Special:
Report on 1958

a-c scope

magazine of allis-chalmers people

march - april, 1959

a report* on 1958 from President Stevenson

In 1958, Allis-Chalmers sales started slowly, picked up in the middle of the year and made a strong recovery in the fourth quarter. Total sales amounted to $532 million, as compared with $534 million in 1957.

While our sales figure declined slightly from the 1957 total, we were able to show progress in many ways. For example, the company's earnings for the year went up about 10 percent, to $19.2 million, and the earnings per share of common stock rose from $2.11 to $2.34.

Despite the close-to-normal sales and earnings figures, 1958 was a year of contrasts. For example, we pushed further into the future with the development of equipment to generate power from both nuclear fission and fusion; yet, we added to our ability and capacity to make hydraulic turbines for generating electricity from falling water, the oldest practical source of power.

Here's another example of the contrast in 1958: Reductions in employment took place at several A-C plants; yet, strong customer demand meant full employment and capacity production at one plant. Also an example of contrast: The many transfers made in connection with the layoff and recall of employes meant that many people were on relatively new and unfamiliar jobs; yet, the company-wide safety record was the best in history.

Still another example: The nation-wide business recession made people everywhere more cost-conscious; yet, Allis-Chalmers people consistently met their quotas in their community fund-raising campaigns.

One more example of contrast: U. S. industry, including Allis-Chalmers, was affected by the recession and its accompanying unemployment; yet, the federal government and its tax-supported and tax-exempt agencies placed substantial orders for heavy machinery with overseas manufacturing firms.

During 1958, our sales varied widely, according to product line and market strength. Farm equipment sales were substantially higher throughout the year. Construction machinery shipments lagged in the first few months, but gradually improved during the rest of the year to make total sales very close to the 1957 figure. Electrical apparatus deliveries were equal to those of the previous year, but there was greater emphasis on larger turbine-generator units. Sales of processing machinery and general industrial equipment were materially lower, as was expected.

At the close of the year, various accounts of Canadian Allis-Chalmers Limited, a subsidiary, were consolidated into the overall company figures. These overall figures previously included our other Canadian operations. Thus, the consolidated financial statements of the company now reflect all activities in the United States and Canada, with the exception of the Allis-Chalmers Credit Corporation.

Export sales for the year declined about $12 million. Reflecting these factors, domestic sales were about $467.8 million, while in 1957 they amounted to $468.1 million. Our sales of products in foreign lands reflect America's continuing problem of pricing itself out of foreign markets. Customers' lack of dollar exchange and artificial trade barriers also contributed to the decreased export sales.

Our customers have substantially increased their use of the Allis-Chalmers Credit Corporation in financing the purchase of A-C construction machinery, farm equipment and other products. While dealers are encouraged to use local banking sources for retail credit, the financing facilities of the Credit Corporation have been a helpful supplement.

Decreased sales activities in some areas accounted for a decline in our total employment in 1958. At the end of the year, there were 32,364 persons on the Allis-Chalmers payroll — about 3400 less than the total employment at the beginning of 1958. Recall of several

**A complete copy of the Allis-Chalmers Annual Report for 1958 may be obtained by writing to A-C Scope, Allis-Chalmers, Milwaukee 1, Wis.*

COVER

A fleet of Allis-Chalmers Gleaner-Baldwin combines, made at Independence Works, harvesting a part of last year's record wheat crop.

Here is Your Report:

hundred employes at various plants has increased the company's employment figure as of January 31.

The company's total payroll was $172 million in 1958, a drop of $15 million from the preceding year.

Dividend payments were brought into line with the pattern of earnings the company has experienced in recent years. The dividend was $1.25 per share of common stock in 1958, as compared with $2.00 in each of the previous six years. The number of share owners of Allis-Chalmers common stock increased by about 2000 in 1958, to a total of 58,347 shareholders.

With the addition of 717 employes who retired in 1958, we now have 2553 people participating in the company's retirement programs. Cost of retirement and pension plans in 1958 was $7.5 million, as compared with $8.9 million in 1957.

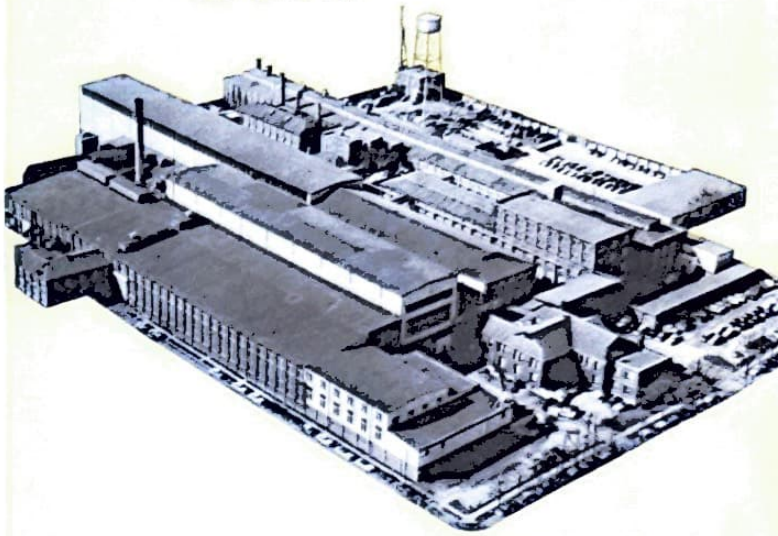
Our entire program of employe benefits — which includes pensions, vacations, health and accident insurance and many other benefits — represented an average "extra pay check" of substantially more than $1100 per employe in 1958.

Our continuing efforts to promote the cause of safety on and off the job were rewarded in 1958 with a reduction in the company-wide accident frequency rate.

Employes at several A-C plants became eligible for National Safety Council awards for their performances on the job. Oxnard Works was cited for its record of more than two years without a disabling injury . . . Pittsburgh Works recorded more than three million man-hours without a disabling injury to earn the Award of Honor . . . and Norwood Works earned the Award of Merit by going well over two million man-hours without a disabling injury.

The company's college tuition refund program provided opportunity for A-C employes to gain more than 4000 credit-hours of education in 1958. And 43 sons and daughters of Allis-Chalmers employes attended colleges and universities in the United States and Canada on company-sponsored scholarships last year.

This is the main plant and offices of the company's York, Pa., Works, acquired with the recent purchase of the S. Morgan Smith Company. A second plant is situated just west of the city.



Twenty-two labor contracts expired or were open for negotiations in 1958. Up until now, five contracts have been concluded and six have been temporarily extended, pending further negotiations. The nine United Auto Workers (AFL-CIO) unions followed the same pattern with Allis-Chalmers that the UAW pursued generally throughout the automotive and farm equipment industries. After several months of on-and-off meetings, the UAW cancelled its contracts and struck the nine plants during the week of February 2. Another plant, represented by a United Steelworkers union, followed suit. In all, 14,547 of our production and maintenance employes were affected when these strikes were called.

The company has always tried to maintain excellent relations with its union and non-union employes alike. I feel that these efforts have had much to do with our better-than-average record for uninterrupted work during the past several years.

Our previous heavy capital investment in additional productive facilities and the more moderate sales opportunities in 1958 made it unnecessary for the company to continue large expenditures for expansion. As a result,

