a-c scope

magazine of allis-chalmers people

september-october, 1961

New Harvey Engine Plant, page 3

COVER PHOTO

"Hey, look me over." Confidently, the new Harvey engine plant can make this invitation. The building itself, the machinery, and most important, the employes, are geared to produce the finest line of engines in the world.

CONTENTS

PHOTO CREDITS

Cover — Aerial, Russ Einwalter, West Allis Works, Dave Bond, Harvey Works; Page 3, Darrold Pries, West Allis Works, Wendall Smits, Harvey Works; Page 4, Smits; Page 5, top photo courtesy H. K. Ferguson Co., Cleveland, Ohio, Smits; Page 6, Smits; Page 7, Walter Beaver, Pittsburgh Works; Page 8, Edward Kiernan, Boston Works; Page 9, H. R. Smith, LaCrosse Works, Harold Shrode, West Allis Works, Dave Ward, LaPorte Works, Einwalter; Page 10, Charles Schorman, Norwood Works, Smits, Michael Durante, West Allis Works; Page 11, Marsh-Kornegay, Inc., Jacksonville, Fla.; Page 12, top, H. Armstrong Roberts, Philadelphia, Pa.; Page 13, Shrode, Roberts, Richard Bruce, Terre Haute Works; Page 14, George Marshall, West Allis Works, Roberts; Page 15, Ward; Page 16, Pries; Page 17, Bruce, Schorman, Don Ackerman, West Allis Works; Page 18, Marshall; Page 20, Marshall, Frank Hart, West Allis Works; Page 21, Greg Berg, West Allis Works, courtesy Voice of America; Pages 22, 23, photos courtesy Russell Snook, Oxnard Works; Page 24, courtesy Ventura (Calif.) County Star-Free Press.

A-C SCOPE

MAGAZINE of ALLIS-CHALMERS PEOPLE
Jack Bartness.....Editor
I. J. LaBarbera...Art Director
Published by Information and Community Services, Industrial and Community Relations Division, Allis-Chalmers Mfg. Co., Milwaukee 1, Wisconsin.

We can't ask for anything more

Much is said in this issue about competition. Allis-Chalmers has it in abundance, and we have had it for 114 years. Any field worth getting into in the first place will soon be populated by rival firms working to make the better product, planning ways to shave costs so the customer can better afford to buy this product.

Competition is at once challenging and invigorating. The challenge is growing greater all the time, as is detailed on these pages. Technology is improving at a startling rate, and products along with it. Methods to manufacture these products are increasingly more efficient. People, fortunately, react to this stimulus called challenge. People don't like to stand still. On the North American Continent, this restlessness has produced the highest standard of living the world has ever known.

Some people, and the companies they comprise, meet the challenge far better than others. A glance down the Main street of your town reminds you of that. There you will see growing businesses as well as businesses that were not there 10 years ago. You will also recall businesses of the past that are not there now.

Employes of Allis-Chalmers have shown they know how to accept challenges — and how to make them. Our research and development areas are teeming with projects designed to make our future opportunities even brighter than those of the past.

Opportunity remains the key word. There is nothing even approaching absolute security in business or industry. As long as Allis-Chalmers people continue to scratch their brains for product ideas and ways to control costs in all areas we will continue to have opportunity. We can't ask for anything more.

A man proud of his work

"I hate scrap like sin."

This was the unsolicited comment of a shop employe at one of our Allis-Chalmers plants. He said it forcefully. He meant it.

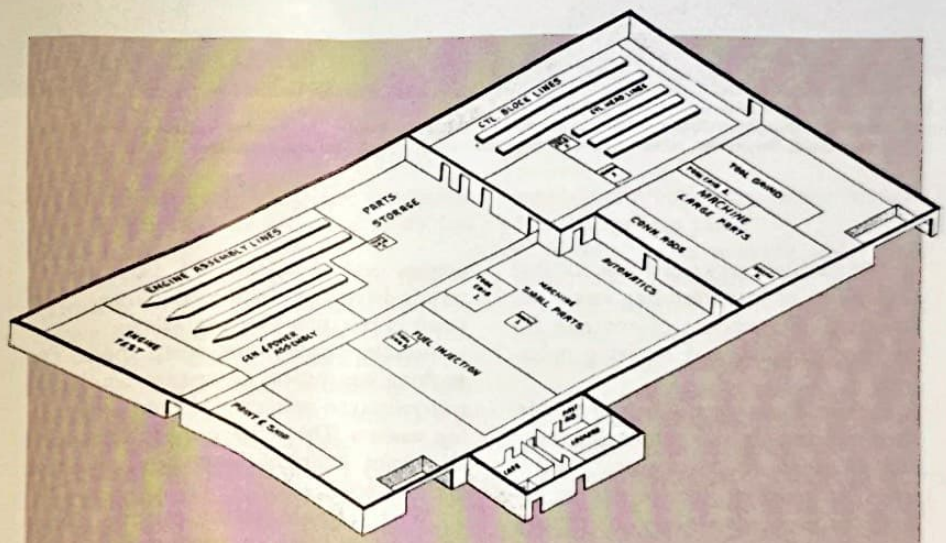
Such comments are reassuring in view of the occasional questions raised about the pride some people have in their work. One well phrased item appearing in *Newsweek* magazine, for example, asked these questions:

"Where is the man who is proud of his work? Where is the man who would eagerly sign his name to the job he just completed? Where is the man who builds a product of 'lasting solidity and exactness of beauty?' The careful man who loves his tools, who takes a walk before bedtime and thinks about his job... Is he being ploughed into history by featherbedding, planned obsolescence, indifference? Doesn't a man who unashamedly builds an inferior product tarnish himself and his industry? Will the people of the 21st century collect our handiwork as proudly as we collect that of the 19th century?"

These are reasonable questions. The Allis-Chalmers man who "hates scrap like sin" is a favorable answer to these questions.

Less than a year after L. C. Daniels, consultant, Engine-Material Handling Division, broke ground for the new Harvey Works engine plant, the mammoth building was quartering its first machine tools. With Daniels are William B. Kane, mayor of Harvey, and Owen J. Higgins (right), general manager.

There's nothing finer!



The 1,100 by 440 foot building has over 500,000 square feet of manufacturing area. This drawing shows the location of various production departments.

Observing the front entrance to the engine plant are (from left) Michael Ferguson, superintendent of personnel; Joseph Kolody, vice president, and Paul Markonni, president, local 1091, United Steelworkers; John Peterson, supervisor, labor relations.

New Harvey plant is quality house of quality engines

The Harvey Works isn't about to hide its light under a bushel.

A massive steel and concrete structure capping 11 acres and studded with some of the most modern machines available to industry now shouts to engine users throughout the world — "There's nothing finer."

This is not the age for doing things half way, Owen J. Higgins, general manager at Harvey, will tell you as he describes the new plant.

"The engine manufacturing business is a fast league. To survive and progress we must supply the very ultimate in quality at the lowest possible cost. With this new facility we will be in the best position ever to multiply our sales."

He said, "Above all, we have confidence in our employes. We have the same good mechanics, good workmen, good engineers who were able to produce a quality product in the old buildings. Our diesel engines in particular have been the best in the industry for long life, fuel economy and cold weather starting. We will realize even greater quality in this modern plant."

From the ground up, the Harvey plant was not built "half way." Some 80,000 yards of compact fill replaced 60,000 yards of dirt. On top of this came 23,000 yards of concrete that met the most stringent specifications.

No load of concrete could be longer than 45 minutes in transit. Then it had to meet a slump test. "We want to be able to place any piece of equipment anywhere in the plant and have it perform perfectly. Foundation is vital," said Higgins.

Before bids were taken on sheet metal, roof deck and siding material, samples were received from suppliers so the paint adhesive qualities could be checked. "Plant maintenance adds to the cost of doing business like everything else," said Higgins.

These pains taken to make the plant a house of quality in every respect were only the beginning.

Harvey employes began manufacturing the first of nine basic diesel and gasoline engines last July. Later the plant absorbed production of six other

There's nothing finer

engine models used in the Allis-Chalmers line of material handling trucks.

Primarily, the efficient Harvey engines are used in Allis-Chalmers products — farm equipment made at Independence, LaPorte, and West Allis; construction machinery made at Cedar Rapids, Springfield, Deerfield and West Allis; and the Harvey material handling units. (West Allis also makes gas engines.)

Of the five assembly lines, three will handle diesels, the fourth gas, and the fifth generator sets, marine gas engines and power plant units.

John W. Carlson, general manager, Engine-Material Handling Division, said, "The efficiency of our engines and the manufacturing costs become all the more important because they can affect the sale of so many other Allis-Chalmers products. Consequently you will find at Harvey some of the most modern methods known today to manufacture, assemble and test engines."

Referring to engine costs, L. C. Daniels, consultant for the Division and the man who contributed much to bringing about the construction of the new plant, said, "We can't stand any fat on our engines because the customer won't pay for it."

In contrast to the old facility, which for all practical purposes was three separate manufacturing facilities entailing excessive material handling, the new plant smoothly moves rough forgings and castings from one end of the 1,100 foot long building to the other. There they emerge as complete engines, ready for shipment. This is dubbed "straight-line" production.

The heart of the plant is the 560 machine tools — more than 600 if you include the new test stands. Of these 560 pieces, 220 are new. The rest have been overhauled and painted.

Stretching some three football fields in length is the center aisle. In the foreground are Julian Tienstra (left), inspection foreman, and Robert Stevenson, rough castings inspector.

The machines are spread over 500,000 square feet of manufacturing area. Outside is a like amount of concrete for parking, shipping and receiving operations.

In the cylinder block area, for example, most components have automatic loaders and unloaders for piece parts. "Turnovers" in conveyor lines permit the operator to manipulate heavy components with ease. Chip conveyors remove steel chips to the collecting stations.

