials determined the air and water standards and controls which require compliance by industry by 1975.

An artist has made a sketch of the major new construction now taking shape. It is shown as it will appear to passers-by on South Broad Street. The control system at the foundry is a major installation. It has to be built in two sections. The first phase is the installation on Foundry No. 2 which will be completed and in operation by the fall of 1971. the second phase and largest foundry control installation is on No. 1 Foundry to be completed and in operation by the end of 1972 so that the entire foundry air and water pollution control equipment should be in use two years ahead of the compliance deadlines set by the local Air Pollution Control Bureau, and three years ahead of the target date of the State Board.

The two huge bag house collectors should reduce smoke and paritculate emissions from the foundry to less than 10 per cent of the amount allowable under the new air pollution ordnance. The water pollution from Wheland Foundry operations is scheduled to be zero before the end of 1971.

Four new water cooled cupolas will permit the Wheland to control the melting process to a greater degree than ever before. The new melting and air control equipment is being designed and built for maximum efficiency.

The Wheland Foundry is currently melting down four to five thousand car bodies a month.

The stripped cars go through a car shredder and then are melted and blended with other metals to make new automobile parts, brake drums, disc brakes, etc. This means that old automobiles which might otherwise end up in roadside-junk yards, are melted down to make new castings.

VIEWING NEW ANTIPOLLUTION EQUIPMENT AT WHELAND—Among those who viewed new air pollution control facilities at Wheland Foundry Division of North American Royalties Inc., Wednesday as the equipment was officially put into operation at Foundry No. 2 were, left to right, Gordon Street Jr., executive vice president of North American Royalties; Mayor Robert Kirk Walker, Commissioner Pat Rose, Dr. Marion Barnes, chairman of the Chattanooga-Hamilton County Air Pollution Control Board, and Charles S. Chisolm, plant manager. Expenditures for the now completed first phase of the company's program of installation of some $2.4 million of new and highly efficient air pollution control systems totaled $579,300.—(Staff photo by Robin Hood.) NEP 11-11-71 P.3

Wheland Launches Air Pollution Device

T 11-11-71 p.1

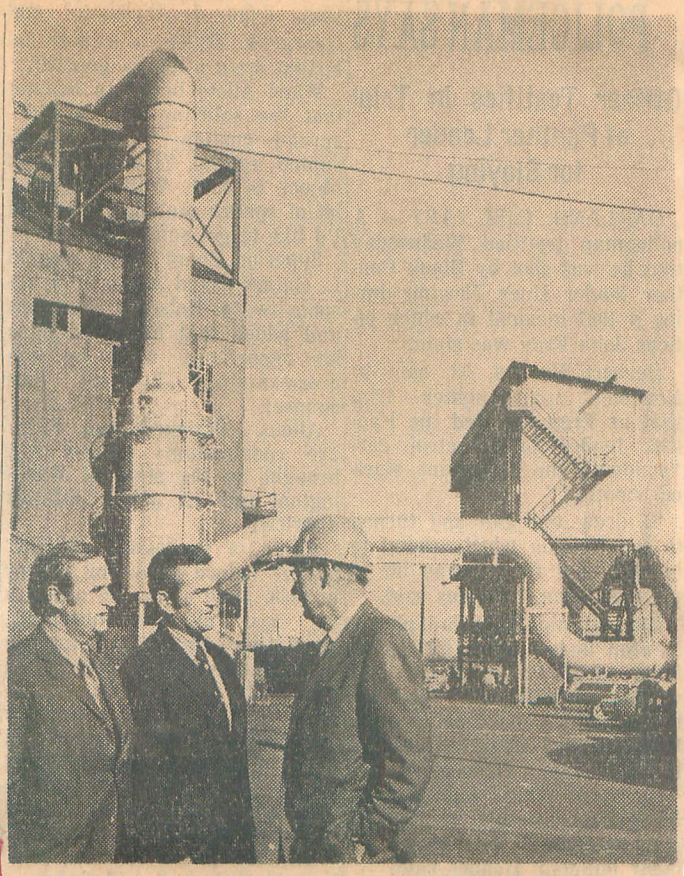
By BILL CASTEEL

Wheland Foundry Division of North American Royalties Inc. officially plugged in its half-million dollar vacuum cleaner Wednesday, greatly reducing that plant's contribution to the air pollution problem of the Chattanooga area.

And plant officials promised that by Oct. 15, 1972, a second air pollution control system will have been installed to bring the foundry into compliance with local, state and federal codes.

Prior to a tour of the melting emission control equipment for the No. 2 foundry, Wheland officials gathered with members of the City Commission, the head of the Air Pollution Control Board, and a bank president to exchange pats on the back for roles played in the anti-pollution program.

Karl L. Landgrebe, vice president in charge of foundry operations, made the announcement that phase one of the air pollution control program has been completed.



—Times Staff Photo by Bob Sherrill.

WALKER, ROSE, LANDGREBE AT FOUNDRY

Pollution control efforts were begun at Wheland and other area industries after a tough air pollution control ordinance was passed by the City Commission.

Landgrebe said he appreciated the "understanding and cooperation" shown by city officials as his firm sought to comply with ordinances.

Dr. Marion Barnes, chairman of the Air Pollution Control Bureau, said he was highly pleased with the leadership shown by the company in air pollution control efforts and expressed happiness at the completion of phase one.

Mayor Walker and Commissioner Rose added their congratulations to the company for the progress being made.

John Vorder Bruegge, president of the Hamilton National Bank, insisted that the air clean-up program at Wheland and at other plants should be regarded as a community effort, calling industry the main cog in the wheel of commerce for the area.

Actually the new equipment, consisting of a quench tower and baghouse, has been in operation since last Oct. 8.

Landgrebe said that since start-up "planned efficiency of collection has been achieved with emissions now reduced to a fraction of the limits established in Chattanooga's new and stringent air pollution code."

He added that expenditures for the first phase of the overall foundry program amounted to $579,300 and said between 40 and 50 per cent of total emissions from the entire foundry melting operations have been brought under control.

Cost of phase two will exceed $1.8 million, he said, and involves an even larger quencher and baghouse collector than was installed in phase one.

Questioned about the probability of additional overhead due to the operation of the pollution control system, Landgrebe said no figures on added expenses are available. He then said that some money will be saved as a result of the installation, mentioning that roofs "hopefully" will no longer have to be cleaned by workers brought in on overtime.

PROGRESS AT WHELAND FOUNDRY

NFP 8-1-72 p. 27 Supp

WATER. Today 80% of processed water is purified. By the end of 1971, 100% of the foundry processed water will be recycled.

AIR. Bag houses are scheduled for completion in Foundry No. 2 by early fall 1971 and Foundry No. 1 by early fall 1972. They are designed to reduce the weight of particulate emissions to an amount less than 10% of the amount allowable under new Tennessee standards. Scheduled compliance will be two years ahead of the deadline set by the local Air Pollution Control Bureau, and three years ahead of the target date of the State Board.

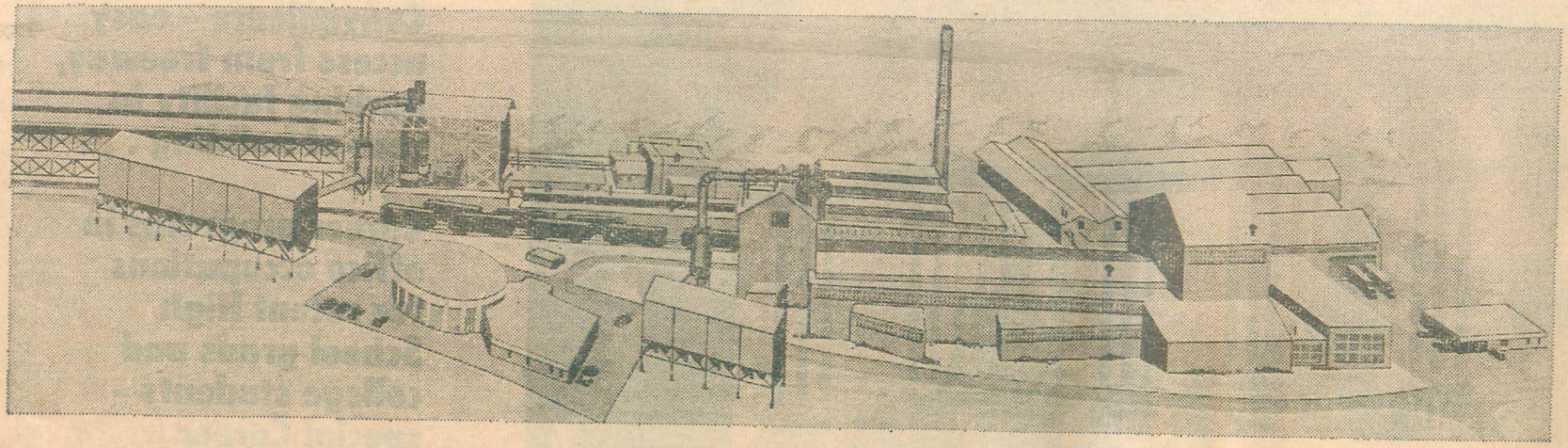
We believe this is in keeping with our responsibility to contribute to a cleaner and clearer environment.

NAR

NORTH AMERICAN ROYALTIES, INC.
WHELAND FOUNDRY DIVISION

OVER

SCHEMATIC OF NEW MELTING AND AIR CONTROL EQUIPMENT AS IT WILL APPEAR FROM BROAD STREET



FOUNDRY NO. 1

1. There are two water cooled cupolas in each foundry. Each cupola has a melting capacity of 50 to 60 tons per hour (Foundry #1) and 35 to 40 tons per hour (Foundry #2).

2. Gases from cupolas are pulled through ducts lined with refractory brick to quenchers. This reduces gas temperatures from some 1,500°F. to about 500°F. and simultaneously removes heavy particles.

FOUNDRY NO. 2

3. The cooled gases are then moved from the quencher by a 600 H.P. fan at Foundry #1 and a 350-H.P. fan at Foundry #2 into "bag houses," where . . .

4. 1,600 large fiberglass bags in Foundry #1 and 840 bags in Foundry #2 act as filters to remove 99.6% of the solid particles remaining in the gases. The cleaned gases are then dissipated into the atmosphere.

100 Years in Chattanooga

T2-11-73 p. 43 Business Supp.

In 1873, the strong growth of Mr. George Wheland's business in Athens, Tennessee, led him to look for a place that would help him grow even faster. He decided on Chattanooga and bought about 16 acres between Chattanooga and St. Elmo to make equipment for grinding grain and sawing lumber. Soon he was employing half a dozen men and making his own iron castings.

In 100 years that business has become the Wheland Foundry Division of North American Royalties, Inc., one of the nation's largest and most modern production foundries.

A hundred years ago that business supported four families. Today the foundry employs 1,150 people and in 1972 produced 22,051,964 castings averaging about 20 pounds each. This required over 25,000 freight carloads and 1,250 truck loads of incoming materials, and created work for many people in the transportation industry. The purchases of goods and services by the Wheland Foundry and its 1,150 employees have become a major economic factor in the area.

Last year, the company invested two and three-quarter millions of dollars in melting and air cleaning equipment to meet new local, state and national clean air standards. In addition, each month 6,000 to 7,000 scrap automobiles are melted and thus recycled by the Wheland Foundry.

Though the company's operations have grown to include oil and gas exploration and development on an international scale, this business is still run by Chattanooga people. Its stock is listed on the American and Pacific Coast Stock Exchanges but most of it is owned in this area. It is also most unusual that in its hundred years in Chattanooga, there have been only three presidents: the founder, Mr. George Wheland; his son, Mr. E. F. Wheland; and the chief executive since 1945, Mr. Gordon P. Street.

The people who work at the Wheland Foundry and at the main offices of North American Royalties are home town people. Most of them were born in the Chattanooga area, have lived here all their lives and are deeply concerned in making this community a good place to live.

NAR

NORTH AMERICAN ROYALTIES, INC.

OIL AND GAS DIVISION • WHELAND FOUNDRY DIVISION

CHATTANOOGA, TENNESSEE

C - Industries - Wheland Foundry

Lightning Damages Equipment At Auditorium and Wheland

J6-14-73 p.3

Wednesday afternoon's severe thunderstorms damaged air pollution control equipment at Wheland Foundry and air conditioning machinery at Memorial Auditorium.

Lightning did severe damage to Wheland's equipment, paralyzing one half of Wheland's anti pollution equipment, Jack Kyle, chief engineer at the foundry said.

At Memorial Auditorium the air-conditioner which cools the main part of the building was knocked out, manager Clyde Hawkins said.

He said the air-conditioning equipment which cools the auditorium office areas will be operated continuously in an effort to keep the main auditorium as cool as possible. But he said the office air-conditioners can't keep the main auditorium as cool as normal.

The air-conditioning breakdown came in the middle of the annual meeting of the Holston Conference of the United Methodist Church, which began Wednesday in the auditorium and will last until Sunday.

"The auditorium management regrets the inconvenince, but it is beyond our control," said Hawkins.

The auditorium manager said it will be about two weeks before a burned-out motor — the component which caused the air conditioner's break down — can be replaced.

He said he hopes that the main air-conditioner will be back in operation in time for the June 26 concert by the musical group, the Carpenters.

At Wheland lightning struck at about 2:30 p.m., knocking a seven-foot diameter duct from a cupola to a baghouse, Kyle explained.

"We actually have two separate plants here," Kyle said, "and one is still A-OK."

The Wheland engineer said he thinks it will take about a week to repair the unit but said he would not know for sure when repairs will be complete until today. Although the fallen duct blocked an in plant-road and some railroad tracks, no one was hurt.

The damaged duct was taken to Mississippi Valley Structural Steel here — the firm which originally constructed it — and employes there are working around the clock to get the duct back into working order.

Site Work Begins for $5-Million Plant That Will Make Auto-Brake Castings

T12-13-73 p.1

Site preparation has begun for a $5-million addition to the Wheland Foundry in Chattanooga to produce disc brake castings for compact and intermediate-size cars.

Gordon P. Street Jr., president of North American Royalties, parent company of Wheland, said two new molding lines will be constructed on a site adjacent to the company's existing foundry.

By CHARLES QUINTON

Work on the new building is expected to be started by the end of the month, and completion of the new foundry is scheduled for July next year.

On the basis of a normal two-shift, five-day per week operation, the new facilities will produce about 2.3-million disc brake castings each year. The new molding lines will require about 200 additional employes, Street said.

The NAR president said the expansion is being undertaken in an effort to help overcome a long-range shortage of foundry capacity in the United States and to meet the greatly increased demand for disc brakes by the automotive industry.

Three of NAR's major customers have contracted to take the entire output of the new facilities under a five-year contract.

Karl L. Landgrebe, vice president and general manager of the Wheland Foundry Division, said approximately $775,000 of the construction cost will be for air and water pollution control devices.

Landgrebe said the flaskless molding machines to be installed in the new foundry represent a relatively new development in the foundry industry. While such machines have been used in Europe for 10 to 15 years, only in the past year have they been made large enough for economic operation in a high production foundry such as Wheland. The new equipment, he said, would be both cleaner and quieter than the present foundry equipment.

The new production lines will have an initial capacity of 25 tons per hour, he said. Materials and supplies for the new foundry will amount to $4-4.5 million a year and the payroll will exceed $1.5 million, Landgrebe said.

The construction site is south of the present foundry and fronts on Middle Street. Building plans call for a bridge over Chattanooga Creek to connect the 11-acre site with the present foundry property.

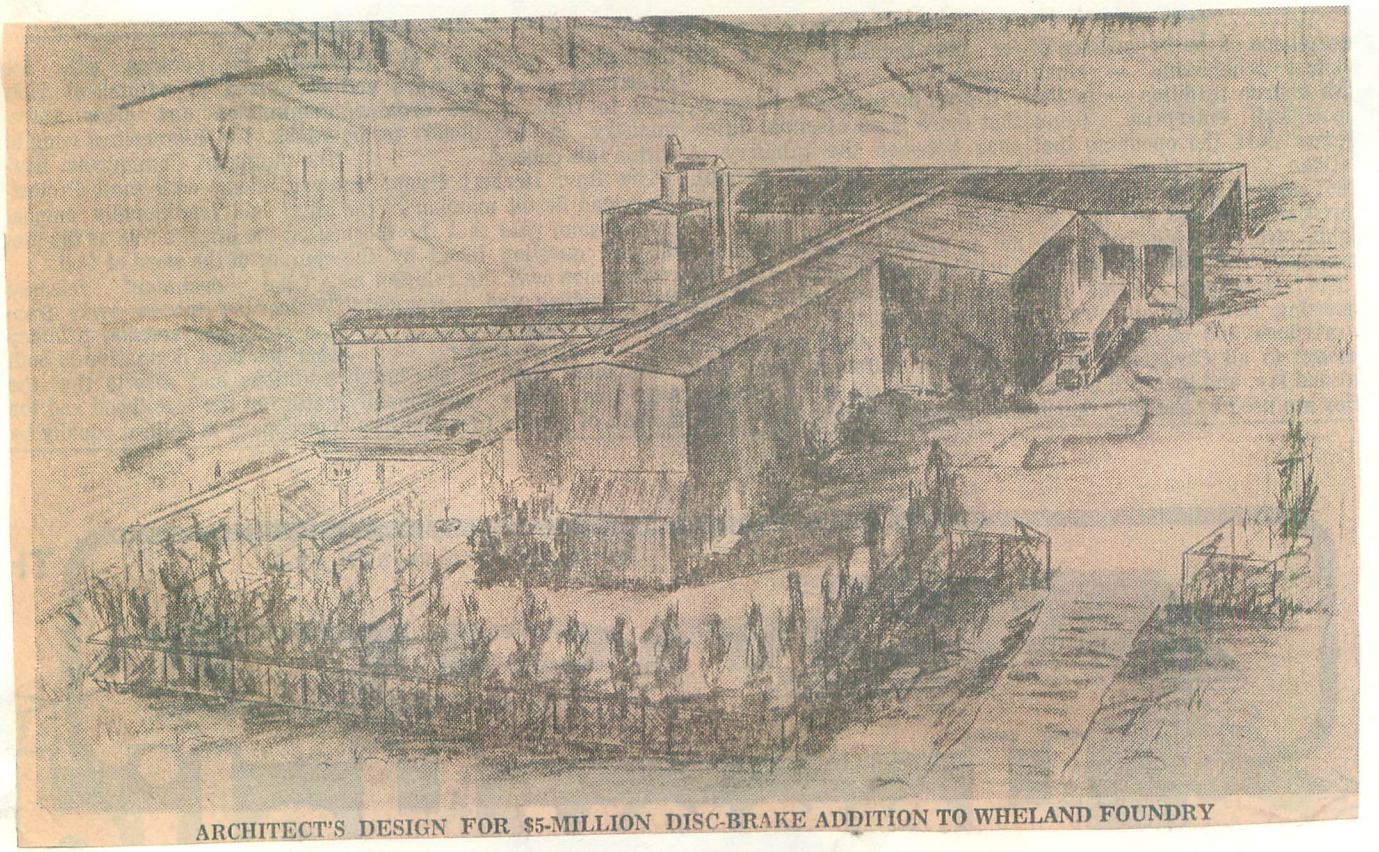
The new plant will be served by both Southern and L&N railroads. The L&N will handle incoming supplies and materials, while outbound products will be carried by Southern.

Major contractors for installation of the new facilities are Stein Construction Co. and Mississippi Valley Structural Division of Debron Corp. George Campbell Associates is serving as engineering consultants for the project.

The Wheland Foundry has been in operation more than 100 years, and during that time it has produced anchor windlasses for the Navy, guns, shells, and oil well drilling equipment before becoming one of the nation's leading producers of grey iron castings for the automotive industry.

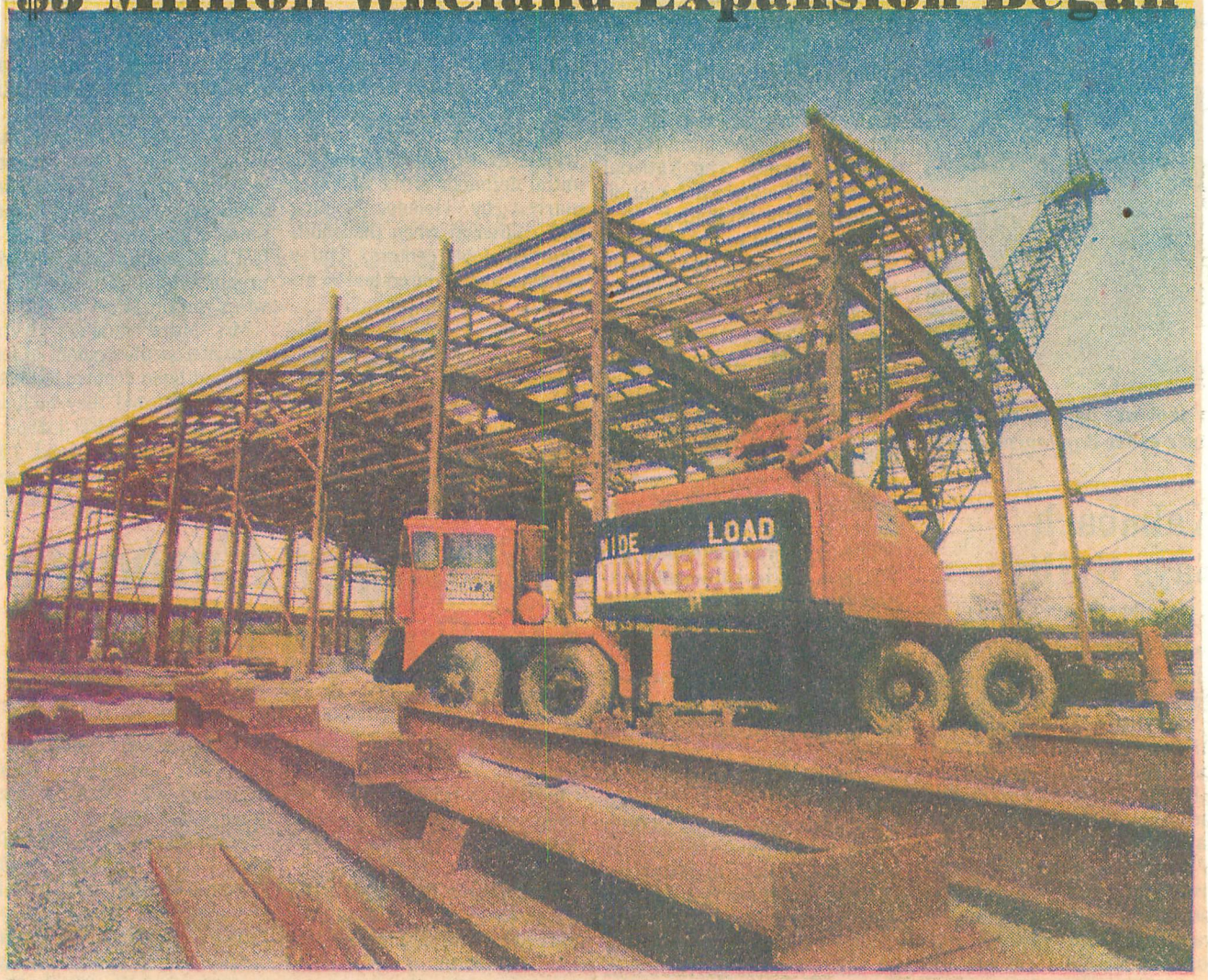
CHATTANOOGA - Industries - Wheland Foundry

OVER



ARCHITECT'S DESIGN FOR $5-MILLION DISC-BRAKE ADDITION TO WHELAND FOUNDRY

$5 Million Wheland Expansion Begun



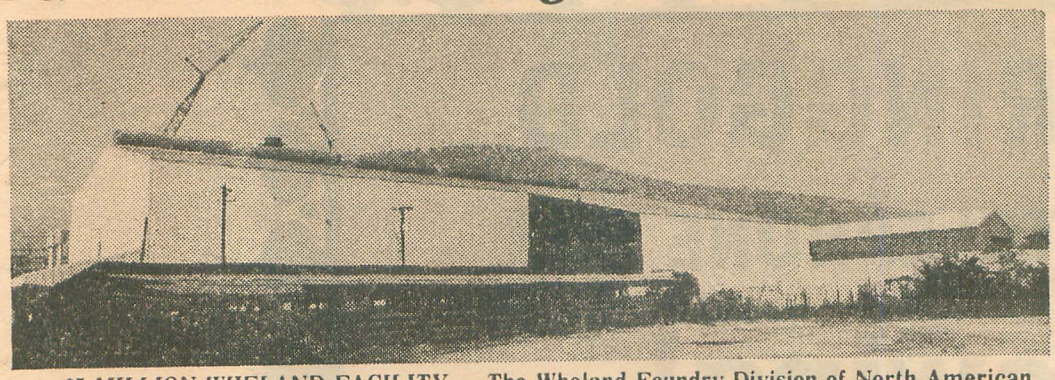
NFP 2-25-74 p. 1

STEEL RISING OFF SOUTH BROAD—The steel superstructure for housing two new molding lines for the Wheland Foundry Division of North American Royalties on an 11-acre tract of land south of the division's facilities just off South Broad Street is pictured here.

The $5 million expansion program includes $775,000 to be spent on the latest air and water pollution control devices.

The expansion program, which is slated to see the addition of some 200 employes to the division's current employment of some 1,100, is slated to be completed in July. (Staff photo by Robin Hood.)

Local Foundrymen Continue Tradition Of Early Patriots



$5 MILLION WHELAND FACILITY — The Wheland Foundry Division of North American Royalties Inc. is now conducting a $5 million expansion program just off South Broad Street that will include two new molding lines.

The expansion on the 11-acre plant site includes the expenditure of $775,000 on the latest air and water pollution control devices.

NEP 7-30-74 p. 36 Products Supp.

Many men with names familiar to students of early American History were foundrymen.

During America's war of independence, Ethan Allen commanded the "Green Mountain Boys;" Nathaniel Green, in command of the battle of Long Island, and Lord Stering, a member of General George Washington's staff, were all foundrymen as were six signers of our Declaration of Independence.

Today, local foundrymen are working harder than ever to meet the demands of their industry. Business has been booming. Backlogs have more than doubled in the past year. More men have been employed. Payrolls have increased over the 1973 levels. In some cases new plants have been built to meet the growing demand for castings, while established plants show gleaming pieces of new equipment installed to help get production rates up.

Chattanooga foundries make iron and steel, brass, bronze and aluminum. These metals are melted at temperatures as high as 3,000 degrees Fahrenheit.

Scrap products that have outlived their usefulness, along with a balanced mixture of raw materials taken from the Earth, are melted together. By carefully controlling all of these ingredients, the foundryman makes new metal out of the old that will, in turn, be used for new applications.

The recycling of materials is a routine practice in Chattanooga's foundries.

Foundry products are most often unique in shape. Because the foundry provides the most economical method by which any metal can be formed into a desired shape, a person touring area foundries would see skillets, cooking pots, fireplace grates, valves and fittings, automobile brake drums, manhole covers, gears, counterweights for mobile cranes, machinery frames, truck axle housings, fire hydrants, and many, many others ad infinitum.

Castings produced in Chattanooga were integral components in our country's exploration of the moon, and castings produced in Chattanooga are in daily use in our country's armed forces.

Local foundries have a big share in efforts being expended to overcome the energy crisis too. Coal mining machinery, drilling machinery, pumps and pile drivers are all utterly dependent on castings produced in Chattanooga.

The basic idea of pouring molten metal into a shaped cavity to form a metal replica of that cavity is simple. A small boy accomplishes all the steps of the process when he casts a tin or lead soldier.

But in actual practice, the foundry industry is really a complex and highly specialized business. It involves precise metallurgical control of alloys, sophisticated mold making techniques and elaborate quality control methods.

Metals are cast into the most intricate of all shapes and sizes, ranging from a fraction of an ounce to well over 100 tons, with the only limitations being the equipment available for the safe and efficient handling of large amounts of hot metal and the size of the casting.

The plumbing fixtures in your bath or kitchen are castings, as are other items in your household, such as door knobs, appliance handles, bath tubs, wash basins and many kitchen

over

sinks. Your automobile is possible only because it contains many parts made of castings.

Foundries are essential partipants in the manufacture of nearly every product used in our modern society because castings are basic to virtually every manufacturing process that contributes to our comfort and necessities.

Imagine, if you will, no electricity, no air conditioning, no oil or coal to heat your home, no water except to carry it from the nearest spring, creek or river, no buckles for your belts, no jewelry for your lady, no carpets on your floors. It would be life a la Stone Age without castings.

Nearly 7,000 local people are employed by foundries in the Chattanooga area. Almost $60,000,000 is paid annually in wages to these citizens who depend on Chattanooga foundries for their employment. The sales of castings manufactured in our local foundries adds better than $150,000,000 annually to Chattanooga's economy.

WHELAND UNHURT BY GM'S CUTBACK

T11-23-74 p. 9

Foundry Is Major Supplier —No Immediate Impact Is Expected

The Wheland Foundry Division of North American Royalties anticipates no immediate impact from General Motors' announced cutback plans.

The Chattanooga foundry is a major producer of automotive castings and General Motors is a major customer.

A spokesman for the foundry division said there have been no layoffs and operating time has not yet been affected by cuts in automotive production. Should the cutbacks continue very long or be expanded, he said Wheland could become involved with some scheduling changes.

Because of a general shortage of foundry capacity nationwide, Wheland is expected to operate at full, normal schedule.

The company now is in a shakedown phase at its new automated foundry. The new unit, which produces castings for compact cars, is expected to be in full operation within the next several weeks.

$5 Million Expansion Of Wheland Division

NFP 12-9-74 p. 1

FOUNDRY ADDITION — Shown in the foreground is Wheland Foundry Division of North American Royalties' $5 million expansion just south of the division's existing facilities near Broad Street, in the background.

Some $775,000 is being spent on water and air pollution control equipment. The new plant contains two new molding lines of grey iron casting to meet the increased demand for disc brakes by the automotive industry. (Staff photo by Robin Hood.)

Wheland Expects Quarterly Loss; Rise in Production Is Predicted

12-12-75 p7

The cutback in automobile production is expected to produce a loss of $350,000 in third quarter earnings of the Wheland Foundry Division of North American Royalties.

In a letter to stockholders, Gordon P. Street Jr., president, said while automobile production may be limited through the spring and summer, indications are that Wheland may be moving toward normal work weeks by as early as March or April. The likelihood, he said, is increased because of orders for new and different automotive castings to replace some of the production which has been cut back.

Earnings for the quarter were adversely affected by the decline in auto production, short work weeks and heavy startup costs at the new Middle Street plant, Street said. For the comparable quarter a year ago, the foundry reported a profit of $225,000.

Street said the decline in auto sales caused the company to reduce its scheduled operations from 20 to 14 days in December. After the first of the year, the short work weeks were continued, and on Jan. 23 the foundry division eliminated the third shift in the No. 2 foundry and laid off some 100 employes.

Street told the stockholders that operating income of the Oil and Gas Division continued to rise in the quarter ending in January. The division is excepted to show an increase of about 8 to 10 per cent over the operating income of $561,000 for the same period a year ago.

As the result of new wells starting up in January, the division should establish a record for sales and operating income in the current quarter, he said.

Engineering estimates of new reserves to be added to NAR's account in the current quarter are 235,000 barrels of oil and 19.5 billion cubic feet of gas.

Street also announced the consolidation of certain field offices for the Oil and Gas Division. The functions of the NAR Denver offices have been trasferred to a new office in Oklahoma City. The Houston, Tex., and Lafayette, La., offices will be combined to create a new Gulf Coast District headquartered in Lafayette.

Street told the stockholders that NAR's long-term outlook is good because of two basic strengths. One is the domestic and worldwide casting capacity shortage. Second is that NAR is a growing and profitable domestic oil and gas producer.

"We believe fiscal 1975's full-year net income, despite the current recession, should exceed the record 81 cents per share reported in 1972, although not by the margin we had anticipated earlier," Street said.

CHATTANOOGA - Industries - Wheland

Wheland Opens New Middle Street Plant

T7-27-75P-G3

A new multi-million dollar, highly automated plant was completed and brought into production during the last year by the Wheland Foundry Division of North American Royalties, Inc. Named the Middle Street Plant, it adjoins the 17-acre Wheland Foundry plant and is connected with it by a new road and bridge over Chattanooga Creek. This permits the interchange of some facilities between the plants.

The Middle Street Plant was engineered with the newest in pollution control equipment. The plant is geared for volume production of certain critical castings which federal standards designate as safety items. Its facilities include modern core making equipment that automatically conveys cores to a new type of flaskless molding equipment. Since the layout and equipment blazed new production trails, the training and start-up period has extended over a period of several months and is now approaching the expected production rate.

The precision castings produced in the Middle Street Plant are for small and intermediate cars and for light trucks which presently are the strongest parts of the automotive market. The current recession in the automotive industry has had its effect on all suppliers, but the local foundry operation has an excellent product mix and is expected to carry a strong volume during the upcoming model year with its emphasis on smaller cars.

Competitive Field

The foundry business has been and is highly competitive. The Chattanooga location must overcome substantial transportation costs to take its products to many of the automotive markets. The company has developed an exceptional reputation for the uniform high quality of its castings and for its dependable deliveries. As the new Middle Street Plant has been brought into gradually increased production, the net tons of good castings produced by the entire foundry operation has reached a new high.

The Wheland Foundry Division is one of the largest and oldest of the local industries. It is operated by local people and its stock is owned primarily by Chattanoogans. It traces its beginning back to 1866. In that period of 109 years it is of interest to note that the company has had only four chief executives and that all of them have been leaders who grew up in the business.

In the past decade the Oil and Gas Division of North American Royalties, Inc., has shown dramatic growth. That division explores for, develops and produces oil and gas from domestic sources. Its reserves are located principally in Oklahoma, Louisiana, and Texas. It also has interests in properties in Colorado, Montana, Mississippi, New Mexico, Wyoming, North Dakota and Canada.

Offices Here

The division is directed from Chattanooga and maintains district offices in Texas, Oklahoma, and Louisiana.

During its past fiscal year the division added new reserves estimated at 36.5 billion cubic feet of gas and 162,000 barrels of oil. During that year a significant exploration development was the discovery of what promises to be a major new gas field in Carter County, Oklahoma. The discovery well in June, 1974, was confirmed by another successful well in March, 1975, and two additional wells are currently under way.

New Production Trails Blazed By Wheland's

Automated Plant

NFP 7-29-75 p. D6

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Products And Services 1975

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Its facilities include modern core making equipment that automatically conveys cores to batteries of a new type of flaskless casting equipment.

This new equipment was designed specifically for this work and the design and financing was collaborated by a major customer.

Since the layout and equipment blazed new production trails, the training and start-up period has extended over a period of several months and is now approaching the designed production rate.

The precision castings produced in the Middle Street Plant are for small and intermediate cars and for light trucks.

Population for the Chattanooga metropolitan area by the 1970 census was 370,857.

This is the strongest part of the automotive market. The current recession in the automotive industry has had its effect on all suppliers, but the local foundry operation has an excellent product mix and is expected to carry a strong volume during the upcoming model year with its emphasis on smaller cars.