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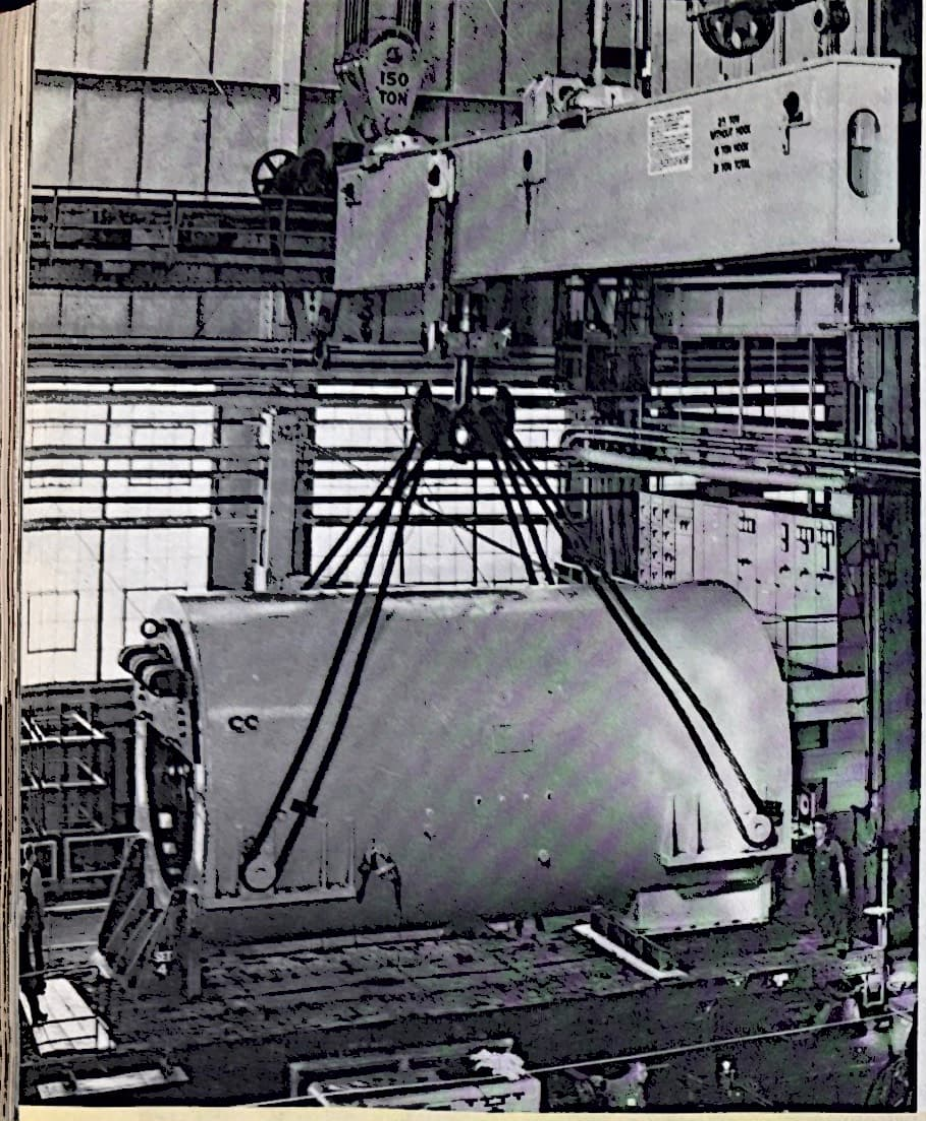


A large hydrogen-cooled generator being loaded for shipment at West Allis Works. Hydrogen cooling of generators, developed by Allis-Chalmers, makes possible bigger, more productive units needed to keep electric power costs down.

What We Spent During '58 in Each Plant Community:

Boston	$ 5,201,043
Cedar Rapids	3,456,490
Gadsden	2,418,533
Harvey (Chicago)	49,740,121
Independence	5,144,615
Lachine (Montreal)	4,246,723
LaCrosse	5,487,099
LaPorte	10,297,211
Norwood (Cincinnati)	11,538,570
Oxnard	603,685
Pittsburgh	19,511,133
St. Thomas	756,307
Springfield	21,763,261
Terre Haute	6,145,369
West Allis (Milwaukee)	130,637,209
Total	$276,947,369

Included in the expenditures are purchases from suppliers; payrolls; personal property, real estate, franchise, payroll, local and state taxes; donations; Company contributions for Mutual Aid Societies, Aetna Health and Accident insurance, group life insurance, retirement and pension premiums and Supplemental Unemployment Benefits. Expenditures not included are interest on borrowed capital, dividend payments, state and federal income taxes.

a report on 1958...

the company's capital outlays were $8.8 million in 1958, almost all of which was devoted to providing additional research and development facilities, and to modernizing our production equipment.

Inventories were further reduced in 1958, to the point where we have good, efficient turnover rates based upon current sales volume.

Allis-Chalmers sales organizations were kept up to strength and their coverage was broadened in 1958. In addition, our market analysis and sales education programs were stepped up. Along with the company's broad diversification, our steady sales volume under the 1958 business conditions can largely be credited to the efficiency and efforts of our sales forces.

Noteworthy additions to our research and development facilities, occupied for the first time in 1958, included a large engine research laboratory at Harvey Works, an advanced products facility at Springfield Works and a central computer laboratory at West Allis Works. In addition, the Atomic Energy division placed in service the first unit of our new Greendale laboratories, located near Milwaukee, especially designed and equipped for nuclear development.

Late in 1958, we concluded negotiations to acquire the business and all the assets of the S. Morgan Smith Company of York, Pa. This acquisition is now completed and we are proud to welcome the people of York Works into the Allis-Chalmers family.

Our backlog of unfilled orders stood at $193 million on December 31, 1958, about 15 percent lower than the comparable figure a year earlier. This reflects the slower tempo in the durable goods markets in 1958 and is regarded as satisfactory under the conditions. No commercial orders of the divisions of the Tractor Group are in the backlog.

It would be hard to sum up 1958 without giving credit to those who were responsible for the company's showing. Certainly the sales organizations did a fine job, but our appreciation should also be extended to all others who helped the company reduce its operating costs, keep expenses down and run a good, sound business. In this respect, we can certainly consider 1958 a year of progress.

And 1959? We have our work cut out for us if we're going to increase sales and continue to reduce our operating costs and expenses. But we have a definite place in our country's economic recovery and expansion, so long as we're willing to do the job.

New laboratories for engine and material handling equipment development were completed during the year at Harvey Works.

TOTAL SALES

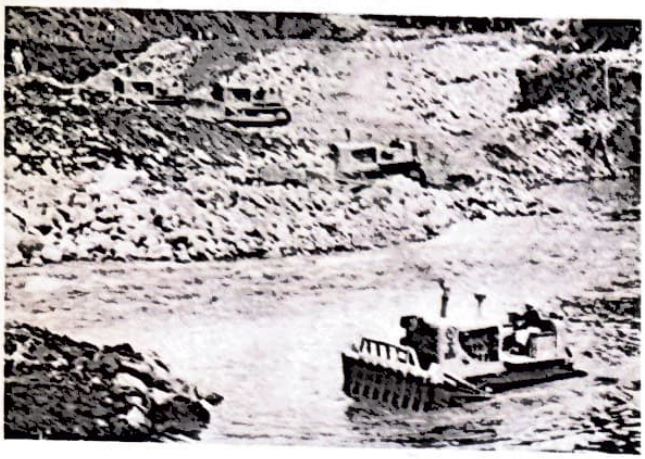
EARNINGS

Materials and Operating Costs	**56.2**	
Payrolls	**32.2**	**96.3¢**
Taxes	**6.2**	
Depreciation	**1.7**	
Dividends paid to Share Owners	**2.0**	**3.7¢ PROFIT**
Earnings retained for plant improvement and future growth	**1.7**	
	$1.00	

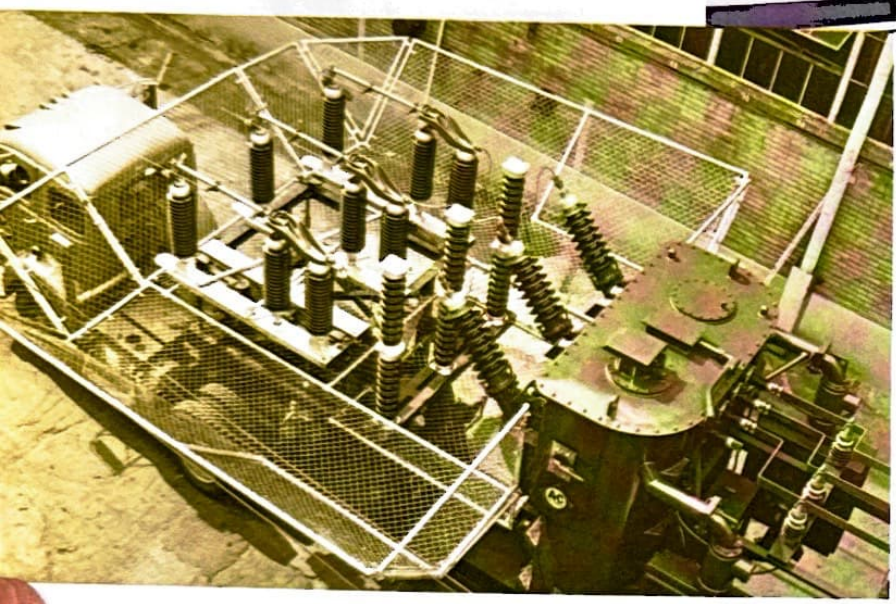
HIGHLIGHTS

	1958	1957
Sales and Other Income	$535,165,825	$537,191,443
Employes		
Number of Employes	32,364	35,799
Payrolls	$172,093,408	$187,590,363
All Taxes	33,189,603	28,489,381
Earnings	19,657,958	17,819,251
Earnings Per Share of Common Stock	2.34	2.11
Dividends Paid Per Share of Common Stock	1.25	2.00
Shares Outstanding		
Preferred Stock	103,635	103,635
Common Stock	8,216,016	8,214,281
Dividends Paid		
Preferred Stock	$422,831	$465,598
Common Stock	10,270,016	16,374,763
Number of Share Owners		
Common Stock	58,347	56,071