The three layout drilling machines are fascinating units. Controlled by punched tape, they position a flywheel or manifold, then bore in exact positions on the castings. The operator pushes buttons and changes drill bits at intervals determined by the machine. The result is precision perfect holes.

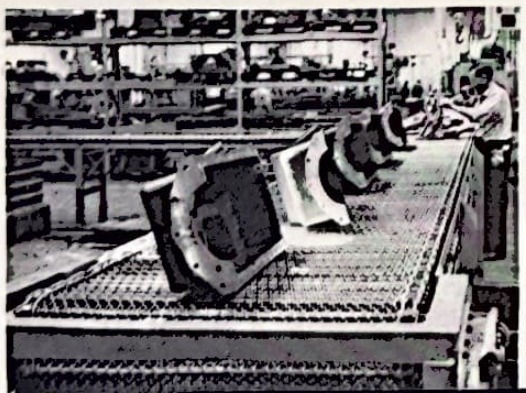
Sizeable expenditures were made for washing equipment — spray washers, conveyor type washers, heated adjutating washers. The delicate diesels, especially, must be ultra-clean for superior performance.

"We feel we are putting out the cleanest diesel and gas engine parts in the industry," said John Peterson, supervisor of labor relations.

Enhancing employe safety is the reduction in material handling operations, a major cause of industrial accidents. Moreover, all materials flow in one di-

To set up proper machine sequence in milling of cylinder blocks, Maurice Howard presses a series of buttons on the control panel.

Harry Kalb carefully checks machined parts as they move along a conveyor towards the washing machine on the far end.



Thorough planning has minimized the muscle and toil required to operate and maintain the plant. Walter Latham is on the power sweeper.

Snapped while large units were being installed, this picture shows just a few of the 560 machine tools which will enable Allis-Chalmers to survive and progress in the fast league of engine manufacturers.

rection. Housekeeping and transportation is abetted by aisles six to 20 feet in width.

Enormous dust collectors rid areas of grinding and cast iron dust. Heaters above all truck doors throw down a curtain of heat during the cold months. All truck docks are inside the building. There are 1682 fixtures of 400 watts each to help provide excellent light.

A heating system with a capacity of 62,000,000 BTU's per hour is sufficient to heat 825 average five-room homes in the Harvey area in the coldest weather. Huge ventilators completely change the air every 20 minutes.

Cleanliness, safety features and other employe comfort features extend throughout the spacious plant.

Locker rooms provide individual lockers for all employes. The bright, attractive cafeteria seats 280 without crowding. The health service room is a modern clinic. Ample employe parking is provided in front of the plant. Wood block flooring has been installed wherever employes are working.

Constructed by the H. K. Ferguson Company of Cleveland, Ohio, the plant quartered its first machine tools in less than a year from groundbreaking, which took place April 29, 1960.

Construction of the plant meant work for employes at other Allis-Chalmers works as well. Motors came from Norwood, smaller transformers from Pittsburgh, motor starters, controls, generator test equipment, compressors and pumps from West Allis, a tractor loader from Deerfield.

The Harvey engine plant is a testimonial to Allis-Chalmers confidence in the future. Both Carlson and Daniels said, "We needed greater production capacity. Allis-Chalmers divisions have programs in mind that will require this capacity."

Higgins added, "If business does what we think it will do this building will eventually be inadequate. When that time comes — and we look forward to it — our plant can be expanded on all four sides. The walls are actually bolted together to make it relatively easy to expand. Test cells, as another example, are designed with piping to accommodate double the present production."

Harvey presently is producing engines in the 41 to 350 hp ratings. Other divisions of the company are planning equipment that will require even larger engines. The plant was built with the

Harvey employes like those shown in this tool grinding department remain "our lifeblood", said Higgins. "The most important thing we moved into the new building was the experience we gained in the old."

There's nothing finer

knowledge that eventually Harvey people will be manufacturing engines up to 1,000-hp.

Although Allis-Chalmers is its own best engine customer, the sales of Harvey engines for other manufacturers' needs will remain a highly important part of our business. Speaking of the growth possibilities, Daniels said, "The diesel engine business is perhaps the fastest growing industry in the country."

Besides the construction and agriculture fields, our engines serve the marine, petroleum, mining and general industries and municipalities and utilities. From 1955 to 1960, the diesel engine production throughout the country for all uses, including railroads and highway vehicles, has increased 38 per cent.

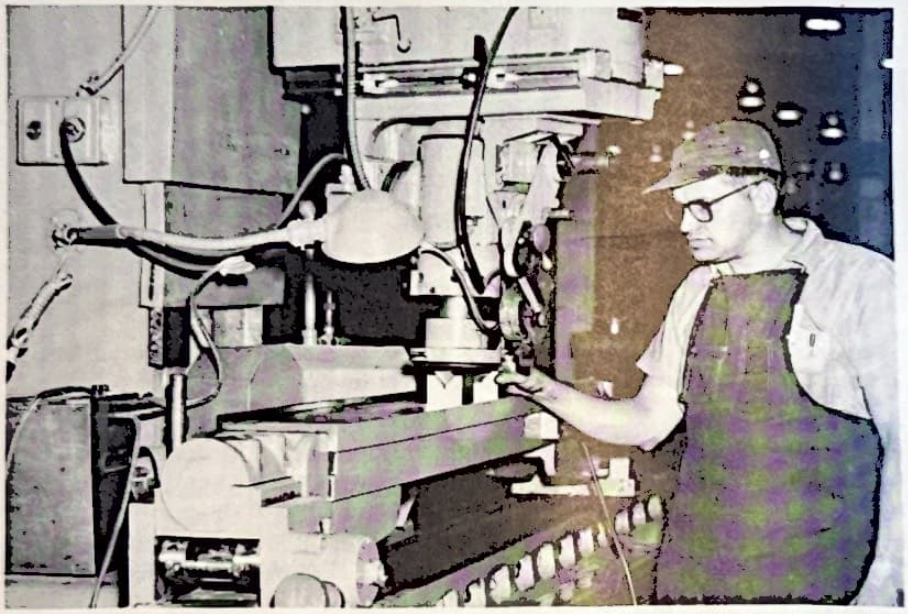
Harvey engines are found drilling for oil, propelling both work and pleasure craft, and powering logging trucks, cranes, crushing and asphalt plants, snow blowers, ski tows, irrigation projects, ad infinitum.

The space vacated in the old building frees these areas for the manufacture and storage of material handling equipment made at Harvey.

The transition from old to new facilities was smoothly carried on without interruption of production, a remarkable feat considering the scope of the "big move."

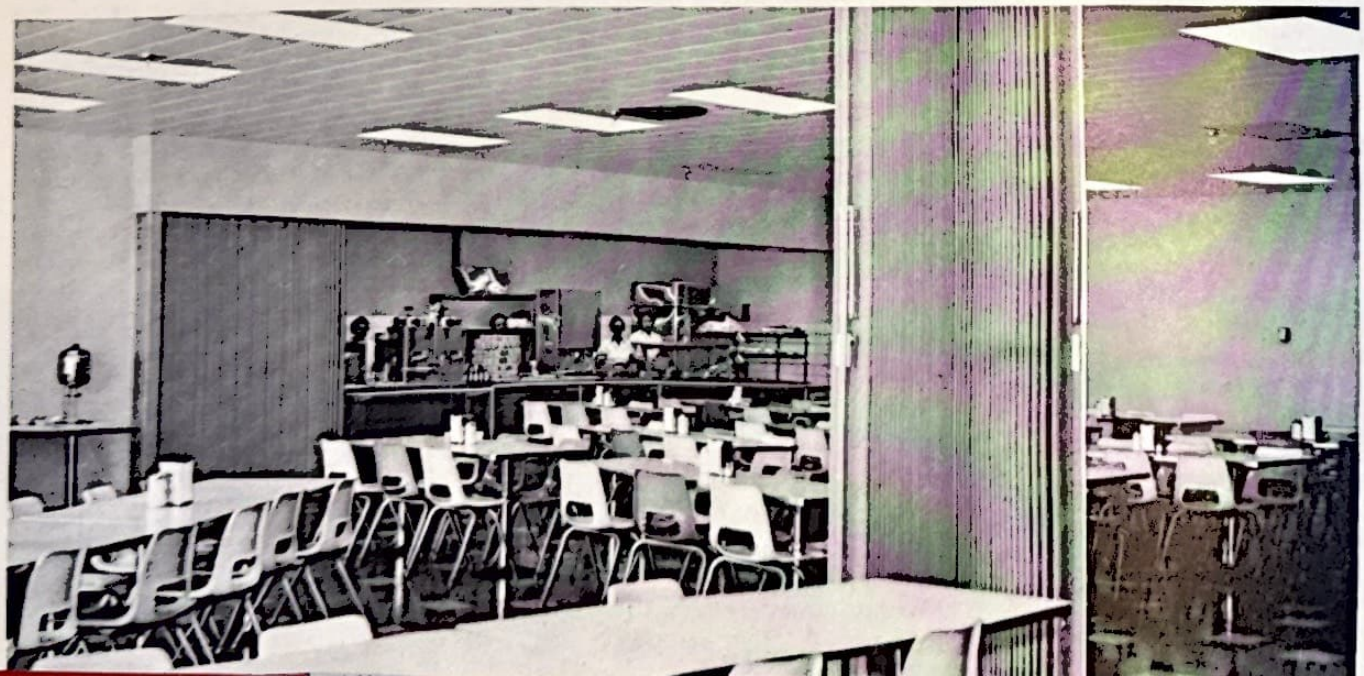
Higgins said, "We moved many things into the new plant, but most important was the experience we gained in the old. The plant, the best we could build, with the best equipment we could buy, coupled with the experience of our people, has allowed us to take a giant step forward. Good employes are our lifeblood."