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Over Half Autos Made In U.S. Have Parts Produced Here

NFP 12-5-75 p. A7

By PAT DUPREE
Staff Writer

Whether it is brakedrums or transmission components, well over half the cars in the United States today have one or more parts produced in Chattanooga's Wheland Foundry—a division of North American Royalties Inc., headed by Chattanoogan Gordon P. Street Jr.

In an address to the Chattanooga Rotary Club Thursday afternoon, Mr. Street traced the history of his company, which began here 102 years ago. At that time, he noted, Wheland Industries functioned primarily as a source of equipment for grinding grain and sawing lumber and as a manufacturer of steam engines.

Later, as the foundry expanded its line, it became known nationwide as a top producer of rotary drilling equipment and slush pumps and, during both world wars, as a source of national defense equipment.

Impressed by the quality of foundry's defense line and "seeking a southern source of castings," the Chevrolet division of General Motors signed a five-year contract with the foundry for iron castings at the end of World War II. At that time owned by Gordon P. Street Sr., the company became the largest independent foundry in the country.

Today its annual output is 22 million castings, which come in 120 varieties, according to the NAR president.

"In 1946, there were 3,000 foundries in the U.S." Mr. Street said noting that today "the number is half that"—due in part to rising costs and stringent environmental regulations.

Citing an annual payroll of $12 million and the recent addition of a $7 million plant on Middle Street, Mr. Street said his company "is at an all-time peak."

WHELAND WORKERS TO RETURN TODAY

900 Laid Off Because of the Gas Shortage Recalled as Alternative Readied

T 1-27-77 p.40

Wheland Foundry will resume operations this morning, putting 900 employees who were casualties of the natural gas curtailment back to work, K. L. Landgrebe, vice president and general manager, announced in a statement released Wednesday.

The resumption of operations was made possible by the air pollution control bureau's granting the foundry permission to begin production without benefit of gas-fired pollution control systems on melting units, the statement said.

Pollution Control

The gas-fired systems constitute the bulk of the foundry's pollution control, but they should be completely operative within two weeks regardless of the energy crunch because, Landgrebe announced, Wheland has ordered a propane gas system that would be a direct substitute for all natural gas used in plant processes on line within that time frame.

Wheland requested the relaxation of air pollution rules with the understanding that all electric-powered pollution collection equipment would be in operation and that operations would be halted if the pollution level in the area reaches an injurious level, the statement said.

Herb Parr, air pollution control bureau director, said that his staff will be keeping a close eye on the effects of Wheland's operations on the ambient air quality and will not allow pollution to reach alert levels of 200 micrograms per cubic meter of air.

Gas Substitutes

Alternate fuels (propane, butane and kerosene) will be substituted for natural gas immediately wherever possible in other process applications, Landgrebe's statement said. "Alternate fuel burners have been purchased for melting units, and these, together with changes in melting procedures, could substantially reduce the level of particulate emitted; but operations would have to be started to determine the effectiveness of these steps," the statement read.

All but 200 of Wheland's employes have been laid off since Jan. 18, and Landgrebe said that during this period, natural gas useage at the foundry has been held to less than five per cent of normal useage.

Must Be Continued

Conservation measures must be continued, he said, despite the resumption of operations, even though they will cause some employe discomfort and a lack of hot water in bathing facilities. He said there will also be a continued shutdown of heat-treat and some core-making activities, although this will effect very few employes.

The new propoane system has been pruchased at a cost of $140,000, the statement reported, and will be much more expensive to operate than the natural gas system. An initial 100,000 gallons of liquid propane has been purchased for the system.

Wheland's Landgrebe to Get Gold Medal From Foundrymen

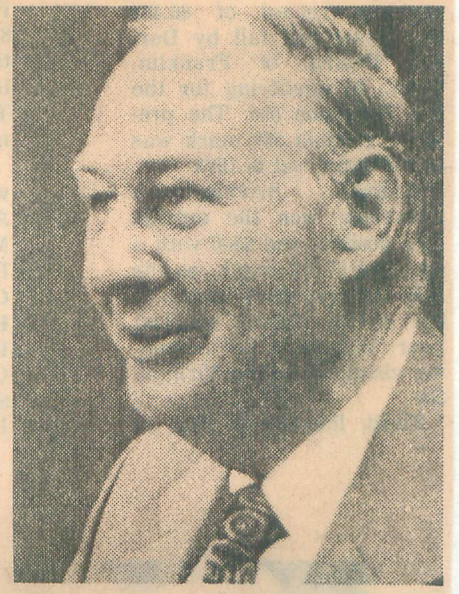
T 4-23-77 p.13

Karl L. Landgrebe, vice president and general manager of the Wheland Foundry division of North American Royalties, will be awarded the top honor by the American Foundrymen's Society for "outstanding management leadership throughout the iron industry and for consistent application of modern technologies to the production of castings."

Landgrebe will be awarded the Peter L. Simpson Gold Medal of the Society next Wednesday during the 81st Castings Congress in Cincinnati. The Gold Medal is the highest recognition given by the AFS to men who have served the industry.

Landgrebe joined Wheland as general superintendent in May 1946 when the first two units of the modern-production foundry were still under construction.

In 1959, he was named vice president and general manager of the division.



Karl Landgrebe

Foul Odor on Broad Street Traced to Wheland Foundry

T5-4-77 p. 21

After extensive investigation, the air pollution control bureau has pinpointed Wheland Foundry as the source of the mysterious malodor on South Broad Street, described by complaining citizens as an "unbearable, dead fish-rotten chicken" type of smell.

The bureau reported Tuesday that Wheland has added a new organic compound to its manufacturing process which caused the odor and that the foundry, with technical assistance from the bureau staff, is in the process of installing a scrubber specifically designed to control this type of odor.

Wheland officials did not wish to comment.

Rosemarie Park, public relations director for the bureau, said that the agency has been deluged by compalints about the putrid smell since late. February, add she commended the community for their participation which led to a solution of this problem.

The elusive odor was tracked on land by teams of bureau investigators throughout the month of March, she said, and all the while the department of water pollution control searched Chattanooga Creek for leads.

The situation was puzzling, she said, because obvious odor sources in the area were operating exactly as they had been for years, except, as it turned out, for the new ingredient in Wheland's process.

Before the actual source of the mystery odor was determined a number of other businsses in the area were contacted and warned about odors.

A warning ticket was issued to the Chattanooga Rendering Co., when an open trailer filled meat scraps was found there, and Scholze Tannery and the stockyard in St. Elmo were contacted about odors emanating from their activities.

Dealing With Agencies Rather Than Production

Regulations Frustrate Wheland

T5-15-77 p.F1

By EMILY McDONALD

The foundry business in Tennessee has always been heavily concentrated in the Chattanooga area, but environmental considerations faced by industry today make Karl Landgrebe wonder if everyone wouldn't have been better served if the foundries had been scattered out a bit.

Landgrebe, vice president and general manager of the Wheland Foundry Division of North American Royalties, has been familiar with the foundry scene in Chattanooga and Tennessee since going to Wheland in 1946.

Landgrebe was instrumental in founding the Tennessee Chapter of the American Foundrymen's Society (AFS), served as an AFS national director and just recently received the national society's Peter L. Simpson Gold Medal for outstanding management and leadership.

Chattanooga was the most logical place for foundries to spring up because it was a good central point to receive materials and offered a pool of trained labor. There was an interest in foundry work, too, and plants already here attracted others to the area, Landgrebe pointed out.

"They were taking the last gun machines out of the (Wheland) plant" when Landgrebe arrived. As Wheland shifted from war production to the manufacture of castings for General Motors, "our main concern was to devote all our time all day to making a good product."

Today, however, Landgrebe and others "spend about half our time dealing with federal agencies rather than with production itself." There are the myriad problems posed by air pollution, for example, or the many regulations regarding employe health and safety.

Wheland has spent over $3 million on equipment for pollution control, and it costs $1 million per year (in salaries, supplies, power, etc.) to operate that equipment. "We use enough power on dust collection" per month to operate 1,150 average homes. Yes, Landgrebe noted, "we are ready and willing to commit more to it if necessary."

The thing that concerns the Wheland management is the possibility of reaching a point of overkill. "Just to set some limit doesn't necessarily mean a fair shake for everybody," he said.

A study made by the Air Pollution Control Bureau shows that 46 per cent of particulate matter would be in the air if there were no industry in Chattanooga. Industry produces only 27 per cent of the total particulate matter, Landgrebe pointed out, yet industry is told to do something about bringing the average down.

Right now Wheland is ready for a $5 million expansion of its Middle Street plant, but the company can't move until the limits of a new air pollution ordinance are known.

"We have come a long way, and we don't want to stop," said Landgrebe, "but we just don't know whether we're going to be able to do it or not." The expansion would create about 50 new jobs and add $1¼ million in payroll and services to the area.

As far as new industry is concerned, Landgrebe said, the pollution ordinances could result in a no-growth situation. That would apply to Wheland and to other industries, and "it's bound to be damaging in the long run." There are bills before Congress proposing long-range plans to permit companies to expand, and Landgrebe is following the progress of these bills with interest.

So far the governmental regulations haven't hurt Wheland in its effort to bring young and aggressive people into the foundry end of the business. "We have built up a pretty good reputation in the industry which helps attract people." And, added Landgrebe, "Chattanooga is such a great place to live."

One thing that people in middle and upper management often ask about is the city's cultural situation. Landgrebe is active in the Allied Arts Fund, and he finds the city has much to offer newcomers in the area of the arts.

Wheland has grown a great deal since Landgrebe joined its staff. In 1947 the company melted 500 tons of metal per day. Today the figure is 1,600 tons daily.

The company through the years has been able to specialize in certain things, and that fact has been a major contributor to its success.

The things are primarily automotive in nature, Landgrebe noted, but "we are not entirely dependent on passenger cars as such."

About 55 per cent of the castings made by Wheland are for passenger cars, 38 per cent for light trucks and the rest for mobile homes, vans, etc. Of the 19 million castings made during the past fiscal year (ending April 30), most were made for only seven customers, five of them amounting to 83 per cent of the volume.

The boom in recreational vehicles has meant increased business for Wheland. A van or truck is frequently "a second car to a lot of people, and manufacture of castings for them gives us a real good balance in production," he said.

General Manager Landgrebe With Medal

Pollution Panel Notes Foundry Is Fouling Air

Tu-7-77 p.11

By PAT WILCOX

In the wake of a recent chancery court ruling that the Chattanooga-Hamilton County Air Pollution Control Board has no legal authority to levy fines against violators, the board found Wheland Foundry guilty Monday of violating the visible emissions limitations of the ordinance and simply did nothing about it.

Board Chairman John Woody announced the board will appeal the chancery court ruling to the Tennessee Court of Appeals but does not expect a hearing on the case until late summer or early fall.

Larry Sanders, head of the air pollution control bureau's enforcement division, said that if the board loses its appeal, "I imagine we will proceed in the next legislative session to change the state law."

In a memorandum opinion handed down May 24, the chancery court stated the enabling state legislation has been construed by higher courts to deprive municipalities of the power to assess civil penalties.

After a Trial

The state law allows fines of up to $1,000 for violations of the state air pollution law, but Sanders said that such fines can only be imposed after a criminal trial.

He said that an amendment to the law should specifically authorize the state air pollution board and all local boards operating under certificates of exemption from the state to impose "civil penalties" (fines) upon violators.

The violation of which Wheland was found guilty occurred last December, and when questioned about the long delay by a member of the board, Sanders explained that Wheland's attorney, Kittrell Smith, had asked for several postponements. He added jokingly: "I don't know if Mr. Smith knew what the chancellor had in mind, but I don't think he did."

Wheland had no defense to offer in the violation hearing, having stipulated beforehand that the violation did occur.

In fact, Wheland environmental engineer Gene Blair admitted that emissions of greater than the legally allowable density are puffed out of Wheland's wet scrubber about six days a month and have been puffer out for about a year.

He made the admissions in requesting a variance from the constraints of the ordinance for this piece of equipment for a year in order to allow Wheland time to determine just what extra pollution control equipment is needed to solve the problem and to have that equipment delivered and installed.

Smith said a year may not be long enough, but that is the maximum length of time for which the board can issue a variance.

Since Wheland was cited for the violation last December, Blair said, the foundry has tried several process changes and tested an electrostatic precipitator in efforts to find a solution, but so far it has been unsuccessful.

The board, without opposition, granted Wheland's request for a variance on the condition that the foundry submit quarterly progress reports to the bureau.

Early in Monday's meeting, a member of the audience asked Chairman Woody what "usable" powers the board has since the court decision and was told the board has a number of alternatives. Later in the meeting, board member Scott Penfield asked Woody to detail those alternatives.

The chairman said that if the board were faced with an industry which was causing a serious pollution problem, it could revoke the operating permits on the industry's equipment or suspend those permits for a given period of time.

The board also has the power to issue an order to cease and desist the pollution, and if that order is not followed, Woody said, the board can seek injunctive relief through the courts.

Manager of Quality Assurance Appointed at Wheland Foundry

T6-21-77p.17

Charles H. Armor has been named manager of quality assurance at the Wheland Foundry, a division of North American Royalties.

Armor, a native of Tuscaloosa, Ala., holds a B.S. degree in metallurgical science and an M.B.A. degree from the University of Alabama.

Before coming here, Armor was employed by Reynolds Metals Co. in Listerhill, Ala., where he was senior metallurgist at the largest Reynolds melting and casting plant. He was also manager of quality control at the Fruehauf Corp. manufacturing plant near Decatur, Ala.

With Reynolds, he was involved in the design and the purchase of nearly $600 million in equipment for a plant in Venezuela.

Armor is active in the American Foundrymen's Society and Theta Tau, professional engineering fraternity.

Charles H. Armor

Wheland Inaugurating $3.25 Million Program To Reduce Air Pollution, Increase Plant Capacity

T 8-25-77 p. 1

By LIBBY WANN

North American Royalties Inc. is beginning a major process alterations program at Wheland Foundry which will result in a reduction of air pollution, an increase of 40 to 50 per cent in plant capacity, generation of 55 new jobs and an addition of more than $1 million annually to the local economy in terms of wages and services, officials announced.

The program, which carries a price tag in excess of $3.25 million, is expected to be completed within the next 12 months. Of the total expenditures for the project, some 38 per cent will go for air pollution abatement and 62 per cent for plant capacity expansion.

Karl L. Landgrebe, vice president and general manager of the Wheland Foundry division of NAR, said the key to the anticipated reduction in air pollution would be in the form of a huge rotary cooling drum which will replace two vibrating shakeouts and a flat-decked oscillating sand screen.

A major source of dust and other particulate matter in a typical foundry operation is the "shakeout" — the point at which hot dry sand molds are broken up and separated from the castings. Despite dust-collecting equipment, a considerable amount of particulate matter inevitably escapes into the atmosphere during the shakeout and at various hot dry sand transfer points.

"This type rotating drum is a European development which is new to the foundry industry in the U.S.," Landgrebe said. "As a matter of fact, only two installations are in operations in the U.S. to date."

In operation of the rotary drum, controlled amounts of water are added to the castings and sand as they travel through it. The result is cleaner castings and cool sand with a very low dust potential. Engineering calculations indicate that up to one-third reduction in hot dry sand handling at transfer points will be achieved through the installation of the rotary drum.

Since this hot dry sand is the prime contribute to over-all dust generation in a foundry, the reduction will have a significant, positive effect upon air quality, Landgrebe said.

For the Middle Street plant of Wheland, the increase in capacity will be achieved through the addition of a third production line equipped like the two lines now in operation with an automatic flaskless molding machine. This machine makes sand molds at a rate of 240 per hour. When the Middles Street plant was constructed in 1974, molding and baghouse capacity was provided for three production lines, but only two lines were built at that time. The new line will also utilize the rotary drum and will not have the vibrating shakeout or oscillating sand screen originally installed on the first two production lines.

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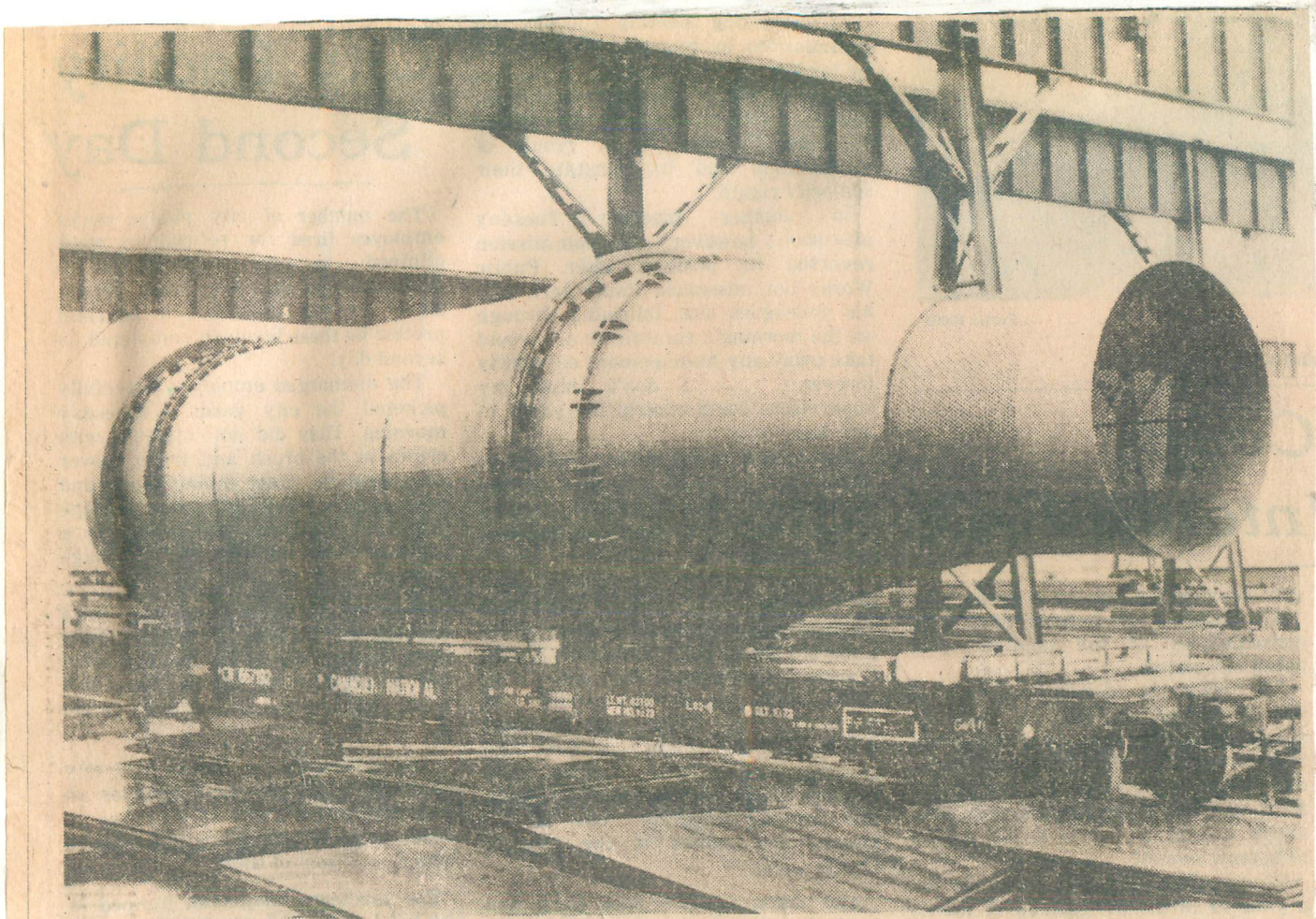


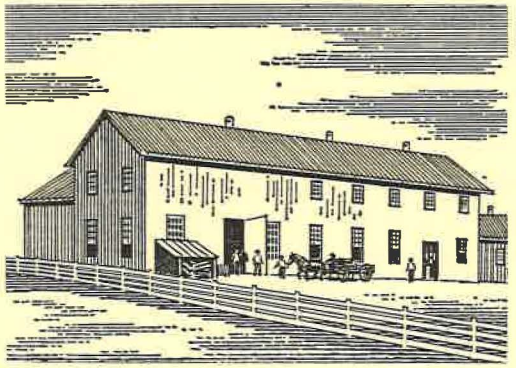
Wheland Foundry Will Install This Huge Cooling Drum

One Hundred Years ...Plus Ten

THE WHELAND COMPANY
GORDON STREET, INC.

NAR
NORTH AMERICAN ROYALTIES, INC.

One Hundred Years



The South was badly in need of skill and ability to produce the basic necessities.

DURING the War Between the States, George W. Wheland of the Federal Army served in East Tennessee. He liked the beautiful country, found its climate delightful and saw the business opportunities it offered. In 1866 he came back to the area and started a repair shop and general foundry in Athens, Tennessee.

A hundred years have seen this modest business grow and change beyond his wildest dreams.

His general foundry evolved into the Wheland Foundry Division of Gordon Street, Inc., at Chattanooga, Tennessee, one of the nation's largest independent producers of grey iron castings. The parts and repair service evolved into another division of Gordon Street, Inc., which produced intricate sub-assemblies for airframes, complex catapult parts to launch modern fighters and bombers from the decks of atomic powered aircraft carriers and into sophisticated components involved in testing and evaluating modern space craft, missiles and rockets. These products developed such specialized and critical manufacturing facilities that one hundred years after Mr. Wheland started his repair shop, this lusty descendant division was sold to an aerospace manufacturer to speed progress on still more sophisticated aerospace devices vital to the defense of our country.

Another of the product lines of this division developed into a totally unrelated field that served to greatly enlarge the scope of operations of Gordon Street, Inc., and spread its representatives across the mid-continent.

One of the truths of history is that wars produce great bursts of scientific progress and major upheavals in the lives of individuals and companies. In looking back on the history of Gordon Street, Inc., and of its Wheland Divisions, wars and their scientific developments dominated many of the advances.

In 1873 the infant business was moved to Chattanooga, Tennessee. There the modest repair parts business expanded to meet the needs of the day, making mill equipment for grinding grain and sawing lumber and pouring castings for water wheels.

The Teaxs Rangers were established in 1874 as this infant business was building its new Chattanooga home.

As the economy of the South grew, it became obvious that mills must not be tied to water power. So the company made steam engines to power grist mills and sawmills. This new concept allowed the mills to be placed in the best locations, rather than being tied to stream side sites.

Few people believed that this noisy contraption would ever amount to anything.

In 1892 the Duryea brothers produced the first gasoline-fueled automobile in America . . . the Texas Railroad Commission was established that same year . . . widely separated events which were to play major parts in the future of this business.

Wheland built high quality products. Growth was slow. The same war which brought Mr. Wheland to the South had left prostrate the economy of that area. The plantation economy of the South was gone. The South had few men with mechanical ability or with business ability. Gradually men emerged in the South who were engineers, innovators, entrepreneurs. The march of the years slowly revealed that two of the successful men of this type were G. W. Wheland and J. H. Street.

In 1901 Spindletop blew in and created a furor throughout the nation. But no one dreamed that this wild oil well would alter the course of these Chattanooga enterprises.

In the early days of World War I, Street Brothers Machine Company of Chattanooga, designer and manufacturer of boom and dragline equipment, became a prime contractor for anchor windlasses for the U. S. Navy emergency fleet. There was such a great demand for these windlasses that the Wheland facilities also were brought into this production and soon both their plants were 95 per cent occupied by war work.

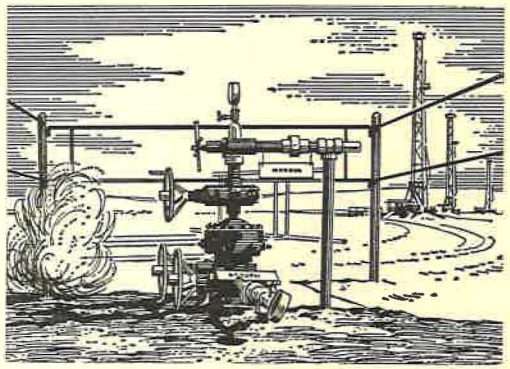
Mr. Wheland and Mr. Street enjoyed a cordial personal relationship and it was natural that soon after World War I, Mr. Street's son, Gordon, spent his summer vacation as office boy and general factotum in the thriving Wheland plant.

Many pieces of advanced equipment, including the first tapered roller bearing band mill, were pioneered in this plant. In the mid 1920's, the firm started the manufacture of certain items of oil well drilling equipment on a contract basis. As a diversification move, about 1938 the company added oil well drilling equipment to its own line of products.

In 1938 the first offshore well was drilled in Louisiana.

World War II again brought Wheland and Street Brothers into cooperative effort. By this time Mr. George Wheland's son, E. F. Wheland, had become the second president and his grandson, Charles W. Wheland, the chief production executive at Wheland and Gordon P. Street had become the executive head of Street Brothers. Under their leadership, guns, shells and anchor windlasses were produced in quantity and with efficiency that startled some of the other prime contractors. Some of those contractors were major automobile manufacturers who had occasion to make direct comparisons of quality and cost factors and thus gain great respect for this relatively small Southern firm.

By the end of World War II, Gordon P. Street had become closely involved in the management of the company. The Wheland family evidenced a desire to get out of the machinery manufacturing business. Gordon P. Street was



Gordon Street, Inc. has been a leader in multiple-level oil well completions.

elected president and chief executive in 1945. At the same time arrangements were made so that Mr. Street could acquire ownership.

Since the company had been 100 per cent on war work, their normal products had not been up-dated for almost five years. It was determined to drive the company forward on two main fronts. One was aggressive engineering and design to put their sawmill and oil field equipment into the forefront. The other was diversification into other manufacturing fields. Both efforts were highly successful though neither developed exactly along the anticipated lines.

Equipment for the oil field is large, complex and costly. Sales of new designs are helped by a record of successful operation in the oil field. To get new equipment promptly into use under conditions that would permit close observation, Mr. Street started petroleum exploration as a personal venture. He participated in certain oil ventures which involved the use of the company's newest equipment.

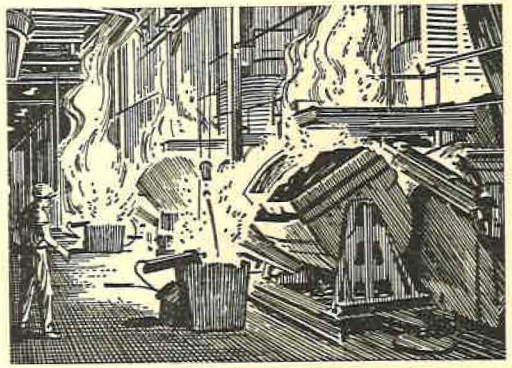
As sometimes happens, in a few years the tail began to wag the dog. Investments in various oil fields proved far more rewarding than the manufacture of machinery. This personal venture developed into operations in a number of states, principally in the mid-continent. Gordon L. Smith, Jr., then in charge of Oil Field Equipment Sales, found more and more of his time devoted to work in the oil fields. As this portion of the family enterprises continued to grow, it became of increasing interest to Gordon P. Street, Jr. He directed his education toward specialization in the oil and gas business. This included special study at the University of Oklahoma and actual field study and work in several oil fields.

When the personally owned petroleum activities proved more rewarding than the manufacture of machinery, it became logical to sell the oil field machinery interests to a

firm located in the mid-continent. The personal petroleum interests of Gordon P. Street were combined with the foundry and manufacturing enterprises to form Gordon Street, Inc. Speedy communications provided by the modern airplane and the telephone permit the oil and gas activities to be efficiently directed from central offices in Chattanooga. The principal petroleum interests of the company are in West Texas, New Mexico, Louisiana, and Oklahoma, though activities are carried on in several other states, including Kansas and even Tennessee. Gordon Street, Inc., currently has representatives in Tulsa, Oklahoma; Midland, Fort Worth and Houston, Texas; and Lafayette, Louisiana. In accordance with custom, when Gordon Street brought in a discovery well in West Texas in 1962 this new field was named the Gordon Street Field.

Among other problems facing the company in the immediate post World War II years was what to do with a large manufacturing facility housing their gun plant.

It will be recalled that a foundry had been one of the first activities of the business. That foundry had grown through the years, and supplied castings for company products and for other manufacturers in the immediate area. Castings are heavy and transportation time and cost are important in this highly competitive business.



The production foundry is highly mechanized and quality is continuously and accurately controlled.

During World War II the South made great strides in manufacturing. The area also was one of the first in the nation in percentage growth as a market and in growth of per-capita purchasing power. For that reason, many national manufacturers set up assembly plants to serve the South. The company saw an opportunity to preempt a post-war position as a mass producer of grey iron castings. In spite of a good bit of shaking of gray heads on the part of business men of the area, the former gun plant was equipped as an ultra-modern production foundry and contracts were secured to keep it running. First one, then two, then three, then four loops grew in what is now the Wheland Foundry Division of Gordon Street, Inc.

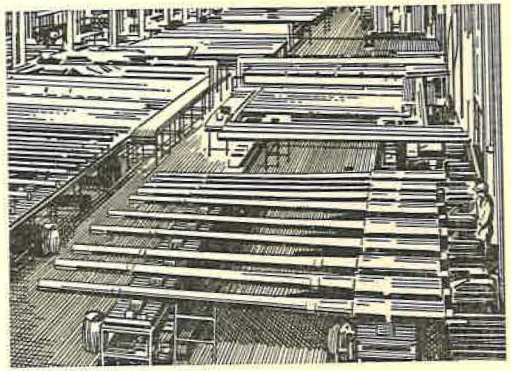
Under two capable foundry men, Karl L. Landgrebe and Charles Chisolm, the foundry pioneered many practices which spread through the industry. One innovation was the high pressure molding of core shells. Some of the castings incorporate steel stampings. Accordingly Gordon Street, Inc., added a stamping plant which currently produces about half a million stamped parts in a normal month. In the foundry twenty pound castings come off the conveyor at 1600 per hour. A normal day's production requires approximately a trainload to ship finished castings out and bring coke, pig iron, scrap, steel strip and other raw materials in. Modernizing, improving and adding facilities is a continuous program in this highly competitive operation. This foundry is located at some distance from principal markets for grey iron castings. Only by the utmost efficiency in production and by careful maintenance of its excellent reputation for the quality of its castings can this foundry hope to attract and hold volume business. To date, their success is indicated by the fact that half the automobiles in America have one or more castings produced by the Wheland Foundry Division of Gordon Street, Inc.

Thus a hundred years after Mr. Wheland started his modest foundry and repair shop, the business has evolved into an ultra-modern foundry serving the eastern half of the continent and a lusty oil and gas business operating primarily in the western half.

In looking back over the past hundred years to see how Gordon Street, Inc., arrived at its present position, there are several bench marks of progress.

In every national emergency the company has devoted its full energies and resources to national defense. An outstanding example occurred in the Korean emergency in 1950. The War Department asked the company to reconvert the production foundry to a gun plant. They replied that it would be faster and more economical to build a new plant especially adapted to gun production. Based on a telegram of intent, the company built a new plant with private capital and in nine months was cutting chips on gun barrels, even before the building was fully enclosed. That plant was sold to an areospace firm in 1966 to speed production on material vital to the Viet Nam operation.

This is an example of the aggressive drive forward and the spirit of enterprise which permits the company to progress in highly competitive fields.



The new gun plant was in active production within nine months.

None of this could be possible without a skilled, alert and enthusiastic staff. Gordon Street, Inc., people are noted for their team work and for their company loyalty.

The interests of its people have always been uppermost in the company's plans. It was one of the first in the South to have a group insurance plan. This plan is administered by a leading insurance company which recently presented a plaque commemorating 40 years of continuous coverage of the employees. Forty years ago this coverage involved insurance of $160,000. Today Gordon Street, Inc., employees and their families are covered by the company for an aggregate of several millions of dollars of life insurance under one of the oldest continuous insurance programs in American industry. The hospital and surgical plan of the company was also one of the industry's first. The value to the employees of this help in time of sickness or accident is indicated by the fact that Gordon Street, Inc., employees have received benefits of more than $1,500,000 during the past 25 years. This pioneering and comprehensive coverage of employees is one indication of the respect evidenced for the welfare and human dignity of GSI personnel.

1966 marks one hundred years since Mr. Wheland opened his original business in Tennessee. Three presidents have served to guide that company through wars,

For forty years, employees have been protected by a pioneer insurance program.

depressions, prosperity. The company has changed with the times from grist mill parts to automobile and aerospace components . . . from water power to steam power to the extraction and marketing of gas and oil. As opportunities have evolved, there have been men to see and seize those opportunities. The forward thrust of the GSI organization today gives promise that the next hundred years will be even more eventful and thrilling.

DIRECTORS 1966

JOHN P. GAITHER — KARL L. LANDGREBE

WILLIAM G. MALONEY, *New York*

GORDON L. SMITH, JR. — GORDON P. STREET

GORDON P. STREET, JR. — CHARLES W. WHELAND

One Hundred Years ...Plus Ten

"What's past is prologue."

–The Tempest, Act II, Scene I

THE CLOSING LINE of "One Hundred Years" was: "The forward thrust of the GSI organization gives promise that the next hundred years will be even more eventful . . ." That was in 1966.

In that year, demand for Wheland foundry castings was strong. The foundry's four production lines operated on a three shift basis most of the year, and a lot of overtime. More than 130,000 tons of castings were produced and record sales of $22 million were achieved.

Ten years later, the foundry had eight production lines operating two shifts daily. During the 1976 fiscal year, about 228,000 tons of castings were produced and sales reached $72 million, both new highs. The foundry began and ended the decade establishing new records of performance.

Ten years ago, the Oil and Gas Division was building its reserves but not yet showing a profit. In the 1966 fiscal year, the operating loss approached one million dollars. Ten years later, operating income from oil and gas exceeded $3.2 million.

The March of Technology

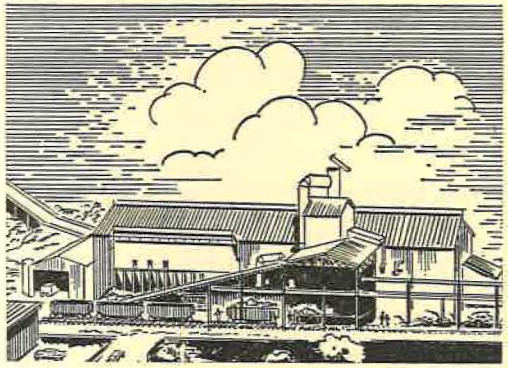
Between 1966 and 1976, the Wheland Foundry Division grew in two major steps. First was the addition during 1966-68 of two production lines, referred to as "Foundry No. 2" — Foundry No. 1 being the four lines constructed in the 1940's. Both foundries have their own molding facilities as well as sand preparation, melting, cleaning, inspection and shipping equipment, and each is a completely separate, fully integrated operation.

A third foundry, the Middle Street Plant, began operations in late 1974. Its two production lines incorporate the most advanced foundry technology—flaskless molding

machines—which permit castings to be produced with considerably less auxiliary equipment than in conventional molding systems.