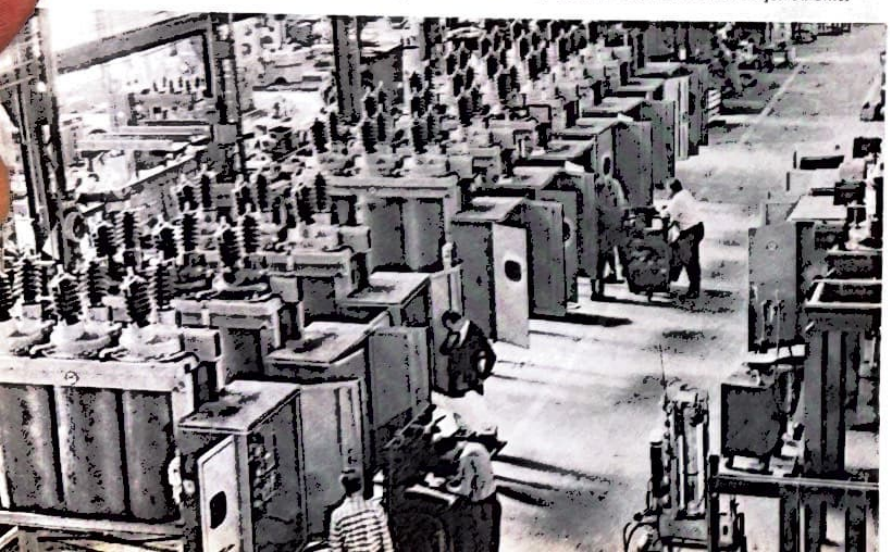
Featured in the construction of the Aichi irrigation project in Japan are 24 HD-21 crawler tractors, made at Springfield Works. Here is one of the turbo-charged units, with ripper moldboard, working on the Otaki river, with three other A-C units in the background.



The mobile substation, built at Pittsburgh Works, is readily moved to areas where rapid expansion and shifting industries cause critical power shortages. Folding sectional fence prevents unauthorized entry.



This lineup of circuit breakers at Boston Works typifies the big switchgear needed to regulate and control distribution of electric power to meet residential and industrial requirements.



People

In 1958, the big story was the contribution made by Allis-Chalmers people to the daily lives of virtually every person in the United States and Canada, and many others throughout the free world.

For Allis-Chalmers people are concerned with POWER for PROGRESS . . . the creation of POWER, the application of POWER, the never-ending search for better products which will help man do his work more efficiently.

One hundred years ago, animals and humans supplied three-fourths of all the useful power in America — and machines accounted for the other fourth. Today, machines are responsible for producing and harnessing 95 percent of all the power needed.

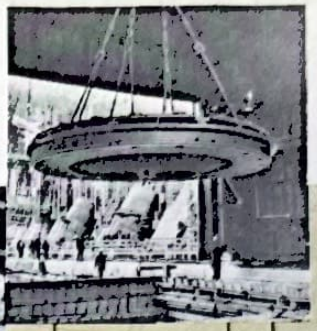
Demands for more power come from nearly every level of agricultural and

"Electricity costs less today than in 1939 . . . We'll continue to keep these costs down by giving the customer even more per dollar of investment . . ."
J. W. McMullen, General Manager, Power Equipment Division, and a Vice President.

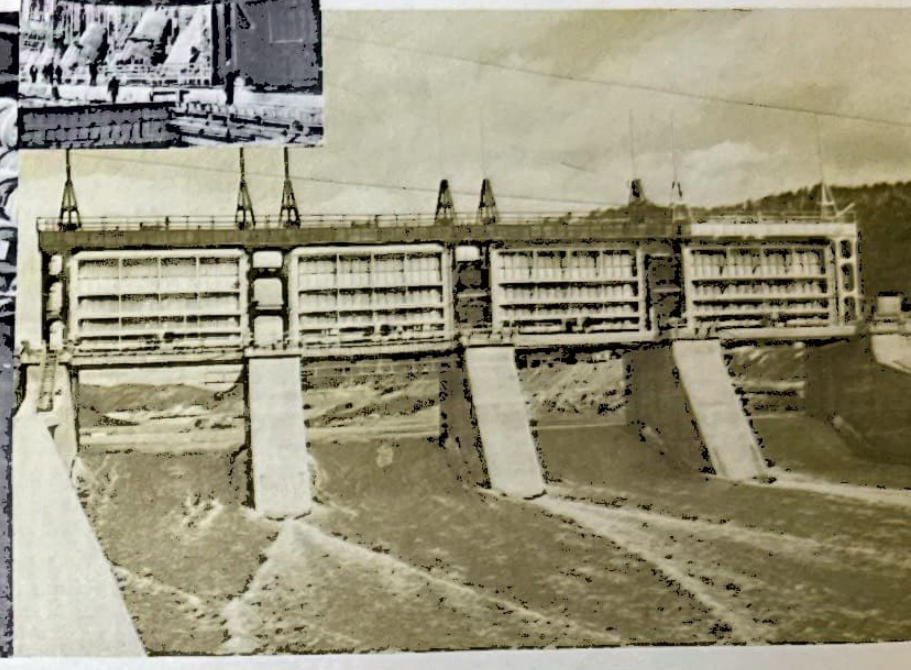
industrial operations. Allis-Chalmers engineering and research staffs are meeting this challenge by applying the principle of "making each pound of product do more."

spacemen in their protective apparel, these Terre ... Works employes are working on a huge transformer ... plant's specially-equipped shot blast room.

Gadsden Works distribution transformer production maintained a steady pace to meet demands for these smaller units needed for electric power distribution.



Water rushes down the spillway at the Rapide Beaumont Development of the Shawinigan Water and Power Company in Quebec. Inset is the head cover of one of six hydraulic turbine units built at Lachine Works for this development on the St. Maurice river. Each turbine develops 55,000-horsepower.



power and progress

This principle benefits many people, because no other American company has the employes, the tools and the experience to build the wide variety of equipment made by Allis-Chalmers.

Making each pound of product do more puts a high premium on efficiency for Allis-Chalmers products of every type. A-C people don't design to meet a "price tag," they build their products to give the customer full value. The greatest value per dollar of investment is measured in terms of what the product will do, how long it will last, how much it will cost to operate, etc.

This is not a new concept to guide the pencils of A-C's designers. The company's flour mills of 100 years ago were not designed to meet a price, but to provide the miller with the most efficient means of milling grain. The Corliss steam engine made by this company before the turn of the century was so efficient it was offered for sale on a firm-price basis or for an amount equal to the customer's fuel savings in one year's time.

This tradition of giving the customer more for his money is deep-seated with Allis-Chalmers people and it is reflected in today's drive to make each pound of product do more for the customer. This principle is well applied to the design and performance of Allis-Chalmers construction, farm, industrial and material handling equipment. It is also basic to the heavy power equipment bearing the A-C trademark — the turbines, transformers, generators and switchgear.

"Thanks to modern machinery, it costs a contractor no more to move a yard of dirt today than it did 20 years ago . . ."

E. J. Mercer, General Manager, Construction Machinery Division, and a Vice President.

Power equipment design and performance affects the lives of almost every person in the United States, where the demand of electric power has nearly doubled in 8½ years. Residential consumption of electric power has tripled in the past 10 years, due to the increased number of households and the added load of new and improved home appliances.

Electric utilities require larger and more efficient generators and transformers to meet this power demand without spiralling production costs per kilowatt. Allis-Chalmers people have helped satisfy this requirement by manufacturing two of the four 300,000-kilowatt steam turbine-generators in service in the United States. The company's largest to date, a 325,000-kw unit built at West Allis Works for use in 1959, will rank as one of the world's most efficient steam turbines.

In addition, we met all 1958 demands for larger distribution equipment by building new ratings and larger units of transformers in proportion to these larger generating units.

Transmission voltages of 345,000 volts are in use today, with even higher capacity systems under study. A-C has already built transformers for operation up to 600,000 volts and has pre-designed a 1,000,000-kilo-volt-ampere unit for the future.

"We aim to make one pound of A-C equipment do the work of a pound and a quarter of competitive equipment . . ."

L. W. Davis, General Manager, Farm Equipment Division.

Improved design and the use of better materials, such as silicon core steel, has brought a 15 percent weight reduction in Allis-Chalmers transformers. In the case of some of the larger units, weight has been cut by as much as 50 percent in the past 10 years.

Improved appearance, coupled with reduced weight, has been the aim of A-C designers concerned with the pole-type distribution transformers made at Pittsburgh and Gadsden Works. This type

People, power and progress

is rapidly approaching an average rating of 37.5 kva as the residential use of electric power increases.

Larger ratings have also been introduced in Allis-Chalmers switchgear, made at Boston Works. This equipment, used for power control and protection, will meet the demands of heavier power loads.

Further advances were achieved by the company in several nuclear power projects which involve commercial application of advanced research. Construction will begin this year on the Pathfinder power plant — the only plant now under way with controlled recirculation and a nuclear superheater. Allis-Chalmers has the prime contract to design and build this commercial plant for Northern States Power Company of Minneapolis, Minn., and a group of 10 other midwestern utilities known as Central Utilities Power Associates.

"We're just beginning to sell . . . We can expect to win more and more converts to Allis-Chalmers material handling machinery . . ."