Located just off the manufacturing area is the gleaming Health Service department. On duty is Jean Cunat, R.N. The building's heating system could heat 825 five-room homes.



Setting up a Thompson brooch grinder is Wilbert Claus. Harvey employes began manufacturing diesel and gasoline engines in the new facility last July. Allis-Chalmers is its own best customer for these units.

A cheery cafeteria seats 280 without crowding. It can also be used for meeting rooms. The plant has equipment such as motors and transformers made at other A-C works.



The facial expressions of Pittsburgh Works stenographer Helen M. Weaver tell a story of importance to all Allis-Chalmers people: Little costs add up!

The multiplying penny

A Chinese proverb says: A journey of a thousand miles begins with a single step. To slant this same idea to the cost of running a business: Significant savings begin with pennies.

The Pittsburgh Works has undertaken a campaign to make employes more aware of this fact. Pittsburgh management says, "When things are explained to our people we get cooperation."

A series of posters placed throughout offices and shops at Pittsburgh detail to the penny the cost of items like wrenches, pencils and wire. More will follow dealing with hand tools, supplies and defective parts.

A number of employes have expressed surprise at how items which are relatively inexpensive in themselves quickly become hundreds and thousands of dollars when multiplied on a plant-wide basis.

All Allis-Chalmers plants take a close look at their supply costs, and for a very good reason. One rule of thumb, according to Elmer Kulback, superintendent at Pittsburgh's Bayard Plant, is: "Every time we buy a dollar's worth of supply items we must sell $20 worth of product."

Kulback said, "We have found we can substitute less expensive paint brushes, for example, and get the same quality results. We have also paid more for supplies like welding gloves if we felt the quality warranted it. We want good tools and equipment for our people and we value the opinion of our employes about the supplies we buy."

In the offices, Edward J. Kelsch, chief draftsman, brought out that cost reduction has been realized by using mechanical pencils for drafting work rather than conventional lead pencils.

Good supplies and proper use of them, be they welder's gloves or sheets of paper, add to Allis-Chalmers ability to do business profitably.

Ten science fellowship winners study company, employes

Ten high school science teachers put Allis-Chalmers under a microscope for five weeks last summer.

The teachers were winners of the company's Summer Science Fellowships awarded to outstanding educators to acquaint them with the application of science and mathematics in industry.

The long range objective of this program is to encourage capable young people to continue studies for scientific and engineering careers in both industry and the teaching profession.

They came from the Milwaukee area, Boston, Harvey, La-Porte, LaCrosse, and Norwood.

The following comments made by the teachers shed light on the scope of the Fellowship program:

"This is the equivalent of going to college."

"The competitiveness of business is beyond anything I had imagined."

"I didn't see anybody (in shop or office) who wasn't impressed with (the importance of) what he was doing."

"Much more time could profitably have been spent in the foundry."

"We had many experiences we will be able to share with our students and colleagues."

"I would have appreciated an extra half day in which we, as individuals, could have sat down with men in Research to probe more intensively into a specific area."

Tom Clark looks at Allis-Chalmers

Editor's Note: In the following article, Thomas H. Clark, mathematics teacher at an East Milton (Mass.) high school, gives his reactions to a few of the many facets of our operations which he studied.

It wasn't much of a room in building "C" at the Greendale (Wis.) laboratory, actually a vault with ceiling high stacks of cubical racks along two sides. But the thin sealed tubes stored in these racks were all filled with purified uranium dioxide — fuel for atomic reactors. "What do you suppose this is all worth?" asked Joe Sheski (a Milwaukee area teacher).

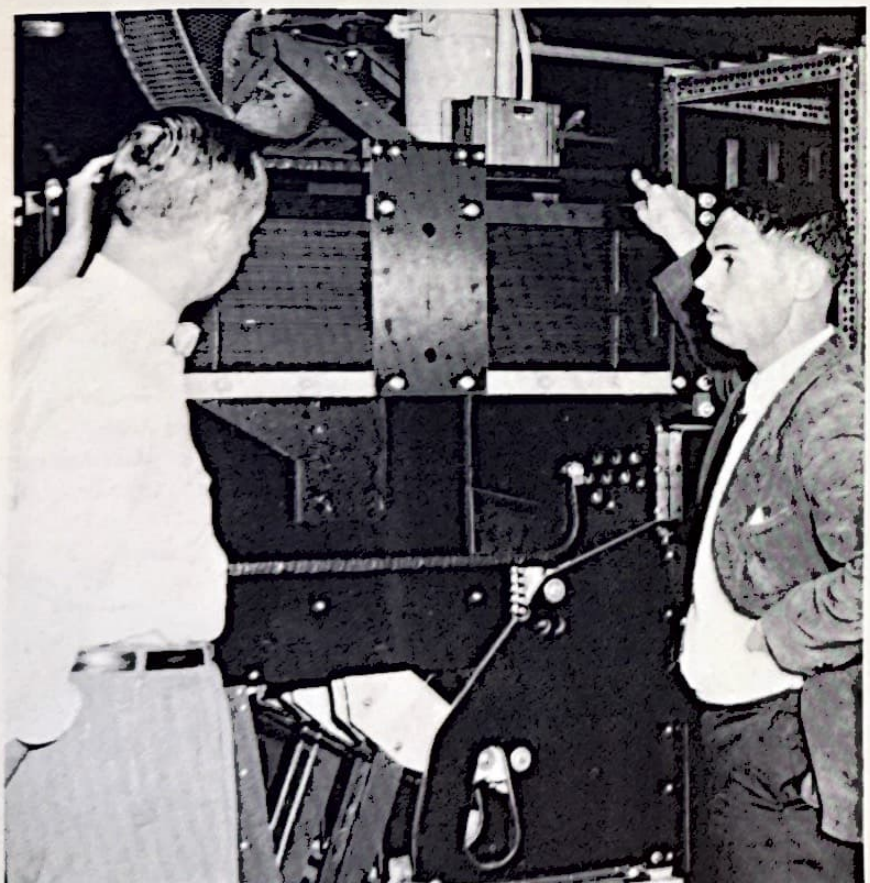
There was that considered pause that's inevitable when you ask a scientist a question. "About $3 million" was the reply. I couldn't help but wonder how big a mountain of coal you could buy for $3 million.

In the next room behind thick concrete walls was a real atomic reactor that had been brought up to "criticality" by the AEC licensed operator in charge. That is, it was actually generating energy in trace amounts to test design features for the Pathfinder plant at Sioux Falls, South Dakota.

When the tests were over and the area had been monitored for radioactivity by a health-physics technician, we filed in (all 10 of us) and looked down at the fuel and control rods that make up the core of the reactor. A colored rope of a violet and two yellow strands (the universal color code for radioactivity) warned us not to approach too closely.

As we left this installation a geiger counter checked our hands and feet to determine if we had accidentally picked up something radioactive. Imagine my surprise when the alarm went off as I passed my hands beneath the counter. It proved to be my wrist watch dial. But the fact that I could casually bring in on my wrist something "hotter" than I could escape with spoke volumes for the laboratory's health and safety measures.

(Editor's Note: Clark here refers to the fact that ordinary wrist watch hands can contain more radioactivity than



Questions and more questions. Thomas Clark and the nine other Science Fellowship winners had them in abundance during their five weeks with the company. Here Clark queries Boston Works development engineer Victor A. Mortenson. The teachers studied a week at the A-C plant in their own community and the balance at the West Allis Works.

Gathered around analyst engineer Wen King in the West Allis computer laboratory are (clockwise, from left) Milton Foelske, Granville, Wis.; Robert Mosteller, Cincinnati; Raymond Sauer, LaCrosse; H. Thomas Fisher, LaPorte; Joe Sheski, Milwaukee; Thomas Hanrahan, Harvey; Clark; John Belland, Dolton, Ill.; Glenn Detro, Greendale, Wis.; David Engleson, South Milwaukee. (Community designates school location.)

Greendale people would permit to remain on a person.)

Along with these experiences we met the scientists, engineers, and technicians at Greendale and learned of the problems and the wonders of dealing with atomic reactors. We even participated in an experiment dealing with flow rates for cooling water that takes the heat away from the hot cores.

The Greendale trip was a wonderful experience for anyone, and especially for us, school teachers in math and science. In fact, our total program as fellows in the Summer Science Fellowship probably allowed us to see as much of Allis-Chalmers and to become as broadly acquainted with "what's new" as many of the people who work at Allis-Chalmers.

To illustrate what I mean, here's a two-minute quiz directed to three of the men we met in our travels:

... Mr. Mitchell, (Will Mitchell Jr., director of Research) do you know the specific market research procedures that have to take place before a new idea can be part of the Allis-Chalmers line of products?

... Mr. Godfrey, (Howard Godfrey Jr., manager of pump sales, Fluid Dynamics department) do you know the sort of things pump salesmen are going to have to sell next year, and in the five years after that?

... Dr. Koenig, (Eldo Koenig, supervisor of mathematics research) what's the rent on a current digital computer?

... Mr. Mitchell, what justifies the expense of a new x-ray defraction microscope?

These varied problems, and many more, we studied in our wide exposure to Allis-Chalmers. We really made the rounds, speaking with mystical Ph.D.'s and with the men in the field who run Allis-Chalmers rock crushers and the ball mills and talked to us in sign language.

If there was a job where the principles of math and science applied, we were there peeking, prying, asking endless questions and making "helpful suggestions."

We also spent many hours in the conference room "getting the word." I rather assumed that almost every division head in the Company had his time at bat with us around the conference table.