Additional major improvements at Wheland in the last ten years include the installation of 1000 degree Fahrenheit hot blast and oxygen enrichment equipment for all cupolas, new core making facilities, continuous barrel cleaning and automatic grinding of castings. The most visible improvement, however, has been the installation of air pollution control equipment. Three bag houses have been constructed since 1971 at a cost, with their auxiliary equipment, of $1,765,000. Since grey iron foundries have historically been among the most obvious polluters of the atmosphere, NAR was especially gratified to receive, in April 1974, a "Citation of Excellence in Environmental Management" from the Chattanooga Audubon Society. The engraved metal plaque reads:

> "In recognition of an outstanding contribution to enhancement of air quality in Chattanooga and environs by the installation and conscientious operation of effective air pollution control facilities."



The Middle Street Plant was built in 1974.

This citation for Wheland underscores the company's historical commitment to continuing programs of facility modernization and community betterment.

In the foundry business, it is fatal to stand still, to fail to utilize new technology, or find ways to offset rising costs of materials, labor and environmental requirements. Those units of the industry that have not met these challenges have gone out of business. In 1946, when Wheland's first modern production line went into operation, there were 3,300 grey iron foundries in the United States. By 1966 the number had declined to around 1,700; and by 1976, the figure had dropped to about 1,000.

As Wheland enters the second decade of its second century, it is among the most efficient and modern casting makers in the country. Production capability about doubled during a decade when the number of foundries has been nearly halved. Demand exceeds capacity for the foundry industry, and for Wheland, this represents a bright future indeed.

The Oil and Gas Division Comes of Age

The last decade also saw rapid development and profitable growth in the Oil and Gas Division. Ten years ago, the company had no staff geologists or engineers, depending instead on outside consultants for the technical data and evaluations necessary to engage in developing oil and gas resources. This unstructured approach changed in 1969, when Gordon Street, Inc., purchased the majority interest in North American Royalties, Inc.

NAR's founder was Thomas Leach, a lease buyer for a major oil company. Since his employer was interested only in acquiring leases and was not interested in land, mineral titles or royalty rights, it agreed that Mr. Leach could purchase these rights and properties for his own account. This

small start grew into North American Royalties, Inc., with extensive mineral and royalty holdings, primarily in the Williston Basin of North Dakota, South Dakota and Montana. Incorporated in 1952, NAR began to participate by the late 1950's, in drilling ventures in addition to trading in royalty and mineral interests. On Mr. Leach's death in 1966, the company sharply curtailed its activities, adopting a policy of maximum capital conservation.

Meanwhile, Gordon Street, Inc., had determined to expand its oil and gas activities and build its own in-house capabilities. In June 1969, it purchased the majority of NAR stock and the two firms were merged. Since NAR was a publicly held company, with its stock traded on the American and Pacific Coast exchanges, it became the survivor corporation.

In a short time, all executives and directors of the company were of the Street group, with Gordon Street, Jr., in charge of the Oil and Gas Division. Operating emphasis shifted from mineral and royalty rights to exploration and production of oil and natural gas. Under Mr. Street, Jr.'s direction, a formal divisional organization of geological, geophysical and engineering capabilities was developed. Presently, while the Oil and Gas Division is directed from Chattanooga, its activities in the field are carried out

Citation for Excellence in Environmental Management.

through District Offices in Lafayette, Louisiana; Oklahoma City, Oklahoma; and Midland, Texas.

At the 1976 fiscal year-end, NAR had properties in ten states and three Canadian provinces, with varying interests in over 1,500 different wells. The interest in particular wells ranged from very small, overriding royalties to 100 percent working interests.

With energy demand outpacing available domestic resources, excellent opportunities exist in the decades ahead for the Oil and Gas Division to grow and prosper.

A Commitment to Urban Renewal

Two of the best known landmarks in downtown Chattanooga are located on adjacent corners at Eighth Street and Georgia Avenue. One is an Indiana limestone structure with classic architectural lines built in 1903 with funds provided largely by the Carnegie Foundation. It served as Chattanooga's public library until 1940, when the library moved to larger quarters near the University of Chattanooga. "The Old Library Building," as it became known, then served as an annex to the YMCA until the YMCA moved to a new building in 1969.

The other landmark is a six-story structure first known as the Times Building, but referred to since about 1937 as the Dome Building. The name derives from a large cupola on the roof which provides a commanding view of the City. The building was completed in 1891 to house The Chattanooga Times, whose publisher and proprietor, Adolph S. Ochs, was to acquire The New York Times five years later.

For a half-century, the Dome Building housed the editorial and business offices and presses of The Chattanooga Times. J. H. Street, father of NAR's present chairman, was first superintendent of the Times Building and in

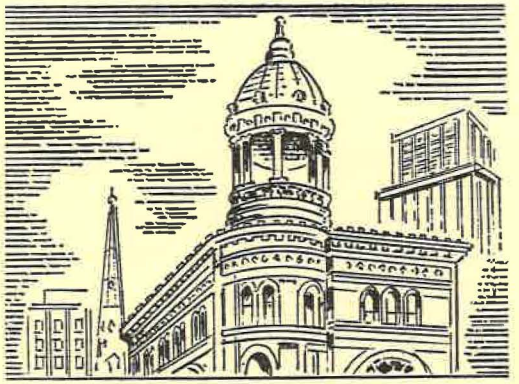
charge of mechanical maintenance of the presses. By agreement with Adolph Ochs, Street Brothers Machine Company was started from this location.

At the turn of the century, the area around Eighth and Georgia was a busy and desirable center of activity, but with removal of the library and The Chattanooga Times shortly before World War II, a slow process of deterioration began. In the 1950's and 1960's, many offices and small businesses started to move from the central city to the suburbs where new shopping malls and industrial parks were being developed. This trend reflected the process of urban decay in Chattanooga and most major cities across the country.

By 1969, the Dome Building was largely abandoned and the Old Library, after removal of YMCA activities earlier that year, had fallen into disrepair.

With a sense of historic perspective and a desire to retain these grand old Chattanooga buildings as a continuing part of the City's heritage, NAR purchased the Old Library in April 1969. Following an extensive program of restoration, the building became the Corporation's executive offices and headquarters for the Oil and Gas Division. The structure and offices are regarded as unexcelled in the City, uniquely combining the character and spirit of the original library with the functional use of space for today's fast-paced business activity. In 1974 the building was entered on the National Register of Historic Places.

In 1970, NAR purchased the Dome Building. Certain repairs were made to retard structural decay while studies were conducted to determine the feasibility of modernizing the building for professional office space use. However, with a number of new buildings recently completed in Chattanooga, demand for premium space was not sufficient to justify the expense of modernization. At the same



The Times Building of 1891, built five years before Adolph Ochs bought The New York Times.

time, aesthetic and historical considerations argued against demolition of the structure. Consequently, NAR was preparing, in 1976, to restore the building's exterior to its original appearance and to seal the building to prevent further deterioration until such time as functional renewal was warranted.

Restoration of the Old Library was followed by improvements in the surrounding area. A new Downtown General Hospital was constructed diagonally across the street. Sts. Peter and Paul Church, next door to the Old Library, was sand-blasted, its stone work painted and new doors installed. In the early 1970's, the buildings on nearby Patten Parkway had become obsolete and only partially occupied. By 1976, the area had undergone a general renovation and upgrading. The whole mid-city area was beginning to show signs of recapturing its old vitality as a focal point for trade and community activity.

A discussion with Gordon L. Smith, Jr., NAR's Vice-President Finance and Treasurer and a veteran of 28 years with the company, brought out some interesting historical comparisons. As noted earlier, the company went all out for defense production during World War II, and

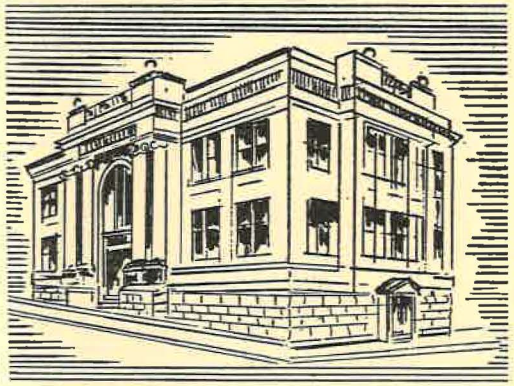
at the end of the war, its civilian market had disappeared and its normal product lines were somewhat obsolete. As of the end of the 1946 fiscal year, its income showed a small loss on total sales of $2,038,000. Total assets amounted to $1,300,000 and stockholders equity $549,000.

During the company's centennial year, 1966, it earned $600,000 on sales of $23,000,000. Assets were $11,000,000 and stockholder equity amounted to $6,000,000. In the company's 110th year, 1976, net income was $5,500,000 on sales of $78,000,000; assets were $55,000,000 and stockholder equity had risen to $26,000,000.

In the spring of 1946, with defense work being concluded and the new foundry loops not yet in operation, the company had about 100 employees. By 1966, employment had grown to 826; by 1976, to 1340.

As quoted earlier, the closing line of "One Hundred Years," written in 1966, was: "The forward thrust of the GSI organization gives promise that the next hundred years will be even more eventful. . . ."

The first decade of the company's second century has made an excellent start toward confirmation of that promise.



The Old Library Building is now on the National Register of Historic Places.

DIRECTORS 1976

Albert J. Bows, Jr.	Wilson Kygar
David A. Dalton	Karl L. Landgrebe
John P. Gaither	Gordon L. Smith, Jr.
George W. Gowen	Gordon P. Street, Jr.

Gordon P. Street

NAR

NORTH AMERICAN ROYALTIES, Inc.

CHATTANOOGA, TENNESSEE

They Choose To Reach For The Sky

Smokestack Repairmen -- A Rare Breed

NFP 12-4-77 p.E11

By STEVE PARKER
N-FP Staff Writer

Twenty-two-year-old Danny Wilson passed up paddlewheeling down the Mississippi for a life of climbing the slick sides of industrial smokestacks in his Grandin, Mo., hometown.

But he smiles with pride that not all was sacrificed when he turned down an offer to pilot sightseers along the route of the winding Mississippi, past busy St. Louis and back to port in quiet Grandin harbor.

He's convinced that, even at work on monstrous 250-foot foundry stacks or suspended above steel girders and pipes strewn in the forms of lethal catch-nets hundreds of hair-raising feet below, a part of the "riverboat gambler in me" remains as a tribute to his daring.

But what Danny, his 18-year-old brother Lonnie and 20-year-old John King do daily in Grandin, St. Louis or on contracted jobs across the country, perhaps daring only begins to describe.

They are literally putting their lives on the line with each careful step up a ladder they've themselves planted in the concrete ground below, all without the assistance of rope harnesses or safety belts on their vertical ascents to the top.

Attracting the crowds and open-mouthed stares of a death-defying circus act, the Wilson brothers and cohort King brought their unusual skills to Chattanooga this week where repair work was needed on a landmark Wheland Foundry smokestack, located at the rear of the plant.

From a distance, they were tiny, cautiously moving figures, working in coordinated fashion some 170 feet above a Wheland furnace and equipment building and standing quietly on modest two-by-four wood strips supported by the men's makeshift platform housing.

And as they worked, touching up "chimney" cracks with freshly mixed mortar, they manually moved platform strips around the circular construction, leaving open space and a 170-foot drop behind as each section was checked, repaired and dried.

On the ground, Wheland machinists and engineers were temporarily diverted from the day's work, peering skyward in the cold rain and fog toward the smokestack top which seemed to lean precariously from its chilling height above workers and water-coated rooftops.

"I can't believe they're up there like that," one worker smiles nervously to another.

"Let's go up and see what it's like," his friend laughs in response. "But you go first."

Seemingly undaunted by the marveling and chatter, the Missouri "stuntmen" go about their business. Within minutes, young Danny begins a shuddering descent to pick up another bucket of mortar, bravely taking two steps at a time on a slippery metal ladder onto which he holds with gloved hands.

Reaching bottom safely to the relief of expectant onlookers, Danny attaches the bucket to the right side of a pulley rope, then pulls on the left as the bucket rises slowly to waiting repairmen.

The mission another three-man success, brother Lonnie and young King join job foreman Wilson on land for a rare 30-minute lunch break before continuing on with their lofty smokestack assignment.

"I'll admit it, you never really get used to heights such as these," Danny smiles, wiping perspiration from his brow in 40-degree weather. "At first it's all terrifying and, even though you learn to adjust later on, it's never a very comfortable feeling to be suspended practically in mid-air with winds swirling and rain slapping you in the face.

"But it was either this or working on a riverboat," he explained, "and all our fathers had experience in what we're doing today. I guess you could say we're following in their footsteps."

And the steps, straight up and straight back down again, are hazardous at best. Using guide wire planted between bricks of the aged smokestack to anchor the ladder, these employees of Gerard Chimney in St. Louis are in unanimous agreement that the placing of ladders "is the most dangerous part of it all."

Since the ladder can only be checked for its sturdiness by workers as they ascend its length, mistakes in placement are corrected "on our way up," forcing the young men to make dangerous and detailed repairs while standing on potentially faulty footing.

On their Wheland Foundry assignment, the men have been repairing at a rate of 15 feet per day, sometimes working from morning until dark without breaks, food or "any idea what time it is."

But it's the normal routine for these Missourians who recently completed a 10-day contracted job on a 250-foot industrial smokestack in Ohio and are next headed for a Miami Beach steam plant assignment after work is finished here.

Wheland engineer Ernest McRoy is pernaps the fondest admirer of these Gerard Chimney representatives who have come to the local foundry "because the chief engineer here decided either the smokestack needed fixing or it would have to be torn down — these guys are saving a landmark."

According to Mr. McRoy, the Gerard workers are salvaging the 170-foot stack by strengthening vital safety features and insuring that the weather-beaten structure won't deteriorate over the years.

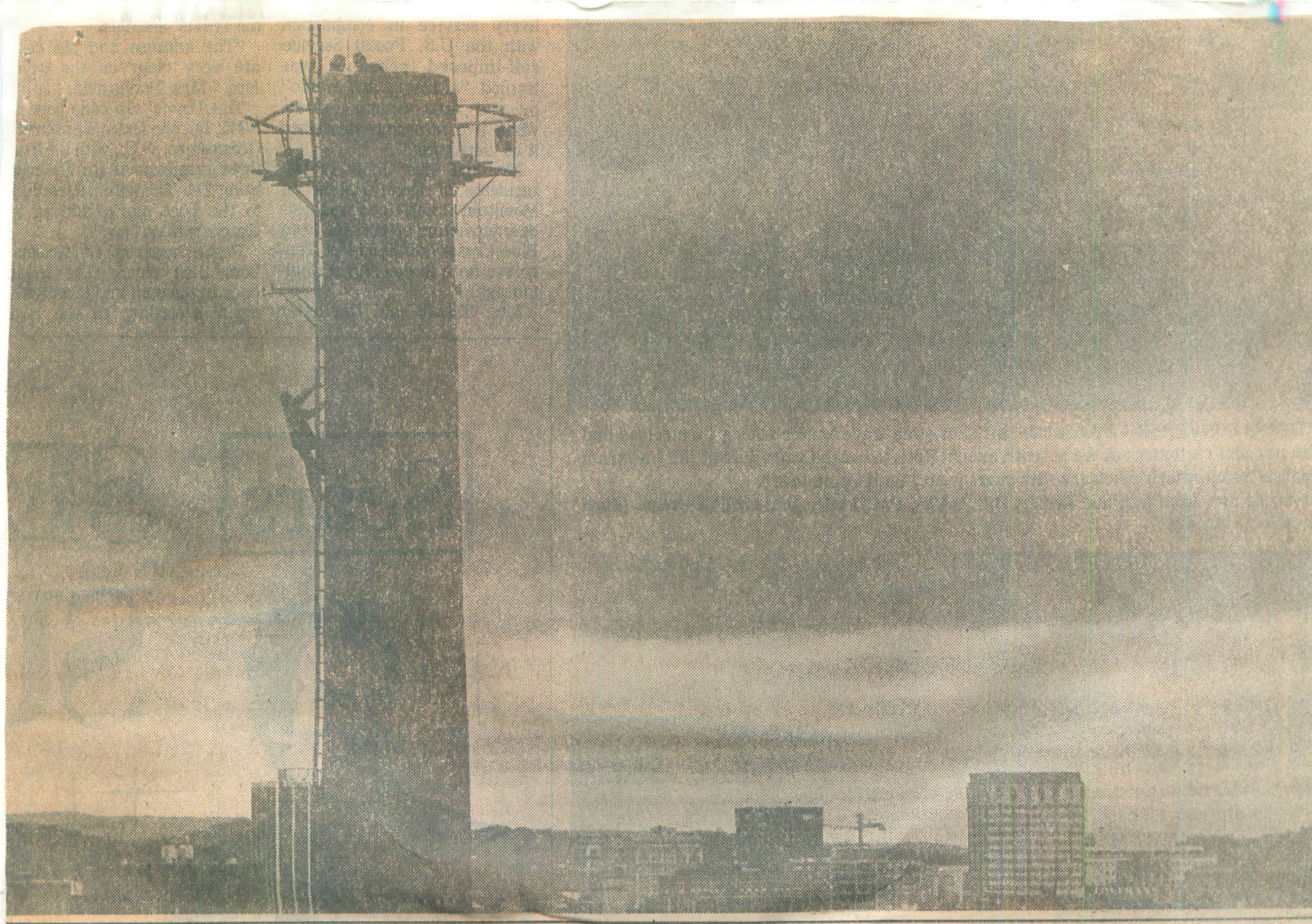
By keeping the stack in good condition, "we'll be able to keep her for Chattanoogans to remember and enjoy," Mr. McRoy beams. As the former smokestack for Wheland's power house furnace, retired company employees and current long-time workers will never forget.

"It's just part of Wheland — it would be a shame to level that stack," Mr. McRoy said. "And even though I don't know how these guys muster the courage to climb up there, I know I appreciate what they're doing. It means a great deal to us to carry on tradition.

"They're helping us hold on to a little bit of the past."

They could have been riverboat riders, but they chose to reach for the sky. And at least one group of local foundry workers are convinced it's a definite step up.

over



THE MODERN SKYLINE OF BUILDINGS POSES STARK CONTRAST TO BRICK PATCHWORK OF AGED STACK

LONNIE, LEFT, BROTHER DANNY WILSON AND JOHN KING EYE CHALLENGE

STORMY ASCENT—Winds and rain attack climbers on their slippery trek up Wheland "tower."

Theirs is a frightening assignment made more fearsome this past week by adverse weather over the foundry site.

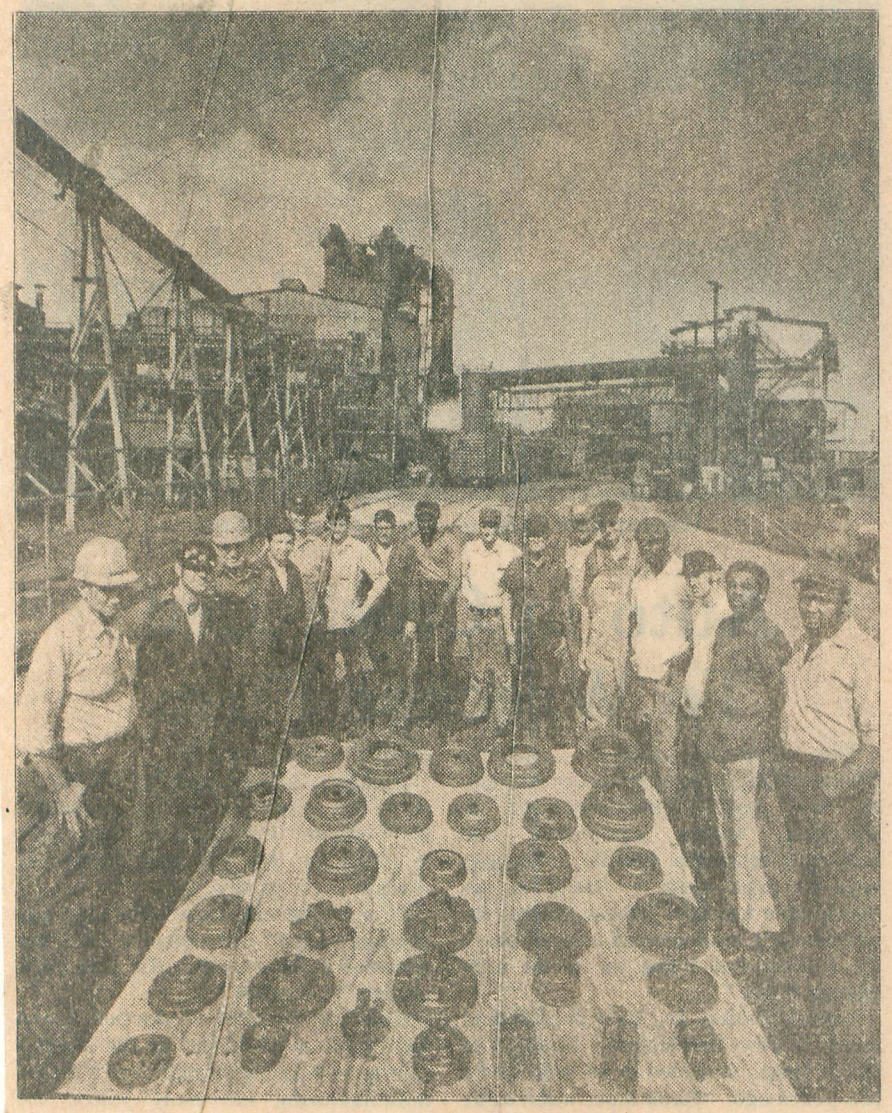
NOT LOOKING DOWN, CLIMBERS REACH FOR WRUNGS

over

FOUNDRY TOWERS DWARFED BY MASSIVE LAND-MARK

NAR Makes Major Commitment With Alterations at Wheland

T 2-12-78 P.65



Employees Pose With Castings Made at Wheland

By BARBARA GRIFFITH

North American Royalties announced last August a major process alterations program at Wheland Foundry which will, upon its completion late this year, result in an addition of more than $1 million per annum to the local economy.

NAR, formerly Gordon Street, Inc., is the parent corporation of two divisions: Wheland Foundry and the NAR Gas and Oil Division.

Gordon P. Street Jr. is the president of NAR, and Gordon P. Street serves as the corporation's chairman of the board.

Wheland Foundry, headed by vice-president and general manager Karl Landegrebe, is a major producer of grey iron castings. In fact, more than half of the cars manufactured in America today have Wheland castings.

Cold weather and a subsequent cutback of gas supplies forced Wheland Foundary to cease operations January 1977. Nonetheless, the company produced a record 230,000 net tons of castings during the fiscal year — primarily because of better than expected returns from the new Middle Street plant and an overall comeback in the automotive industry.

Headed by G. Jack Fischer, the Oil and Gas Division enjoyed a 70 per cent success rate in the drilling of 61 new wells, fifteen of which were exploratory and seven completed as producers.

However, the outstanding development in 1977 was the $3.25 million process alternations plan which will bring about a reduction of air pollution, an increase of 40 to 50 per cent in plant capacity, and the generation of 55 new jobs.

The Business Of Making Wheland Go

It takes a team of 1300 people to make the largest independent foundry in the country productive

NFP 4-2-78 p.F1

By Steve Baker
News-Free Press Staff Writer

When Jessie Stoudmire turns his blue Maverick off Broad Street and enters Wheland Foundry each weekday morning, sunrise is more than an hour away.

He eases his car to a halt with a Ford braking system he's at least partly responsible for making. As a Wheland Foundry employee, "Jessie is part of the largest producer of brake drums in the country," says Charles Chisolm, plant manager.

Wheland Foundry is just one division of the Chattanooga-based North American Royalties Inc., a member of both the American and Pacific Coast Stock Exchanges. According to Gordon P. Street Jr., president of NAR, "Wheland is the largest independent foundry in the nation, and the third largest gray iron foundry."

NAR's interests cover everything from Texas oil to natural gas in Oklahoma, but Jessie Stoudmire's sole interest is the iron industry in Chattanooga.

When Jessie climbs from his car, it's not yet 5:30 a.m. and most Chattanoogans are still asleep. He makes his way through the dimly lit foundry to Cupola No. 6, an enormous cylindrical furnace with a single spout at the bottom for melting iron.

"The first thing I do is clean the trough, or the spout, and remove any debris which may be stuck there.

"Then I check the inside of the cupola and make sure it has a layer of limestone and a heavy layer of coke and silicon. If it does, all we need is a load of scrap metal and we're ready to go," says Jessie.

Just off to the right, a bespectacled crane operator dumps a final load of shredded automotible metal into a five-foot square hopper. After a false start, the hopper lurches into action and rumbles its way up two metal runners to the top of Cupola No. 6. The hopper unloaded, Jessie flips the last of four electrical switches and the fire is started.

It's 5:45 and Wheland Foundry's day has begun. On an average work day, more than 75,000 brake castings will leave the foundry bound for Ford, GM and American Motors plants all over the U.S. and Canada.

Primarily, Wheland Foundry produces cast iron brake drums and rotors for the automotive industry. "And the demand is so great," notes Office Manager Dorothy Mitchell, "it takes a daily payroll of 1,300 employees just to keep up with business."

Jessie Stoudmire gladly leaves the payroll in Mrs. Mitchell's capable hands. His attention is focused on Cupola No. 6 where the temperature has risen to 3,000 degrees and the crucial chemical reactions have begun to take place.

The best way to understand what happens inside the cupola is by describing the product which oozes from the single spout: liquid iron.

The sight and sound of the newly made iron are unforgettable. It hisses as it surges from the furnace like lava from an exploding volcano. The molten iron looks like the sun in liquid form: at once very beautiful and very frightening.

But it's an everyday sight for the foundry workers. Jessie waves his hand unceremoniously to Steve Gravitt, his foreman, who has just finished checking the day's production schedule.

Steve is responsible for getting the hot iron (still 3,000 degrees hot) from Jessie's cupola to a reservoir furnace some 200 feet away for storage. But first the quality of the iron must be inspected.

"Every 30 minutes I take a sample of the iron to make sure it's up to the specifications of our customer." Steve explains, "To do this I use a chemically treated ladle and dip a sample of the hot iron for the Metallurgy Lab."

Wheland Foundry's standard of excellence is well known throughout the automotive industry. Conscientous inspections by foremen like Steve Gravitt and Wheland's expert metallurgists insure that the iron will be pure and solid when it cools.

The pride and care of Wheland workmanship is personified by Karl Landgrebe, vice president and general manager of the foundry. Since 1946 Mr. Landgrebe has been an active force in the community and an active leader in the foundry industry.

One year ago this month, Mr. Landgrebe was presented the American Foundrymen's Society's Gold Medal "for outstanding management leadership throughout the iron industry." He is not only an astute businessman but, like most men who are leaders, he is a creative thinker in his industry.

Mr. Landgrebe and Plant Manager Chisolm keep in close contact with other leading foundries from all over the world. Ideas are exchanged, equipment tested and the best of both brought home to Wheland. Recently a new and unique rotor drum was installed. Its use has enabled Wheland to produce more mold castings per minute than ever before.

These castings are "where the profit is" says Jay Alford, manager of production planning. "When we pour the new iron from a cauldron into the brake drum mold it has cooled to about 2,700 degrees," he says, watching mold after mold pass by on a conveyor belt. "From this point on, the new brake drum will not lie still for a minute until it is packed into a crate and loaded on a train bound for the Ford plant in Canada."

After 15 minutes in the mold, the iron hardens into a corrugated drum shape. This is the iron brake and it is mechanically flipped from its mold onto a vibrating table which shakes the excess dirt and molding free.

Since they are still too hot to handle (about 1,300 degrees), each brake is lifted with an iron rod onto an endlessly looping "lift" to cool. This lift works much like a ski lift and carries the hot iron 400 feet above the floor for a 2½ hour cooling ride.

When the brake drums return to Earth, the many stages of production are finally over. William Brock and a team of fellow inspectors give the new brakes a once-over. "Every once in a while," says Mr. Brock, "the molding will give way and the drum won't turn out perfectly round, or it'll have some other defect . . . these we throw aside to be recycled."

Plant Manager Chisolm pointed out that Wheland Foundry is very involved in recycling, both for ecological and business purposes.

"The scrap metal we start with is actually recycled automobiles. And any defective brake drums or rotors we make are simply sent back to the furnace for another chance."

He added, "We used to use an enormous amount of natural gas to heat our cupola furnaces. When it began getting scarce, we installed a heat recuperator to recycle hot air directly back into the cupola.

"The water we use to cool hot iron is recycled in a different way. It's piped through a specially built cooling tower and stored, thereby saving much more water than we were able to before we installed the tower," noted Mr. Chisolm.

Wheland's performance record is the envy of other foundries its size. The great majority of brake drums complete the production line in perfect shape and are conveyed straight to the loading dock and Herbert Eakins.

An experienced Wheland worker like Herbert knows each type of iron brake by its size, weight and appearance. All week, Herbert and his partners on the loading dock have been loading D8BC-1126AA brake drums, more commonly known to the public as "brakes for Ford."

Wheland Foundry illustrates the fact that it takes people to produce. People like Jessie Stoudmire to start the furnace, and people like Karl Landgrebe, with enough foresight to manage a vast industrial complex of 1,300 employees.

It takes planners like Charles Chisolm and strong foremen like Steve Gravitt on the job every day. Where would Wheland Foundry be without Dorothy Mitchell sifting through the mountain of paperwork in the office each day, and the inspecting eye of William Brock? It's Herbert Eakins on the loading dock and Jay Alford's production schedules and over a thousand more employees who will make the visions of NAR Chairman Gordon P. Street a continuing success in Chattanooga business.

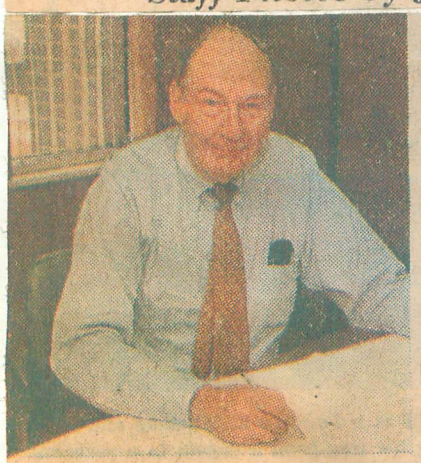
The operation of Wheland Foundry is as smooth and constant as their ever-moving conveyor belts.

From beginning to end, from Jessie Stoudmire's gigantic furnace to Karl Landgrebe's paneled office, everyone has his job. Work and production at Wheland Foundry flow together like a stream of newly poured iron.

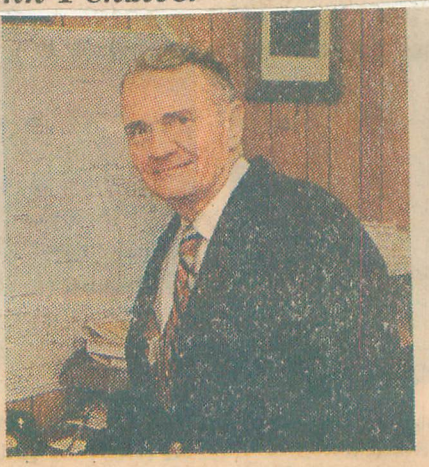
HERBERT EAKINS, along with his associates, loads up brake drums for shipment to the automotive industry.

STEVE GRAVITT is a foreman at Wheland and is responsible for getting hot iron from a cupola to a reservoir furnace that's some 200 feet away, for storage.

Staff Photos by John Penalver



KARL LANDGREBE is Vice-president in charge of the Wheland Foundry Division, one of the city's largest employers with 1300 workers.



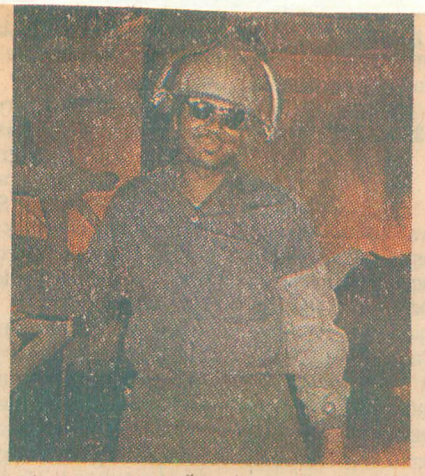
CHARLES CHISOLM, Plant Manager, keeps in touch with other foundries in the world, using new methods to improve production efficiency.

JAY ALFORD focuses on production schedules as he carries out his duties as manager of production planning.

A LOOK INSIDE Wheland Foundry Division, the largest producer of brake drums in the country, photographed from a movable cab.

Photographed By Robin Hood and John Penalver

DOROTHY MITCHELL, Office Manager, sifts through mounds of paperwork daily...letters, records, payrolls.



JESSIE STROUDMIRE is the man who starts the furnace and helps get the work at Wheland moving. He's part of the country's largest producer of brake drums.

WILLIAM BROCK and a team of fellow inspectors give the new brakes a once-over making sure they meet quality requirements.

Charles Chisolm, Jay Alford Promoted at Wheland Plant

T 1-19-79 p. C5

Charles S. Chisolm has been named general manager of the Wheland Foundry Division of North American Royalties Inc., and Jay W. Alford has been named plant manager.

The promotions were announced by Karl L. Landgrebe, NAR vice president.

Chisolm has served as Wheland plant manager since 1956 and has been with the company since 1946. He holds a B.S. degree in chemical engineering from Auburn University, and he did graduate work at Birmingham - Southern College, the University of Alabama at Birmingham and the University of Tennessee at Chattanooga.

A registered professional engineer in Tennessee, Chisolm has served as a national director of the American Foundrymen's Society and as a member of the American Society of Testing Materials, Omicron Delta Kappa and Kappa Alpha Order.

Since 1968 he has served as vice president of the Lookout Mountain Planning Board, and he is a ruling elder in the Presbyterian Church in America.

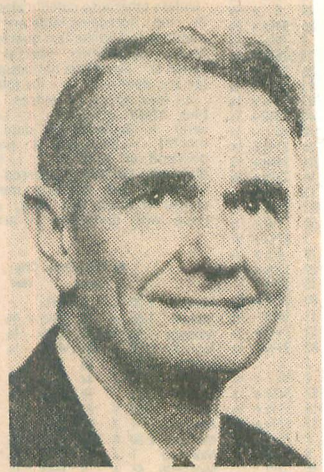
He and his wife, the former Martha Gilbert, live on Lookout Mountain and are the parents of two daughters and a son.

Alford has been with NAR since 1973 and has been serving as the foundry's manager of production planning. He is a graduate of the University of Missouri with a B.S. degree in metallurgical engineering. Before joining NAR he was associated with the Griffin Pipe Products Co.

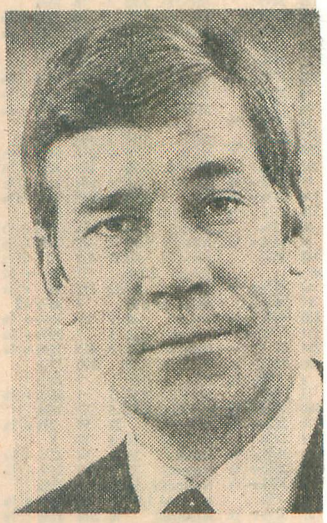
Alford serves as an officer on the board of directors of the Chattanooga Chapter of the American Foundrymen's Society and as a member of the Kappa Alpha Order. He belongs to the Signal Mountain Presbyterian Church.

Alford and his wife Linda live on Signal Mountain with their two sons.

Ron W. Reese, former assistant manager of production planning, has been named manager of production planning.