L. C. Daniels, General Manager, Engine-Material Handling Division.

Another project, known as the Model C-Stellerator, is scheduled for completion in 1960 at Princeton University. A-C is sharing with the Radio Corporation of America in the design and building of the equipment for this advanced research into the field of controlled thermonuclear reactions.

In addition, a specially-designed steam turbine-generator unit and a share in the research are the company's engineered contributions to the Enrico Fermi Fast Breeder Reactor plant now under construction near Monroe, Mich.

In response to the market need for greater capacities and more power, A-C has added new "muscle" to its engines which are sold directly to customers as well as used to provide power for a number of the company's products.

New diesel engines of 230 and 340 horsepower, introduced at Harvey Works in 1958, have demonstrated performance capabilities to answer the needs of construction machinery buyers. A new combustion system has given these engines important fuel economy characteristics, which mean savings for contractors and other machinery operators. These new engines are also capable of handling the toughest requirements of prime power, generator or marine applications, as well as those of off-highway machinery such as power shovels, loaders and scrapers.

With more than 20 percent of average manufacturing costs taken up in moving materials, the company has power-tailored its material handling equipment to specific needs. A new lift truck introduced at Harvey Works in 1958 features narrow turning radius and

"We are exploring the fullest possibilities for power from nuclear energy with our work on the C-Stellerator project and our design for a complete boiling water nuclear power plant."

R. M. Casper, General Manager, Atomic Energy Division.

better maneuverability, giving the company a complete line of material handling equipment from 2000 to 10,000-pound capacity.

These new developments should create greater market potentials for a number of construction machinery and material handling products made by A-C people.

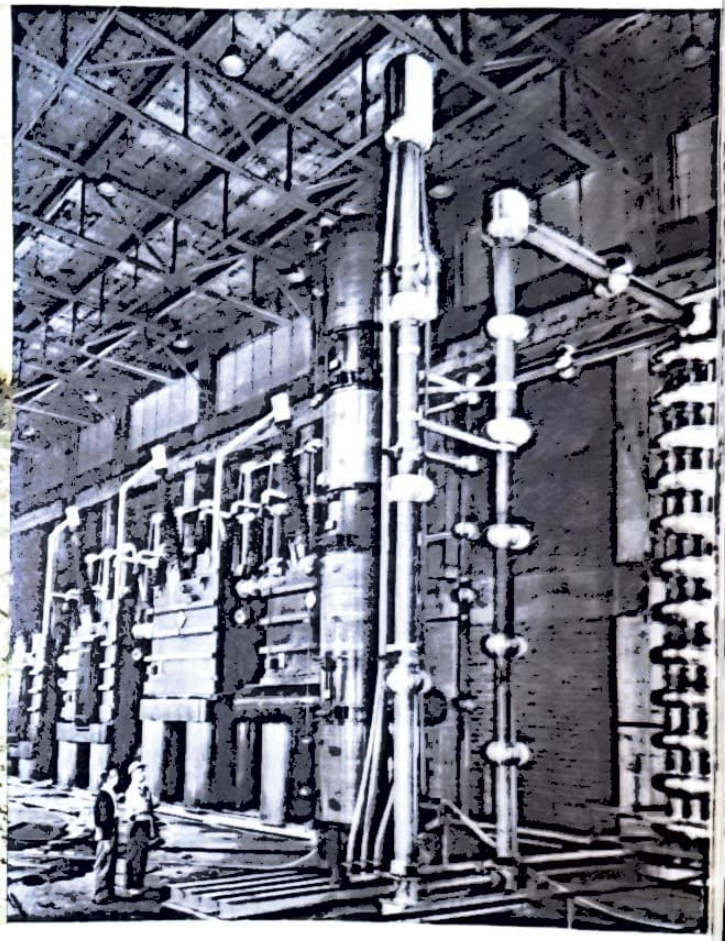
Earth-moving operations demand greater power and efficiency today, whether they involve road-building, cross-country pipelines, lumbering, industrial site preparation or mining. A-C construction machinery continues to meet these needs with new and improved equipment. A medium-sized model was added to the motor grader line built at Springfield Works in 1958, and a 12½ yard scraper made its appearance at Cedar Rapids Works. The latter machine has already proved its speed and

Now in service is this new research and development facility for advanced nuclear power plants, located at Greendale, Wis.

A fleet of new model TS-260 motor scrapers, built at Cedar Rapids Works, at work on Interstate Highway 40 near Clinton, Oklahoma.

A new motor grader in the medium size class, the One Forty Five, was introduced at Springfield Works late in the year.

The Atomic Energy Commission's Oak Ridge, Tenn., nuclear power center uses this high voltage silicon rectifier power supply, built at West Allis Works. Filtered direct current at several voltage levels will be obtainable.



maneuverability in setting records for the yardages hauled and lower operating costs.

The increased power of the big HD-21 crawler tractor built at Springfield Works is drawing contractor interest. New equipment purchasers — particularly in heavy lumbering operations — like the superiority of this unit's torque converter, a feature pioneered by A-C engineers.

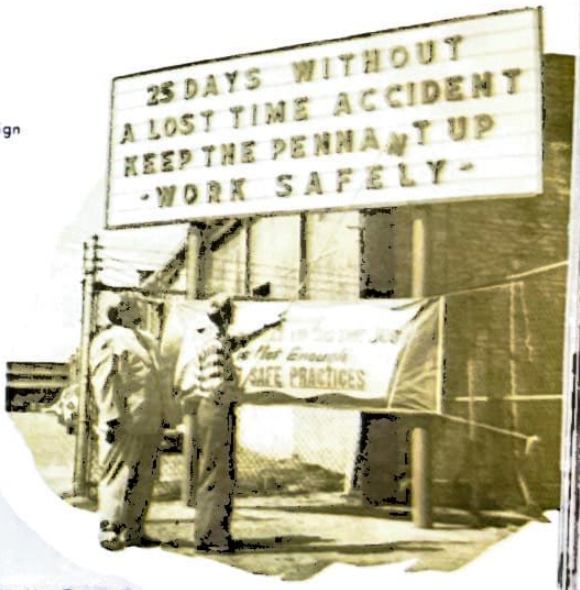
"Sales of hydraulic turbines should continue to grow as the demand for electric power increases. . . We're seeking even greater efficiency . . ."

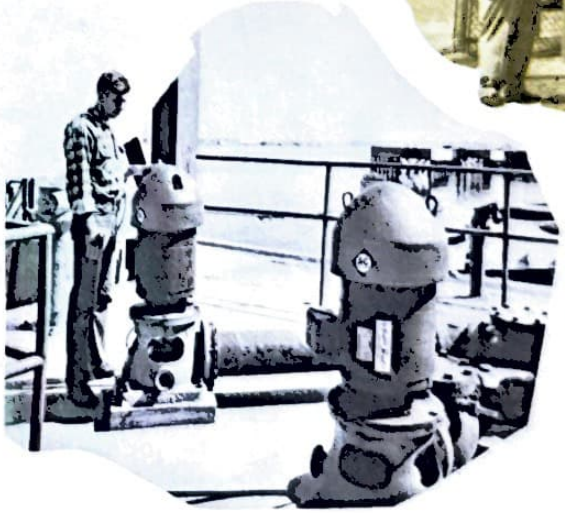
B. E. Smith, General Manager, Hydraulic Division, and a Vice President.

In regard to the general engineering advances made in Allis-Chalmers construction machinery, it is significant that contractors today are moving earth at substantially the same cost per yard as 20 years ago. Credit for this goes to efficient, high-capacity equipment and modern construction techniques.

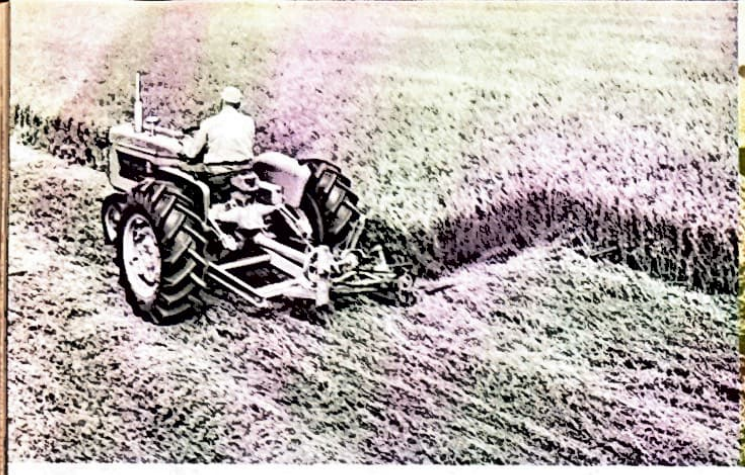
Precision control of power is of increasing importance in the modernization programs of American industry and business. The need for variable and accurate speeds in both automation and new methods of processing has stimulated research, engineering and design

Gil Snyder (left), supervisor, and Jerry Turner, foreman, of the LaPorte Works safety department, show the sign erected at their plant's main gate to help maintain a safety-conscious attitude among all employes.