The teachers inspected all phases of our operations. At LaPorte, Fisher asks information from Ward Singleton (center), assistant foreman, Safety and Sanitation, and punch press operator Romie Voreis.

At the Farm Equipment sales training farm near West Allis the men heard Earl Blair explain a fuel test. One said, "I never dreamed what it takes to get them (tractors) into production and to the customer."

Sauer, at the LaCrosse Works, observed how the Accounting department expedites mathematical problems through the use of modern business machines like the one being operated by Jane Tweed.

Tom Clark looks at Allis-Chalmers

Franklin H. Grooms, supervisory engineer of the Norwood Development Laboratory, has Mosteller take a look at an oscilloscope. The skill of our employes impressed the 10 visitors.

Belland watches a variety of data being recorded by Bobbie Rhodes on the performance of an engine in a test cell at Harvey. The teachers had many experiences to share with their students.

One of the most interesting aspects of our story concerned the developmental history of an Allis-Chalmers product from idea to sales. That pump that you men in the shop can machine and assemble in seven and one-half hours can take a year in coming down from "upstairs".

(Note: During part of their stay, the teachers were split into groups of five — one group specializing in pumps, the other in farm tractors.)

From a product's true beginning in market research to drawing board to pattern shop and foundry through final assembly and out the back door to a customer, we watched a centrifugal pump take shape. (Incidentally, there is a red hot new line of pumps on the boards now that ought to be hardware by the new year.)

As I watched this chain of events I wondered who, if anybody, had the feeling that this was "his" pump — that he really made it. Was it Doc Weltmer (Wilton Weltmer, senior staff engineer, Fluid Dynamics) whose work ended with mathematical equations, or the draftsman and engineers who put the lines on paper, or the patternmakers who put it into three dimensions for the first time?

Or the machinists, assemblers, salesmen? Do these men experience a feeling of satisfaction at having created or sold this pump, or do they feel that it's all in a day's work?

There is no doubt that all ten of us enjoyed our five weeks at A-C this summer. It was fun, but you may well ask "What did you get out of it? What did you learn? What are you going to take away with you to make you a better teacher in Boston or wherever you are?" Perhaps you'd like to know what I'm going to tell my students about you, and the lessons you taught me. Let me list:

1) You can not hope to be a success without lots of effort put into your training. Skills are the things that count.

2) You will have to be well acquainted with scientific or mathematic principles just to operate, let alone design and manufacture the new products of the coming era.

3) Mathematics sneaks into every corner of business, from the scientist who uses it as a daily language to the typist who wants to really figure out how her paycheck got "deducted".

4) A new language is coming into use. It is used to talk to machines only. I coin a new phrase. Instead of "go west, young man . . . ", it is "Learn computer, young man (and woman), learn computer."

I watched A-C's digital computers which rent for $33,000 a month. Where its limits are I can't even guess. You can't lick 'em, nor would you want to, because they will bring in orders and work. So I'll tell my students: "Join them."

In addition to these specific areas, I also learned some things about what makes people successful that I'll also pass along to my students. See if you agree:

1) There are no positions of real responsibility open to people who aren't dedicated company men.

2) Positions of responsibility require extensive use of a person's ability to communicate to others and to learn new ideas.

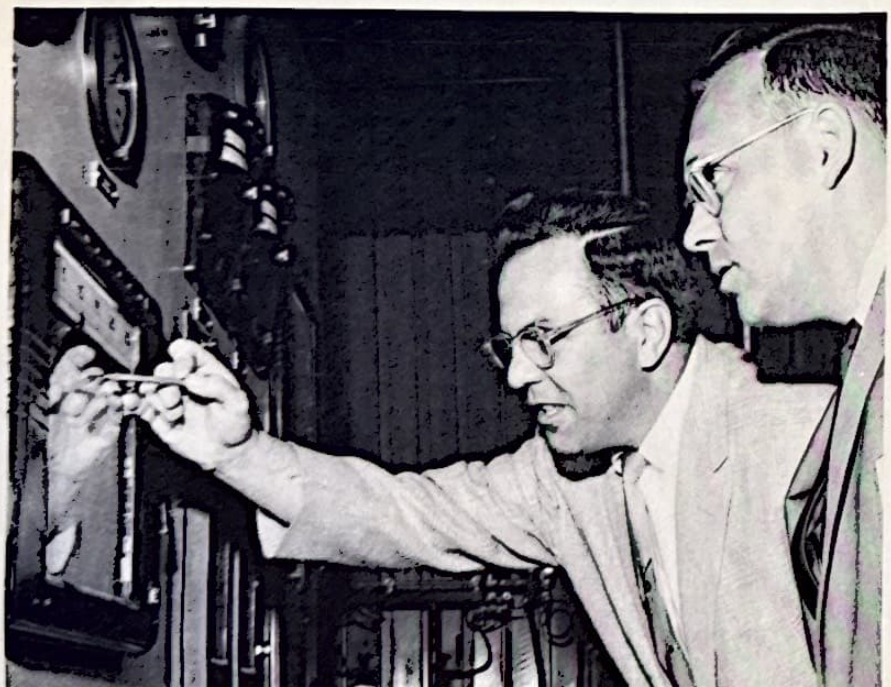
3) The economic facts of life in today's world state clearly that *highly* efficient, productive people and operations will be the difference between businesses which succeed and those which fail.

4) Creative new ideas reap the biggest financial reward.

I want to thank you at Allis-Chalmers for giving me this opportunity to enrich my background with so many wonderful experiences this summer. Peeking over your shoulder, as it were, for five weeks was very profitable to me, and I hope not too annoying to you. All 10 of us were wonderfully treated everywhere, and I know I speak for every one when I say that Allis-Chalmers gave us fine treatment in every respect.

I'd like to close by commenting on the cooperative efforts of employes in your shops and offices, which made a great impression on me. There is a great lesson in this ability to work together.

Can you continue to work together smoothly enough to make your products and beat your competition? If your competition has the same resources, and similar tools, only your personal effort can make the difference.



A temperature indicating device at the Nuclear Power department's Greendale lab commands the attention of Ralph Jerman (left), supervisor of the Development Laboratory, and Engleson.

Big check for Taylor

Stock to be used for son Fred's education is being purchased by Don Taylor with his suggestion award money. Taylor recently won the largest award presented under the new program.

Suggestion award money will help educate Fred Pearson Taylor.

Fred, who was born last May 2, is the son of Don Taylor of the Service department. Taylor recently was awarded $1000, the largest check to date presented under Allis-Chalmers employe suggestion plan.

The check was the first installment on an idea for improving the method of heating hollow studs and bolts that hold sections of steam turbines together. Quite probably, he will receive at least another $1000 next year.

Actually, Taylor received suggestion awards in clusters. At the same time he also was presented with checks for $300 (also a first installment) and $35 for other ideas. To cap all this, a Mutual Aid check arrived to cover expenses in connection with the birth of Master Fred. (Mutual Aid is an Allis-Chalmers employe health and accident insurance.)

When informed of his awards, Taylor "could hardly say anything at first. I had fully thought that most of the suggestions had been forgotten, but it had certainly not been the case. The money I received for the suggestions will be used to purchase stocks which in the long run will help pay for Fred's education."

The presentations were made in Florida where Taylor is erecting a 131,250-kw turbine for the City of Jacksonville.

Hop on the bandwagon

Now that Don Taylor has garnered an award that probably will amount to $2000 or more after the second installment is made next year, the Suggestion award committee hopes that many more employe ideas having the same or greater dollar value will begin pouring in.

Throughout American industry, suggestion awards of $1000 or more are more common than you might think. Since the Allis-Chalmers plan compares with the very best in industry, A-C people have more opportunity than most to win large awards — up to $25,000.

Here's a sampling of what employes in other companies have won:

$2500 to an aircraft company employe for savings realized on a smaller towel to wipe oil and chips from newly machined parts.

$2,140 to an electrical equipment manufacturing employe for suggesting that the individual wrapping of cords sent to another plant be eliminated.

$1,050 for the redesign of a die for adding machine and calculator parts.

$1,945 for a plan to reprocess reject uranium metal.

$5,000 for solving a curved plate problem which plagued shipbuilders.

$3,150 (to a woman) for suggesting a new way to prepare germanium ingots for manufacture of rectifiers and transistors.

$5,150 from a gas company for a testing device permitting more rapid and economical checking of insulation of gas services without inconvenience to customers.

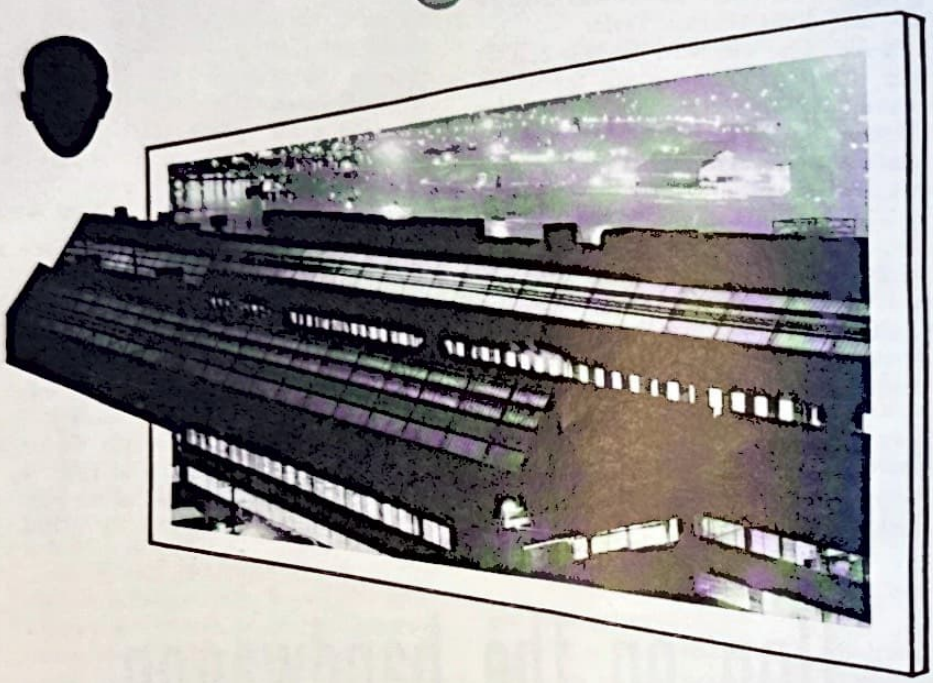
$16,000 from a steel company (to each of two employes) for an idea to separate molten metal from slag as it flows from the furnace.