Charles Chisolm



—George Baker/The Times

Jay W. Alford

Armor to Manage Wheland; Scealf Is Promoted Assistant

TN-7-79 p-B4

By ALAN MURRAY

Charles Armor has been named plant manager of Wheland Foundry, and Charles E. Scealf has been named assistant plant manager, according to Karl L. Landgrebe, vice president of North American Royalties.

Armor is a native of Russellville, Ala., and received a master's degree in business administration in 1973 from the University of Alabama. He worked for Reynolds Aluminum Co. in its alloys plant in Listerhill, Ala., and served as a lab instructor in the Department of Chemical and Metallurgical Engineering at the University of Alabama.

From 1973 to 1975, Armor was employed by the Fruehauf Corp. in Decatur, Ala., as manager of quality control. He was associated with Reynolds International in Charlotte, N.C., from 1975 to June 1977, when he joined NAR as manager of quality assurance at Wheland.

He is a member of the American Foundrymen's Society, Theta Tau, the professional engineering society, and the American Society for Metals. His wife Linda is a systems analyst for Combustion Engineering, and they have two sons.

Scealf is a Chattanooga native who attended the University of Chattanooga and joined Wheland Foundry in August 1948. He is a director of the Tennessee Chapter of the American Foundrymen's Society and a trustee of the East Chattanooga Baptist Tabernacle, where he is a member.

He and his wife, Helen, an employee of Moore-Handley Inc., are the parents of two daughters.

Wheland Foundry makes gray iron castings, principally for the automotibe industry.

Charles Armor

Charles E. Scealf

(Staff photo by Robin Hood)

MANNING PICKET LINE AT WHELAND ON BROAD STREET

900 Strike Wheland Foundry

NFP 4-30-79 p. A1

Some 900 steelworkers have struck Wheland Foundry, one of this area's largest manufacturing employers.

The steelworkers went on strike against the firm Saturday at midnight when their contract expired.

Contract negotiations began April 10 and "there just wasn't time enough to complete them before the contract expired," said Gordon P. Street Jr., president of North American Royalties Inc., parent of Wheland.

Mr. Street reported that "we asked for a week's extension but the union membership voted it down.

"Negotiations are continuing, however, and we hope we can reach agreement soon."

CHATTANOOGAN - Industries - Wheland Co.

Steelworker Vote Set On Wheland Pact

NFP 5-16-79P:1

Local 3967 of the United Steelworkers of America, which has been on strike against Wheland Foundry since last month, has scheduled a special meeting for Friday morning to vote on a proposed contract.

The meeting will begin at 10 at the headquarters of Boilermakers Local 656 at 2802 Belle Arbor Ave.

Some 900 steelworkers at Wheland went on strike against the foundry late last month following the expiration of the previous contract.

At the time of the strike, company officials reported that contract negotiations had begun April 10 and there had not been time enough to complete them before the contract expired.

Wheland is a division of Chattanooga-based North American Royalties Inc. and is engaged in making grey iron castings, principally for the automotive industry. The division is one of the nation's largest and most modern iron foundries and is among the largest manufacturing employers in this city.

Strike Ends at Wheland as Contract Accepted

T 5-19-79 P. A7

A 19-day strike at Wheland Foundry ended Friday when steelworkers accepted a three-year contract proposal offered by the company.

Karl Landgrebe, North American Royalties vice preident of the Wheland Foundry Division, said about 1,200 workers affected by the strike are expected to return to work on the first shift Monday and normal production is expected to resume at all plants.

The strike started at midnight April 29 when the contract expired between Wheland and Local 3967, United Steelworkers of America.

Details of the new contract accepted Friday by the steelworkers were not made public, but Landgrebe said it provides for increases in both wages and fringe benefits.

Wheland to Cut Back To Three-Day Week

T 8-8-79 P. A1

By CHARLES PENNINGTON

Wheland Foundry Division of North American Royalties Inc. has reduced its work week from five to three days because of a decrease in orders from the automobile industry.

Gordon L. Smith Jr., vice president - finance and treasurer of North American Royalties, told The Times Tuesday night that because of a drop in production of automobiles, work orders for Wheland Foundry have decreased. The foundry makes grey iron castings in quantity for automobile brake drums and other parts.

Smith said that when orders drop off the company reduces its work week, not its production crews. It employs about 1,250 people.

"The way we're set up we need everyone in the production process," Smith said. "So when we have less work we work fewer days.

"This week we're on a three-day schedule instead of five, but we are working two shifts. And there probably will be more weeks lik. this.

"We don't know how long this will go on, but we hope and believe it will not be for long.

"It's tough to have your paycheck cut by two-fifths. But at that it's better than no paycheck at all.

Wheland Cuts Workweek To 3 Days

NFP 8-8-79 P. A1

Affected by the slowdown in the automotive industry, the Wheland Foundry Division of North American Royalties Inc. has cut back its workweek from five to three days.

Wheland is a major producer of iron castings used by the automotive industry.

Officials of NAR, however, noted that the company reduces the workweek when orders drop rather than cutting its production crews.

Gordon L. Smith Jr., an NAR executive, said work orders at Wheland had gone down as a result of the drop in automotive production.

He said Wheland is on a three-day schedule this week instead of five, but added that two shifts are being worked.

"It's tough to have your paycheck cut by two-fifths," he said. "But at that it's better than no paycheck at all."

Wheland employs some 1,250 persons.

Wheland Line 3 Will Be Rebuilt

T3-8-80 p. D-2

North American Royalties Inc. has announced it will rebuild its "outmoded and inefficient Line 3" at its Wheland Foundry Division at a cost of $3.5 million.

Gordon P. Street Jr., NAR president, said the rebuilding project will include installation of a 60-ton induction holding furnace for better metal control in the No. 1 Foundry.

The project, expected to be operational in September, is being undertaken "in anticipation of increased sales in the casting market," Street said.

"We look for a moderate upturn in the fourth quarter of this fiscal year and throughout the spring and summer months, and expect the Line 3 renovation and our greater market penetration to affect us favorably in the future," Street said in NAR's report on its third quarter.

The report showed revenues, earnings and earnings per share for the quarter ending Jan. 31, and for the first nine months of fiscal 1980, were down from their respective periods last year.

The quarter's revenues were $22,427,000, down 25 percent from the $29,749,000 reported last year. Net income applicable to common stock was $2,281,000, or 69 cents a share, 5 percent less than the $2,401,000 or 73 cents a share a year ago.

For the nine months ended Jan.31 revenues totaled $66,255,000, a 21 percent decrease from the $84,346,000 reported for the period last year. Net income applicable to common stock decreased 31 percent to $5,263,000, or to $1.60 a share, as compared with $7,635,000 or $2.33 a share last year.

In announcing the earnings Street noted that NAR's Gas Division continues to experience substantial increases in revenues and net income over the same periods last year. He referred to the recent natural gas discovery announced by the company in its Cornelius No. 1 Well in Matagorda County, Texas, in which NAR has a 37.5 working interest.

Street said the Cornelius well and five additional wells that have gone "on stream" in NAR's Yukon Field in Canadian County, Oklahoma, in the third quarter, "will add substantially to NAR's revenues and earnings for the rest of fiscal 1980 and in the future."

Third quarter results in the Wheland Foundry Division reflect the present weak status of the automotive market, where current sales of domestic passenger cars are 20 percent below the comparable 1979 model period, and light trucks, vans and recreational vehicles are down more than 40 percent, the company president said.

At its March 6 meeting the NAR board of directors declared the quarterly dividend on the company's common stock of six cents a share, payable April 1, 1980, to shareholders of record March 17, 1980.

CHATTANOOGA - Industries - Wheland Foundry

Stephen H. Carr

Stephen Carr Is Promoted At Wheland

T 4-27-80 p. F-8

Stephen H. Carr has been named chief engineer for Wheland Foundry, a division of North American Royalties Inc.

Karl Landgrebe, president of NAR said the appointment was effective April 15.

Carr holds a B. S. degree in mechanical engineering technology from Georgia Tech's Southern Technical Institute in Marietta. He joined Wheland in 1975.

A member of the American Foundrymen's Association, he and his wife, Sandra, have two children and live on Cane Hollow Road, Hixson.

Light Schedule To Halt Wheland Production

NFR 6-5-80 pD6

With this month's production schedules light, the Wheland Foundry Division of North American Royalties Inc. has decided to stop production next week, allowing its employees to take vacations while it consolidated schedules.

Karl Landgrebe, NAR vice president, said production will be resumed Tuesday, June 17.

He said that June production schedules are light because of the continued weakness in automotive sales and production and that the decision had been reached to shut down production next week rather than work short workweeks throughout June.

In July, Wheland will start producing additional castings for new compact cars to be introduced in the fall as 1981 models, according to the NAR official.

Wheland has more than 1,000 employees here and is engaged in providing castings used by the automotive industry.

Wheland Foundry Worker Killed

T 5-8-81 P. B3

A Wheland Foundry employee was killed Thursday morning when an automatic molding machine not in operation suddenly activated and crushed the man.

James Tanner, a 36-year-old molding supervisor from Ringgold, Ga., was pronounced dead on arrival at Erlanger Medical Center. The cause of death was listed as massive head and chest injuries.

Gary McGee, a spokesman for the foundry, said the accident occurred at the Broad Street industry about 11:40 a.m. when a plant safety officer saw a broken core in the machine. The safety officer told police Tanner was attempting to remove the core when the machine came on.

An investigation by the Occupational Health and Safety Administration and members of the foundry's safety division began immediately. Preliminary findings indicate the machine had not been turned off manually and, when the core was removed, went into operation on automatic.

The fatality was the second industrial accident in Chattanooga in the last three days. On Tuesday 44-year-old James Yother, a Southern Blow Pipe and Roofing employee, was killed when he apparently lost his balance while removing plywood from a vent duct covering.

Yother suffered fatal head injuries when he fell approximately 15 feet to a concrete floor.

Wheland Income Up by 125 Percent

CHATTANOOGA
8-26-81 p.C7

A strong, first-quarter performance at Wheland Foundry here pushed net income for North American Royalties Inc. up 125 percent over the net income posted in the first quarter last year, NAR president Gordon Street Jr. said.

For the period ending July 31, 1981, NAR reported net income of $2.8 million — an increase of 125 percent over the $1.2 million in the previous year's first quarter, Street said.

Net sales totalled $30.9 million in the same period, compared to $16.9 million in the period a year ago.

Earning per share of common stock jumped 139 percent, from last year's 18 cents to the current 43 cents.

"Net sales in Wheland Foundry Division were strong in the quarter," Street said.

Factors contributing to Wheland's resurgence were "higher production of small cars, some upturn in light trucks and a demand for new parts...which more than doubled that for the same period last year."

The Oil and Gas Division experienced a less dramatic upturn, Street said. That division posted a 3 percent increase in operating income over last year, and an 18 percent jump in sales for the first quarter.

Looking to the second quarter results, Smith said, "The castings market continues to be highly competitive, with a great deal of excess capacity industry-wide. Results in future quarters will be influenced by the level of interest rates, consumer confidence and the general economy."

Industries - Wheland Co.

Wheland Idles 280; Low Auto Sales Blamed

By Libby Wann
Times Staff Writer

T 12-5-81 P.A1

Wheland Foundry here laid off 280 of its 1,000 hourly employees Friday in response to the dismal performance of the U.S. auto industry, which recorded a 16 percent decline in new car sales during November.

Gordon P. Street Jr., president of North American Royalties Inc., Wheland's parent company, announced the layoffs.

National unemployment hit a 6-year high of 8.4% in November. (Page D10)

Street also said Wheland, the largest independently owned automotive foundry in the country, will suspend all operations during the final two weeks of December.

Wheland manufactures gray-iron castings used in more than half of all cars and trucks manufactured in the United States.

"December car and truck assembly is now scheduled at a rate 21 percent below the depressed level of 1980," Street said. "We are hopeful that the sharp inventory adjustments which we are now experiencing, together with lowering of interest rates, will bring about a gradual sustained improvement early next year."

Sales have remained depressed during the past several months despite a drop of interest rates to almost 15 percent.

The general economic recession, however, appears to have replaced the prohibitive interest charges of last year as the main deterrent to car sales, according to analysts.

November's 16 percent drop from year-earlier sales masks the full extent of the industry's problems. In 1980 buyers were frightened by the high interest rates and showroom sales reached record lows. This year the dramatic decline appears to be a result of generally dismal economic conditions, observers say.

North American Royalties had expected Wheland's performance to outstrip last year's depressed sales, as industry analysts predicted an end to slumping auto sales.

In its annual report released this summer, NAR said it was looking forward to "a 15 to 18 percent increase in domestic output of cars and trucks for the coming model year, an improvement which will affect Wheland." Those figures were supplied by industry analysts, the report said.

But the auto industry's expected recovery never came, and now analysts aren't looking for an improvement until the second half of 1982.

NAR reported second-quarter operating income at Wheland down 70 percent from year-earlier figures. Sales totaled $20.3 million, up 1 percent from 1980's second quarter, which ended Oct. 31.

In an earnings statement released Friday, NAR reported sluggish sales growth and an attendant decrease in earnings. In addition to Wheland, NAR operates an oil and gas division.

Total sales in the second quarter were $28.1 million, up 1 percent from last year. Second quarter net income was $1.9 million, a decrease of 40 percent from year-earlier levels.

Industries - Wheland Co.

Wheland Plant Has Equipment Malfunction

NFP 3-4-82 P.A4

The local air pollution control bureau reported a breakdown in control equipment at the Wheland Plant on South Broad Street this morning but full cooperation by the plant will prevent a measurable deterioration of air quality in that section of the city.

The bureau said the company reported a malfunction around 7:30 a. m. as a result of a bearing burnout in a cupola fan. The assigned a full repair crew to the job and the problem was expected to be corrected "late today or early tomorrow".

A bureau spokesman said that despite the fact emissions from the plant's main stack could be seen from a large area of the city, no significant deterioration of air quality was expected to result, if corrections were made as scheduled.

The bureau reported recently that the city met federal clean air standards last year, a move toward having its "non-attainment" stigma removed from the downtown area.

Wheland Casting Sales Dip 23%

T 3-5-82 P.C8

The slowdown in automobile production in recent months reduced sales of Wheland Foundry's gray iron castings by 23 percent in the fiscal quarter ended Jan. 31 and helped lower overall third-quarter earnings for the Chattanooga-based North American Royalties Inc. by 68 percent from the same period a year ago.

But company president Gordon L. Street Jr. said Thursday he expects NAR's automotive foundry should "begin to show favorable results" once the economy recovers due to "Wheland's modern and efficient operations."

NAR's sales in the recent three-month period totaled $21.5 million, down 20 percent from the same period in the previous year. Net income for the foundry and oil exploration company during the quarter was $993,000, or 14 cents per share, a decline of 68 percent from the 1981 quarter.

For the first nine months of fiscal 1982, sales were $80.5 million, up 12 percent from the same period in fiscal 1981, but net income was down 24 percent to $5.8 million. Earnings per share in the first three quarters of the year equaled 85 cents, down 25 percent from a year ago.

Wheland Foundry's sales totaled $14.3 million in the most recent fiscal quarter, down 25 percent from the previous year and the lowest level in seven years. Street blamed the earnings drop on adverse weather conditions and the December layoff of nearly one-third of Wheland's 1,000-person staff.

Because of a strong first quarter for the foundry division, nine-month sales were up 17 percent to over $58 million. But operating income was off 64 percent during the past three quarters to $991,000.

"Some gradual improvement in foundry division sales is anticipated for the fourth quarter with operations expected to be at a profitable level," Street said. "However, the continuing recession together with intensive competition will make it difficult to offset higher material and utility costs. The foundry division is continuing its aggressive efforts to obtain new orders. While the marketplace is competitive, Wheland's modern and efficient operations puts it in an excellent position to meet customer's costs and quality needs."

NAR'S oil and gas sales were also down during the past fiscal quarter due to a drop in demand for cruide oil and a temporary shut down of the company's Houston district due to mechanical difficulties. Sales in the oil and gas division were $7.1 million, down 14 percent from the comparable quarter of fiscal 1981. Operating income of the division was $2.5 million, down 34 percent from year-ago levels.

For the first nine months of the fiscal year, oil and gas sales increased 1 percent and operating income declined 20 percent.

"The lower operating income of the oil and gas division for the third quarter resulted from the decline in production and from higher lease operating expenses and larger charges for depreciation, depletion and amortization," Street said.

Separately, the board of directors of North American Royalties Thursday declared a regular quarterly dividend of 5 cents per share payable April 1 to shareholders of record March 15.

NAR operates Wheland Foundry in Chattanooga, which manufactures grey iron castings, and an oil and gas division, which operates in the continental United States.

Industries - Wheland Foundry

Wheland Employees OK Three-Year Contract

By Dave Flessner
Times Business Writer

T5-5-82 P.B1

Wheland Foundry Co. employees have approved a new contract providing wage and benefit increases totaling 22.5 percent over the next three years.

A majority of the 1,000 hourly workers at the Chattanooga automotive foundry — represented by the United Steelworkers of America — voted last week to approve the new three-year labor pact. The union's previous contract, approved three years ago after a 10-day strike, expired April 30.

The new contract provides an immediate increase in wages of 32 cents per hour and additional insurance and pension benefits. The overall 5.5 percent hike in wages and benefits during the first year of the contract will bring the average hourly compensation for each Wheland Foundry employee to $12.40, according to Karl Landgrebe, vice president of North American Royalties' Wheland Foundry division.

Foundry workers will receive another wage increase of 50 cents per hour next May and an additional 35 cents per hour, plus expanded dental and other fringe benefits, in the third year of the contract.

"We told our workers we are in a very competitive industry and we had to have some moderation in their wage demands to stay competitive," Landgrebe said. "We think this contract will allow us to stay competitive and may even help us increase our market penetration."

Wheland is the nation's largest independent automotive foundry and competes against other foundries primarily represented by the United Automobile Workers (UAW), whose workers now average nearly $20 per hour in wages and fringe benefits.

"We are pleased to have these negotiations settled without work stoppage," said Gordon P. Street Jr., president of the Chattanooga-based North American Royalties Inc., the parent company of Wheland Foundry. "The results of this contract allow Wheland to compete effectively in its marketplaces and, at the same time, offer our employees good wages and benefits."

Because of the recent slowdown in automobile sales, Wheland employees have worked only four days a week since December and the company will likely continue to operate on a limited work schedule through June, Landgrebe said. But an upturn in sales of light trucks helped the foundry recall 280 employees in January and Landgrebe said "it's looking a little more optimistic" for the summer months.

"Things hit rock bottom in December, but we've gotten that behind us," he said.

The Wheland division reported a loss in the November-to-January fiscal quarter, but Landgrebe said the automotive division still operated in the black during the 12-month period ended April 30.

"We've certainly been able to do much better than many of our competitors," he said.

Industries - Wheland Co.

Wheland Foundry Aims For 'Iron Foundry Pie'

By Dave Flessner
Times Business Writer

T 6-11-82 P. C6

American-built automobiles will contain only half as much iron in 1990 as they do today, but North American Royalties Corp. president Gordon P. Street is still optimistic Chattanooga's Wheland Foundry will prosper during the next decade "by capturing more of the gray iron foundry pie."

In a speech to the Chattanooga Rotary Club Thursday, Street predicted "a bright future" for NAR's Wheland division, the nation's largest independent automotive foundry.

Despite the three-year-long downturn in new car sales, Street said Wheland has recalled all the 280 workers laid off last December, although most of the foundry's 1,200 employees are on a four-day workweek.

"We are at full employment and we anticipate staying at full employment in the future," Street told the Rotarians.

Declining demand for iron foundry products is forcing "an industry shakeout," he conceded. Street noted that less than half the 2,400 iron foundries in existence in 1960 are still operating today and since 1975, 23 percent of the gray iron foundry capacity has been shut down.

"There is a tremendous capital requirement needed to maintain foundry operations within today's environmental standards," Street said.

Wheland has successfully met all federal air emission regulations and the company annually spends more than $2 million to maintain and upgrade Wheland's three foundry plants.

"Wheland Foundry is here to stay and we will continue to improve our foundry operations," Street said. "We have no plans to expand our plants, but we do plan to continue to make improvements."

Because of Wheland's operational efficiencies and cheaper labor costs compared with most other automotive foundries, the independent foundry is able to produce brake drums, transmission housings, manifolds and other automotive products "as cheaply as anyone in the business," Street said.

Wheland sells its automotive products to General Motors, Ford, Chrysler, American Motors, Volkswagen and Renault and its products end up in nearly half of all cars built in the United States. Only GM and Ford operate larger foundry operations than Wheland, but the automobile companies are now operating under labor contracts with the United Automobile Workers (UAW) union with labor expenses nearly one-third higher than at Wheland Foundry.

"Chattanooga is said to have a poor labor image," Street said. "Well, our experience shows that's not the case. We are extremely proud of the people who work for us."

Wheland also enjoys greater efficiency in its foundry operations due to continued automation.

"We think we can get more of the foundry business in the future because we have a better operation," Street said.

The NAR president said Wheland's earnings during the fiscal year ended April 30 should be up from the previous year, when the foundry division earned $5 million.

However, the bulk of NAR's profits in the past year have come from the company's oil and gas division. NAR's drilling operations earned $13 million in fiscal 1981 and is projected to earn even more this year.

The oil division's profitability should be aided by decontrol of natural gas prices, which Street predicted will double the price of gas to match comparable energy costs in the unregulated oil market.

Despite the risky nature of the oil business, NAR has been far from a speculative business.

"I guess our middle name could be conservative," Street said.

NAR finances its oil and gas exploration entirely from internally generated funds and usually owns no more than 40 percent of any drilling operation to share the risks with other investors. The company also plans to maintain its oil exploration within the United States.

"We want to operate in an environment where the risk is that of exploration and not of political instability," he said.

The Wheland Foundry was founded in 1866 and has been owned by NAR since 1947. The company's controlling family, the Streets, have invested in oil and gas since the 1940s and NAR started its oil and gas division in 1969.

With Auto Production Lagging, Wheland Gears For Reduced Schedules

By Dave Flessner
Times Business Writer T10-5-82 P.B2

Despite a modest upturn in automobile sales during the past two months, U.S. car production remains stuck in reverse and will likely force automotive suppliers such as Wheland Foundry to operate on reduced work schedules through next spring.

The five major domestic car manufacturers plan to assemble only 1.3 million units during the final three months of 1982, 1.7 percent fewer than the depressed level in the fourth quarter of 1981. The sluggish production plans, lowest since 1958, are 10 to 15 percent below projections made this summer and underscore the industry's retreat from its earlier optimism.

"We thought by this time things would be picking up," said Karl L. Landgrebe, vice president of the Chattanooga-based North American Royalties Inc., the parent company of Wheland Foundry. "But the general economy and the automotive industry have just not come up to our expectations."

As a result, Landgrebe said Wheland's production of brake drums, transmission housings, manifolds and other automotive products for all of 1982 "will closely parallel" last year's depressed level. He said Wheland will probably shut down its automotive foundry here during the last two weeks of December, as it did last year, and the company's 960 hourly employees will continue to work three- and four-day weeks until next spring.

Wheland has benefited by the recent increase in truck sales, which account for about 35 percent of Wheland's business. But as the nation's largest independent automotive foundry with products in nearly half of all U.S.-built cars, Wheland has been hard hit by the three-year decline in automobile sales.

'Business may be a little bit better than last year because of the higher truck sales, but we don't look for any real upturn until spring," Landgrebe said. "This year will be just about parallel with 1981."

> *"We thought by this time things would be picking up. But the general economy and the automotive industry have just not come up to our expectations."*
>
> — Karl L. Landgrebe

Wheland's employment is "down slightly" from last year's level, due to attrition, but the company's sales, inventories and profitability are similar to 1981.

"We're still profitable at our low-level of operations, but it's a lot short of what we would like it to be," Landgrebe said.

North American Royalties had its second highest profit level for a summer quarter this year, but Wheland Foundry's operating income was off 39 percent from last year.

"All of our customers are exercising very close inventory control these days, as we are. The business is more competitive than it has ever been. Everyone is trying to get a piece of a smaller pie."

The persistent recession in the automotive industry is also impacting other Chattanooga manufacturers.

Ernest Holmes Wrecker Co. reduced its Chattanooga production staff to 12 persons this spring and the firm has no immediate plans to recall its 125 hourly employees here. The wrecker manufacturer, a division of the New York-based Dover Corp., has consolidated most of its production at its plant in Newbern, Tenn.

Du Pont's textile nylon plant here has also been hurt by the slowdown in truck tire sales. Plant manager Ernest Bennett said output of industrial nylon used to make truck tires is down from previous years. Du Pont's sales of industrial nylons here are not related to automobile sales, however, and the replacement market for truck tires has generally held up better than new truck sales.

Wheland To Lay Off 255 Workers

T 10-29-82 p. B1

Times Staff Report

Wheland Foundry will lay off 240 hourly and 15 supervisory employees for the rest of the year, effective Monday.

The Chattanooga automotive foundry will continue to employ over 700 workers to produce brake drums, transmission housings, manifolds and other automotive parts for cars, light trucks and recreational vehicles. But Karl L. Landgrebe, vice president of North American Royalties Inc. — the parent company of Wheland Foundry — said the staff reduction was necessary to bring production in line with sales.

"Fourth quarter production levels (by the major U.S. automobile companies) will be ab ut the same as last year," he said. "We've reached a point where we just have too many people for the production volume we need."

Although sales of light trucks and recreational vehicles — which comprise 35 percent of Wheland's business — are up, sales of 1983 car models have been disappointing. Despite auto makers' incentive programs and lower interest rates, sales of new U.S.-built cars during the first 20 days of October increased only 1.2 percent compared with last year's depressed level.

The NAR executive said no decision has been made about whether Wheland will shut down its plant during the final two weeks of the year as the company did last year.

Industries - Wheland

Chrysler Layoffs Begin, Wheland Cuts Possible

Times Staff and Wire Reports 7/11/82 p.A1

The 4-day-old strike by 10,000 Canadian Chrysler workers forced the nation's third-largest automaker to lay off 2,500 of its U.S. workers Monday and, unless the walkout is soon ended, Chrysler and its suppliers — including Wheland Foundry Co. in Chattanooga — will probably have to make further production cutbacks by next week.

Operations at 16 U.S. plants in four states are being reduced because they make parts for the Chrysler Canada Ltd. factories. In Huntsville, Ala., where Chrysler makes electronic equipment for cars and trucks, 300 of 1,300 workers were idled Monday.

Similar cutbacks may result at Wheland Foundry if the Canadian Chrysler strike drags on past this week. The Chattanooga automotive foundry laid off 255 of its 1,050 employees earlier this month in anticipation of lower production levels this winter, but North American Royalties' vice president Karl Landgrebe said Monday the Canadian Chrysler strike "could begin to influence our production" by next week. Wheland sells nearly 40,000 castings a month to Chrysler's Canadian plants.

Douglas Fraser

"In a normal month, four or five days of our production is for Chrysler," Landgrebe said.

The workers idled Monday by Chrysler were from 15 plants in four states.

Word of additional layoffs, if any, probably will not come until Thursday or Friday, said Chrysler spokesman Doug Nicoll.

Chrysler said Monday it is considering unemployment benefits to the 2,500 U.S. autoworkers laid off because of the strike at Chrysler's Canadian factories.

United Auto Workers President Douglas A. Fraser said at a news conference Sunday he asked Chrysler last week to provide Supplemental Unemployment Benefits to the U.S workers, and he intended to pursue the request this week.

Fraser's request "will be given serious consideration," Chrysler spokesman Bill Stempien said Sunday, refusing to elaborate.

Under terms of the U.S. contract, U.S. workers usually receive only state unemployment benefits if they are laid off because of a strike, Fraser said. The amounts vary from state to state.

The company-paid benefits, which amount to about 95 percent of a worker's pay, normally are allotted only to workers who are laid off because of a production slowdown or plant closing.

Chrysler pays into the unemployment benefits fund under a formula based upon the numbers of hours worked per blue-collar employee.

On Friday, Fraser took a leave of absence from the board to avoid an appearance of a conflict of interest "during this sensitive time," he said in a letter to the company. When Fraser joined the board in May 1980, he became the first union official to sit on the board of a major U.S. corporation.

Fraser said he could not predict how long the Canadian strike will last. The company will not settle with the Canadians before settling with the 43,000 U.S. autoworkers who rejected a proposed strike pending renewed talks in January, company officials have said.

Meanwhile some employees of Ford Motor Co. of Canada stepped in to help the striking Chrysler workers improve the $65 a week they now receive from the union's strike fund.

Wheland Closes One Plant; Idles 180 for Rest of Year

By Dave Flessner
Times Business Writer T11-24-82 p.A1

Wheland Foundry Co., hurt by sluggish automobile sales in the United States and the Chrysler employees' strike in Canada, will shut down its Middle Street plant today and lay off 180 employees for the rest of 1982.

The temporary closing of the Middle Street foundry, one of two plants operated here by Wheland, will bring to 435 the number of Wheland employees idled during the past month. The Chattanooga automotive foundry furloughed 255 workers Nov. 1.

"We still feel the gradually improving economy will enable us to recall our laid off people early next year," said Gordon P. Street, president of North American Royalties Inc., the Chattanooga-based parent company of Wheland Foundry.

Wheland will consolidate its foundry operations next week at its main Broad Street facility, which will continue to employ over 500 production workers. Street said the move was necessary to "operate more efficiently and provide steady work for many of our people" despite lower automobile sales this year.

Although U.S. new car sales jumped 18 percent during the first 10 days of November — due largely to cut-rate finance plans by General Motors and Ford — domestic auto sales so far this year are still nearly 12 percent below last year's depressed level.

Wheland is the largest independent automotive foundry in the United States and produces brake drums, transmission housings, manifolds and other parts for cars, light trucks and recreational vehicles.

Street said the 19-day-old strike by 10,000 union Chrysler employees has not had a major impact on Wheland sales, but a prolonged walkout could crimp the foundry's operations if the Canadian strike reduces Chrysler's U.S. operations.

"Our customers tell us that Chrysler's U.S. operations will continue at least through November," the NAR president said. "Beyond that, we will just have to wait and see."

Wheland sells nearly 40,000 castings a month to Chrysler's Canadian plants, according to NAR vice president Karl Landgrebe.

However, Chrysler's chief negotiator, Thomas Miner, said Tuesday the No. 3 auto maker is preparing to bring work normally done by striking Canadian autoworkers to the United States.

"We have some critical items which are tight and which we know will shut American plants in December if the strike (against Chrysler Canada Ltd.) continues," Miner told reporters during the second day of renewed talks on U.S. and Canadian contracts between Chrysler and the United Auto Workers union. "If we can keep our plants going through December and if we can protect them. . .then we're going to do that. We'd be stupid of we didn't."

About 4,600 of Chrysler's 43,200 U.S. workers have been laid off because of production cutbacks due to the Canadian strike.

Wheland Will Recall 180 Workers

T 12-18-82 p.A1

By Dave Flessner
Times Business Writer

Wheland Foundry Co. will reopen its Middle Street plant next month and recall 180 hourly workers laid off Nov. 29.

Gordon P. Street, president of North American Royalties Inc. — the parent company of Wheland Foundry — said Friday the recent upturn in automotive sales and the projected rise in car and truck production schedules next year will boost Wheland's manufacturing output in January.

"Improvement in January schedules will enable us to resume operations at Middle Street, and we are very pleased that these employees will be back at their jobs," Street said. "This will bring Wheland's total employment back to 840 people, and we are hopeful that further improvement in the economy and our business will result in higher levels of operation and recall of additional employees."

Another 255 Wheland employees idled Nov. 1 remain on indefinite layoff because of the three-year slump in new-car sales. But automobile industry analysts have forecast higher car sales during 1983 and production schedules among companies served by Wheland are expected to rise from 8 to 10 percent next year over 1982, Street said.

New car sales have risen above last year's selling pace during each of the past seven 10-day sales periods, but much of the recent surge in sales has been due to the cut-rate financing provided by major U.S. car makers to help clear unsold inventories of 1982 models. The trade publication *Automotive News* recently predicted 7.2 million American-made cars will be produced next year, a 24.1 percent increase over the estimated 5.8 million units expected to be built in 1982.

Wheland is also expected to benefit by improving truck sales in 1983.

"About 35 percent of our sales are for products used in light- and medium-weight trucks, which have shown more strength in sales than the industry as a whole," said NAR vice president Karl Landgrebe.

Wheland is the nation's largest independent automotive foundry in the United States and produces brake drums, transmission housings, manifolds and other automotive parts at its two Chattanooga plants. Wheland's products end up in nearly half of all U.S.-made cars and trucks.

Wheland will shut down its manufacturing operations during all of next week becaus of the Christmas holidays, but the foundries will resume production Dec. 27, Landgrebe said.

CHATTANOOGA INDUSTRIES - WHELAND CO.

Wheland Will Recall 240 Workers By Jan. 17

TI-6-83 p. A1

Times Staff Report

Wheland Foundry will recall 240 hourly and salaried employees in the next two weeks to help meet an upturn in demand for car and truck parts by major U.S. automakers.

The Chattanooga automotive foundry will call back 40 workers Monday to start a production line, and a week later Wheland plans to reactivate one of its Broad Street foundries, bringing back another 200 laid-off employees.

"Schedules for our automotive customers for January and February are stronger than we had expected," said Karl Landgrebe, vice president of the Wheland Foundry division of North American Royalties Inc. "By the 17th (of January) we will have brought back virtually all of those people who were affected by our cutbacks last fall."

Last November, Wheland idled 435 of its 1,100-person workforce. However, the automotive parts supplier brought back 180 of the displaced workers this week and will recall all but about 25 of the laid-off employees by month's end, Landgrebe said.

"Inventories were worked down during December (when car production levels were low) and now demand has picked up again," he said.

"With the January call-back of hourly workers and furloughed salary personnel, Wheland's total employment will stand at 1,085," North American Royalties' president Gordon P. Street Jr. said. "We are hopeful that the upward trend will continue through this spring."

Wheland Will Install $200,000 In Air Pollution Controls If Board Agrees

NFPG-28-83 P.A3

The local air pollution control board's executive committee Monday voted to place on the agenda for a full board meeting July 11 a consent order and agreement recommended by the staff for settling charges Wheland Foundry is in violation of the local air pollution control ordinance.

If the board accepts the terms already agreed to by Wheland, the company would agree to install control equipment within eight months to correct its problem and to pay the city of Chattanooga $1,500 as a civil penalty.

Wayne Cropp, executive director of the bureau, told members of the executive board Monday that the objective of the consent order is to settle the matter at the administrative level and avoid litigation in the courts. It is the first action by the board involving alleged violation of the reasonably available control technology (RACT) provision in the local ordinance.

Legal and management representation of Wheland was present at the meeting and indicated approval of the provisions of the proposed consent agreement as they were discussed in open meeting by representatives of the board and bureau.

Mr. Cropp noted that the company had been "very cooperative" with the bureau in the matter and he said he is confident that the pollution problem involving emissions from the basement of the company's number 1 foundry (2800 South Broad Street) would be corrected within the time provided. Controlling the emissions from sand-handling equipment will require installation of two baghouse units at a cost of about $200,000.

Charges against the company followed its failure to complete installation of control equipment by a December, 1982, deadline, Mr. Cropp told the executive board members.