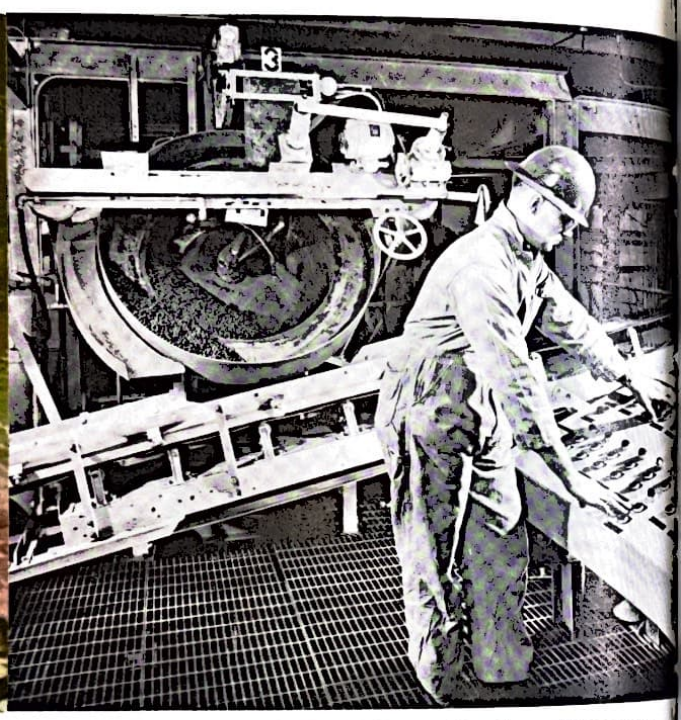
The company's new line of *Super-Seal* motors, such as these Norwood Works units, offers savings to users where moisture, heat, dust or other contaminants are a problem.



A new rear-mounted mower, featuring *Twin-Wheel* drive, has been added to the A-C hay machine line produced at LaPorte Works.

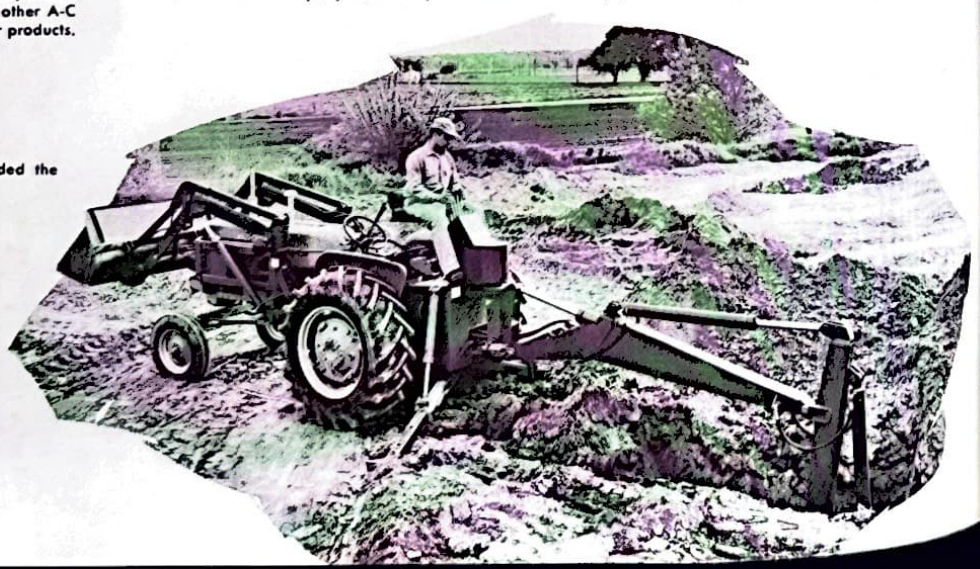
Typical of the continuing trend toward bigger motive power and larger implements is this model K disc harrow, built at Oxnard Works.

Being poured in the LaCrosse Works foundry, these castings may be used in the plant's farm implement line or may be destined for one of several other A-C plants which utilize LaCrosse castings in their products.



A larger, improved pilot plant at Carrollville, Wis., near Milwaukee, enables the company to develop new methods and equipment for the processing industries.

A new line of utility tractors for light construction and industrial use has expanded the market for Allis-Chalmers wheel tractors.



in special motors, controls and drive systems.

In the past year, a number of new products were introduced at Norwood Works, including such items as shaft-mounted speed reducers, motorized speed changers, timing belts and adjustable sheaves and motor bases.

A line of low-voltage motor controls is scheduled for introduction in the middle of the year. It is expected to establish the company firmly in the substantial market for small motor controls and make A-C a major factor in the control business.

Continued demand for larger and more powerful farm machinery comes from the further consolidation of farms into larger units across the nation. Allis-Chalmers met the demand with new equipment of greater power and working dimension.

The 50-hp D-17, made at West Allis Works, tops the A-C farm tractor line with its built-in ability to out-perform heavier machines. A new 7½ foot *All-Crop* harvester, like its smaller stablemate from LaPorte Works, can harvest more than 100 different seed crops. Four-row cultivator sales strengthened in 1958, but demand for greater capacity has stimulated development of a six-row unit at LaCrosse Works. Similarly, 15 and 20-foot disc harrows and larger plows are now being built at Oxnard Works to succeed the smaller sizes of these implements.

Independence Works operated at full capacity from March, 1958, through the end of the year and sold all of its production of *Gleaner-Baldwin* harvesters, designed for easy transportability and dependable performance.

"There is a good future for A-C in this field, with new products and developments in addition to what we have . . ."

R. L. Halsted, General Manager, Industrial Equipment Division.

In view of the established diversity of Allis-Chalmers products, research and development continues to concentrate on wringing new efficiency from power sources and new usefulness from basic product lines.

For example, a modest one or two percent improvement in the efficiency of an A-C transformer or crusher can have a real impact when the savings are figured on an industry-wide basis.

Research accumulates fundamental data on these possibilities and many others, then transfers this information to the proper division for engineering, product design and marketing. This process brought a number of product improvements and additions worth citing for their contributions to the company's continuing diversification in 1958.

The grate-kiln system has extended to the important production of taconite ore concentrates, thereby capturing the interest of every sizeable mining and ore concentrating company in the nation. This system, as applied to cement-making where it is known as the ACL process, has already proved its cleanliness of operation and economy of fuel as compared with previous performance in the industry. The grate-kiln system uses either a balling drum or a pan method to produce superior pellets from taconite ores with substantial savings.

"The demand for precise speed control in industry is growing at a rapid pace . . . we are taking a leading part in these developments."

W. M. Wallace, General Manager, General Products Division, and a Vice President.

A new compacting process of reducing and sizing bulk materials in foods, chemicals, fuel, fertilizer and other aggregates is also paying dividends in lowered operating costs and superior products. The process upgrades particle size and controls density and solubility.

In the electric motor business, a new motor line provided a strong sales position in 1958 for motor ratings built at Norwood and West Allis Works. These motors are so sealed as to be impervious to dust, moisture and other hazards. The company also upgraded its direct current motor ratings during the year.

Completion of the new research and engineering laboratory at Harvey Works provides all the modern research facilities for engine testing. A key wing of this facility includes soundproof test cells in which generator units and engines up to 1000-hp can be tested on a 24-hour schedule without disrupting the neighborhood quiet. The expanded facilities at Harvey Works are also producing the new diesel combustion system with fuel injection systems tailored to precise performance needs.

Abroad and at home, increasing customer demand for products made by Allis-Chalmers people will be stimulated

"Opportunities in today's world markets are unlimited . . . we are preparing ourselves to take full advantage of these opportunities."

P. F. Bauer, Managing Director, A-C International, and a Vice President.

by a number of factors in 1959. Among these are:

The still-accelerating road-building program;

The estimated 12 percent increase in total construction outlays for the coming year;

The expanding network of underground pipelines for petroleum products transmission;

The power needs for lumber, sand, gravel, cement and allied products and raw materials for industrial construction and the 1,200,000 new homes to be built in 1959.

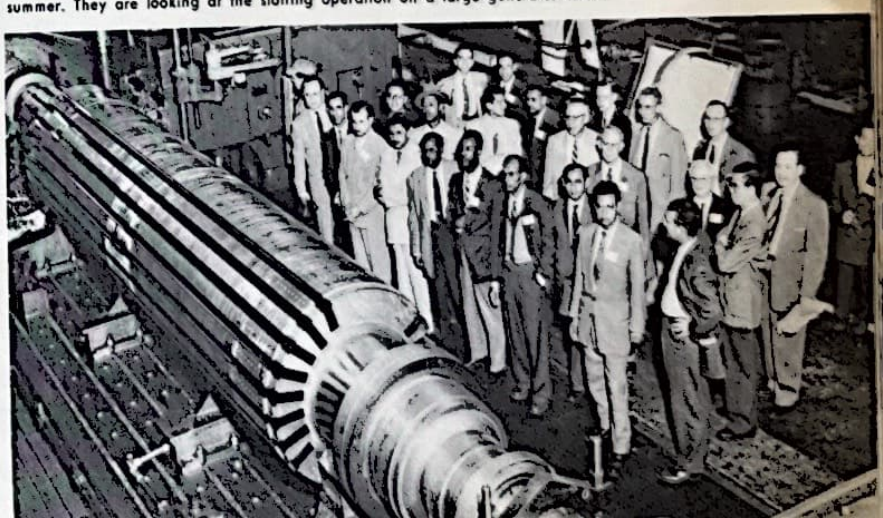
Allis-Chalmers earth-moving equipment will play an important role in these efforts and in the ever-widening programs of minerals extraction, irrigation and soil reclamation.