$4,739 from a photographic firm for an idea that combined labels.

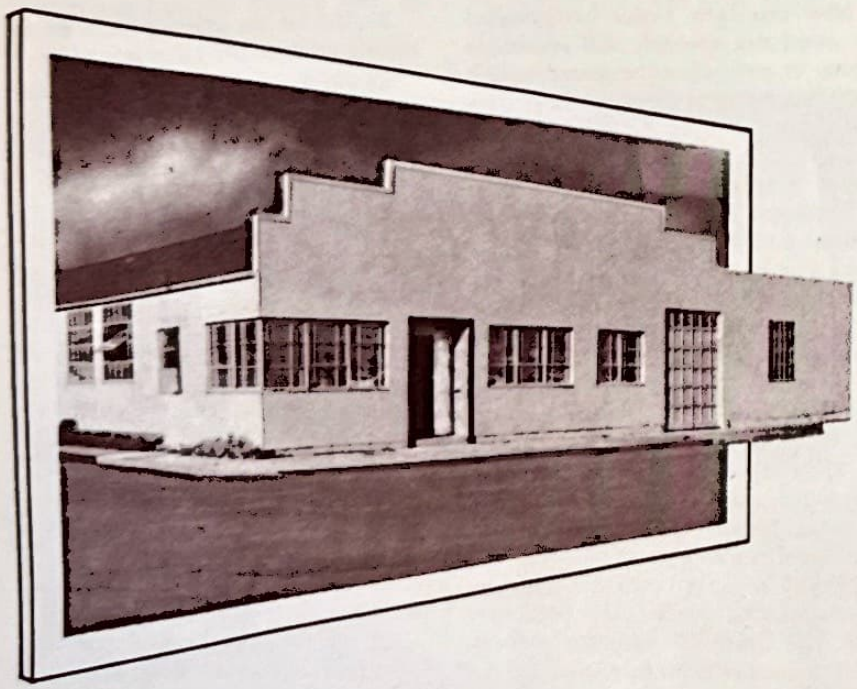
$2,500 for a shield to protect automobile trunk lids during spraying.

The many faces of competition

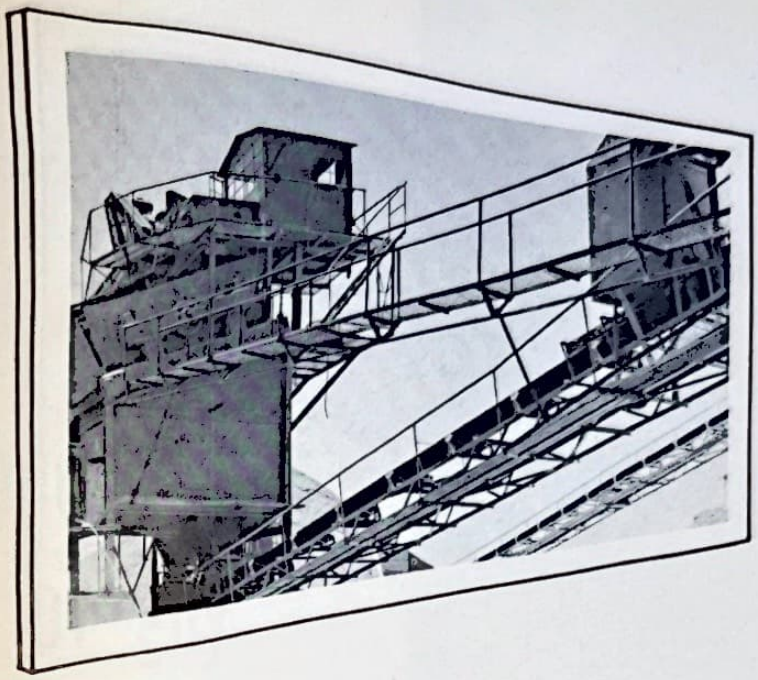
Competition takes many forms, answers to many names. Take a good look at the illustrations below. They are portraits of Allis-Chalmers competition — your competition. Some you will recognize immediately. The fact that others are included may surprise you at first.



The General Electrics, the Clark Equipments, the International Harvesters occupy large plants like the one shown. They only begin the list of "big corporations" which have tremendous facilities to make the same products we make, and the outlets to sell them. The dealers of one construction machinery firm alone have 25,000 people to sell and service their equipment. Another company spends $250 million a year for research and development of new products, much of it electrical equipment competitive with ours. The United States as a whole spends an uncomprehensible 12 billion annually for progress through research and development. This is progress Allis-Chalmers is a part of and must remain a part of if it is to continue to sell its products and provide jobs for its employes.

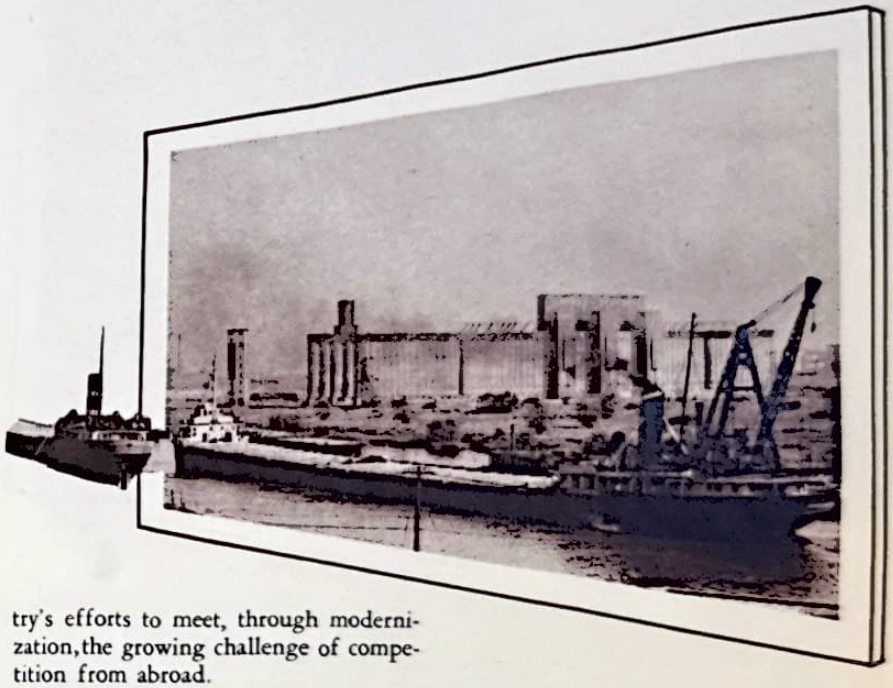


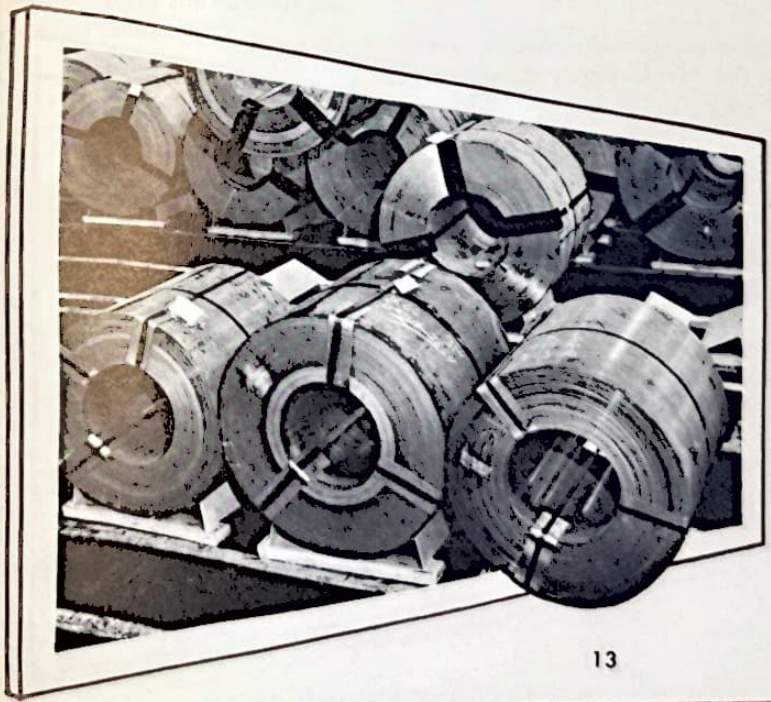
In the words of a Tractor Group department manager, an "uncountable number" of relatively small competitors make spare parts that fit our Tractor Group products. They may occupy buildings of this size. But their size doesn't breed overconfidence. Allis-Chalmers must carry 160,000 current spare parts for its Tractor Group products. The small competitor can specialize on the small percentage of these parts which bring in the bulk of the spare parts business. It's estimated that not one of these firms will supply one-tenth of one per cent of all the parts a customer would need for complete servicing of his equipment. The smaller industries — and we face them in many phases of our business — may concentrate their sales efforts close to home. But, if they wish, jet age transportation and rapid and economical means of transmitting information now enable them to be many places at once in their sales efforts.