The July 11 meeting of the board will be held in the Hamilton County Education building on Broad Street, beginning at 3:30 p. m.

Wheland Co. Pays $1,500 For Alleged Violation Of Air Pollution Regulations

NFP 8-18-83 P-B4.

By J. B. COLLINS
N-FP Urban Affairs Editor

Officials of the local air pollution control board and bureau delivered a $1,500 check today to Mayor Gene Roberts, payment for an alleged violation of the local air pollution control regulations by the Wheland Co. in December, 1982.

The amount of the penalty was determined by administrative action in an agreement between the board and company in a consent decree in lieu of court action. The order was filed last July.

Charles Clevenger, chairman of the board, and Wayne Cropp, executive director of the bureau, presented the check to the mayor. The mayor said the county would receive its share, which he said amounts to $594, or 39.6 percent. The county allocates 39.6 percent of the local funding for the bureau's annual budget.

This is the third penalty assessed by and paid to the board since 1978, when the Tennessee Air Quality Act was amended to authorize the assessment of penalties by local governments for violations of the pollution control regulations.

The first penalty, for $75,000, was paid by Rockwell. The second, for $25,000, was paid by Du Pont. Both checks were turned over to the city, actions which were questioned by county officials, who felt the county should share. Air pollution control officials said they paid the money to the city under terms of the law as written at that time.

The county was able to get its claimed share of the Rockwell payment by holding out the the claimed amount in its appropriation to the budget the next year.

But city and county officials have worked out an agreement by which such penalties are shared on the basis of contributions to the bureau's annual budget.

INDUSTRIES - WHELAND Co

Vulcan will use Wheland waste for road material

Times staff report T 6-15-84 p. B4

One company's junk will soon become another's treasure.

Vulcan Materials Co. will begin converting waste metals from Wheland Foundry's South Broad Street plant into crushed aggregate capable for use in road beds this summer. Bob Mayville, general manager for Vulcan Materials in Chattanooga, said Vulcan plans to locate a $350,000 portable crushing plant off Long Street near Wheland to break apart the slag generated in the automotive foundry. Vulcan can use the crushed slag as aggregate at its asphalt plant near the airport, Mayville said.

The Chattanooga Zoning Board of Appeals agreed Wednesday to allow Vulcan to locate the new crushing facility off Long Street provided Vulcan operates the plant only during daylight hours on weekdays and fences in the plant site. Mayville said the new plant will likely operate from four to six months a year and process about 30,000 tons of slag each year.

Wheland currently dumps slag generated in its foundry operations in seventon tubs. But with the new plant Vulcan will pay a nominal amount to Wheland for the slag and will haul the excess metal away from the site.

"This should help both Vulcan and us," said Karl Landgrebe, vice president and manager of Wheland Foundry.

The slag crushing plant will be the fourth in the U.S. for Vulcan Materials, which was founded in Birmingham, Ala., in 1914 as the Birmingham Slag Co. The facility will employ four to six people when in use, Mayville said.

Wheland sides talk, to meet again

Times staff report T 5-8-85 p. C3

Negotiators for Wheland Foundry Co. and the striking United Steelworkers of America Local 3967 are digging their heels in for what will soon be the local's longest walkout in more than a decade. Union and company representatives met for more than eight hours Monday with federal mediator Maurice Tipple but were unable to settle the contract impasse that has left 914 hourly employees off the job for the past 11 days. "I think Monday's talks were very productive, although we didn't reach a settlement," Tipple said Tuesday. "There's a very good atmosphere in these talks and I remain hopeful." Nonetheless, the two sides will not talk again until Monday. The steelworkers union includes some 750 of Wheland's employees. Union members voted overwhelmingly April 26 to strike the foundry because of objections to changes in insurance benefits and cost-of-living adjustments proposed in the company's new contract offer. The strike has idled Wheland's South Broad and Middle Street foundries since the union's previous contract expired last month. The steelworkers last struck Wheland in 1978. That walkout lasted two weeks.

Tentative agreement to end strike at Wheland

By Dave Flessner
Times staff writer T 5-16-85 p.A1

Wheland Foundry Co. reached a tentative agreement with its employees' union Wednesday night to end the union's 19-day-old strike against the automotive parts manufacturer.

Negotiators for Wheland and the striking United Steelworkers of America Local 3967 agreed late Wednesday on a new contract covering most of Wheland's 914 hourly employees. The proposed labor pact must still be ratified by members of the steelworkers local, but leaders of the union's negotiating committee said Wednesday night they will recommend approval of the new contract.

The union has tentatively scheduled a membership vote on the new contract for Saturday morning. If the contract is approved by a majority of the steelworkers, Wheland employees will return to work Monday.

Company and union representatives declined to discuss details of the contract agreement until the proposal is presented to the steelworkers' membership Saturday.

"It's been a long, hard day and I think both sides are glad to have this agreement," federal mediator Maurice Tipple said late Wednesday after nearly nine hours of bargaining between company and union negotiators. "You don't ever get a contract where everybody is happy about everything, but I think this is a contract that both the company and the union feels they can live with. It was to the mutual benefit of both parties to reach this settlement."

Wheland, a division of the Chattanooga-based North American Royalties Inc., has been forced to idle its South Broad and Middle Street foundries since April 27 when the steelworkers' previous three-year contract expired. The steelworkers voted 512-69 last month to reject the company's initial contract offer and strike the automotive foundry because of the union's objections to proposed changes in the employees' insurance coverage and limited wage increases. Since the strike began the steelworkers' strike fund has provided workers about $60 a week — less than one-sixth their normal income.

"There were obviously pressures on both sides to settle this thing before it became a prolonged strike," Tipple said.

Wednesday's marathon bargaining session was the third face-to-face meeting between company and union representatives since the strike began. Much of the day was consumed with talks over Wheland's insurance benefits. Wheland is self-insured, but Blue Cross and Blue Shield of Tennessee administers the company's health benefits. Representatives of Blue Cross met with company and union negotiators Wednesday morning for more than two hours to discuss proposed changes in coverage.

To limit the soaring premium rates charged Wheland for its employees' health insurance package, the company is seeking to raise the annual deductible each employee must pay for health claims and make other alterations to the workers' benefits.

"Insurance changes have complicated many negotiations," Tipple said during a break in the bargaining Wednesday afternoon. "In the past three years, health insurance has become almost as important as wages in most contract talks."

Tipple declined to discuss insurance and wage changes included in the contract agreement hammered out Wednesday.

Steelworkers at Wheland are now paid an average $8.25 to $8.30 an hour, but the new contract is expected to provide some increases in average hourly wages for plant employees.

Wheland manufactures brake drums, transmission housings, manifolds and other parts for American- and German-made cars and trucks. The Chattanooga firm is the nation's largest independent automotive foundry , but the company's plants operated at only 65 percent of capacity immediately prior to the strike.

North American Royalties has a total salaried staff of 1,200. Salaried workers have remained on the job during the walkout by hourly employees.

Even if the union walkout ends next week as expected, the strike will still have been the longest at Wheland in more than a decade. The steelworkers last struck Wheland in 1978, but the walkout lasted only two weeks.

Workers At Wheland Ratify New Contract

NFP 5-9-85 p. A1

By DAVID MILLER
News-Free Press Staff Writer

Unionized Wheland Foundry workers officially ended their longest labor strike in a decade Saturday when they ratified a new agreement which sends all 914 hourly employees back to work Monday morning, a company executive said.

United Steelworkers of America Local 3967 overwhelmingly accepted a new three-year contract which promises better health and life insurance, improved wages and numerous benefits, according to Karl Landgrebe, vice president of the Chattanooga-based North American Royalties Inc., the foundry's parent company.

"We think under today's conditions it was a fair contract," said Mr. Landgrebe, who didn't disclose details of the pact. "Hopefully we can get everybody back on the job and put all of this behind us."

The workers' return will end a 20-day strike which lasted a full week longer than Wheland's last walkout by steelworkers in 1978. The company, which manufactures transmission housings, brake drums, manifolds and casings for American and German-made automobiles, is the nation's largest independent automotive foundry.

The initial breakthrough in the stalled negotiations came during a tedious bargaining session Wednesday when a tentative agreement was reached during the strike's third sit-down discussion between union representatives and the company.

Mr. Landgrebe cited disagreements over insurance benefits as being the spur in the heel of negotiations, which prevented a quicker resolution.

"All during negotiations one of the biggest issues to resolve was insurance," the executive said. "We think with this agreement we have made headway on cost and payment of our insurance program, which was very important. Insurance costs have skyrocketed and we had to get some cost containment."

Although Wheland is self-insured, health benefits are provided through Blue Cross and Blue Shield of Tennessee. Blue Cross officials participated in talks with both parties Wednesday as proposed changes included in the new contract were mapped out.

Although he declined to pinpoint figures, Mr. Landgrebe said wages over the three years of the contract would increase, while life insurance and other pension benefits would increase in the first year.

Mr. Landgrebe charged the morning newspaper with wrongfully quoting the average pay of Wheland employees prior to the new agreement, saying steelworkers were paid $8.82 an hour, not the reported $8.25.

Although the average will increase "noticeably" under the new contract, the rise will not be dramatic, Mr. Landgrebe said.

"Salaries will increase in the first, second and third year of the contract," he explained. "But while everybody wants more money, we're faced with the hard reality of foreign competition. We are facing a surplus in our industry.

"I believe the contract is one the employees, and the company, can live with," he added.

The South Broad and Middle Street plant was crippled April 27 when its former three-year contract with the steelworkers expired, sparking the ensuing labor strike. Union members blamed poor insurance benefits and low pay increases for their rejection of initial offers made by the company shortly after the walkout.

Union members were paid roughly $60 a week by the steelworkers' strike fund during their sabbatical, which amounted to an 82 percent cut in pay, steelworker officials said.

Wheland to reopen today after close vote by union

Times staff report 7-5-20-85 p.B1

Wheland Foundry will resume operation this morning after a narrow vote Saturday by unionized workers ended a three-week strike at the plant.

Karl Landgrebe, vice president of North American Royalties, parent company of Wheland, said Sunday night the plant will begin normal operations at the beginning of first shift at 6:45 a.m. Landgrebe has called the settlement reached with United Steelworkers of America Local 3967 "fair" and said he hoped to "put all of this behind us."

The union's membership voted 242-238 to return to work and accept a contract proposal negotiated during a bargaining session Wednesday, according to union members who spoke to reporters following the vote. The three-year contract reportedly calls for a 60-cent hourly wage increase over the next three years but raises the yearly deductable on company hospitalization insurance policies.

The vote was close enough that union members called for a recount before accepting the decision to return to work, according to workers leaving Saturday's meeting.

Action by the union's membership returns 914 hourly workers to their jobs and ends the longest strike at the plant in a decade. Steelworkers last went on strike at the plant in 1978.

The new contract reportedly increases the present $8.82-per-hour salaries of steel workers by 30 cents the first year, 20 cents the second year and 10 cents the third year.

Wheland will expand, add up to 100 workers

By Dave Flessner
Times staff writer Tb-6-85 p.A1

Wheland Foundry will expand its Middle Street foundry operations to enter the growing ductile iron castings market next year.

North American Royalites Inc., the parent company of Wheland, announced Wednesday it will spend more than $6.5 million this year and add up to 100 employees over the next couple of years at the 12-year-old plant. The plant addition will allow Wheland to begin producing a new type of casting and help reverse the downward employment trend in Chattanooga's foundry industry during the past decade.

Wheland is expanding its melting and molding facilities and building a 30,000-square-foot cleaning plant to begin making higher-strength ductile iron castings — one of the fastest growing types of castings.

"This is a new market for us and one we think offers us a good potential," said Karl Landgrebe, vice president of the Wheland division of North American Royalties. "Our utilization of the Middle Street foundry is down and this just looks like a chance to raise our production and sales.

Shipments of ductile iron castings rose 26 percent last year, nearly double the sales growth for gray iron castings now made by Wheland, according to the Iron Castings Society — a Des Plaines, Ill.-based trade association. Ductile iron offers greater strength than most iron castings and is an attractive substitute for steel forgings and castings.

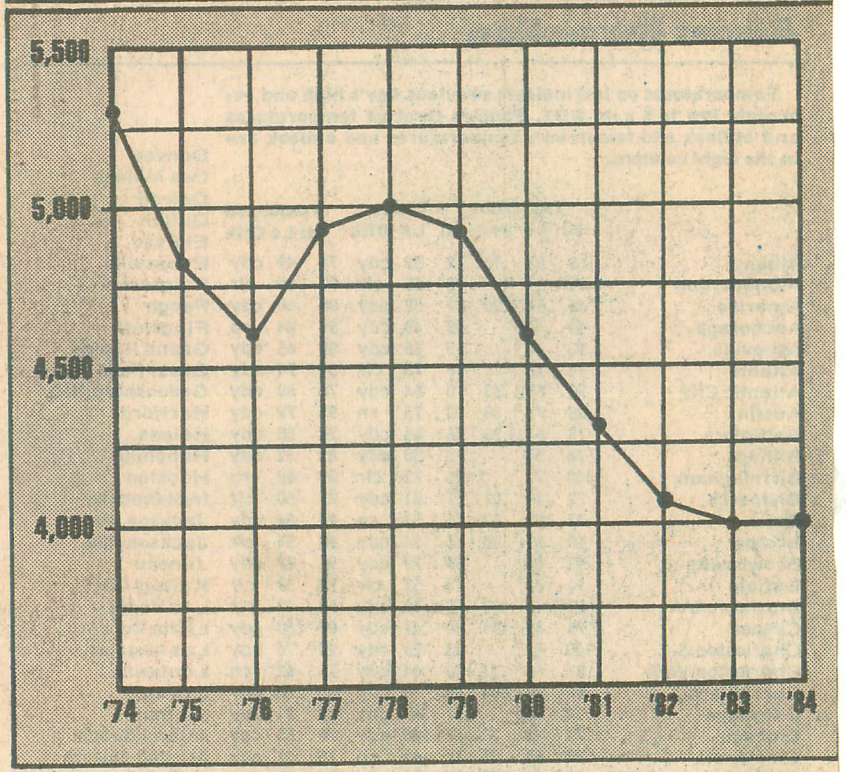
"We'll be approaching our present customers as well as looking at new customers for these parts," Landgrebe said. "Wheland will employ the most modern production techniques available and is building the new facilities to meet the rigid quality standards now required by U.S. automotive manufacturers."

The ductile iron products will be marketed to automotive and general-purpose casting businesses.

Wheland's Middle Street foundry, built in 1974 to supplement the company's main South Broad Street facility, will be renovated to make ductile castings in the three- to 70-pound range. The Middle Street foundry now employs about 200 workers, but Landgrebe said another 100

(over)

Chattanooga foundry jobs



—Source: Tennessee Department of Employment Security

Graph shows employment decline in past decade in the number of workers in the foundry and primary metals industry in metropolitan Chattanooga.

jobs could be added "over the next two or three years if the ductile iron project goes as we hope."

Wheland is the nation's largest independent automotive foundry and currently employs about 920 hourly employees. Wheland announced its plant addition only two weeks weeks after the company settled a strike with the United Steelworkers of America union and entered into a new three-year contract with its hourly employees.

"Our employment will gradually increase as our sales and production of ductile iron castings increase," Landgrebe said.

Wheland has benefited by the upturn in automobile sales during the past two years, but Landgrebe said the Chattanooga foundry is still operating at only about 70 percent of its capacity.

Industrywide, the Iron Castings Society estimates iron foundries, on average, are operating at about 65 percent of their capacity.

Employment in Chattanooga's iron and steel foundries and related primary metals manufacturers has dropped by nearly one-fourth in the past decade because of shrinking automobile sizes, greater production automation and increased competition from plastics and other substitute products. Although iron casting shipments rose 15 percent nationwide last year to nearly 11 million tons, industry shipments still remained nearly one-third below the 16 million-ton shipment peak reached in 1978, the Iron Castings Society reports.

Wheland Announces Karl Landgrebe's Retirement, Two Key Appointments

NFP 6-30-85 p. M8

Karl L. Landgrebe is retiring, effective today, as vice president of the Wheland Foundry Division of North American Royalties Inc., it has been announced.

At the same time, the company said John E. Wittman has been promoted to vice president and Ron W. Reese has been elevated to general manager.

Mr. Landgrebe will continue, however, as a director and corporate advisor to North American Royalties, a locally based company that is engaged in oil and gas exploration as well as making castings.

Mr. Landgrebe has long been a leader in foundry industry circles here.

Since joining Wheland in 1946, he has served as general superintendent, general manager and vice president.

During his years with Wheland, the local manufacturer became the largest independent producer of brake castings in the world.

Under his direction, Wheland began a 3-line operation in 1947, adding three additional production lines to meet the increasing demand for parts for the automotive industry.

In 1974 the company put its Middle Street plant into operation. That facility uses vertical, flaskless molding techniques.

In 1977 Mr. Landgrebe received national recognition for excellence in his field when he was presented the American Foundrymen's Society's Peter L. Simpson Gold Medal "for outstanding management leadership throughout the iron industry, and for consistent application of modern technologies to the production of castings."

He has been active in civic affairs, particularly in the Salvation Army.

Mr. Wittman has served for the past five years as general manager at Wheland.

He previously served as vice president of the Moline Corp. in St. Charles, Ill.

He is a mechanical engineering graduate of Northern Illinois University and serves on the productivity advisory board of Chattanooga State Technical Community College.

He is active in the National Foundry Association and the American Foundrymen's Society.

He and his wife, Catherine, live here.

Mr. Reese, who has been manager of administration and sales at Wheland, now becomes general manager of foundry operations.

He joined Wheland in 1977 after working in the international division of Reynolds Metals Co. in Charlotte, N.C., as a project manager.

He is a graduate of the University of Alabama and serves as vice chairman of the Tennessee Chapter of the American Foundrymen's Society.

He and his wife, Lynn, live on Signal Mountain with their two children, Brandi and Jennifer.

KARL L. LANDGREBE

JOHN E. WITTMAN

RON W. REESE

Wheland to buy Rockwell foundry

T 8-16-85 p. B2

Times staff report

Wheland Foundry Co. has agreed to buy Rockwell International Corp.'s abandoned iron foundry in Alton Park, but the Chattanooga firm has no immediate plans to reopen the idled plant. John E. Wittman, general manager of foundry operations for Wheland, said Thursday Wheland's parent company — North American Royalties Inc. — will acquire the plant "for possible future use." However, the Wheland official said NAR has no plans to use the facility in the near future. Rockwell International closed its automotive foundry on Alton Park Boulevard in 1982 — eight years after Rockwell bought the plant from the Crane Co. The 9.5-acre complex includes a 49-year-old warehouse and a 23-year-old plant and is appraised by the Hamilton County Assessor's office at $703,020. Wheland is the nation's largest independent automotive foundry and employs more than 1,100 persons at its two existing Chattanooga foundry plants.

Over 450,000,000 automotive castings have been produced by the Wheland Foundry during the past 40 years. More than half of U.S. cars have one or more castings made by Wheland.

The Wheland Foundry

DIVISION OF NORTH AMERICAN ROYALTIES, INC.

2800 South Broad Street • Chattanooga, Tennessee 37402

1866 NAR 1986

THE WHELAND FOUNDRY

DIVISION OF NORTH AMERICAN ROYALTIES, INC.

120 Years of Progress

More than 1000 people working together in this successful and growing business... home owned and operated.

A CHAIN is only as strong as its weakest link. A business's success is a similar story. Its success cannot long exceed the successes of those involved within the business and the successes of the community within which the business is located.

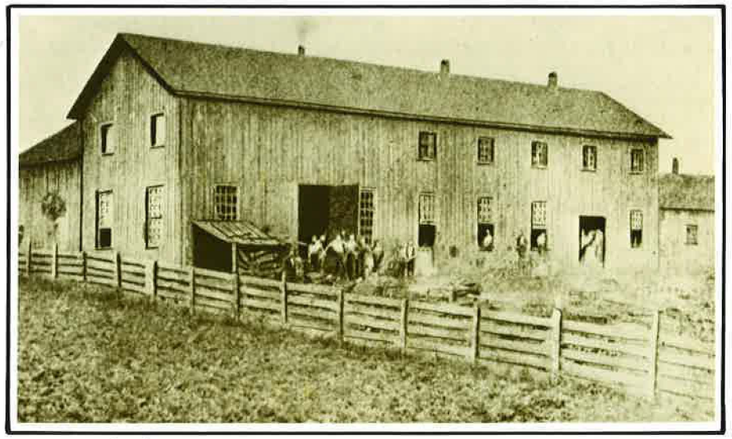
For our company success must be judged in terms beyond financial profit alone. Success also involves pride, honor, caring, happiness, and the well-being of those around us. We believe this and run our business accordingly. We have grown and so has our community. The future will not change the way we judge success.

President and Chairman of the Board

HIGHLIGHTS OF 120 YEARS... WHELAND FOUNDRY

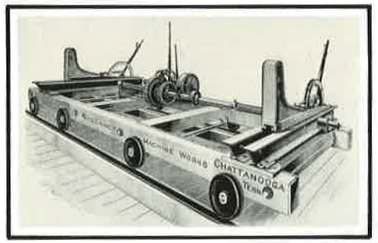
After the Civil War, numerous iron works sprang up in the Chattanooga area. Railroads and nearby raw materials made our city an early choice for iron manufacture.

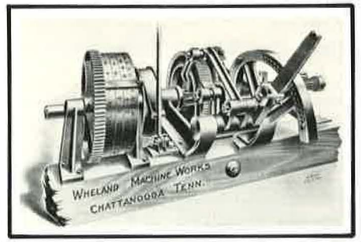
Many former Union soldiers returned to the area after the war. Among them was George W. Wheland, who built a foundry and machinery repair shop in Athens, Tennessee. In 1873 he moved to Chattanooga and expanded his business to produce sawmills, grist mills, and water wheels which were in great demand as the economy grew.



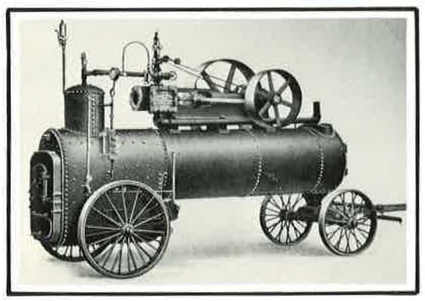
This is the plant in 1875 on the site of the present Wheland Foundry near the Tennessee River on South Broad Street.

Wheland Foundry in 1883. J. Harry Street, third from left, front row, later founded Street Brothers Machine Company. His son, Gordon P. Street, was elected President and Chief Executive Officer of Wheland soon after World War II. Gordon P. Street, Jr., is the current President and Chairman.

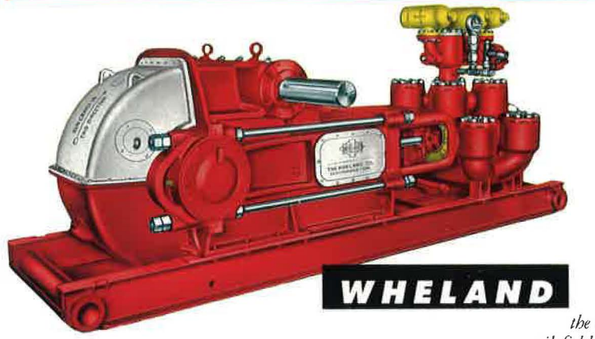




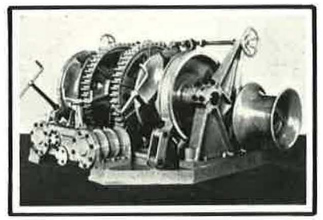
Around the turn of the century, Wheland's catalog included these sawmill components.

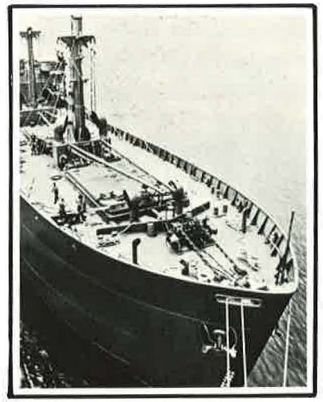


To free mills from water power, Wheland later designed and built steam engines and boilers.



Over the years the company grew and oil field drilling equipment was added to Wheland's line.





The evolution of Wheland products parallels the march of American history in many ways. Manufacture of sawmills, steam engines and drilling equipment gave way to anchor windlasses, guns and shells during World Wars I and II.

A major turning point for the Wheland Company came after World War II when Gordon P. Street was elected President and Chief Executive Officer and arranged to acquire the company.

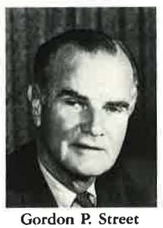
Mr. Street started the South's first large scale production foundry and produced automotive parts of such quality and dependability that six production lines were soon in operation.

Moving energetically into exploration and development of oil and gas, the company phased out machinery manufacture. After years of growth, a logical step forward was the acquisition of North American Royalties, Inc., which joined the Wheland Foundry and increased the scope of the company's Oil and Gas Division.

In its 120 years Wheland has had only four presidents.

George W. Wheland
Founder and President
1866 – 1929

E.F. Wheland
President
1929 – 1945



Gordon P. Street
President
1945 – 1973

Gordon P. Street, Jr.
President
1973 – Present

WHAT WHELAND DOES

An iron age man discovered that he could make useful things by pouring molten iron into a shaped cavity in sand. That, essentially, is what Wheland does.

The foundry industry was a pioneer in recycling. Iron can be remelted and reused many times. Material from Civil War cannon, railroads, and locomotives from bygone days exist in cast iron parts that are poured today. Wheland uses about 4 million pounds, or approximately 18 rail car loads, of raw material a day.

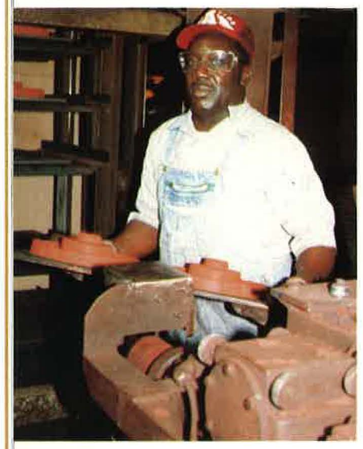
Sand molds with inserts being prepared for molten metal.

Computers help bring the metal exactly to specification.

Quality is No. 1 priority. Metal is melted in a cupola, poured into an electric holding furnace, instantly analyzed by spectrograph.

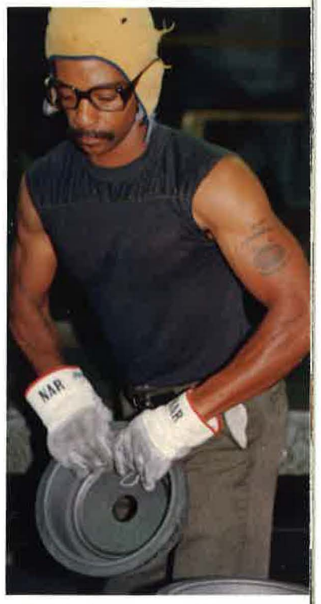
Pattern design, making and maintenance.

Core Production



Molten metal is poured into the molds. About 100,000 parts can be made in a day.

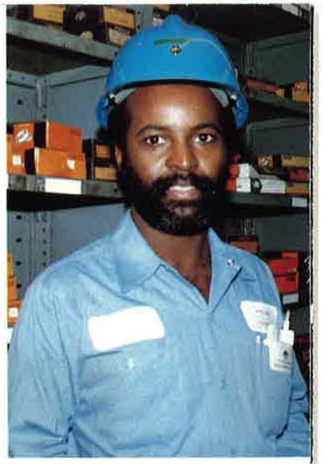
As castings cool, they are cleaned, processed, carefully inspected and shipped to customers.



Some types of castings are most efficiently made by flaskless molding. Wheland pioneered in this production in 1974 in its Middle Street plant.

75 trailer trucks and 25 boxcars of castings are shipped in a normal week.

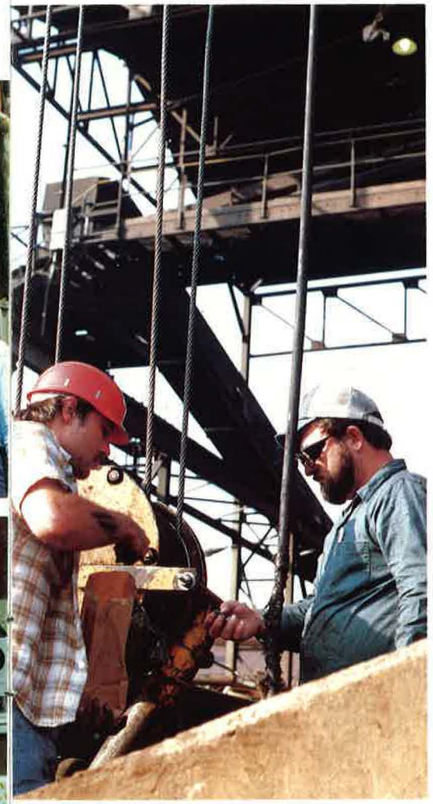
AT WHELAND PEOPLE MAKE THE DIFFERENCE



Above: Management Team has a total of 137 years of experience in foundry operation.
Left: Superintendents of first and second shifts.
Below: Foremen, Engineering Maintenance, Office Support.

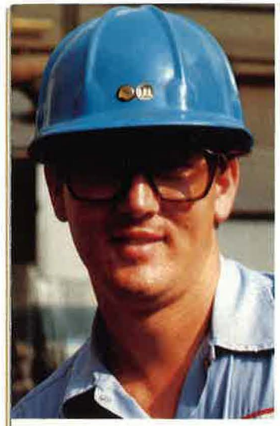
Many of the skilled people were trained in special courses sponsored by Wheland.

Modern medical facilities for employees.

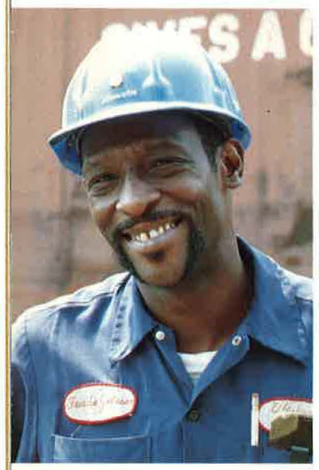


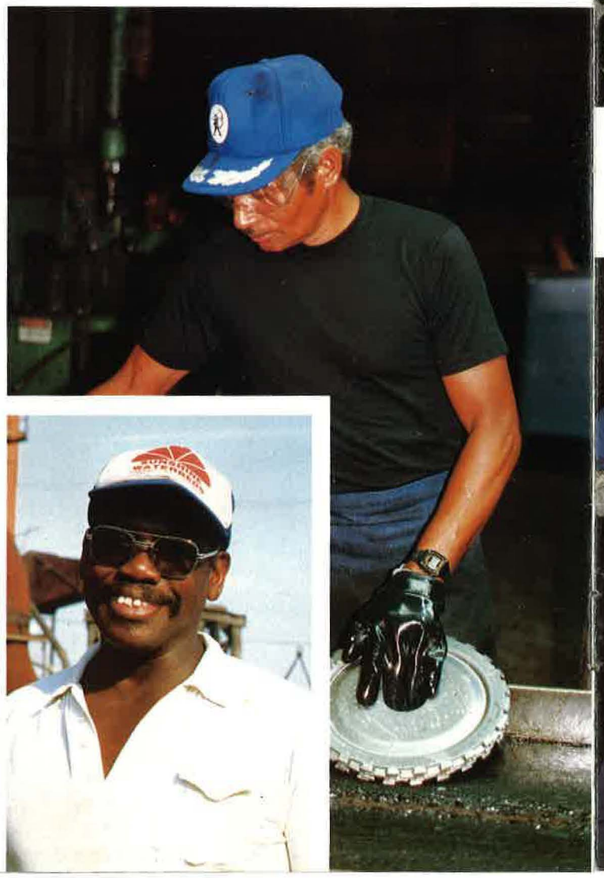
Maintenance is continuous throughout.

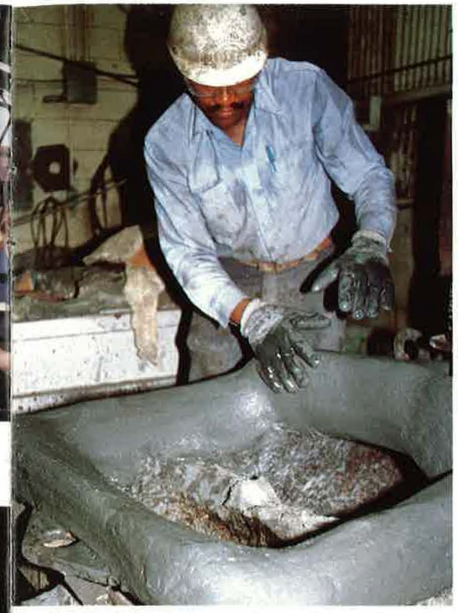
Computerized measuring keeps castings within specifications



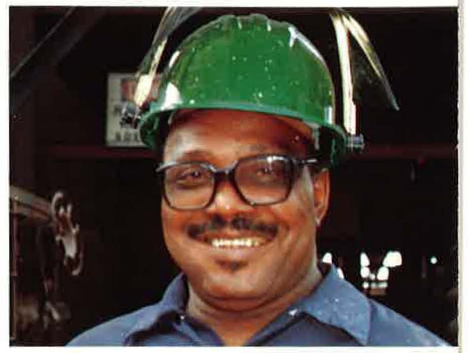
It takes many different talents to keep Wheland running smoothly.





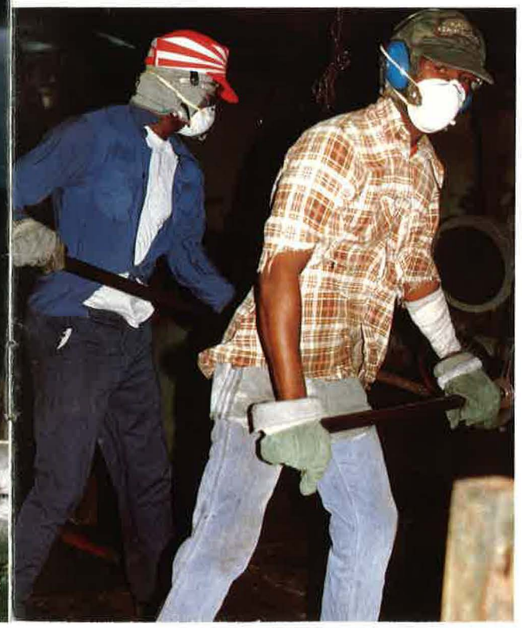


Relining ladles requires experience and a special touch.



Wheland's Jobbing Foundry makes some castings so large that the mold must be tamped by air hammers.

Appropriate safety equipment makes work safer and easier.



This recent snapshot is a picture of the Wheland plant in full operation.

Wheland is proud of its leadership in community goals for a clean environment.

Major investments in the installation, operation and modernization of air pollution controls have given Wheland a clean plant and have earned praise in the community, including Chattanooga Audubon Society award "In recognition of an outstanding contribution to enhancement of air quality in Chattanooga."