The company should also benefit from the estimated 6 to 18 percent increase in sales of electric power goods in 1959.

The past year has been marked by significant additions to the company's fundamental power-producing and power-using product lines. As a result, A-C has stayed in step with the growing power needs of its various markets and has filled and balanced its lines of equipment where greater versatility was needed.

Allis-Chalmers people face 1959 and the future in one of the most advantageous positions of the company's 112-year history.

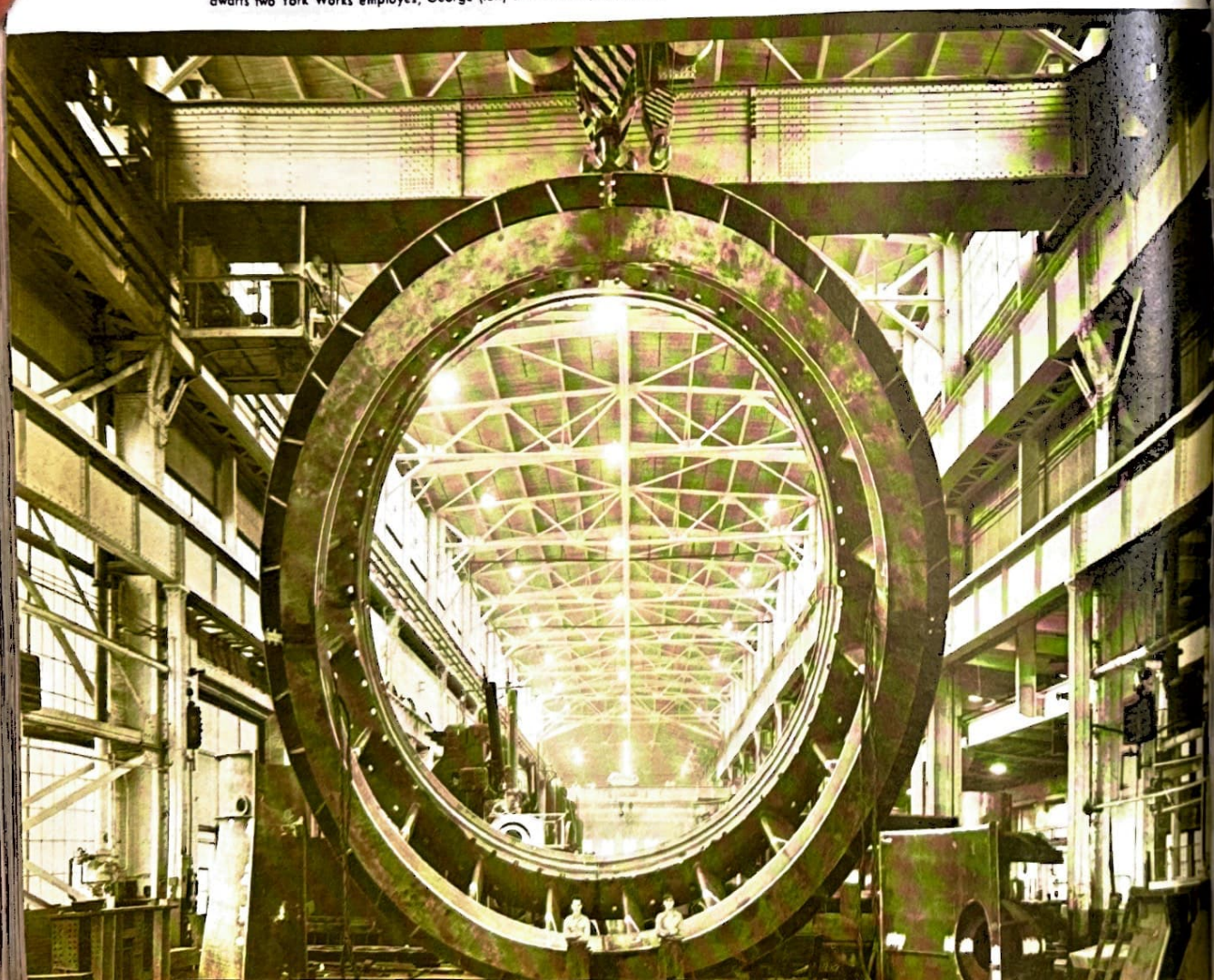
Among the many visitors to Allis-Chalmers manufacturing facilities last year were these foreign government purchasing agents who toured West Allis Works during a conference in Milwaukee last summer. They are looking at the slotting operation on a large generator shaft.



Jack Wagaman, a York Works welder with 23 years of service, is shown below. Wagaman and his daughter (in photo at right) are one of the many first and second generation teams in the former S. Morgan Smith organization.

Mrs. Dolores Sterner, inventory clerk, has three years service with the York plant. She is the daughter of Jack Wagaman, shown in photo at left.

This giant stay ring for one of the 111,300-horsepower turbines for McNary dam literally dwarfs two York Works employes, George (left) and Paul Pepo, on the plant's erection floor.



Beauchamp E. Smith, shown below at an Easter egg hunt for employes and their families, was president of S. Morgan Smith from 1942 through 1958. Since the acquisition by Allis-Chalmers, he has been named general manager of the Hydraulic division and a vice president of A-C.

Douglas Baker (left), assistant chief mechanical engineer, Turbine department, confers with Paul Strayer, design engineer, Mechanical Engineering department, at York Works.

Let's look at the YORK WORKS

They say you can tell a person by the company he keeps, and it's just as true to say you can tell a company by the people who work there. And, as the newest member of the Allis-Chalmers family of "hometowns," York, Pa., Works has a long history of achievement built on the talents of its people.

Allis-Chalmers came to York in January of this year, with the purchase of the S. Morgan Smith Company. This 82-year-old firm had been a leader in the hydraulic turbine field. It was also an outstanding manufacturer of pump-turbines, valves and special heavy hydraulic equipment.

The Smith Company — no, let's start calling it York Works — is part of the newly-created Hydraulic division of the Industries Group, with B. E. Smith as general manager and a vice president of the company He had been president of S. Morgan Smith since 1942.

W. J. Rheingans, manager of the former Hydraulic department at West Allis Works, has moved to York Works to become assistant general manager in charge of engineering.

Included in the purchase are two wholly-owned subsidiaries; S. Morgan Smith (Canada), Ltd., of Toronto, and Kopystat, Inc., of York. The Canadian firm produces hydraulic equipment based on plans, drawings and engineering originating in York. Kopystat does photostat work for the parent firm and also for outside accounts.

When the plans for the purchase were made known last November, Allis-Chalmers people were asking "What kind of a company is this? What do they make?"

First off, York Works prides itself on design, engineering and manufacturing excellence. The company has had a very successful history, and it attained its greatest sales figure in 1957.

Since its founding in 1877, the company has built hydraulic turbines and other products for some of the largest water power projects in the world.

In recent years, York Works people built and installed four 144,000-hp Francis turbines at Brownlee development in Idaho and 14 111,300-hp Kaplan turbines at McNary dam on the Columbia river. Now in progress at the York shops are 10 Kaplan turbines for two Columbia river projects.

Of interest to A-C people is the point that West Allis and York Works are each building six pump-turbine units for the Niagara Power Project's Tuscarora plant, as the result of a joint bid made prior to the acquisition. And West Allis Motor and Generator engineers have designed many huge generators for installation with York-built turbines.

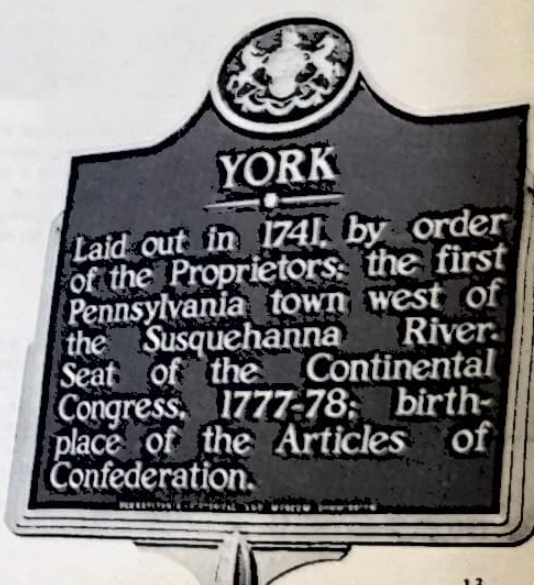
The newest member of the A-C family got its start when Stephen Morgan Smith, a pastor in the Moravian church, retired from the ministry because of an incurable throat ailment. A man of mechanical ingenuity, Smith turned to the development and patenting of the country's first successful washing machine.