"Wait a minute," you say, "Allis-Chalmers makes a lot of equipment. But not conveyors." And you are right. But a conveyor system may compete for the sale of an Allis-Chalmers vibrating screen just as surely as a competitive vibrating screen. Customers, even in the best of times, have only so much money available for improvements. After a close look at what they need, they will buy on the basis of the greatest value they can derive from the purchase. We do the same thing when we must decide between a new refrigerator or new living room furniture for our home. Incidentally, we also compete in much the same way for an investor's dollar. The investor thinks in terms of return on his money. Only if he feels Allis-Chalmers is a better risk than another firm will he entrust his money with us.

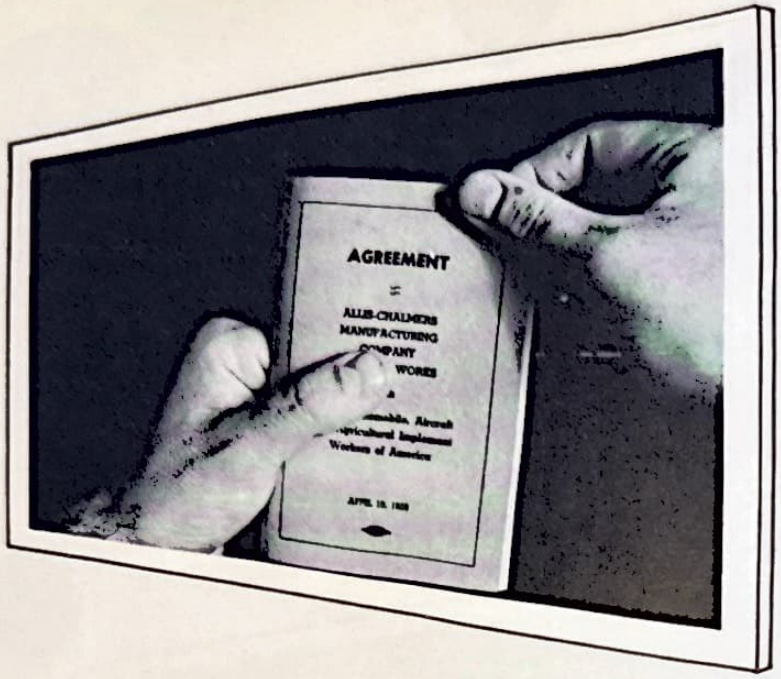
Competition, quite literally, comes from all over the map. Domestic competition from traditional rivals remains the most important we face, but competition from abroad has been stiffening. Lower wages and protective tariffs are two reasons why our competitors abroad have been able to undersell us in many market areas. A look at the combined average hourly rates and employe benefit costs in all manufacturing industries (all 1959 figures) gives a clue to the price advantage foreign countries may enjoy. In the United States the average was $2.68; in the United Kingdom and West Germany 78¢; in France 72¢; in Italy 61¢; in Sweden $1.08; in Japan 55¢. Added to this, the over-all quality of foreign-made goods is increasing. Huge tax assessments (Allis-Chalmers taxes were 2½ times our net earnings in 1960) and unrealistic depreciation laws on out-moded equipment hamper industry's efforts to meet, through modernization, the growing challenge of competition from abroad.





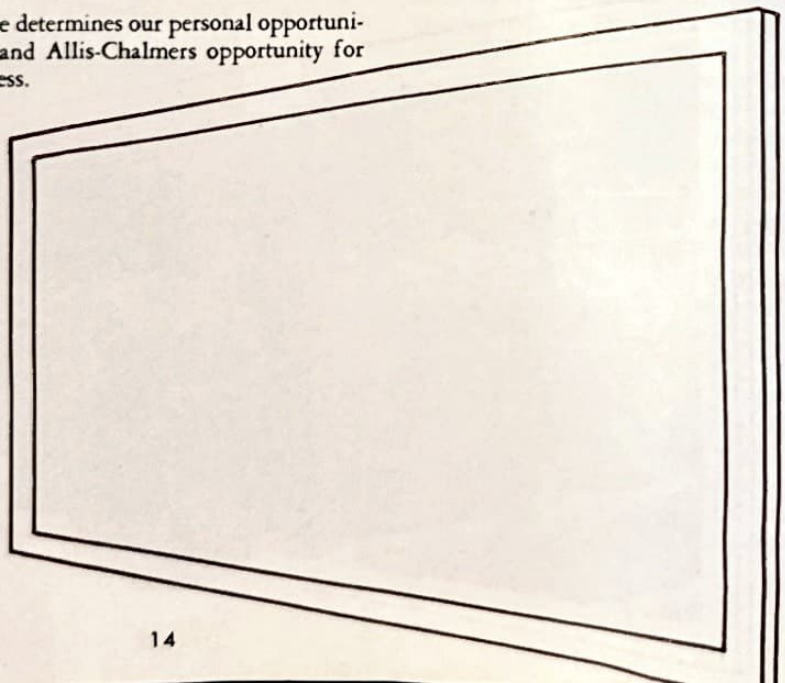
The cost of materials and services can easily be measured in exact dollars and cents. The trick is to get more for our money than a competitor can. It may mean, as happened at the Pittsburgh Works, substituting $124 worth of aluminum for $324 worth of copper in a transformer. Our competition is watching its costs just as closely. Speaking of an electronic computer, one business rival said, "It enables us to design high performance electrical equipment at optimum costs. In the operating phase of our business it provided us with immediate data which enabled us to pinpoint our expense control efforts in every facet of our business." Attention to waste control in both shops and offices and suggestions to increase efficiency through better use of materials and supplies are ways all employes can beat competition in this area.

We often hear the term "non-economic clauses" applied to labor contracts. This term is a misnomer from the start. Such items as grievance clauses, check-off of union dues and transfer procedures have acquired this label because they do not show up on a paycheck. But they cost the company time and money just as surely as direct wages, salaries and employe benefits. Where they have gotten out of hand they have added appreciably and unnecessarily to the cost of doing business.

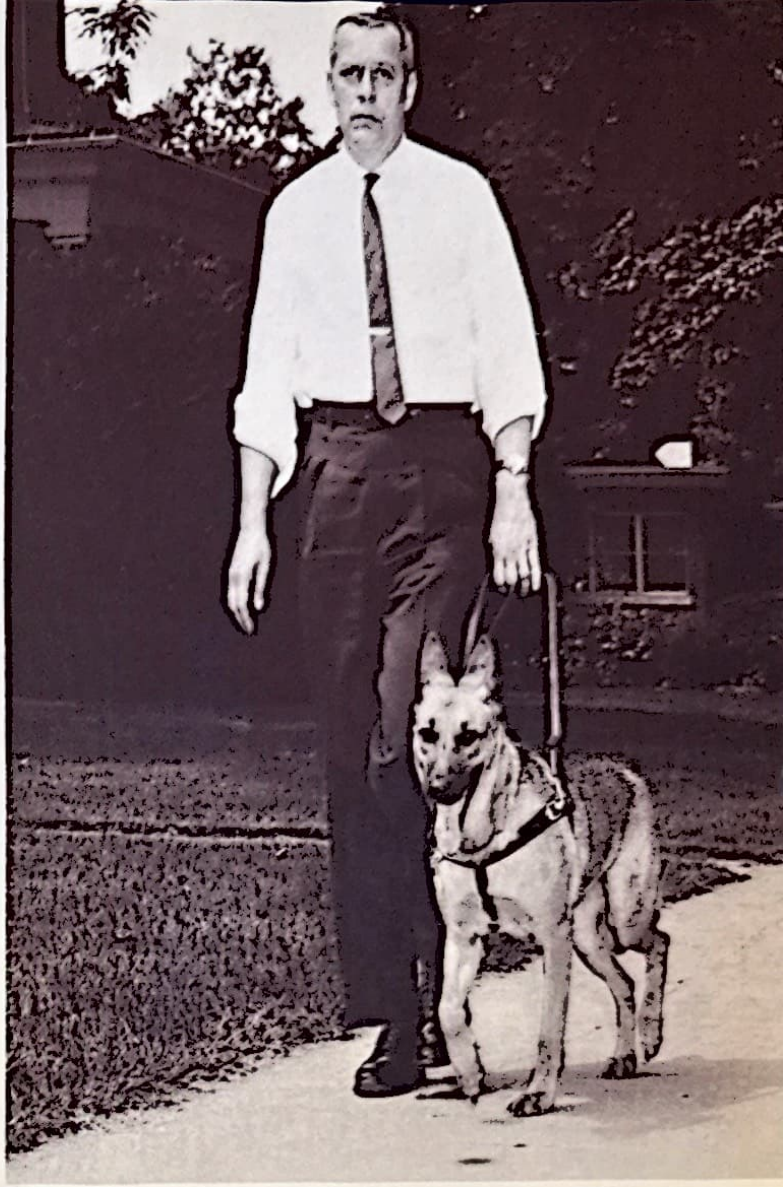


This illustration is meant to portray a group of Allis-Chalmers employes — you among them. Allis-Chalmers must compete for your services with other businesses of the area, and in many instances, with firms from throughout the entire country. In all phases of its operations Allis-Chalmers must offer fair wages and salaries, good working conditions, the prospect of steady employment, and the opportunity for advancement. You are free to choose the firm that offers you the most in keeping with your talents and training. Allis-Chalmers takes pride in its ability to attract and retain good employes. As of Jan. 1, Allis-Chalmers had 21,289 employes with 10 or more years of service, and 5,120 had between 20 and 29 years with the company.