Planning for the Future

DUCTILE IRON PRODUCTION BEGINS

Nineteen-eighty-six, our 120th year, is an historic one for Wheland. Wheland's record of leadership in foundry technology, exceptional quality and dependable delivery has helped open new doors of opportunity.

At Middle Street, a $6.5 million expansion (white buildings in this recent snapshot) enabled Wheland to begin producing ductile iron castings. Ductile iron opens a wide, new field.

Quality ductile iron castings, like these brake calipers, can be produced in quantity at Wheland's Middle Street ductile foundry.

CONSTRUCTION FOR CENTRIFUSE

An agreement with Motor Wheel Corporation now enables Wheland to produce Centrifuse brake drums. A newly acquired building adjacent to Broad Street Foundry is being converted to Centrifuse production.

These two new product lines should help Wheland continue to grow and offer new opportunities for Wheland people and for those around us.

Centrifuse drums have many uses, including tractor trailer trucks, school buses and off-road construction equipment.

Growth has a multiplying effect. Quality products win favor with customers. As our business grows, our people grow. Our incomes are spread over the community, create better schools, support a wide range of other businesses and create still more good jobs in our area.

Wheland to hire 50 to produce brake drums

The Chattanooga Times T4-11-86 p. 86

Wheland Foundry will add up to 50 employees to its Broad Street plant next year to begin producing a brake drum for the Motor Wheel Corp.

Wheland, a division of the Chattanooga-based North American Royalties Inc., announced Thursday it has reached an agreement to assume all of the production of Motor Wheel's cast brake drums used in trucks, buses and road construction equipment. Motor Wheel, a subsidiary of Goodyear Tire and Rubber Co., is phasing out its foundry operations at its home plant in Lansing, Mich. and will move equipment used in the brake drum production to Wheland.

"We're trying to stay competitive in the world markets with this action," Motor Wheel spokesman Doug Pearson said. Motor Wheel is phasing out 95 jobs in Lansing through the relocation.

In a statement, Wheland said it "will make major capital expenditures to make necessary building modifications and install the special machines and equipment." However, Wheland officials declined to specify how much the company will spend on the new venture, which has been under negotiation since June.

Motor Wheel's "centrifuse" brake drums are made by pouring a special alloy gray iron into a steel shell while it spins at high speed. The result is a brake drum that offers the advantages of cast iron on the inside surface with the strength and stability of steel on the outside.

Castings made by Wheland will be shipped to Berea, Ky., the future site of Motor Wheel's plant for machining and assembly, before being distributed to customers throughout the country.

Wheland Vice President John E. Wittman said the product addition will increase Wheland's 920-person hourly staff by 40 to 50 next January.

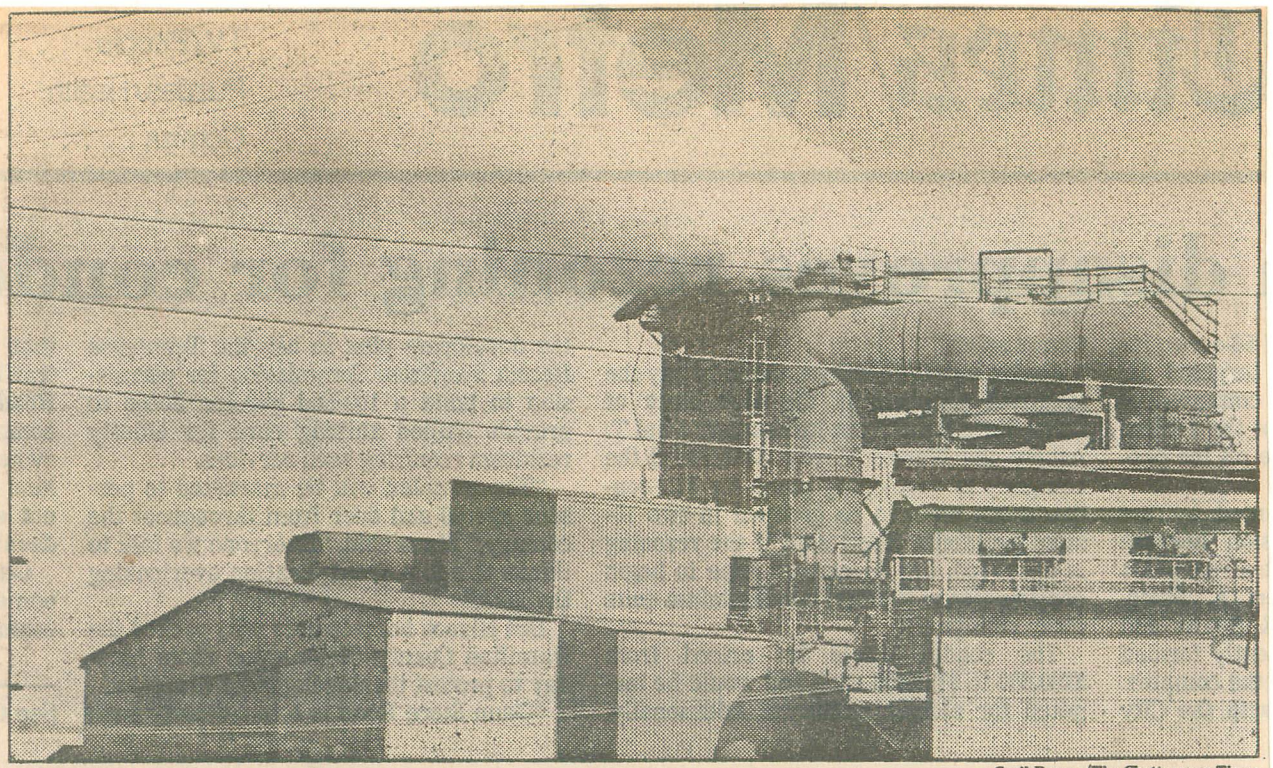
Wheland pollution controls fail again

The Chattanooga Times T10-13-1987 p.2

For at least the third time this year, pollution-control equipment at Wheland Foundry broke down early Monday, spewing smoke for several hours.

Wayne Cropp, executive director of the Chattanooga-Hamilton County Air Pollution Control Bureau, said bureau investigators were at the South Broad Street facility Monday morning taking "visible emission readings."

Wheland officials reported a failure of the "bag house" pollution-control equipment's electrical system, Cropp said. Wheland uses a "bag house" to filter out soot produced when scrap iron is melted for pouring into foundry castings. A fan diverts the smoke into a bag that traps the soot. An afterburner completes the combustion of carbon monoxide and oxides of nitrogen, gaseous products of the process.



— Cecil Pearce/The Chattanooga Times

A malfunction of pollution-control equipment at Wheland Foundry apparently caused the smoke from the South Broad Street plant to be denser than normal Monday.

If the equipment failure is confirmed, Cropp said, the violation of air pollution ordinances would be considered an "excused violation."

"That is a determination which we will have to make after our own independent engineering evaluation," he said. "The facility curtailed production at about 11 o'clock this (Monday) morning and reported to us that they intended to repair the equipment and start up production again."

Wheland restarted production at 3 p.m., said Cropp. "And as of 4:30, they were in compliance with pollution-control ordinances."

Wheland, the nation's largest independent automotive foundry, has had control equipment in place since 1973. Two other equipment malfunctions, one also of the "bag house," were reported in late April. The company is owned by North American Royalties Inc. of Chattanooga.

Manufacturers Association Names Wheland Company Of The Month

COMPANY OF THE MONTH — Wheland Foundry, a division of North American Royalties, Inc., has been named the Chattanooga Manufacturers Association Company of the Month for March. Gordon P. Street Jr., seated, is president and chairman. Standing from left are Gordon L. Smith Jr., vice president for planning and development and secretary; Gordon L. Smith III, engineering manager of the oil and gas division; Charles M. Zeiser, CMA secretary-treasurer; Harry F. Faulkner, manager of corporate administration; Jack W. Money, vice president for finance and treasurer; and John E. Whittman, vice president. (Staff photo by Robert Newcomb)

NFP3-6-83 p.D4

Wheland Foundry, which has produced iron castings in Chattanooga for more than a century, has been named the Chattanooga Manufacturers Association company of the month for March, CMA Chairman Jack Stocker has announced.

"Wheland Foundry has been a symbol of the vital importance of manufacturing in Chattanooga," Mr. Stocker said. "We feel privileged to be a part of this successful organization and appreciates its contributions to Chattanooga."

Products from the foundry, which are found on more than one-half of American-produced automobiles on the road today, are on display at the CMA office in the Civic Forum.

Wheland Foundry is a division of North American Royalties, Inc., of Chattanooga. Established in 1866 in Athens, Tenn., the foundry was moved to Chattanooga in 1873.

Today, Wheland is this country's largest independent producer of iron castings for braking systems. Approximately 1,000 people employed by Wheland are involved in making car parts.

Wheland employees average a daily output in excess of 80,000 castings. In an average week, 185 truckloads and 18 rail cars of castings are shipped to Wheland customers, which include major car manufacturers and large machining operations. This production is made possible by the use of modern, automated machinery at both the Broad Street plant and the Middle Street operation. The company also operates a Centrifuse casting plant to produce a proprietary design truck brake drum.

"An annual payroll of about $30 million, the annual purchase of more than $40 million of goods and services from more than 175 local suppliers and the ongoing investment in new and improved facilities are indications of Wheland's faith in this community," said Gordon P. Street Jr., president and chairman.

"We have been here for 115 years and are happy to have the continuing opportunity to help make the city of Chattanooga one of the most pleasant, cleanest and economically sound industrial cities in America."

Wheland Being Given Citation For 2 Days' Too-Thick Smoke

NFP 4-14-88 p. C1

By J.B. COLLINS
N-FP Urban Affairs Editor

Wayne Cropp, director of the Chattanooga-Hamilton County Air Pollution Control Bureau, said today the bureau is in the process of issuing a citation against the Wheland Foundry division of North American Royalties, 2800 S. Broad St., on a charge of violating the local air pollution control law.

He said an official of the foundry reported a malfunction of air control equipment Wednesday afternoon and then shut down its operations around 6:30 p.m. But he said operations were then resumed with the first shift this morning and the stack had been operating uncontrolled for several hours when he made the decision to issue the citation.

Mr. Cropp said the company reported a malfunction as is required. He said the company then has a number of procedures to follow under the law, the main one being to proceed to make a reasonable effort to abate the problem. He said this can be done by shutting down completely or taking other actions that may result in a reduction of emissions.

He said a basis for a citation was laid when readings at the plant Wednesday and today showed opacity readings in excess of 20 percent. He said such readings are permitted if they do not exceed 5 minutes duration in any one-hour period. He said the plant violated the 20 percent opacity limit both Wednesday and today.

The reported malfunction came at a particularly bad time, Mr. Cropp said. The city is in the midst of an inversion. During these times there is an atphmospheric stagnation in the part of the city lying between Lookout Mountain and Missionary Ridge and pollution accumulates instead of being flushed out regularly by currents of air.

He said a total suspended particulate reading of 68 micrograms per cubic meter of air was taken near the plant at 3:30 p.m. Wednesday. He said the reading jumped to 95 this morning after resumption of operations.

Mr. Cropp said the company reported that the problem was caused by "a failure in the refractory lining in the afterburner system."

No one at the plant was available for comment at press time.

Wheland Foundry given $40,000 fine for high emissions

By Wade Rawlins
The Chattanooga Times T 12-6-88 pB-2

The Chattanooga-Hamilton County Air Pollution Control Board on Monday approved civil penalties against two local foundries, including a $40,000 penalty against Wheland Foundry for repeated emission violations.

Wheland Foundry, a division of North American Royalties, Inc., was penalized for 23 alleged violations of Chattanooga's visible emissions and nuisance regulations between October 1987 and October, 1988. The $40,000 penalty is among the largest the bureau has obtained, Rick Schuurmans, a bureau spokesman, said.

U.S. Pipe and Foundry Co., received a $5,000 penalty for alleged air pollution violations at the company's soil pipe plant between February and April 1988. The allegations concerned excessive visible emissions from air pollution control equipment and discharge of air contaminants from the plants' smokestacks during start-up procedures in the early morning.

Bureau Executive Director Wayne Cropp said the enforcement actions Monday coupled with a $5,000 penalty in June against U.S. Pipe for alleged violations at its valve plant would lead to improvement in area foundries' compliance with emission standards.

"If you take these matters in conjunction with the court's action in June and the actions that we're proposing today, this should accomplish a major goal of this year," Cropp said. "In the case of Wheland Foundry, we will see major improvements in new air pollution control equipment."

The order requires complete compliance by March 1, 1990. But it allows the company to continue to exceed emissions standards during the period when the company is making improvements. Board member Dr. Donald Kinkel questioned that decision.

Hugh Moore, an attorney representing Wheland and North American Royalties, said the foundry had invested about $7.3 million in air pollution control equipment. The foundry has budgeted about $1.2 million in capital expenses during the next 12 months for environmental equipment, including an estimated $750,000 directly related to compliance with the consent order, Moore said.

— File/The Chattanooga Times

Wayne Cropp

He said the foundry had formed an environmental department with an additional personnel cost of $149,000 annually. The foundry has on-going operational costs associated with the environmental control of about $2 million a year.

"Parts of the foundry are 60 and 70 and 80 years old and its just very difficult to operate a foundry like that in 100 percent, perfect condition all the time," Moore told reporters afterward.

U.S. Pipe was cited five times for alleged excessive visible emissions from the baghouse, an air pollution control device that operates somewhat like a vacuum cleaner drawing emissions through a series of fabric filters that catch solid particles.

To try to correct the emissions, U.S. Pipe has installed closed-circuit cameras to detect damaged filters in the baghouse. The bags are periodically shaken to empty particles, which are then hauled away by a truck.

The second violation concerned discharge of air contaminants from the plants' two capped smokestacks during start-up procedures. Three notices of violation were issued in March and April 1988 as a result of surveillance by bureau investigators before daybreak.

The plant has changed its start-up procedures to include air pollution control equipment. Previously during start-up, company representatives say, the smokestacks were operated without pollution control because of concern about a buildup of carbon monoxide causing an explosion, Schuurmans said. Company officials say they have learned that the danger of explosion can be avoided if a certain temperature is maintained in the furnace.

Representatives of U.S. Pipe attended but did not speak during the meeting.

In June 1988, the board entered into an agreed order with U.S. Pipe and Foundry Co., valve and fittings plant, at 2701 Chestnut Street, to keep emissions following equipment failure to a minimum. The order carried a $5,000 civil penalty.

In other business, the board approved step pay raises for Bureau Director Wayne Cropp; Staff Attorney Robert H. Colby; the operations manager and engineering secretary. Cropp received a 5 percent step increase, raising his salary from $48,481 to $50,932. Colby received a 3.8 percent raise, increasing his salary from $32,091 to $33,331.

With the resignation of the bureau's engineering manager, the board temporarily assigned administration functions of that position to Colby and approved an additional $307 bi-weekly pay for handling those duties.

The board also approved step raises for the operations manager and engineering secretary. The operations managers salary was raised from $28,829 to $29,827, a 3.4 percent increase. The engineering secretary's pay was increased by 3.1 percent from $14,011 to $14,449. All raises are effective Jan. 1.

The board agreed to a new five-year lease on the bureau offices at 3509 Rossville Boulevard, containing a 14.5 percent increase in rents. The annual rent increases from $13,109 or $2.96 per square foot to about $15,000 or $3.39 per square foot. The lease specifies that the bureau will pay the additional cost of any property tax increases. The lessors are James S. Goodlet and Ralph C. Goodlet.

Wheland Reports Its Ductile Iron Plant Is Filling To Capacity

NFP 11-12-89 p.24

New orders for high-volume parts are filling Wheland Foundry's ductile iron plant to capacity so that by next February Wheland expects to have a partial second shift in place and by the end of 1990 it expects to have a full two-shift operation with two production lines running on each shift.

Wheland, which recently had members of the Ductile Iron Society here tour its new ductile iron facility, noted that since 1986 it has invested more than $6.5 million in converting one of its gray iron plants to ductile iron production.

At the new ductile iron plant, Wheland employs the latest technological advances, with an ultrasonic testing unit and a real-time X-ray imaging system giving extra assurance of the internal integrity of the company's ductile iron castings.

Base iron is converted to ductile iron with pure magnesium in a Fischer Converter.

The use of ductile iron castings continues to grow as engineers find new applications or to replace malleable iron, gray iron, steel castings, forgings and weldments, it was noted.

Ductile iron castings have a proven market in the automotive, construction and agricultural fields, and last year this country saw the production of three million tons of ductile iron.

The recent meeting was presided over by Keith Millis, the society's executive director and a person credited with discovering that the addition of magnesium to gray iron results in ductile iron.

In honor of Mr. Millis, a scholarship in his name will be presented annually to qualified students who plan careers in the foundry industry, it was stated.

Wheland Foundry is a division of North American Royalties Inc., a locally based company also engaged in the oil and gas industry.

Wheland is this country's largest independent producer of cast iron brake drums and rotors.

DUCTILE IRON GROUP MEETS — The Ductile Iron Society recently toured Wheland Foundry's ductile iron facility.

Welcoming the group was Wheland Foundry Plant Manager Timothy L. Roberts, right, while also pictured are Lyle Jenkins, left, technical director of the society, and Keith Millis, executive director of the society.

Wheland Given Extension On Anti-Pollution Action

NFP 1-12-90 p. B1

By J.B. COLLINS
N-FP Urban Affairs Editor

The local air pollution control board, meeting in special session Thursday afternoon, voted unanimously to grant a request by the Wheland Division of North American Royalties Inc. for an extension of a deadline for the installation of a $500,000 worth of additional pollution control equipment.

The original deadline for installing the additional equipment at its South Broad Street plant was last Dec. 31.

Wayne Cropp, bureau director said, the bureau received its first notice on Dec. 18 that the original deadline could not be met. He said he called a meeting of the board as quickly as he could do so conveniently to consider the extension request, but that because of the holidays the earliest meeting time that could be arranged was Jan. 11.

Hugh J. Moore Jr., attorney for Wheland, told the board that his company had planned to meet the deadline and had scheduled a division shutdown for the latter part of December for the installations, but the plant was notified on Dec. 15 that the delivery date for the equipment could not be met.

The requirement by the plant to install the additional equipment was part of an agreement in a consent decree issued in December 1988 in which the board imposed a $40,000 civil penalty for specified previous alleged violations.

Mr. Moore said that while the equipment had not been installed as planned, the plant is in compliance with clean air standards "and has been for some time." He said the company had spent "millions" in the past several years installing pollution control equipment to meet strict standards and the expenditure of the additional half million dollars was being made despite current compliance because the company wanted to take "the extra precautions" to maintain safe emission levels.

The board agreed to extend the deadline without penalty to March 5, or the date for the regular February meeting.

In another matter, the board, on recommendation of Mr. Cropp, delayed action on a petition by Byron Strickland to return to work as a member of the bureau staff after an extended sick leave. Mr. Cropp said the petition included a recommendation by Mr. Strickland's doctors that he be given light assignments and no work after regular hours.

A member of the board asked Mr. Cropp if there was anyone in the bureau qualified to determine what constitutes "light" duties. Mr. Cropp said he knew of no one with this qualification.

The board decided to postpone action on the petition until it received more information from Mr. Strickland's doctors.

Wheland's Wittman Retires, Succeeded By Ron W. Reese

NFP 10-29-90 p. B3

John E. Wittman will retire at the end of this month as vice president of the Wheland Foundry Division of North American Royalties Inc. and will be succeeded by Ron W. Reese.

Timothy L. Roberts will serve as director of operations and general manager.

JOHN E. WITTMAN

NAR Chairman and President Gordon P. Street said, "The company has accepted Mr. Wittman's decision with a genuine sense of loss, but also with sincere best wishes to John and his wife, Cathy, for an active and happy retirement."

Mr. Street also expressed pride in the management at Wheland. "Its fine reputation, both past and present, is a tribute to all the men and women involved in its operations. Under the leadership of the new management team, the foundry will continue to be a major force in the industry."

Mr. Wittman joined Wheland 10 years ago as general manager and became vice president in 1985.

He had previously served as vice president and as a director of Moline Corp. in St. Charles, Ill.

As vice president, Mr. Reese will be responsible for the overall operations at Wheland.

He holds metallurigcal engineering and master's in business administration degrees from the University of Alabama.

Before having assumed the duties of Wheland's general manager, he had been the foundry's manager, production planning, and manager of sales and administration.

He and his wife, Lynn, live on Signal Mountain. They have two daughters, Brandi and Jennifer.

Mr. Roberts' operational responsibilities will include the production and management at Wheland's Broad Street, Middle Street and Centrifuse plants.

Additionally, he will participate in the foundry administrative areas of purchasing, sales and accounting.

Mr. Roberts has a degree in metallurgical engineering from the University of Cincinnati and has taken part in the management development program at the University of Michigan's Graduate School of Business Administration.

He serves as chairman of the Tennessee Chapter of the American Foundrymen's Society.

Mr. Roberts lives on Signal Mountain with his wife, Barbara, and their two children, Beth and Chad.

Wheland is a major producer of castings for the automotive industry and is among this community's key employers with its foundries located in the vicinity of South Broad Street.

RON W. REESE

TIMOTHY L. ROBERTS

CHATTANOOGA - Industries - Wheland Co. (1990)

Auto slowdown hits Wheland

By Michael Davis
The Chattanooga Times

Wheland Foundry may lay off up to 35 employees after the first of the year due to production slowdowns. The foundry already has sent some workers home this month. T 12-20-90 p. D5

A union official said that if business has not picked up by Jan. 7, when the Broad Street plant returns to work after its two-week Christmas shutdown, some workers will be sent home indefinitely.

"If orders (from purchasers) don't change, we will probably have to lay off some more," said the official, who spoke on condition of anonymity.

Wheland — the nation's largest independent automotive foundry — laid off 33 workers in other production areas earlier this month because of a seasonal drop in orders.

"We manufacture parts for the automotive industry, and it is somewhat cyclical," said company spokeswoman Glenda Patton. "Business comes and goes."

But Ms. Patton said the plant currently has no further plans to cut staff.

"I do not know of any other layoffs at this time," she said. "You can't say for sure what will happen in the future, but hopefully orders will pick up. We'll hope for the best."

The union official said Wheland has hired over 200 new employees this year, but that business has fallen off since last fall. Over 1,100 currently work at the plant, which produces brake linings and drums.

Gordon Parkhurst Street

1902-1982

"He was the most wonderful man to work for that you can imagine. He always had the confidence to turn us loose with our ideas; we had his support throughout."

K. L. Landgrebe
Wheland Vice President (Retired)

Mr. Gordon P. Street served as President in the years from 1945 to 1973. Mr. Street's first industrial experience came when he joined Street Bros. Machine Company in Chattanooga, in which his father, J. Harry Street, was a principal. For many years, the firm maintained a close working relationship with the Wheland Company.

After World War II, Mr. Street acquired the Wheland Company. An interesting story of how he obtained his first order to make gray iron automotive brake casting confirms Mr. Street's reputation for kindness and fairness in all his business affairs. He'd once given free engineering advice to a man who later became a top automotive industry executive. In 1946, the man remembered the good deed. He knew Mr. Street was involved in the foundry business in Chattanooga, Tennessee. He approached the Wheland President with an offer: Would the Wheland Company be interested in making brake drums for Chevrolet? The answer was an enthusiastic "yes!"

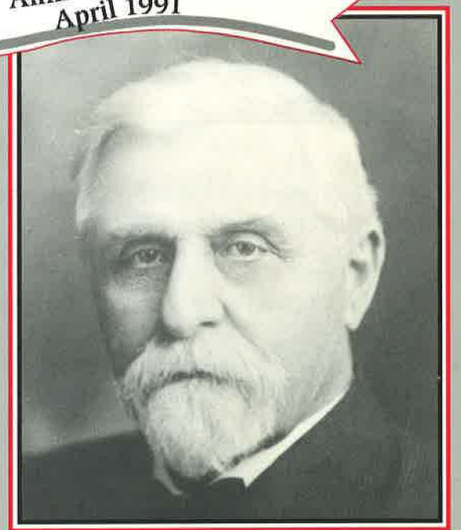
In the years between 1946 and 1966, the company's assets grew from $1.3 million to $11 million and employment increased from 100 to over 800. Under Mr. Street's leadership, Wheland grew rapidly to become the nation's largest producer of cast iron automotive brake components, a position it holds today.

Fondly remembered by all who knew him, Mr. Street's legacy of caring for others and concern for the customer remains an important part of Wheland's operating philosophy.

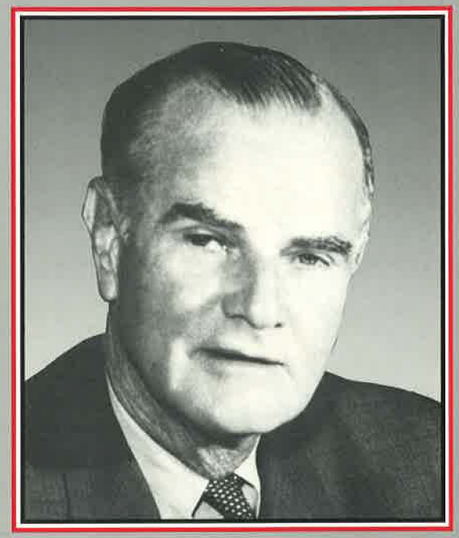
NAR NEWS

Spring 1991

Anniversary Issue
April 1991

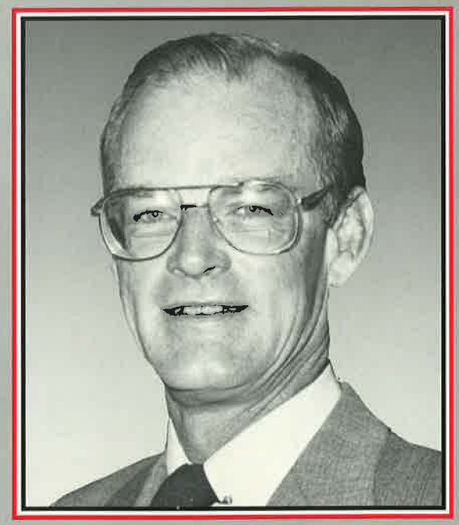


George Wheland, founder and president–1866-1929



Gordon P. Street, president–1945-1973

E.F. Wheland, president–1929-1945



Gordon P. Street, Jr.–1973-present

4 Presidents

125 Great Years – 1866 - 1991

NAR NEWS

Special Anniversary Issue 1991
Vol. 4, No. 1

NAR News is a publication of North American Royalties, Inc. Oil and Gas, and Wheland Foundry Divisions.

Wheland employees and retirees!

Wheland's historic files are chock full of old photographs, and we'll be running some of these in future NAR News issues during our 1991 125th anniversary year. Watch for pictures of old friends!

125 Years of Change...

As we observe our 125th year of operation, it is a time when employees, active and retired, can look back on Wheland's long history with a feeling of accomplishment and pride.

For this special historic edition of the *NAR News*, our leaders, past and present, were asked to reflect on the successes of the past and outlook for the future. The common thread that runs through their comments is that our **people**, hard working, dedicated and loyal, have been and continue to be Wheland's biggest asset.

Wheland employees have felt the pressures of world competition in both the iron casting and automotive markets and they have, as always, risen to the challenge. Many returned to school, sharpened their skills and learned new technologies and methods. Today, more than ever, we are working smarter and more efficiently.

The competition is still out there, but the number of large U.S. foundries producing cast iron automotive brake components has dropped by over 50% in recent years. Of those that are left, Wheland is among the best of them. But the pressures of the marketplace – to cut costs, improve quality and services – are greater than ever.

We will continue to adapt to these pressures, for it is our ability to change that has brought us this far.

"Wheland people... The Best of the Best"

NAR President and Chairman Gordon P. Street, Jr., on Wheland's past, present and future:

Gordon P. Street, Jr.

As a young boy, I remember being told we were going to buy a company. My father had plans for the technological revitalization of the existing product lines to improve sales. This was right after World War II. The car companies were gearing up, and they were looking for sources of castings. The Wheland Company had come to their attention. They approached my father and asked him if he'd be interested in visiting Detroit to see the plants where they planned to outsource castings.

It wasn't long before he had an order large enough to provide the financial strength to build what are now loops 1 through 4.

We've been very fortunate and we've had some extraordinary people working here. I like to think of us as "ironmongers" – strong, tough, but also very caring. Strong people, throughout history, seem to have the greatest ability to care for others.

I think part of our strength as a company comes from that. Our engineering and sales staff, for example, have always given very personal attention to customers. The quality of product has been a factor, too. There are still some of those old Wheland saw mills and pumps in working order today. They were beautifully made machines, and no one has made them as well since.

Now we're faced with great challenges. Cars are becoming lighter and smaller, with less iron content. As the United States realigns its posture as a world economic power, we're going to find that our production here in Chattanooga will have to be competitive with that of other countries.

The marketplace has changed, too. It's much more regulated, with increasing environmental concerns that add to our costs. Our country's educational systems have declined while those of other industrialized nations have improved. We are now seeing these countries doing very well because they have well-educated populations.

One way we can make sure we're here in the future is to reinvest in our plants and provide the best training and equipment for our employees. I believe that the best system is a combination of technology and a well-educated and trained work force. We have the best people right here. I would be willing to match any company in the world, employee-to-employee, and Wheland people will out-work and out-produce any of them. They are the best of the best.

History

125 Years of Growth and Progress

In 1991, Wheland Foundry celebrated the 125th anniversary of its founding. Throughout the company's long history, Wheland's ability to change and adapt to the needs of the marketplace has been a major factor in its success. In many ways, the evolution of Wheland-made products parallels the march of American history.

In the post-Civil War South, the Wheland Company made cast iron farm implements and cookware in a general foundry and machine shop in Athens, Tennessee. In 1873, Mr. George Wheland moved his business to the present site of the Wheland Foundry. Demand for the grist mills, water wheels and cane mills made by Wheland grew as the city of Chattanooga was rebuilt.

Throughout the period of rapid growth in the 1880s, Wheland, as it had done in the past, tailored its products to meet customers' needs. A line of steam engines and boilers helped free mills from water power, heralding a new era of manufacturing growth for the south. During World War I, most of Wheland's capacity was devoted to the manufacture of anchor windlasses and lathes for turning shell.

New technology and products included a line of high pressure pumps used in oil drilling operations. A few years later, Wheland began producing rotary drilling equipment, engines, draw works and traveling blocks that would lead to petroleum exploration involving the company's latest equipment.

By 1940, Wheland had a well-established relationship with a successful Chattanooga enterprise, Street Brothers Machine Company. During World War II, the two companies entered into a partnership to produce materiel for the war effort.

In 1945, Mr. Gordon Street arranged to acquire ownership of the company from the Wheland family, becoming its third president. Following an aggressive modernization plan, he phased out oil drilling equipment and embarked on an exciting new venture: production of iron brake drums for the booming automotive industry.

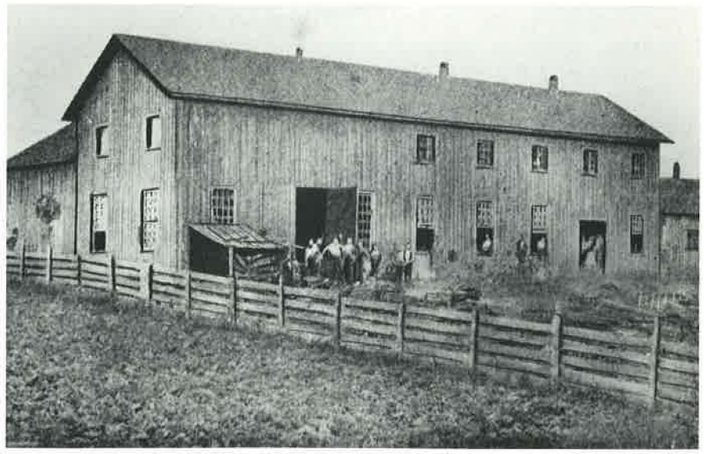
Wheland had grown to a six loop operation by 1967, and in 1974, a new, state-of-the-art production foundry opened, utilizing flaskless (Disamatic) molding.

After many years of growth in the oil and gas division, Mr. Street purchased a majority interest in North American Royalties, Inc. (NAR) which included extensive mineral and royalty holdings. Geological, geophysical and engineering capabilities were developed under the new ownership.

By the mid-eighties, Wheland had added two new product lines. Anticipating the continued growth in ductile iron markets, the company moved ahead with a comprehensive modernization program of improvements compatible with the ongoing restructuring of the foundry industry. Ductile iron production began at Wheland's Middle Street foundry, and in 1990, a second shift was added due to the growing ductile iron production requirements.

Manufacture of centrifugally cast truck drums began in 1987. A proprietary product made exclusively for one of Wheland's long-time customers, these cast iron drums, surrounded by a steel outer shell, are used on heavy tractor trailer trucks, school buses and off-road construction equipment.

Today, Wheland continues to adapt to the needs of a rapidly changing, worldwide market. A heritage of dedicated effort, creativity and innovation, begun 125 years ago, helps us continue to meet the challenge of providing customers with the world-class quality, low cost, and on-time deliveries they expect from Wheland Foundry.



The Works, 1875 – This picture was made two years after George Wheland moved his business to the present site of Wheland Foundry, near the Tennessee River. The wood frame building housed his foundry, machine and repair shop.

1860s

In the beginning...

George Wheland

During the late 1700s, the area surrounding what is now Chattanooga was the location of dozens of small, primitive furnaces and forges. All of the raw materials needed to manufacture iron products were readily available; hardwood forests furnished material for charcoal and coke. Limestone and limonite or "brown ore" were found in the earth in such quantities as to make the area a natural choice for persons interested in producing iron.

In later years, coal was discovered in South Pittsburg, Whitwell and Dunlap (Tennessee). Coke was first used as fuel around 1860, greatly improving the output and efficiency of early melting operations. Iron making would prove to be a very profitable undertaking for the entrepreneurs of that era.

Mr. George Wheland was among this group. A soldier who had served in the Chattanooga area during the Civil War, Mr. Wheland returned after the conflict, bringing his family. He loved the area's mild climate, beautiful mountain scenery and flowing rivers.

In 1866, he started a small machine shop, foundry and repair business in Athens, Tennessee. By 1873, he had moved his fast-growing enterprise to the present site of Wheland Foundry, near the Tennessee River.

Mr. Wheland enjoyed a period of great success, building grist mills, saw mills, cane mills and water wheels. His patience and determination to build only the best kept him moving forward through periods of adversity. When a great flood inundated the town, Mr. Wheland, his family and employees patiently removed the masses of mud and debris from the first floor of his business, and set to work to start over again. Business boomed, and within a few years, he had added new product lines that included finely made steam engines.

Until his death in 1929, Mr. Wheland took an active role in his company. He often walked the mile-long route to work from his home in St. Elmo.

Early records of the Wheland Company note, "Each day found him, not comfortably ensconced behind a desk, but out in his plants, moving from first one machine, then another."

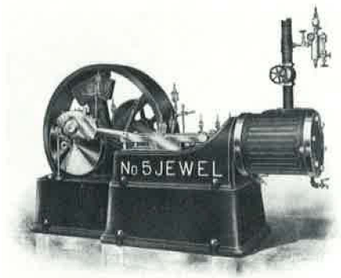
In 1866...