In 1876, while visiting a grist mill, Smith heard the owner's complaints about the water wheel and formed the ideas for a new design which he felt would be superior to any wheel then on the market.

Smith had no factory then, and no sure market for his designs, but he built successful water wheels. However, even as late as the 1890's, the future of hydroelectric power was regarded by many as doubtful. "Better stick to the old way and build the mill next to the river," they said. "Better use rope pulleys or some other means of transmitting power and forget about this new-fangled electricity."

But Smith persisted in his beliefs that he could build a better water wheel, whether it be for direct drive of mills or for generating electricity. He built a plant in York in 1890 and from that time to the present the name Smith has stood for quality in the great power-producing hydroelectric dams of the United States and throughout the world.

The company expanded its facilities



YORK WORKS

in York to produce the larger turbines required as the use of electric power grew in the early 1900's. And today, the works has a unique position in its field, since it is the only plant in the United States offering hydraulic turbines of all types in sizes ranging from the smallest to the largest.

Also a part of York Works is one of the finest hydraulic turbine testing laboratories in the industry, designed by the company's engineers.

In addition to its hydraulic turbines, York Works makes related equipment such as intake and crest grates, valves, hoists, trash rakes and racks. With flood control closely tied to water power in many areas, the company has adapted its designs for adjustable blade turbines to the manufacture of pumps for large volume, low-line applications.

The firm's experience in engineering and building unusual equipment has resulted in orders for highly specialized products not related to the regular product lines. An example is the order from the National Advisory Committee for Aeronautics for large axial flow compressors ranging from 87,000 to 150,000-hp to supply air for supersonic wind tunnels. During World War II, the plant built mine cases and aircraft carrier catapults for the navy and gun mounts for the army.

As its business developed, S. Morgan Smith expanded from 20 employes in 1890 to more than 1000 today. Plant space has increased from 7500 sq. ft. to about 500,000 sq. ft. of floor space today. Plant 2, located 3½ miles west of York, was completed in 1953 to house additional manufacturing facilities.

The works has a number of large machine tools necessary to handle the precision work on its larger products. Among the largest in the world is a 42-ft. vertical boring mill, designed and built in the plant's shops. Another large mill, a 40-footer, is installed at Plant 2.

York Works has been an integral part of its community throughout its 82-year history, with full recognition of its role as a corporate citizen. The company and its employes take part in the many organizations, events and campaigns which contribute to making their city a better place in which to live and work.

Employe training has strong emphasis at the works, with current programs including apprentice training for machinists and boilermakers, graduate training for engineers, supervisory training and a tuition refund plan for all employes.

A well-rounded recreation program featuring golf and bowling attracts many employes. The plant's golf and bowling teams won York County industrial titles last year.

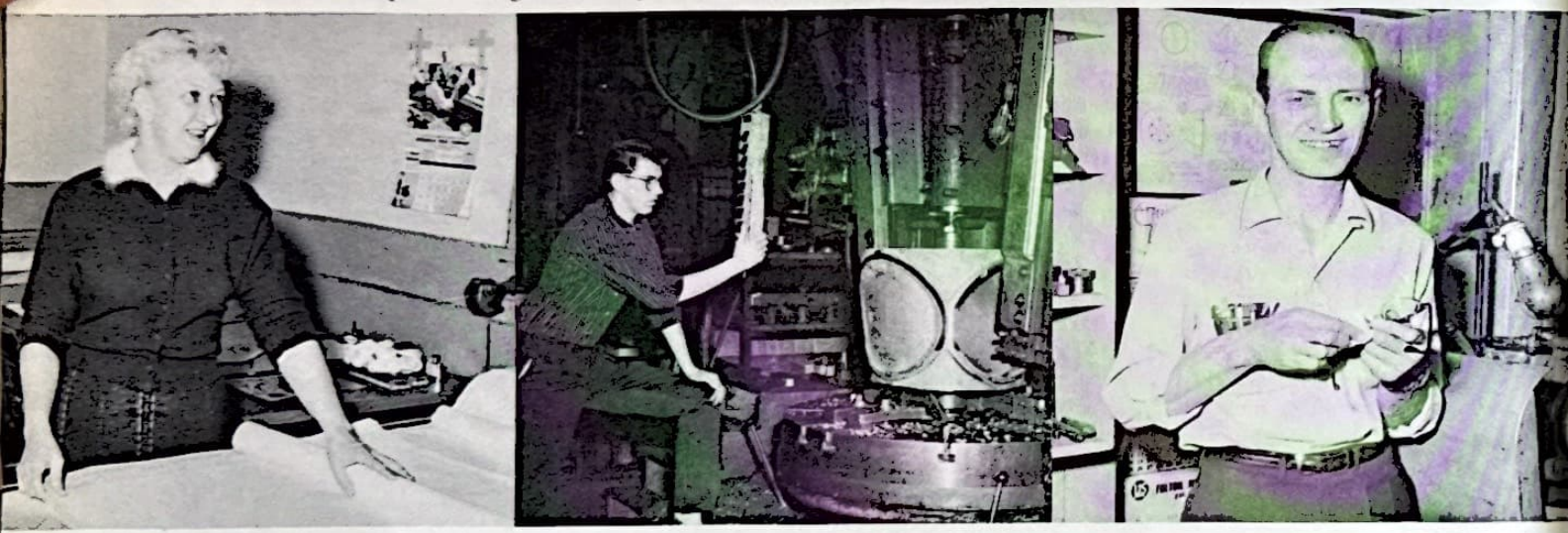
Employes and management share in the planning and execution of safety campaigns, and 100 percent safety glass protection is a rule in all manufacturing areas of the plant. A blood bank program is available to all York Works employes and their families.

One good yardstick for measuring a company is the average employe's length of service and the frequency of second-generation employes. Nearly 40 percent of the York Works people have at least 10 years of service. In one case, a son-father-grandfather team has piled up 101 years of service with the firm — the grandfather having started as an apprentice with the firm's founder.

Community activity . . . employe training . . . recreation . . . safety . . . long service . . . all of these factors make York Works people pretty much like the employes at other A-C plants from Boston to Oxnard, Cal. But how about the city in which they live?

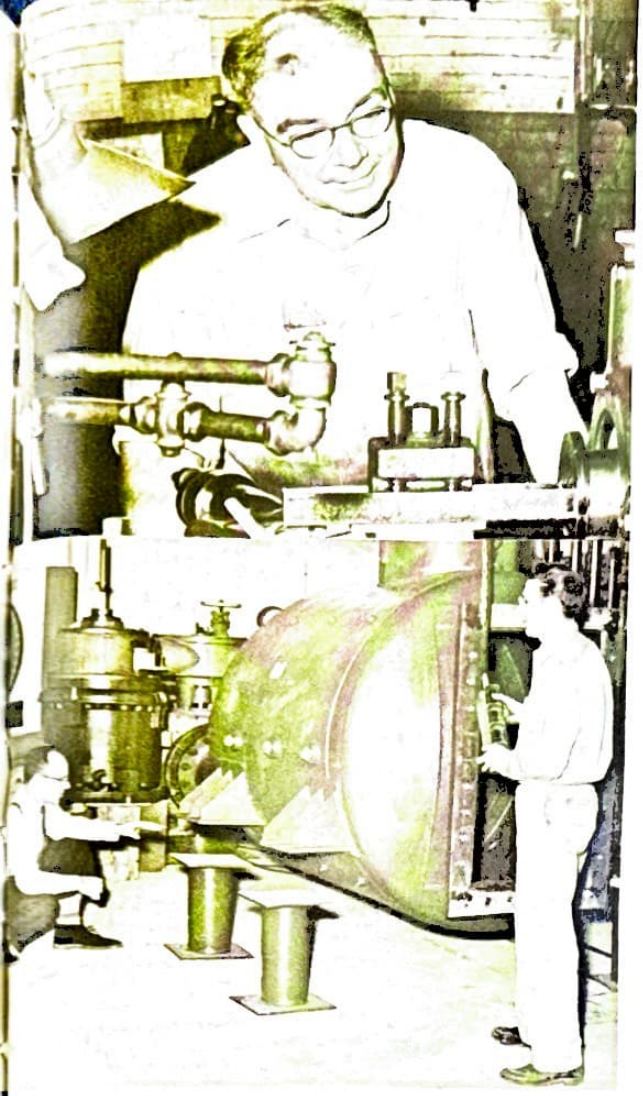
York is closely identified with early American leaders and events. The city has been on the map more than 200 years and it's seen its share of history from the day Cornwallis surrendered to George Washington to end the Revolutionary War, to the weekend when grey-coated troops swarmed through York toward a battleground called Gettysburg, some 28 miles away.