This frame has been left blank on purpose because it can be best filled in by you. It belongs to the men and women who do the same type of work you do, but for a competitor. When Allis-Chalmers introduced its new motor control center design at Cleveland last year, a competitor had a new design to show the very same day. The people responsible for this competitive product — from the men who designed it, to the employes who manufactured it, on to the people who write the advertising copy to promote its sale — are your counterparts. They, like you, were hired to put on the market a product that a customer would want to buy and at a price that results in a profit to the company that sells it. Competitors represent a personal challenge. How well we meet this challenge determines our personal opportunities and Allis-Chalmers opportunity for success.



A familiar pair in LaPorte are Raymond McCarty and his seeing-eye dog Becky. He has been with Allis-Chalmers for 20 years.



A special kind of guy

Service award to LaPorte's McCarty

Raymond D. McCarty, a few weeks ago, joined thousands of Allis-Chalmers people who have completed 20 years with the company.

After 20 months in military service, Ray returned to the LaPorte Works Dec. 4, 1944. While in the service, he contracted spinal meningitis, which left him blind.

Ray was placed temporarily on special work in the shop until a training program could be established to prepare him for a suitable job.

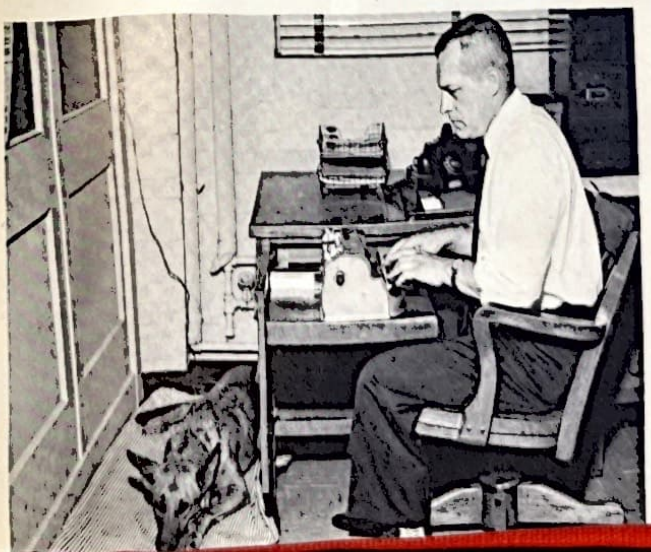
Ray's own appreciation of readjustment problems facing veterans qualified him to be veterans' counselor at the plant. He was trained for that work and now is an interviewer, handling all hiring, layoffs, recalls and transfers pertaining to shop personnel.

Supplementing the 3-month training course provided by A-C, Ray attended evening school classes to increase his knowledge of industrial counselling.

He uses a Braille typewriter and maintains complete and accurate records. Ray is married and the father of three children.

In summing up Ray's capabilities, T. F. Bean, manager, Industrial and Community Relations at LaPorte, says "We are most fortunate at LaPorte to have a man of Ray's calibre."

Making herself comfortable, Becky relaxes while Ray works at his Braille typewriter. An industrial counsellor, Ray handles all hiring, layoffs, recalls and transfers pertaining to shop personnel.



One good turn deserves another, so Ray brushes his dog. Highly capable, Ray's work is well regarded. He attended evening school classes to improve himself as an industrial counsellor.

More than 200 flying farmers, their families, and guests from Illinois, Indiana and Wisconsin flew into Milwaukee recently on their annual summer outing for a tour of Allis-Chalmers facilities.

Prairie farmers on the wing

Hold field day at West Allis

On thousands of farms across the nation the airplane is providing the farmer with a fast, convenient mode of transportation. Two hundred of these farmers and their guests descended on Milwaukee's Timmerman field recently. They are members of The Flying Farmers of Prairie Farmer Land.

They were brought here in 150 planes, marking one of the largest fly-in's in the airport's history, for a one-day visit at the West Allis Works and the Allis-Chalmers sales training farm in nearby Racine county.

Many of the flying farmers keep their planes on their farms. Their runways may be lined with corn on one side and soybeans on the other.

After a tour of the West Allis plant, the farmers wandered through the many pieces of farm equipment displayed at the company farm. They watched continuous demonstrations, or climbed into the seat of a crawler tractor and bulldozed a road shoulder.

Although most of the farmers returned to their homes after their annual field event, a few remained to take off the next day to fly directly to Tuscon, Ariz., for the national convention of the National Flying Farmers association.

Mrs. Doris Meeker, Warsaw, Ill., poses at the controls of a D-17 with Bert Eldien, Farm Equipment Sales department.

Tying down their plane after flying in from Kouts, Ind., are Mr. and Mrs. Paul Riley and their children, Daryl and Gayl.

Terre Haute team shines

Mayor Ralph Tucker presented the keys of Terre Haute to Hubert "Moe" Matherly after his team won the Babe Ruth league Indiana state championship.

Like many A-C people, Matherly and Dave Campbell (right), manager and coach, respectively, spend part of their leisure time working with young people. Both are stores attendants at Terre Haute Works.

Jim Harmon, who is a transformer assembler at Terre Haute, is league commissioner for the Babe Ruth teams.

The league is for boys 13, 14 and 15. There are some 200 Babe Ruth teams in Indiana.

Matherly also managed a Little League team to an undefeated season (20-0) in 1959. His won-loss record for the last three years in Little League and Babe Ruth competition is 57-7.

110 year milestone

The brother and sister at the right have established a family service record unique in Allis-Chalmers 114 year history.

John Wiehe, superintendent of machine shops, retired in 1956 from the Norwood Works after 54 years of service. Anna Wiehe recently retired after 56½ years at the Works, the longest record of employment for a woman employe of the company.

A coil taper in the same department all those years, she applied for a job at the plant in 1904 at her brother's suggestion.

An ardent world traveler, Miss Wiehe hopes to visit Australia, China and Russia. In the past 10 years she has made five overseas voyages.

Safety *everywhere* in Labrador

This one startled even the Allis-Chalmers safety people. They had known that through the National Safety Council the "Everywhere . . . all the time!" safety program developed by Allis-Chalmers was widely distributed. But Lew Keim of Public Relations and Don Ackerman, Tractor Group photographer, back from a remote section of Canadian Labrador, reported a new wrinkle.

Keim and Ackerman were sent to gather material on the Twin Falls hydroelectric power project where all 23 pieces of construction machinery in use are Allis-Chalmers made.

Their second night at Twin Falls they were seated in the mess hall which serves the construction crew of 600 men when a projection screen was lowered. On it flashed the "Everywhere" film, to their wide-eyed surprise.

As they soon learned, the "Everywhere" program, complete with banners, posters and lapel emblems, was being introduced to the construction crew by Walter Montgomery, (left in photo) the National Safety Council's vice president for industrial safety.

What about our operations

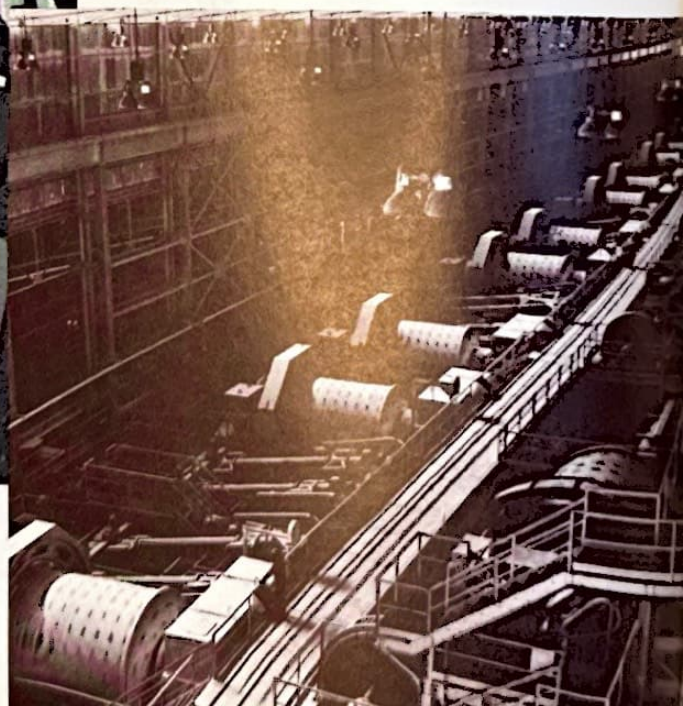
On its way to South America via the St. Lawrence Seaway is this processing machinery. Allis-Chalmers has been active in world markets for many decades.

Subsidiaries help us sell to other nations

Editor's Note: Allis-Chalmers, in recent years, has been expanding its manufacturing operations abroad. Allis-Chalmers International now operates plants in Essendine, England; Milan, Italy; Newcastle, Australia; Mexico City, Mexico; Dieppe and Vendeuvre, France. Why did we acquire these plants, and how do they affect our U.S. manufacturing operations? A summary of answers to these questions asked of administrative heads of Allis-Chalmers International follow.

Gentlemen, Allis-Chalmers employes, quite naturally, wonder about the role of our foreign subsidiaries in our over-all manufacturing operations.

We appreciate that our employes would have questions about our manufacturing operations overseas. First of all, Allis-Chalmers has been active in world markets for many decades, and our American-made products have earned prestige abroad. This has meant a large volume of business, and we hope it will continue. Acquiring plants abroad helps us to sell more and adds to the effectiveness and prestige of our worldwide organization. Of primary importance to our employes is the fact that our plants abroad provide Allis-Chalmers the opportunity to sell in certain markets



Development and expansion abroad have continued to provide opportunities for the sale of our products. These ball mills serve a copper plant in Peru.

abroad?

from which we otherwise would be virtually excluded because of tariffs and other trade restrictions. Also, some of these products made abroad are designed specifically for foreign markets.