Union soldier George Wheland returned to Tennessee after the Civil War.

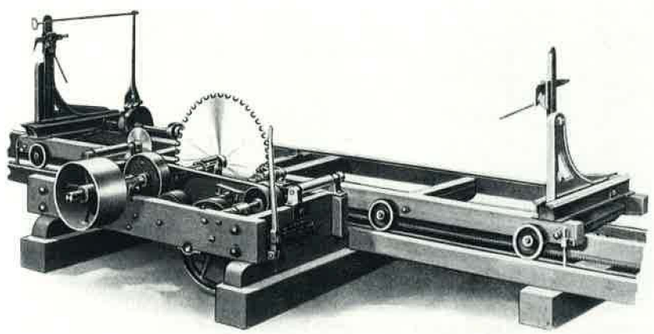
In 1883 Wheland workers paused for this group photo. Harry Street, third from left, front row, was the grandfather of NAR President and Chairman Gordon P. Street, Jr.

The Industrial Age

The way we were around 1910:
Wheland had grown from a small foundry, machine and repair shop to this size shortly after the turn of the century.

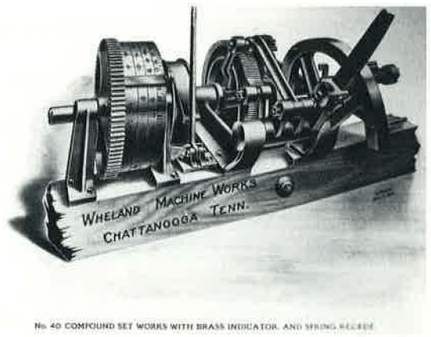


Steam engines made by Wheland were so well crafted that some are still in use today.



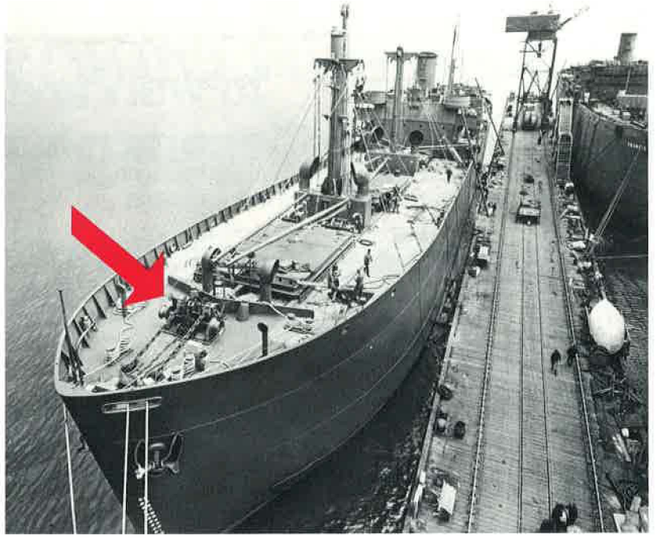
No. 1 MILL COMPLETE WITH RACK FEED

Many of the larger sawmills in the United States were outfitted with Wheland-made equipment. Pictured here is the "No. 1 mill complete with rack feed" as it appeared in a sales catalog over 80 years ago.



No. 40 COMPOUND SET WORKS WITH BRASS INDICATOR AND SPRING RECEDE

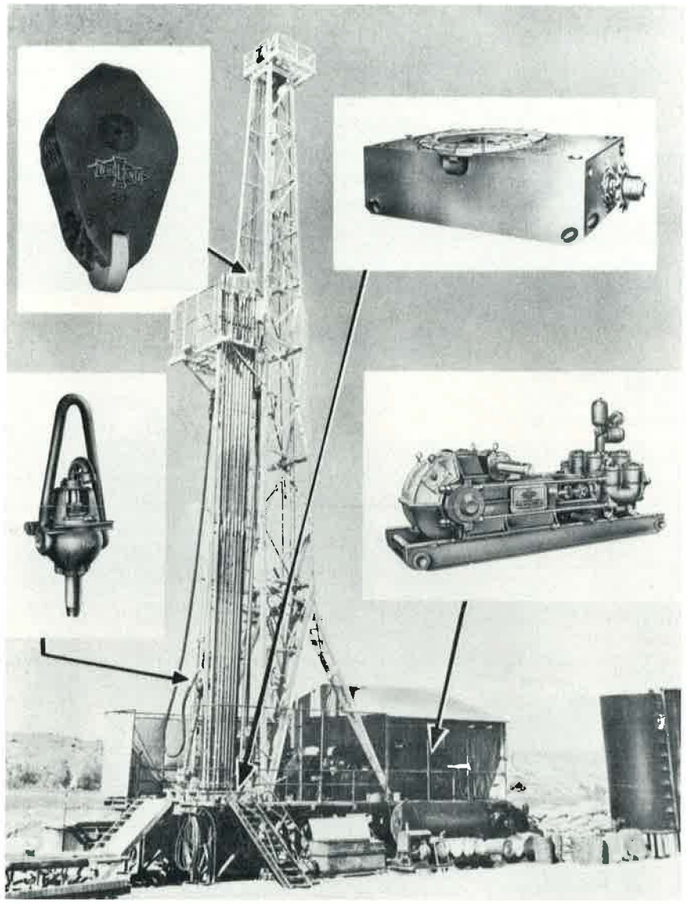
The "No. 40 compound set works with brass indicator and spring recede" was one of the offerings in early sales brochures.



Anchor windlasses for Liberty ships were produced at Wheland during World Wars I and II.

Can you tell when this picture was made by looking at the cars in the Wheland parking lot?

For many years, oil field drilling equipment was a part of the Wheland product line. These pictures and accompanying text explain how Wheland components were used in a drilling rig.



This drilling rig is equipped with Wheland-made traveling block (upper left), swivel (lower left), rotary table (upper right), slush pump (lower right); all were made by our Manufacturing Division. The traveling block, which supports the weight of the drill pipe when it is being raised or lowered, weighs 5,478 lbs., has five sheaves and 250-ton capacity. The swivel, which provides a means of pumping mud to the bit at the bottom of the hole, keeps the bit cool and brings cutting up from the hole, weighs about 2,850 lbs. and has a rated drilling depth of 12,500 ft. The pump (H.P. 14,000) actually pumps mud down drill pipe to the bit. It weighs 24,000 lbs. and is rated at 350 h.p. input. The rotary transmits power from the drawworks to the kelly, which in turn rotates the drill pipe. The rotary weighs 6,500 lbs. and has a rated drilling depth of 10,000 ft.

James Burkes: A Wheland Veteran Remembers...

It was a lot different when I came to work at Wheland in 1942. That was when they had the gun plant.

My job was to unload the coke from those little rail cars they called "gondolas." Two of us would get in the cars, one in each end. We'd work until we met in the middle of the car, and then we'd be through.

I knew the Whelands, and Mr. Street. They were in and out of the plant a lot, so we were kind of like a big family.

I remember Mr. Street gathering us around him and telling us that he'd gotten this important contract, and it would mean a lot of new work for us. It was the greatest thing that could happen, and we were real happy.

We started making brake drums for Chevrolet, and Mr. Street even brought a car down for us to look at that had Wheland brake drums on it.

Retiree James Burkes came to work at Wheland in 1942. He is pictured here with his pride and joy, grandson Jeffrey Burkes.

Over the years, the company advanced. I understand they've made things for just about every kind of car and truck you can think of.

I raised a family of six while I was working there. I worked to the advantage of the company, and myself, too.

An Overview of Wheland's Operations Today

Wheland Foundry, established in 1866, is the largest independent producer of cast iron automotive brake components in the United States.

There are six automated tight flask molding lines and a centrifugal casting plant at Broad Street. The Middle Street ductile iron plant features three large, high speed, flaskless Disamatic molding lines.

Two gray iron foundries produce castings in the weight range of five to 180 pounds. The Middle Street operation produces ductile iron automotive and general purpose castings in the three to 70 pound range.

Iron is melted in three of five cupolas daily and duplexed through seven of 10 induction furnaces at a rate of over 100 tons per hour. Approximately four million pounds of material are melted and poured during a normal work day. This metal can be cast into an average of 100,000 parts with a total weight of 1,000 tons. Approximately 150 different gray and ductile iron castings are made at Wheland.

In an average work week, 15 rail cars and 130 tractor trailer loads of castings are shipped to Wheland's customers, the major car manufacturers and several large machining operations.

Since Wheland Foundry began production of automotive castings over 40 years ago, more than 500 million castings have been made. Approximately 50 per cent of U.S. built cars have one or more castings made at Wheland.

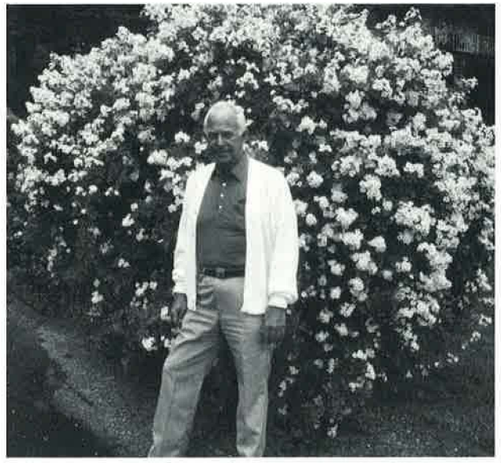
Tribute

In this issue of the *NAR News*, we have outlined Wheland's long history, with emphasis on the post-World War II years. A special breed of "iron men," was born at Wheland then, and their legacy is alive and well today. It is not uncommon to hear the names of these legendary figures, most of whom are now retired, in conversations around the foundry.

One of them, Ben Seymour, manager of Wheland's Centrifugal Casting facility, recently retired and is missed by his many friends at the foundry.

Ben is fondly recalled as a friend to all who took the time to listen, to laugh and to enjoy life. Whatever the challenge he undertook, he tackled with his usual enthusiasm and made it work beautifully. Whether it was engineering out a problem in the foundry, or working with customers to give them personalized service, Ben gave his best and brought out the best in those around him.

It is to Ben and his generation that we dedicate, with our deepest gratitude and respect, this special edition of the *NAR News.*



"Oh, you've got to come out to the house and see my white rose bush," Ben said a couple of years ago. Ben's love of flowers is second only to his enthusiasm for collecting golf balls.

Retired Wheland Vice President Reflects on Foundry Success

"I feel like one of the most fortunate people in the world to have had the opportunity to come in on the start of this and watch it grow and to work with wonderful people. It's been a very satisfying career."

Mr. Karl L. Landgrebe, retired Wheland Vice President

When Mr. Karl Landgrebe came to Chattanooga in 1946 from Ford Motor Company, he was about to become a part of one of the greatest and longest-lived success stories in the foundry industry. Wheland, as were many other American businesses who had devoted their capacities to war work, was on the brink of an exciting new venture; making cast iron braking components for the booming automotive industry.

Mr. Landgrebe recalls, "When I came here, they were removing old machinery from number one foundry. Ten months later, Loops 1 and 2 had been renovated and were turning out castings for Chevrolet. For seven years, we supplied 100% of their brake drum needs."

Soon Loop 3 was making Chevrolet transmission housings, along with flywheel housings for Hudson and clutch plates for the Borg and Beck Division of Borg Warner. By the early fifties, a core room had been built and Wheland was making converter housings for Ford's new automatic transmissions. In the mid-fifties Wheland management presented a cost-saving idea to its customers that resulted in a new, steel insert stamping facility being built to enable Wheland to make composite brake drums with its own stampings.

"We were always looking for new work and thinking what we could do well, and do competitively," Mr. Landgrebe says. "We developed a pretty good reputation within the automotive industry."

Automated molding lines revolutionized iron manufacture at Wheland. "We saw this new Taccone machine," the former vice president remembers. "We worked with Russell Taccone, its inventor, to adapt it to our needs here." With installation of the new equipment in 1956, Wheland could double its molds per hour from 120 to 240.

Agreements with Motor Wheel and Kelsey-Hayes followed, and more loops were built – loops 5 and 6 were installed in 1967.

Mr. Landgrebe gives credit to his team, "Everybody was dedicated to what they were doing. Some of our people would see a new job and immediately suggest design changes to make it more economical or serviceable, or they'd figure out a better way to arrange the castings in the mold."

Wheland thrived during the great foundry shakeout that began around 1950 and continued for more than thirty years. Lacking the capital to meet environmental standards and to upgrade equipment and technology, hundreds of foundries went out of business.

In 1974, Wheland's Middle Street foundry opened, and was one of the first in the country to employ flaskless Disamatic molding to make disc brake rotors.

The constant competitive battle in the mid-eighties led foundry management to make the decision to convert the Middle Street facility over to ductile iron production.

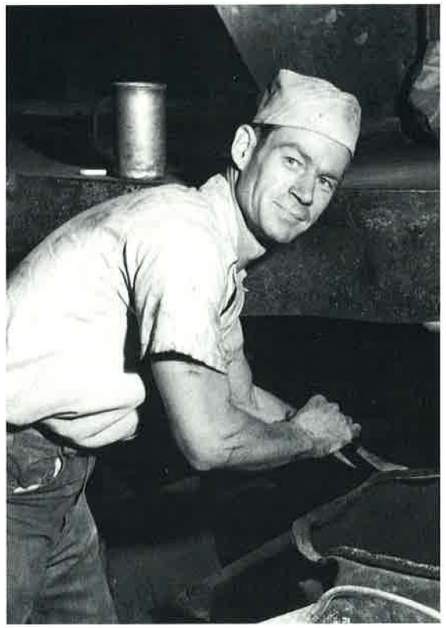
Commenting on the growing competitive pressures facing the foundry industry, Mr. Landgrebe states, "We are competing not only with other foundries, but with new products that replace iron such as aluminum, magnesium and even some plastics."

He continues to serve in an advisory capacity to management. Mr. Landgrebe is pleased with today's foundry managers and with Wheland's continued growth.

1950s Before Automation

"Clamping up" in the north plant before automation. Cope and drag flasks were closed by hand in the early fifties.

Filling a flask with sand was a lot different in the "old days" than it is using the modern automated production methods.



The legacy of Wheland's "Iron Men" is alive and well today. Forty years ago muller operator Paul Scoggins was known for his perfect attendance at work.

1960s

The Times They Were A'changing

In 1961, plant superintendent Charles Chisolm presented a service award to Lawrence Stewart, right, while Jack Deakins and Paul Broadway looked on.

Foundry managers, circa 1960's. – Front row, left to right: Jim Patton, Joe Weir, Alvie Lankford, Estell Templeton, Jim Skidmore, Fred Riddle, (Bud) Verlin Inman. Second row, left to right: Ernest McRoy, Forrest Varnell, Tom Roark, Glen Wolff, Jack Deakins, Dan Gouger, Lawrence Chandler, Charles Price, John Young, Irvin Shipley

1970s

Do You Remember?

Supervisors, do you recognize these young men who attended a supervisory training course at Chattanooga State Technical Community College nearly fifteen years ago?

First row, from left; Carrel Ivey, Ulys Sparks, Everett Tate, James Tatum; second row: Grady Smith, Raymond Vaughn, Ron Avans, Richard Jones; third row: Henry Gifford, Arthur Howard, Lee Henson, Bobby Shankles, Charles Clayton; standing: Bill Hollis, Jack Kittle, Earnest Crawford, Don Thomas, Scott Campbell, Monjay Gilley and Allen Snyder.

Thanksgiving 1978 – Middle Street employees on the first shift heard a Thanksgiving message from the Rev. Don Moreland, who was introduced by Charles E. Scealf.

Today
Making Technology Work

Tim Roberts
Director of Operations and General Manager, Wheland

Keeping up with the latest available technology over the years has helped Wheland maintain its competitive edge. Timothy Roberts, General Manager and Director of Operations, explains how technology works for us.

When we talk about technology in our business, we're talking about combining acquired knowledge and scientific principles to our manufacturing processes.

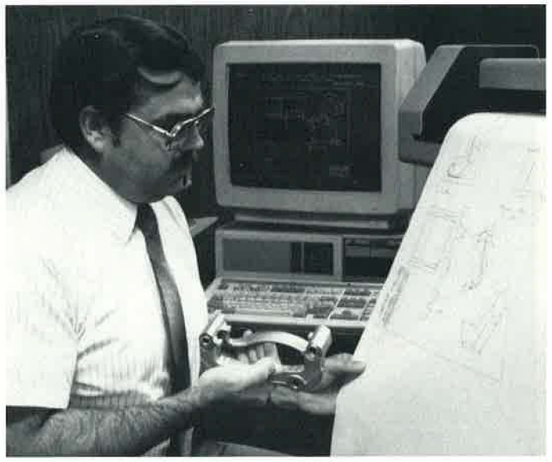
Technology can only be successfully used when we understand how it helps us do our jobs more effectively. Our managers, engineers and technicians have taken the lead in improving their technical skills and, in turn, are passing these skills and expertise to others at the foundry.

To stay up-to-date in the latest technical advancements in our industry, we participate in local, regional and national chapters of the American Foundrymen's Society and other technical and engineering organizations.

In today's modern foundry, a multi-discipline approach to manufacturing combining maintenance, engineering, safety and ergonomics, metallurgy and quality works best. New technologies help reduce manufacturing costs, improve the work environment, and expedite just-in-time deliveries.

We have some of the latest foundry technology in the world right here. Wheland was one of the first to use Real Time X-Radiography in a high production iron foundry. Our ultrasonic testing units check for casting nodularity and insert steel thickness. In our pattern shop, the Starrett Rapid Check coordinate measuring machine provides quick confirmation of a casting's compliance to dimensional specifications. In Wheland's new computer center, we use fiber optic technology to collect and integrate data into clear, usable formats.

New technology is continually being developed, and in the years ahead, we will make the opportunities it offers become reality by directing a greater portion of our annual capital budgets to projects that yield improvements in our foundry capabilities and good returns on our investments.



Dave Phipps, Manager of Product Engineering uses Computer Aided Design capabilities to produce drawings for tooling design.

Layout technician Donnie Davis operates the Starret Rapid Check Coordinate Measuring machine.

Quality = People • Pride • Performance

Manager of Quality Assurance Ratan Ray: "We recognize that, in the race for quality, there is no finish line. Continuous quality improvement simultaneously satisfies our customers and motivates our employees."

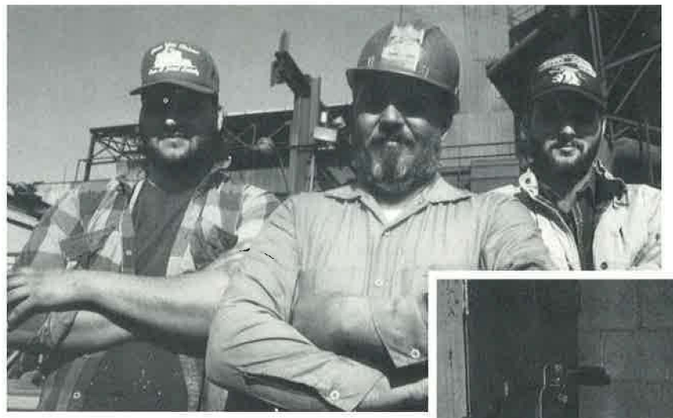
Ken Weller and Rob Patterson of Wheland's Information Services Department. Information moves through the foundry at the speed of light, using the latest fiberoptic technology. A single pair of fiberoptic cables carries and retrieves information and is powered by a DEC vax line machine.

The Jobbing Foundry Team

For 125 years, master molders have refined their art in Wheland's Jobbing Foundry. Castings in the weight range from a few pounds up to 12,000 pounds are made economically and efficiently by our jobbing foundry team.

Pictured from left to right: (front row) Isaac Strickland, Jackie Thompson, Gene Headrick, Virgil Sprayberry, Mark West, Luellyin Burgess, Percy Allen, Wesley Cooper, Judge Lyles; (back row) Clarence Sisk, Robert Adams, Edward Porter, Calvin Culbert, William Pickett, Walter Burks, Eugene Norman. Not Pictured Crane Operator: John Bailey.

Today Commitment and Attitude



Working at Wheland is a family affair
Dennis Chapman, center, and sons Billy, left and Lebron, right, are typical examples of the exceptional loyalty and commitment of Wheland employees.

Maintenance employees like John Carson excel when it comes to adaptability; living up to a well-earned reputation for "making things work." They pioneered in the idea of "continuous improvements."

A craftsman at work. Pattern maker Joe Carter creates the intricate wood patterns used in making prototype castings.

Training
Employees at Wheland's Middle Street Plant attend a Visible Defects Identification class.

Friendly smiles...
A positive attitude makes the work more pleasant for everyone, as Edward Williams, right, lab tech at the Middle Street ductile iron foundry, and friends Ann Thornton, above left and Debra Hambright show in No. 1 cleaning room, Broad Street gray iron foundry.

Keeping the plants and grounds clean is part of our program of Continuous Improvements. Steve Gravitt, right, Assistant Operations Manager, communicated job instructions to truck driver Tommy McMahan.

How Do Manufacturing Jobs Impact the Community?

Gordon L. Smith

During Wheland's 125 year history, tens of thousands of Chattanooga area residents have built homes, raised their families, and educated their children with manufacturing wages earned at Wheland. In addition, the foundry spends millions of dollars annually for supplies, raw materials, capital improvements and utilities, creating a significant economic impact in the community.

NAR Vice President, Planning, Gordon L. Smith talks about the positive aspects of manufacturing jobs in a community.

"Manufacturing jobs mean higher growth rates in the community. Studies have shown that counties with increased manufacturing employment experienced growth rates in other sectors at twice the rate of the communities with no manufacturing job growth.

"This translates into more sales of homes, automobiles, food and clothing. When 100 manufacturing jobs are created, 64 more jobs in non-manufacturing industries result. This means more businesses such as restaurants, shopping centers, and medical facilities."

The increase of the number of businesses results in an increase in the tax base of a community, according to a study prepared by the Georgia Industrial Developers Association. This study found that in small, local areas the average increase in property tax revenues amounted to about $245,000 for every 100 new manufacturing jobs in the community. These tax dollars can be used to support education, improvements in the infrastructure, and other public services, improving the quality of life for everyone.

The Circle of Education

"Knowledge, once gained, casts a light beyond its own immediate boundaries."

John Tyndall

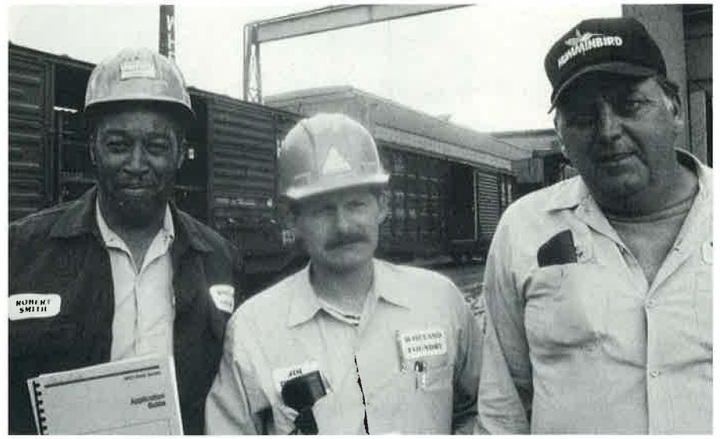
Once a good thing gets going, it seems to radiate in circles, touching one life, then another. That's the way it's been with our company's education programs.

For example, the interaction in our GED classes between salaried employee-tutors and students has created a circle of friends. One of our GED class helpers, Russell Anne Swafford-Talley of NAR's Land Department, recently shared her thoughts about her participation in the program.

"On the way home after the class, I was thinking about what I feel is the 'Circle of Education' in our company. I get help from our tuition reimbursement program, and try to give back to the GED and adopt-a-school students. The GED student I tutor is working with some children at our adopted school. Another GED student's daughter is attending college with the help of an NAR scholarship. She and her father study together, and he, in turn, encourages his fellow students to stay the course and earn their high school diplomas.

"It is truly a beautiful cycle of love and education, acting like a perpetual motion machine. I feel grateful to the company for my educational opportunity. These programs have increased our self esteem and benefit us in our jobs. They spark our interest and make us feel as if we are part of an 'education team.'"

Learning at Work...
GED students Grady Pickett, Johnny Millsaps, James Gardner, Lonnie Hood, Robert Eaton, and F.P. McDaniel with their teacher, Mrs. Felix Stuart, seated right, and tutor Russell Anne Swafford-Talley of NAR's Land Department.



School days...
Supervisors Robert Smith, Jim Dickson and Thomas Shipp attended in-house SPC training course.

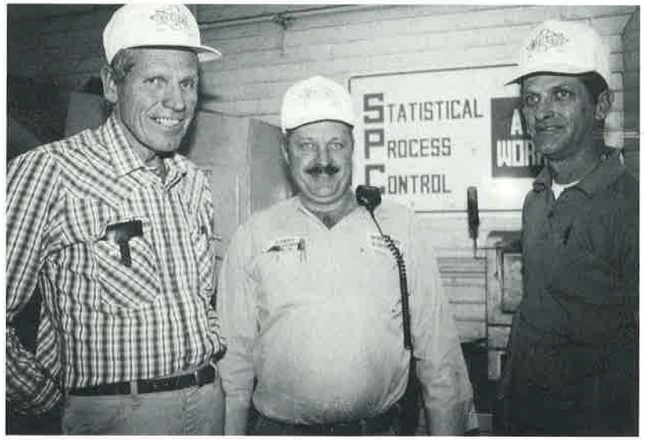
The circle is completed: Cleaning room laborer Rozell Edmonds volunteers his time at Wheland's adopted school. Here Rozell and three friends put the finishing touches on some bluebird houses they built to be erected on the school grounds. Left to right: Kendrick Heathington, Tirell Grayson, Mr. Edmonds, and Terrence Davis.

Grady Pickett, No. 1 Cleaning Room, right, gets support in his GED studies from daughter, Allison, an NAR scholarship winner.

Today

The Spirit Remains

To celebrate our 125th year – new caps were provided for all employees. Supervisor Larry Kilgore, center, Sand Samplers Rufus Parker, left, and Benny Patton proudly model the new headwear.



Customer service...
Costing and Standards Manager Bill Marlatt and Cost Coordinator Melissa Moore make sure customer requests for quotations are handled promptly.

Who's that lady?
When you call NAR/Wheland, your call will likely be answered by switchboard operator Bea McFadden. It's Bea's job to make sure your calls are handled promptly and efficiently, and she does her job well!

To our returning employee-reservists:
Welcome Home

Service Awards

25 Years – Personnel Manager Gary McGee, L.C. Kelley, service award recipient, and Vice President Ron Reese.

25 Years – Personnel Manager, Gary McGee, Howard L. Hyatte, service award recipient, and Vice President Ron Reese.

20 Years – Trip Smith, Engineering Manager, NAR Oil and Gas Division, presents a 20 year service award to Nita Milliken, Production Assistant.

Retirements

Curtis J. Burt – 38 yrs. 9 mos. – 1st shift Environmental Laborer
Roy C. Davis – 36 yrs. – 1st shift Centrifuse Truck Driver
Elverth Meredith – 43 yrs. – 2nd shift Melting Truck Driver
Ben H. Seymour – 43 yrs. 7 mos. – Operations Manager/Centrifuse
William C. Wilbanks – 20 yrs. 10 mos. – 2nd shift Middle Street Mechanic

In Sympathy

Justice Allen – Retired 12/1/74; deceased 3/7/91
James L. Atkins – Retired 9/1/66; deceased 2/26/91
Granville Bodenhamer – Retired 6/1/77; deceased 11/18/90
George A. Hill – Retired 6/1/78; deceased 3/6/91
Maxie J. Johnson – deceased 3/5/91 – 1st shift Clamp on Loop 5
Grady Lance – retired 7/1/79; deceased 3/7/91
Lester H. Monroe – retired 7/1/74; deceased 1/21/91
Walter Moore – deceased 2/4/91 – 1st shift Clamp
Lola Moore, wife of Albert Moore – deceased 1/3/91
Tom H. Stout – retired 9/1/85; deceased 1/29/90

January-March 1990 Service Awards

Howard L. Hyatte	25
L.C. Kelley	25
Joseph Askew, Jr.	20
Osby Burks, Jr.	20
Robert M. Clark	20
E. Lee Henson	20
Walter T. Lindsey	20
Nita Milliken	20
Benny F. Patton, Jr.	20
Houston Scruggs	20
Bobby J. Blevins	15
Dennis W. Cofer	15
Willard L. Duckett	15
Terry Giles	15
Jimmie Ingram	15
Larry L. Keel	15
James H. Kilgore	15
Fred A. Ledford	15
James Melton	15
Marty J. Morrison	15
Jerry L. Payne	15
Denton T. Tate	15
Melvin L. Varnell	15
James A. Nichols	10
Stanley E. Tidwell	10

Today

Working Smarter

Shipping laborer Terrel Fears in newly renovated No.1 cleaning room.

Darrel Graham, James Tatum, Ulys Sparks and Danny Boatner. These foremen excel in motivating and encouraging employees.

Preventive Maintenance Engineer Roger Hackett uses vibration analyzer to check wear and tear on a baghouse fan.

Looking Ahead

Commentary by Ron Reese

Ron Reese *was named vice president of the Wheland Foundry Division, North American Royalties, Inc. last year. In a recent interview, he had these observations about employee commitment, market conditions and future outlook.*

A Changed Marketplace

The changes that have happened in the automotive industry are permanent; there will be no going back to the "good old days" where suppliers or producers could dictate prices or quality levels. The American car buying public will not stand for it. Consumers are much more aware today. They understand quality concepts and look for value when making purchases. The issue of quality is not a passing phenomenon.

Continuous Improvements

The concept of continuous improvements is exactly what it says. Every aspect of our operation must be constantly improved. The reality is, our competitors are doing it, and we have to do it, too.

Operating processes and equipment must be continually reviewed and updated. The capital to replace obsolete and inefficient equipment is absolutely essential.

Employee development and education is another key area. An employee development manager is now working on curriculum and facility requirements to build a program of educational development for Wheland's employees. We plan on having our first classes this summer.

Committed Employees

A lot of our success comes from the commitment left by our older employees. When a new person comes here, he is surrounded by people practicing a strong work ethic; giving a full day's work for a fair wage. Long before the concept of teamwork became a popular "buzzword," Wheland people were working together to get the job done. One of our jobs is to make sure we never lose that commitment.

The Competition

We have had to compete with both foreign foundries and foreign car makers. Now we have the added pressures of new materials replacing iron. For example, we have seen aluminum composite cast rotors on racing cars. Antilock braking systems could reduce the number of brake drums used by automotive manufacturers. Here at Wheland, our strength has been in brake drums. Our goal is to continue to be a major supplier of brake castings to the automotive industry, so we have to work hard to get more rotor business and protect our future.

Communication

Today's foundry employee has to be more savvy than in the past. We have to find a way to tap into their vast storehouse of knowledge. To begin this process, we have to communicate better. This will be a major focus of our educational efforts.

Ductile Iron Business

This is a very big part of our plans. We invested substantial sums in the Middle Street plant, and have given our word to our customers that they could count on us as a ductile iron supplier. The ductile iron market is growing and we are confident that the Middle Street foundry will be a major contributor to Wheland's overall success.

Leadership

Everyone should be proud that they are a part of this organization. In the past, Wheland has provided employees with the right tools and training to do their jobs. Wheland employees come to our plants bringing with them a dedication and commitment to do their best. This is still true today. We are all part of what we think of as "the company." It is each of us, doing our best, that will insure Wheland's continued success.

Molten metal

Iron-fortified foundry stays fiscally strong

By Michael Davis
The Chattanooga Times

T4-6-92 p.C6

It's a long way from sawmills to Saturns; from oil derricks to Oldsmobiles.

Nonetheless, one of the nation's largest suppliers for the high-tech automobile industry has its roots in the low-tech industries of more than a century ago. And despite the notoriously erratic automobile market, Chattanooga-based Wheland Foundry has hung on for 125 years by chasing the market that is its bread and butter.

Not easy to survive

"If it were easy, everybody would be doing business," said Gordon P. Street Jr., president and chairman of Wheland parent North American Royalties Inc., who took over the company from his father in 1973. "We are a survivor and a very large survivor."

The company that ultimately became Wheland predated Henry Ford's Model T by nearly a half-century. Former Union soldier George W. Wheland returned to the South the year after the Civil War ended and built a machine shop in Athens. Wheland moved the operation to Chattanooga in 1873, hoping the larger city would provide a better market for his sawmill, gristmill and oil-drilling equipment.

In the 1940s, Wheland geared up to produce ordnance and military parts for the war effort with another local company, Street Brothers Machine Co., co-owned by Street's father, Gordon Street Sr. When the Whelands decided to sell their share of the business in 1945, Street became the new owner.

From Wheland to Street

"None of the Wheland children wanted to go into the business, so they retained my dad to help sell the company," Street said. "He did such a good job, he bought it himself."

Under Street, Wheland continued to produce sawmill and oil-drilling equipment through the mid-1960s. But what would soon become the company's core business took off just after he bought the company.

With the war over, General Motors had stopped building tanks and armored personnel carriers and had gone back to passenger vehicles. GM officials looked to the South for favorable labor rates to manufacture the auto parts and remembered Street from his wartime business. In 1948, Wheland agreed to build a foundry expressly to become the sole supplier of brake drums for Chevrolet.

"When they give you a six-year contract, it's worth it," Street said. "They needed it, so it was of mutual benefit."

Nation's third-largest

Wheland is now the nation's third-largest iron foundry, employing more than 1,200 workers and capable of producing up to 100,000 castings a day from 2,000 tons of molten metal. Its catalog includes more than 100 components, mostly brake drums, rotors and calipers, transmission hub parts and steering knuckles for the auto industry.

The company's customer base has expanded to include all three U.S. automakers. But Wheland also provides parts to foreign manufacturers — including Toyota, Mitsubishi, Volkswagen and BMW.

Street said several factors have contributed to that market share. Because of Wheland's size and location, the company has been able to compete favorably with all other suppliers on cost. Less-expensive labor rates than in the Northern industrial centers and, according to Street, "the best work force you can have anywhere" allow the foundry to deliver castings quickly and cheaply.

Investing in quality

But Street said some of the success is also quality-driven. For critical parts, most automakers require specifications that few suppliers can meet. Wheland spends about $3 million a year upgrading its equipment.

"Wheland has an extremely good reputation for being very cost competitive and very quality competitive," Street said. "Through the years, every manufacturer has tried to get the best for the lowest cost, and we were able to get that business."

Even Street admits that long-term stability does not always equal booming business, however. For the last two decades, the iron content in automobiles has constantly fallen as cars have gotten smaller and lighter,

(over)

At left, patternmaker Joe Carter creates wooden patterns for casting prototypes. The foundry's catalog lists more than 100 components, primarily for the auto industry. Wheland also supplies parts to all three U.S. automakers and several foreign carmakers, including Toyota, Mitsubishi, Volkswagen and BMW. Much of Wheland's success is quality-driven. For critical parts, most automakers require specifications that few suppliers can meet. Wheland spends about $3 million a year upgrading its equipment. As iron use has fallen, smaller, weaker foundries have gone out of business.

through broader use of materials such as aluminum and carbon fibers.