Named after York, England, the Pennsylvania city was the first town laid out west of the Susquehanna river, in 1741,



Three members of the same family, all employed at York Works. Dennis Rentzel (center) is a machinist apprentice, shown above machining a *Roto-Valve* plug on a 60-inch vertical mill. He is the son of Mrs. Mary Rentzel, clerk, Engineering Services, and Lester C. Rentzel, cutting tool coordinator, Tool Room. Mr. Rentzel is a 29-year veteran at the plant.

Supervisor of safety and training, William Kling (center), is shown laying out a head cover for a large turbine with machinist apprentices Horace Gibson and George Corney. Kling, a 35-year man, followed a family tradition in working at the Smith Company. His grandfather started work as an apprentice for the firm's founder, and over the three generations the Klings have more than 100 years of service.



One of the oldest employes from the standpoint of service at York Works is Walter Sheffer, machinist, with 42 years at the plant. He is the father of Robert Sheffer (below, right), working foreman, Hydraulic laboratory, shown in preparation for pump test with Warren Whippen, Hydraulic development engineer, and supervisor of the lab.

The first water wheel designed and built by S. Morgan Smith was installed in this mill in 1877. This was Jacob's mill, located on Beaver Creek, York county, as it appeared when this photo was taken in 1888.

in what was one of the earliest examples of city planning.

Though the town was English, many of its first settlers came from Germany. Their names — Schultz, Wolf, Eyster, Smyser, Hinkel, Reiker and others — are found in the area today. (Incidentally, the "Pennsylvania Dutch" dialect comes from the High German of the Bible, combined with the Low German and the English taught in school. It is a homey tongue, rich in expressive idioms and colloquialisms.)

During the Revolutionary War, the Continental Congress fled from General Howe's occupation of Philadelphia and made York the nation's capitol for nine months. The Articles of Confederation, in which the term "United States of America" was used for the first time, were adopted in York in 1777.

At the time the Civil War began, York people had mixed emotions, since the community was only a few miles north of the Mason-Dixon line, the boundary between free and slave states.

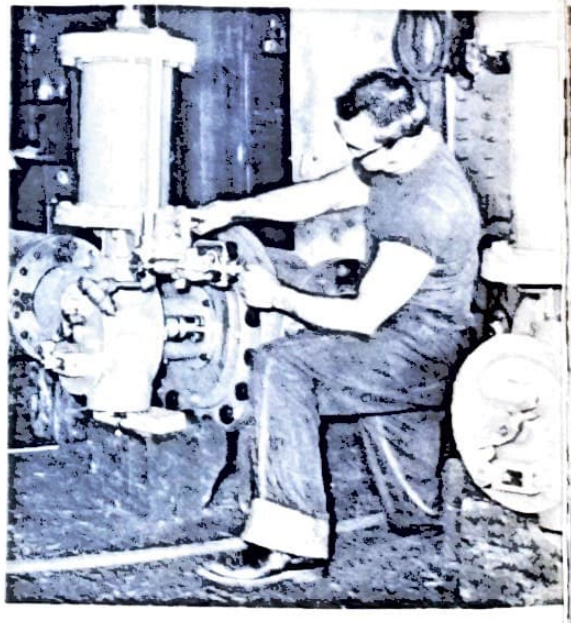
York is called the "City of Craftsmen," and it ranks first in Pennsylvania in the variety of goods made there in proportion to its population. The "Made in York" label appears on wall paper, air conditioning and refrigeration equipment, tire chains, artificial teeth, paper and paper products, baking equipment, silk and rayon goods, clothing and hosiery, books and business forms, pretzels, cigars, electronic components, farm and construction machinery, pottery, furniture, wire cloth, heating systems and many others, in addition to hydraulic turbines.

Today, York is a responsible, progressive community of 65,000 people; one which is understandably proud of its past, taking care of today's needs today and planning for the future.

The community has York Junior College and Penn State Technical Institute in addition to three high schools. Private subscriptions maintain a community concert association, a symphony orchestra and a community theatre. A youth orchestra was recently organized.

When the York plant officially became part of Allis-Chalmers, W. G. Scholl, executive vice president, spoke for A-C people everywhere when he welcomed the members of the former S. Morgan Smith organization. "We are proud," he said, "that the York Works has become a part of the A-C family and we are looking forward to our opportunities to grow together."

In addition to hydraulic turbines, York Works builds valves and other water handling equipment. Here is Arthur Stough, assembler, checking the controls on a *Roto-Valve* assembly.

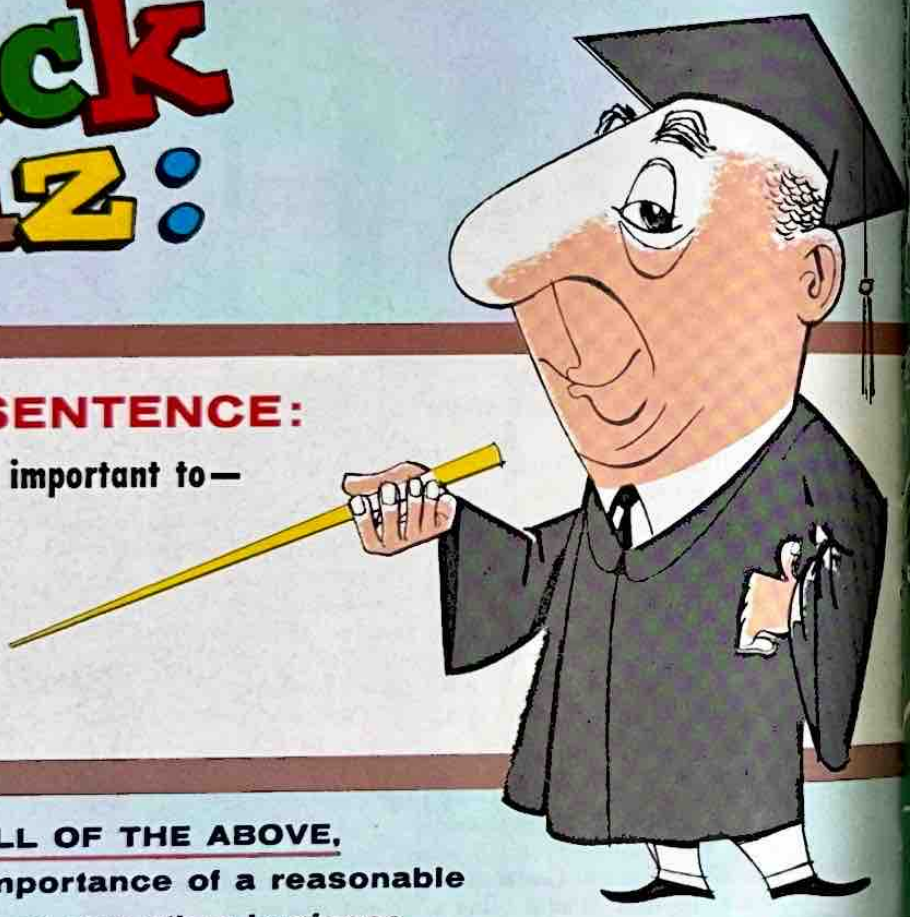


a-c scope

ALLIS-CHALMERS MFG. CO.
Box 512
Milwaukee, Wis.

WISCONSIN HISTORICAL SOCIETY
816 STATE ST.
MADISON 6, WIS.

Quick Quiz:



COMPLETE THIS SENTENCE:

Allis-Chalmers, profits are important to—

(A) EMPLOYES
(B) SHARE OWNERS
(C) CUSTOMERS
(D) THE COMMUNITY
(E) ALL OF THE ABOVE

If your answer is (E) ALL OF THE ABOVE, you are aware of the importance of a reasonable profit to Allis-Chalmers or any other business.

When a business fails to make a profit, the impact is felt in many areas. On the other hand, when a company prospers, the earnings are used to the benefit of many people — employes, customers, share owners and the entire community in which the plant is located.

When A-C shows a reasonable profit, there's money for direct payrolls and fringe benefits, money for research and better facilities, money for tooling and training.

When there's a profit, there's money to pay our share owners a dividend, which represents a reasonable amount returned to them for the use of their money in the business. Without this return on the share owners' investment, there'd be little reason for anyone to want to put a portion of his earnings into Allis-Chalmers common stock.

A portion of the company's profit helps the customer, too, since it pays for the research and development projects that mean modern facilities, new methods, new materials, new ways to give the buyer more for his dollar of investment in Allis-Chalmers products.

And, of course, each community where an A-C plant is located benefits when the company makes a profit, because of the amount of expenditures in payrolls, taxes, purchases, donations, etc., in the community.

Yes, profit is important. Not just to a handful of people, but to more than 30,000 employes, nearly 60,000 share owners, many thousands of customers and the 16 cities where our manufacturing plants are located in the United States and Canada.