Surviving despite instability

Profits and employment at the plant have fluctuated sometimes wildly over the years, held hostage by the volatile sales that characterize the auto industry. Parts orders can change weekly depending upon sales. Although Street would say only that revenues will top $100 million this fiscal year, he admitted that sales are off about 10 percent from two years ago, due mainly to the slumping auto industry.

But Wheland has remained on top of the business, Street said, both by luck and skill.

As iron use has fallen, smaller, weaker foundries have gone out of business. Only about 400 are left of the 1,200 in business in the early 1970s, leaving a bigger piece of a smaller pie for Wheland. The company went after foreign contracts early in the import boom, but also remains tied to the domestic manufacturers that still comprise 70 percent of U.S. auto sales.

Planning for the worst

And Wheland has followed the market, soliciting additional business in anticipation of a slump and holding on to core customers rather than specializing in large but speculative short-term orders.

"We've known that there was a downturn out there, somewhere, this time," said Street. "So we went out and acquired additional business. We've not been hurt anywhere near as badly as some."

Although some indicators suggest that the economy may be picking up, Street said he does not expect a robust recovery for the car business any time soon. So he said Wheland will continue to produce for its current customers and try to work its way into other markets.

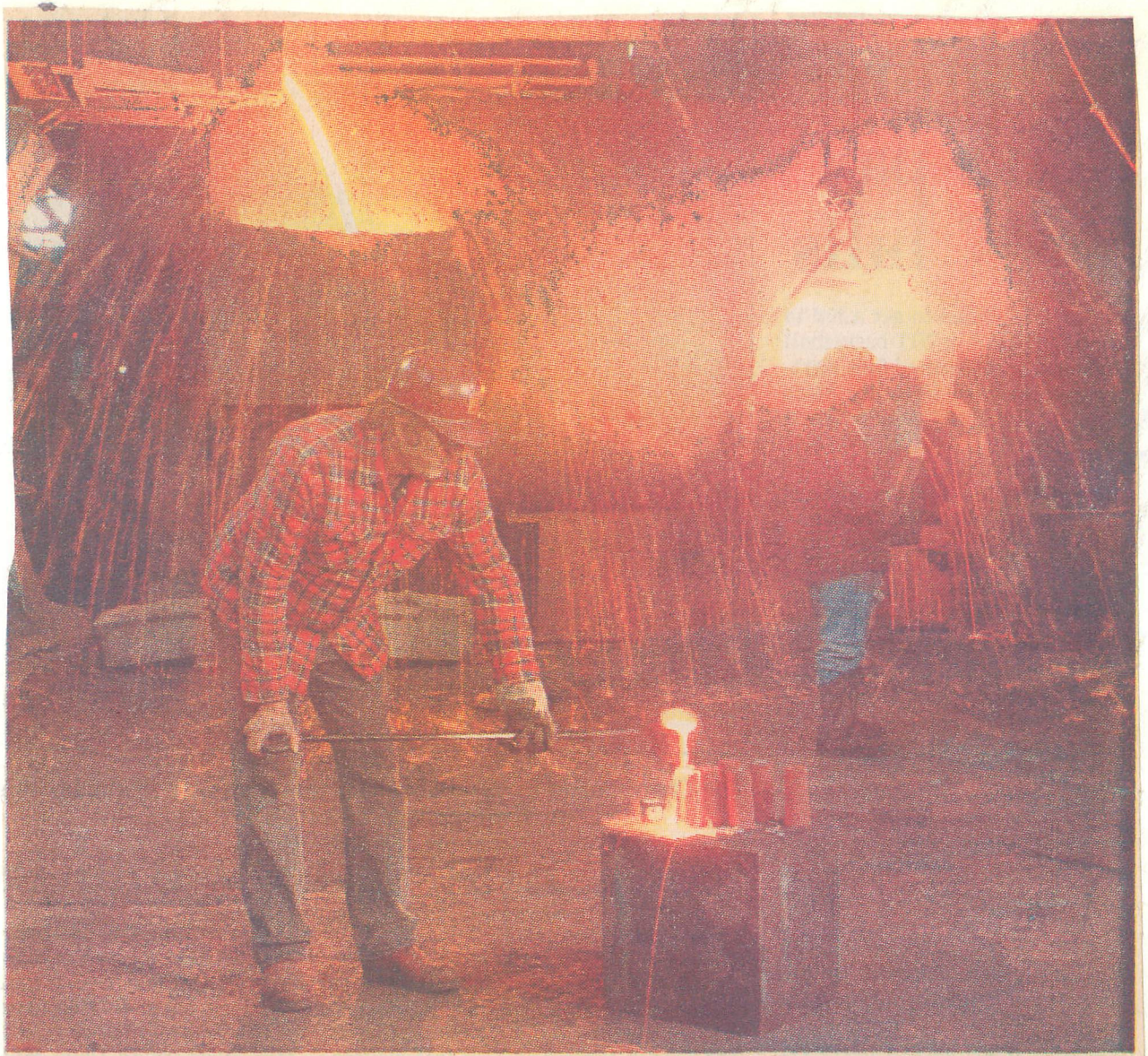
> "Wheland has an extremely good reputation for being very cost competitive and very quality competitive."
>
> —Gordon Street Jr.

Pursuing overseas accounts

Because of the favorable exchange rate of the dollar, European automakers can be courted as customers. While the GM restructuring is closing plants and costing thousands of workers their jobs, unit-volume production is expected to remain about constant, so demand for parts should hold stable.

And Street said Wheland is only interested in certain contracts: high volume enough to take advantage of economies of scale, but not a single-source supplier.

"Everybody dual-sources their parts, at least. You don't want to shut down GM or Ford because your production line breaks down," Street said. "There are markets out there that we would not go after, but when there is a market we would like to go after, we work on that."



— Photos courtesy of Wheland Foundry

Metal samples poured by Clyde Weldon, a cupola sampler, help ensure strict adherence to customer specifications at Wheland Foundry.

The foundry is capable of producing up to 100,000 castings a day from 2,000 tons of molten metal.

Pollution data skewed by Wheland's absence

By Pam Sohn
The Chattanooga Times

The dramatic drop in reported pollution releases in Hamilton County may be largely a phantom reduction. T5-29-92 p. A5

A major Chattanooga company — Wheland Foundry — did not report its waste discharges and, consequently, government reports indicating Hamilton County's pollution decreased from 1989 to 1990 may not be correct.

In 1989, Wheland told the U.S. Environmental Protection Agency it released almost 1.5 million pounds of toxic chemicals. Most were landfilled on Wheland property. Wheland was Hamilton County's No. 2 toxic-chemical releaser that year.

In 1990, with Wheland not reporting, EPA's pollution report for Hamilton County indicates overall county releases fell by almost 1.6 million pounds. Industrial landfill releases dropped by 1.9 million.

Wheland spokeswoman Glenda Patton sent this statement to The Times on Thursday afternoon:

"EPA Form R requires annual reporting of certain chemicals manufactured, processed or otherwise used at a facility or any routine or accidental releases of such chemicals. Wheland is currently discussing with the EPA its Form R filing requirements for 1990, and until these discussions are concluded, the company will have no further comment."

EPA officials with direct knowledge of the Wheland situation were out of the office Thursday afternoon. But Betty Eaves, with the state's Emergency Management Office, which also receives the reports, said, "I do know that they're going to file. It's just not to me yet. They do intend to file, but they have not as of this date. I do know that they were having some problems in that they changed safety directors and perhaps they might have gotten lost or whatever."

Guy Moose, local solid-waste regulator for EPA and Tennessee, says his office has forced Wheland Foundry in recent years to treat its landfill releases — chemically fixing and encasing the foundry sand before it is buried to prevent it from leeching into water. Chattanooga Creek flows near Wheland Foundry.

Moose says he does not know if treating the waste releases Wheland or other companies from having to file Form R reports with EPA. He attributes decreases in the reported releases to "more-active enforcement" of pollution laws.

Planners OK Wheland warehouse

Park may calm angry residents

By Michael Davis
The Chattanooga Times T 2-9-93p.C4

Wheland Foundry would get a new warehouse and South Chattanooga residents would get a new park under a plan approved Monday by the regional zoning board.

The Chattanooga-Hamilton County Regional Planning Commission gave its OK to change a 4.5-acre tract between West 27th and West 28th streets from a residence to a warehouse zone. Wheland officials want to build a castings storage and parking facility on the site to handle increased production.

Nearby residents had expressed concern that the project would affect the property values and character of the neighborhood, by cutting down natural screening and allowing manufacturing on the lot.

"We want to know whether or not this vegetation will be maintained," said Ezra Harris. "We want to know if this parking lot will draw more crime into the neighborhood."

But Wheland officials told the group protesting the rezoning that they would level the lot by filling in a deep hole in its center. They said the warehouse property would be well-lit and guarded, and that the heavy woods nearby would remain. They also acknowledged that the warehouse zoning would forbid even light manufacturing on the site.

"We feel strongly it would be an improvement over what's currently there," said Wheland vice-president for administration Hank Faulkner.

When residents continued to balk, Faulkner offered to donate the property not used for the warehouse to the city or to the neighborhood association. Harris and other residents said they would take care of the two acres of leftover wooded land; planners approved the zoning and recommended the two groups work out an agreement before the case comes before the Chattanooga City Council next month.

"If that's what they want, we'd be happy to make a donation to the right organization," Faulkner said.

In other action, the commission voted to:

- Approve a change to commercial zone for a lot on Second Street. Charles and Mary Portera plan to renovate the existing building to a bed and breakfast inn.
- Approve a request by Ralph Hixson for a single lot mobile home on Harper Road.

The planning commission's recommendations will be forwarded to the Hamilton County Commission or appropriate city government for final approval.

Wheland faces $300,000 fine for pollution

Plant appeals, says problem fixed

T2-11-93 p. B1

By Pam Sohn
The Chattanooga Times

Wheland Foundry is facing the possibility of having to pay penalties totaling more than a quarter of a million dollars for alleged water pollution in Chattanooga Creek.

The Water Pollution Control office of the Tennessee Department of Health and Environment says Wheland has allowed unpermitted discharges of wastewater and waste material to drain into the creek.

Wheland officials deny the charges and say they already have corrected any problems that might have been occurred during a surprise state inspection there last February and a second inspection in June. The company has appealed the state's order.

But if the order is upheld, Wheland faces a civil penalty of $150,000, another civil penalty of $150,000 if the company doesn't remedy problems within a specified amount of time, and a $9,068.75 damages assessment to pay the cost of the state's inspection and investigation. That would total $309,068.75.

The only other water-pollution penalty of that size in this area was levied against the city of Chattanooga for its sewer overflows into the creek. That penalty was $200,000, according to regulators.

Wheland manufactures automobile brake drums by melting down scrap metals and casting the molten material in sand molds. After being used several times, the sand becomes a waste that can contain heavy metals. Water coming in contact with the sand can carry pollutants into the creek, regulators say.

The inspection in February was part of the Chattanooga Creek geographic initiative — a federal and state focus to clean up the creek, which EPA has called the most contaminated in the Southeast.

During that visit, the state found foundry sites where polluted, discolored and oily water flowed into the creek. They also found waste sand deposits and sludge.

Regulators said the discharges left black plumes in the creek and black stains on the stream banks. Laboratory analysis of the discharges and creek revealed the presence of oil, grease and metals, including cadmium, chromium, manganese, mercury, nickel and zinc.

The inspection in June found wastewater from a construction area was being pumped into the creek through a gravel-lined ditch. The water was black and opaque. The ditch was coated with a black material. Here, too, a dark, black plume stretched into the creek and there was an oil sheen on the creek's surface. Wastewater samples again revealed contaminants.

Wheland Vice President Hank Faulkner argued Wednesday that much information in the state's order is incorrect and what was not incorrect has already been remedied by Wheland. "In fact, since February 1992, we have spent more than $180,000 on environment-related improvements."

Ironically, Faulkner blamed some of the polluted-water runoff on the foundry's compliance with air-pollution controls. He said air regulators required the company to install sprinklers to wet down hot waste sand that was blowing and creating a dust cloud.

"So we did it. And lo and behold, some of that wet sand found its way through rainwater and so forth into the creek. So we were cited by the water people for an unpermitted discharge — doing what we needed to do to correct another environmental problem."

Faulkner also faults the reputation of Chattanooga Creek.

"I think there's a tremendous amount of emphasis now on the creek and we are the largest, most visible, financially solvent outfit that's left. And I think that's why we're seeing some of the focus of the regulators — particularly since the creek has gotten to become a hot issue. We occupy a short portion (slightly more than a half-mile) of the creek - practically at the end of the creek. And the big pollution problems are upstream from us."

Faulkner said Wheland has been in Chattanooga 125 years, employs 1,300 people and is "very environmentally conscious."

"We're the largest scrap metal recycler in the area — 900 tons a day . . . and I think that gets lost."

PUBLIC NOTICE OF INTENT TO MODIFY AN APPROVED CLOSURE PLAN

Officials of Wheland Foundry (TND 98 777 8495), a Division of North American Royalties, Inc., have submitted to the Tennessee Department of Environment and Conservation's Division of Solid Waste Management (DSWM) a modification to the approved Closure Plan issued October 2, 1992 for the St. Elmo Landfill. The Landfill is located in an industrial area of South Chattanooga and is bounded by West 36th Street, St. Elmo Avenue and by railroad tracks owned by the Norfolk-Southern Railroad.

Wheland Foundry is requesting that the DSWM approve an alternative design for the final cover system for the Landfill. If the off-site soils cannot consistently achieve the compacted clay permeability required, Wheland proposes to install an additional protective layer consisting of a bentonite geocomposite liner (GLC) placed directly over the 2 feet of compacted clay. The alternative would provide greater protection and exceed the current permitted cap design resistance to flow. T 2-25-93 p. A12

Tennessee law and regulations require that this modified Closure Plan be reviewed and approved by the DSWM so as to ensure that the planned activities meet regulatory standards for protection of public health and the environment. The regulations also require that the public be provided the opportunity to have input into the approval process. The Division of Solid Waste Management is hereby notifying interested members of the public that this modified Closure Plan is available for review and comment. Interested persons may review the proposed modified Closure Plan at the Chattanooga-Hamilton County Bicentennial Library located at 1001 Broad Street in Chattanooga, phone (615) 757-5320, or, during normal office hours in the Division's Chattanooga Field Office located at State Office Bldg., Suite 550, 540 McCallie Avenue, Chattanooga, Tennessee. Normal office hours are 8:00 a.m. to 4:30 p.m. on weekdays, excluding holidays.

Persons wishing to comment upon the proposed modified Closure Plan are invited to submit comments in writing to: Mr. Ronnie Bowers, Chief; Corrective Action Section; Division of Solid Waste Management; Fifth Floor, L & C Tower; 401 Church Street; Nashville, TN 37243-1535. All comments received by the comment deadline, 4:30 p.m. on March 26, 1993, will be assured of consideration by the Department in making its final decision.

The Department may, in response to a request or at its own discretion, also hold a public hearing whenever such a hearing might clarify one or more issues concerning the modified Closure Plan. Public Notice of such a hearing would be given at least 30 days in advance.

Persons wishing further information on this matter should contact either Mr. Guy Moore of the Division's Chattanooga Field Office at 615-634-5745 or Mr. Ronnie Bowers of the Division's Nashville Central Office at 615-532-0853.

Notice Issued: February 25, 1993

Wheland Foundry Finishing Cleanup Of St. Elmo Landfill

By JEFF POWELL
News-Free Press Political Writer

Wheland Foundry is winding down a lengthy and expensive cleanup of its St. Elmo landfill — the result of a three-year-old change in what state and federal officials consider "hazardous" material. NFP 7-26-93 p. B3

A public hearing is scheduled next month to review the company's plans to properly close and maintain the hazardous waste landfill and the estimated 220,000 cubic feet of waste foundry sands, slag, core butts and cupola furnace baghouse dust that has been dumped for years at the site between Lookout Mountain Pike and West 36th Street.

According to Hank Faulkner, corporate spokesman for North American Royalties, Wheland's parent, the company hasn't used the landfill since 1990 when the Environmental Protection Agency changed its regulations to include the baghouse dust — residue from the manufacture of automobile grey and ductile iron castings — in the "hazardous waste" category.

But the change will wind up costing the company some $2 million, the price of meeting state and federal guidelines for closing and maintaining the facility.

"The material there used to be classified as non-hazardous," Mr. Faulkner said. "The material didn't change, but the classification did.

"Baghouse dust waste was declared to be hazardous," he said. "At that point, we stopped putting any more material in the landfill and began making plans to close it."

Mr. Faulkner said the Aug. 26 public hearing (at 6 p.m. in the first floor auditorium of the State Office Building on McCallie Avenue) is another step in what has become a "lengthy, complicated" process.

"There has to be a lot of detail. (The plan) has to be approved by both federal and state regulators," he explained. "What we're talking ... is the post-closure plan.

"Even if the landfill is closed and fully capped, you have to come by and monitor it regularly. It has to be done for many years into the future," he said. "The important thing to remember is nothing further is going into the landfill.

"It (the process) just takes a long time."

Mr. Faulkner said there is "some lead and cadmium" in the baghouse dust which qualifies it for the "hazardous" designation.

However, "only under the most unique situation would there ever be a problem.

"We just have to make sure that we comply with all the stringent regulations," he said.

JOINT PUBLIC NOTICE OF PROPOSED AGENCY ACTIONS TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF SOLID WASTE MANAGEMENT 5TH FLOOR, L & C TOWER 401 CHURCH STREET NASHVILLE, TENNESSEE 37243-1535 in conjunction with U.S. ENVIRONMENTAL PROTECTION AGENCY REGION IV, RESIDUALS MANAGEMENT BRANCH 345 COURTLAND STREET, N.E. ATLANTA, GEORGIA 30365

THE TENNESSE DEPARTMENT OF ENVIRONMENT AND CONSERVATION'S (TDEC'S), DIVISION OF SOLID WASTE MANAGEMENT (DSWM) AND THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (U.S. EPA) WILL JOINTLY CONDUCT A PUBLIC MEETING/HEARING AT 6:00 P.M., THURSDAY, AUGUST 26, 1993, IN THE FIRST FLOOR AUDITORIUM OF THE CHATTANOOGA STATE OFFICE BUILDING, 540 MCCALLIE AVENUE, CHATTANOOGA, TENNESSEE, TO RECEIVE COMMENTS ON THE PROPOSED U.S. EPA HSWA PERMIT AND THE STATE'S POST CLOSURE PERMIT THAT WOULD ALLOW WHELAND FOUNDRY TO PROPERLY CLOSE AND MAINTAIN THE POST CLOSURE CARE REQUIREMENTS FOR A HAZARDOUS WASTE LANDFILL. THESE PERMITS ARE PROPOSED TO BE JOINTLY ISSUED UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), AS AMENDED BY THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984, SECTION 403, 722, TENNESSEE CODE ANNOTATED, SECTION 68-212-101 ET SEQ., AND CHAPTER 1200-1-11 OF THE TENNESSEE HAZARDOUS WASTE MANAGEMENT RULES TO WHELAND FOUNDRY, DIVISION OF NORTH AMERICAN ROYALTIES, INC., 2800 SOUTH BROAD STREET, CHATTANOOGA, TENNESSEE 37402, HAVING THE ASSIGNED FACILITY I.D. NUMBER TND 87 777 8795. THE TWO PERMITS, IF ISSUED, WILL CONSTITUTE THE RCRA PERMIT REQUIRED BY DSWM AND THE U.S. EPA. COMMENTS WILL BE TAKEN FOR THE STATE PORTION OF THE POST CLOSURE PERMIT AND ALL OF THE HSWA PERMIT TO BE ISSUED BY EPA.

The State of Tennessee has been granted authorization for those portions of the RCRA Hazardous Waste Program that were in effect prior to the passage of the Hazardous and Solid Waste Amendments of 1984 (HSWA). The Federal Environmental Protection Agency will administer the applicable portions of the Hazardous and Solid Waste Amendments of 1984 (specifically the waste minimization and prior releases sections) until the State receives authorization for these provisions and the U.S. EPA terminates its permit. T.7-26-93 p.A5

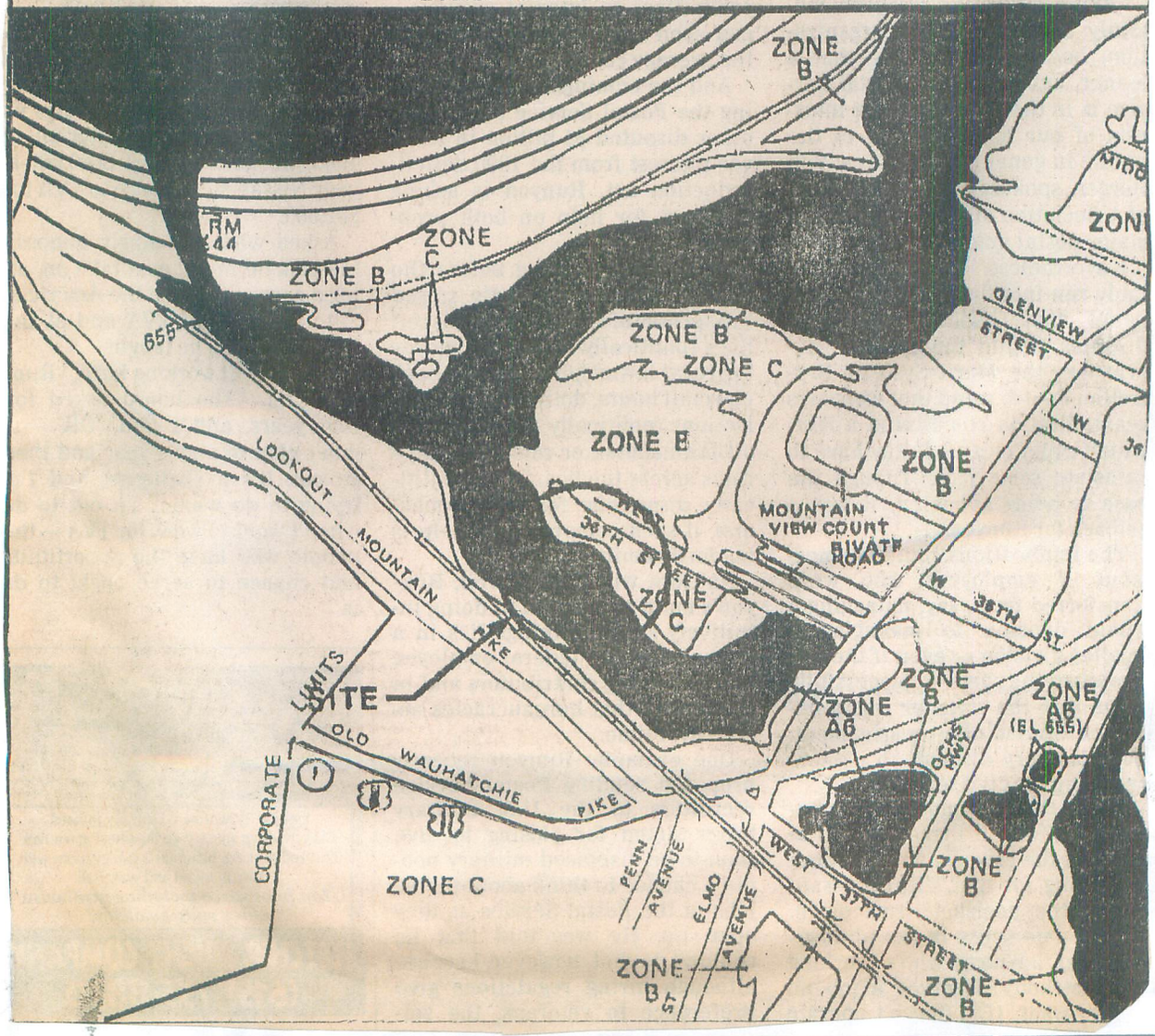
The proposed State permit would authorize Wheland Foundry to properly close the St. Elmo hazardous waste landfill and maintain the post-closure care requirements. The volume of waste placed at the St. Elmo landfill is estimated to be 220,000 cubic yards. Wastes placed at the site include bulk wastes generated by the founding processes conducted at the foundries in Chattanooga operated by Wheland Foundry. These wastes include: waste foundry sands, slag, core butts, and cupola furnace baghouse dust. Waste placement at the site was closed on August 31, 1990.

A copy of both the state draft permit and the EPA draft HSWA permit, with fact sheets, are available for public inspection during normal business hours, 8:30 a.m. to 4:00 p.m. Monday through Friday, except legal holidays, at the Tennessee Division of Solid Waste Management Chattanooga Field Office, Chattanooga State Office Building, Suite 550, 540 McCallie Avenue, Chattanooga, TN 37402; telephone 615-634-5745. The U.S. EPA fact sheet and draft HSWA permit are also available for public inspection Monday through Friday, except legal holidays, from 8:30 a.m. to 5:00 p.m. at the U.S. EPA Library, 345 Courtland Street, N.E., Atlanta, Georgia 30365; telephone 404-347-3544. All data submitted by the applicant to TDEC and the U.S. EPA is available as part of the administrative record at the above addresses. The draft permits, fact sheets and public notices may also be viewed at the Chattanooga-Hamilton County Public Library, 1001 Broad Street in Chattanooga; telephone 615-757-5310.

Any interested person may submit written comments on this proposed state agency action to: Division of Solid Waste Management; ATTENTION: Ms. Jacqueline Okoreeh-Baah, Chief; Hazardous Waste Permitting Section; Tennessee Department of Environment and Conservation; 5th Floor, L & C Tower; 401 Church Street; Nashville, Tennessee 37243-1535 or the proposed U.S. EPA action to the U.S. Environmental Protection Agency; ATTENTION: Mr. Wayne Garfinkel; 345 Courtland Street, N.E.; Atlanta, Georgia 30365 within forty-five (45) days of publication of this notice. All comments on the facility will be considered by both agencies in formulating a decision on issuing the respective permits. The comments must be received by 4:30 p.m. on September 8, 1993 to assure consideration.

At the public hearing citizens are invited to inspect the draft permits and related materials, ask questions and discuss the permits with Wheland Foundry, DSWM and U.S. EPA representatives from 6:00 to 7:00 p.m. The formal hearing will begin at 7:00 p.m. with presentations by DSWM, U.S. EPA and Wheland Foundry. Oral comments from the public will follow. Comments may also be received from 6:00 to 7:00 p.m.

NOTICE ISSUED: July 26, 1993
DKM/F1073200/D7/93HWP



CHATTANOOGA - Industries - Wheland Co. (1993)

NOTICE OF FINAL PERMIT DECISION
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
5TH FLOOR, L&C TOWER
401 CHURCH STREET
NASHVILLE, TENNESSEE 37243-1535

T9-30-93 p.A3 in conjunction with

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION IV, RESIDUALS MANAGEMENT BRANCH
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

The Tennessee Department of Environment and Conservation's (TDEC's), Division of Solid Waste Management (DSWM) and the United States Environmental Protection Agency (U.S. EPA) have made a final decision to issue a joint permit to Wheland Foundry, Division of North American Royalties, Inc., 2800 South Broad Street, Chattanooga, Tennessee 37402, having the assigned facility I.D. Number TND 98 777 8495. The permit was issued on September 21, 1993, and shall remain in effect until September 21, 2003 unless revoked and reissued, or terminated under the applicable regulations. The U.S. EPA HSWA permit and the State's Post Closure Permit allows Wheland Foundry to properly close and maintain the hazardous waste landfill. These permits are jointly issued under the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous Section 68-212-101 et seq., and Chapter 1200-1-11 of the Tennessee Hazardous Waste Management Rules.

Copies of both the State Permit and The EPA HSWA permit, with the Response to Comments are available, for public inspection during normal business hours, 8:30 a.m. to 4:00 p.m. Monday through Friday, except legal holidays, at the Tennessee Division of Solid Waste Management Chattanooga Field Office, Chattanooga State Office Building, Suite 550, 540 McCallie Avenue, Chattanooga, TN 37402; telephone 615-634-5745. The U.S. EPA Response to Comments and HSWA permit are also available for public inspection Monday thru Friday, except legal holidays, from 8:30 a.m. to 5:00 p.m. at the U.S. EPA Library, 345 Courtland Street, N.E., Atlanta, Georgia 30365; telephone 404-347-3544. All data submitted by the applicant to TDEC and the U.S. EPA is available as part of the administrative record at the above addresses. The permits, with the Response to Comments may also be viewed at the Chattanooga-Hamilton County Public Library, 1001 Broad Street in Chattanooga; telephone 615-757-5310.

The Tennessee Department of Environment and Conservation is committed to principles of equal opportunity, equal access, and affirmative action. Contact the Tennessee Department of Environment and Conservation EEO/AA/ADA Coordinator, (615)532-0103, for further information.

Hearing impaired callers may use the Tennessee Relay Service (1-800-848-0298).

EPA ID NO.: TND 98 777 8495

RIGHTS OF APPEAL

HSWA (EPA): Conditions of this permit can be appealed in accordance with 40 CFR S124.19. The effective date of the conditions determined to be stayed in accordance with 40 CFR S124.16 shall be determined by final agency action as specified under 40 CFR S124.19.

State (TDEC): The administration and judicial review of this FINAL PERMIT is pursuant under the Tennessee Uniform Administrative Procedures Act, T.C.A. Sections 4-5-317 and 4-5-222 and the Hazardous Waste Management Act, T.C.A. 68-212-113 and Tennessee Rule 1200-1-11-.07(7)k.

NOTICE ISSUED: September 30, 1993

Wheland Expands Workforce By 300 Workers In Three Years

NFP 10-10-93p D3

By MIKE PARE
News-Free Press Staff Writer

Wheland Foundry has added almost 300 workers, or 30 percent of the company's workforce, in the past three years and "the trend is still up," an official said.

Ron Reese, vice president of Wheland, said the increase to 1,400 workers here is due to general improvement in the automotive market.

"Our employees hard work in meeting the challenges and opportunities that exist in the automotive industry has allowed the company to expand its markets," said Mr. Reese.

Wheland, a division of North American Royalties Inc., is the nation's largest independent producer of cast iron automotive brake components. The company said that over half of all cars built in the United States contain one or more of Wheland-built castings.

Hank Faulkner, vice president of administration, said Wheland continues to hire "at a pretty good rate."

While hiking its workforce numbers, Wheland has increased its payroll by 50 percent over the period, from $28 million to $42 million, officials said.

The company said it has invested nearly $12 million in capital expenditures over the last three years.

Mr. Faulkner said manufacturing in Chattanooga is "still an important part of the community."

"It's good we're diversifying," he said about the service jobs that have been added in the city in recent years. "We're in favor of good jobs no matter what industry."

Mr. Faulkner added, however, that government regulation is making it more difficult for manufacturers to grow.

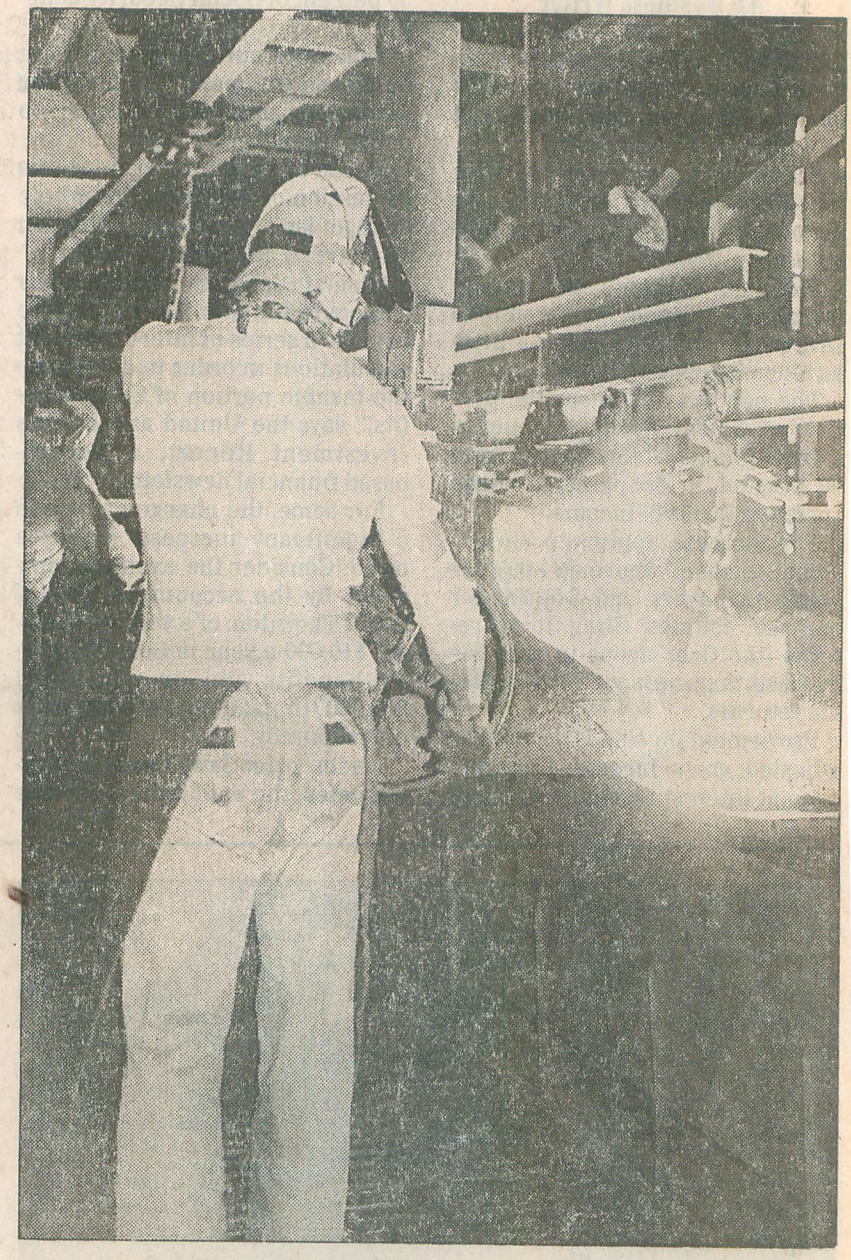
"There are a lot of things we have to be concerned about today," he said.

Asked what the city and county can do to produce more manufacturing jobs, Mr. Faulkner said government can "create a climate that is balanced, where people are working together for the common good of the community and the scales don't get too far tilted in one cause."

He noted that Wheland, unlike the Mercedes-Benz plant which is to be built in Alabama, did not have to be enticed to add jobs.

Mr. Faulkner said Wheland has gotten assistance in employee training from the state Department in Economic and Community Development's existing industry services.

"We're here because we want to be here," he said.



FOUNDRY WORKER — A Wheland Foundry worker performs one part of the process that casts up to 130,000 parts daily. The company also recycles an average of 900 tons of scrap metal each day.

Gas fire at foundry injures four people

The Chattanooga Times T12-6-93 p.C4

A gas fire at Wheland Foundry, 2800 S. Broad St., injured four people Sunday evening, two of whom are believed to have suffered serious burns, according to a spokesman for Hamilton County Emergency Medical Services.

Hamilton County EMS transported the four burn victims to Erlanger Medical Center for treatment, the spokesman said. The names of the victims were not released, so their conditions could not be verified.

Chattanooga firefighters also responded to the fire, the spokesman said, but the blaze appeared to have extinguished by itself.

The cause of the fire had not yet been determined.