Some people may feel that plants abroad divert work from our U.S. plants.

This is not the case. You cannot "lose" something which you never had a chance of getting.

Then our overseas plants, in effect, neither hurt us or help us?

You are right when you say that we are not hurt, in the sense that our plants abroad take nothing away from our United States manufacturing operations. But you are wrong when you say we are not helped. Quite the contrary. The fact that we have plants abroad opens many doors to the sale of U.S.-made products that otherwise would be closed and closed tight.

In what ways are our plants abroad an asset to our U.S. operations?

The very fact that we have a plant within a foreign market often enables us to ship components into that market area from the United States. Plants in foreign countries also help us maintain a strong, healthy world-wide sales organization which is vital to the sale of any of our products made either in the U.S. or abroad. There are many favorable ramifications of these points which will be brought out during our conversation.

The fact that A-C has a plant at Essendine, England, (above) influenced the sale of 70 Model TL-14 Tractor loaders (40 from Deerfield, 30 from England) to the Federation of Malaya.

Why is it easier to export components when we have a plant in a foreign land?

To explain that question, we must first know a bit about the types of restrictions we face. There are times when a country will not allow us to ship in products or components under any circumstances. The country may wish to protect its own industries making the same products, or it may wish to curb the outflow of its gold reserves. Then again, a country may allow us to ship in certain products but places import duties on them that makes the sale price noncompetitive. However, if we have a plant in that country, these duties on components may be reduced to the point where we can afford to import them from our U.S. plants.

Will you give an example?

Let's take Australia where we have facilities to make some construction equipment. Australia is a member of the English Commonwealth and Commonwealth countries can export to each other and pay a tariff duty that is normally 12½ per cent on most items. Other nations shipping the same products into Australia will pay tariff duties as high as 42½ per cent. Assume for the moment that our manufacturing costs on a particular item in the United States and that of our Commonwealth competitors are equal so we have comparable sales prices before we export. When the Commonwealth product reaches Australia, a duty of 12½ per cent is imposed. Meanwhile, perhaps a 42½ per cent duty is imposed on the U.S. product. It's obvious that the difference between the two duties imposes quite a burden on us. However, if the U.S. firm had a plant in Australia to make at least part of the product, it could import the balance of the components for a duty of only 7½ per cent. This is known as a tariff preference.

Is this tariff preference permanent?

We can not count on such things as being permanent. Many countries will require that, through the years, more and more components be manufactured there. But for the most part, these countries are realistic as to their ability to produce some of these components. We can not, however, anticipate sending in components for lower duties indefinitely simply because we make part of the product in the foreign country.

Then the long range future for continued shipment of components under this arrangement isn't particularly bright?

It isn't if we keep our eyes on the surface. But, if we look a little deeper we find, from experience, that as a nation increases its own industrial capacity and wealth, it is in a better position to buy other things from abroad. We obviously can do more business with a prosperous nation than one teetering on the brink of bankruptcy. Moreover, it takes years for a nation to be able to manufacture all the components needed for a product and some nations may never make them all. Nor, quite probably, will it make the entire product line. It's good to remember that no nation, even the United States, will ever make all the things it needs or wants. Furthermore, it must be remembered that we are constantly bringing out new units such as the TL-30 tractor loader made at Deerfield, which finds acceptance abroad and this creates new markets for our U.S. products.

You also mentioned the value of our worldwide sales organization.

Yes. Allis-Chalmers has a great investment in its overseas distributor and dealer organizations. We have spent decades developing a sales group that will do the best job for us and our customers. These distributors and dealers, in turn, depend on Allis-Chalmers for products they can sell and make a fair profit on. For this to happen, our products must be priced right as well as made right. If tariff duties and shipping costs on farm tractors, for example, make the dealer's sales price prohibitive in comparison with tractors made in the home country, our dealer may eventually be forced out of business. But if we can make a tractor, or part of it, in that country, we can help keep that dealer in business. He then remains an outlet for other U.S. products and equipment which we are constantly developing, such as the new H-3 and HD-3 utility tractors. By preserving good dealerships, we maintain strong channels for sales of our

Our operations abroad

U.S. products which we most certainly would not have without the dealer.

What are the prospects for overseas sales this year?

As you know, in 1960 our export sales from domestic operations were 33 per cent higher than in 1959 — one of the best records of export sales in the company's history. So far this year sales to certain overseas areas are running well ahead of last year. But sales in Latin America, due to austerity programs and political problems, have been lagging.

What brought about this improved sales picture in areas such as Europe, North Africa and the near East?

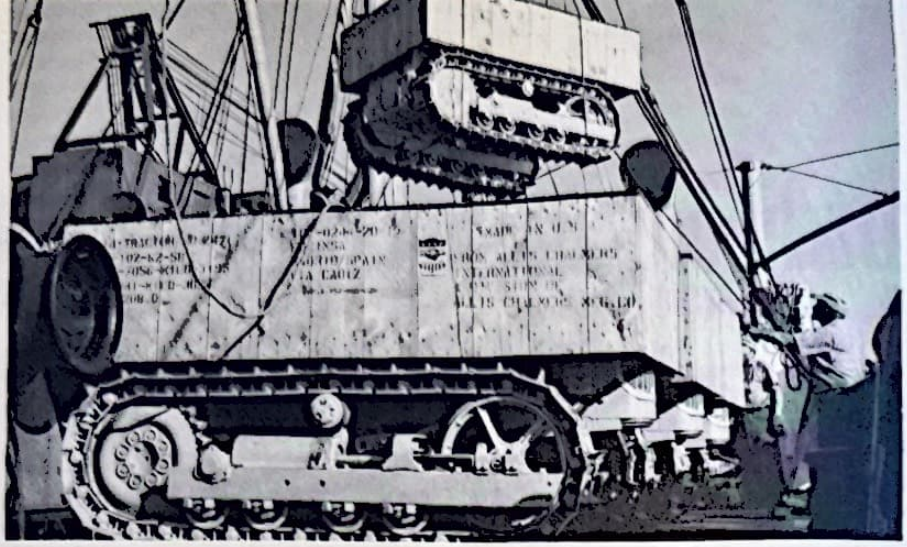
Greater sales to our overseas markets stemmed, in part, from a continuing economic recovery in certain parts of these areas and a loosening of trade restrictions. And, as already noted in our annual report to employes, subsidiaries and licensees continued to purchase components from domestic plants to be incorporated into complete machines that no longer may be exported to some markets because of economic circumstances and local import restrictions.

Just how did this overseas economic recovery affect trade restrictions?

As the economy in Europe, for example, improved and its gold and dollar reserves increased, there was no longer a need for stringent restrictions on imports from the dollar area. As for Allis-Chalmers products, there was a need for the type of machinery we make, there was an availability of dollars to buy it, and we had the dealer and distributor organizations to sell it and service it. Here, we can note, a continued preference for Allis-Chalmers quality in the face of lower priced competitive units illustrates the prestige our products enjoy.

Is this favorable climate apt to continue?

We certainly hope so, and we always approach our sales work with enthusiasm and optimism. But we must also be prepared for the times when the economic situation is less favorable. The recent austerity program announced by Great Britain is an example of the fluctuations we may encounter. Again we can use Europe to illustrate the type of problems we face. In Europe, two separate groups of countries have banded together for economic reasons. Belgium, France, Italy, Luxembourg, Netherlands and West Germany have formed the European Common Market, also known as the Inner Six. Austria, Denmark, Norway, Portugal, Sweden, Switzerland and the United Kingdom have formed the European Free Trade Association, more commonly referred to as the Outer Seven. Negotiations are far along for the merger of the two groups, with the exception of Switzerland.



Destined for farmers in Spain are two of the 16 agricultural tractors made at the West Allis Works. The shipment also included 12 crawler tractors made at the Springfield Works. Despite many problems involved in selling abroad, A-C International people feel we can do much to solve them if we keep our quality high and our costs in check.

What are the objectives of these groups?

The Common Market countries plan to completely abolish all tariffs and quotas between member countries and to adopt uniform tariff restrictions against all others. For all practical purposes, these countries are becoming one large economic area which will promote and develop their own industries. It appears that political unity is the ultimate objective, somewhat similar to the formation of the early colonies in this country. Each country, under these programs, can specialize in the products it can make most economically, and ship to the other member countries with minimum tariff duty. Since 1957, the Common Market countries have cut their internal tariffs by 30 per cent. According to their time schedule, they hope to eliminate internal tariffs by 1966. The Outer Seven's objectives are somewhat similar. You can see that these economic alliances pose great problems for us and it becomes obvious why we must look into the matter of establishing some manufacturing operations within these markets.

Doesn't quality help offset some of our costs involved in exporting products?

Quality, of course, is always essential, and we have it in our products. But the burden of import duties and shipping costs sometimes discourage a customer from buying Allis-Chalmers equipment even though it is better. No matter how good the product, if the customer can not afford to buy it, we lose a sale. Remember also that many of our foreign competitors are improving the quality of their products and that they are doing so with labor costs that are lower than ours. They can build acceptable equipment at a lower cost and sell it for less even though at times their material costs are higher than those in the United States. Despite this we have been able to sell our products because of their quality. If we continue to improve our workmanship and quality and hold our costs to an efficient minimum we will continue to sell abroad.

So we have opportunities.

Fortunately, yes. And along with opportunity we will always have some problems. But as long as we work aggressively to maintain quality in our products and efficiency in our work we can do much to solve them. It would be pleasant to say we, at this very moment, had all the answers, but we don't. In fact, we can't foresee all of the problems. There are a lot of ramifications to selling abroad. We must make up our minds that we will have to make some things abroad and ship other things in. You can be assured that we will go after business wherever we find it in the free world, business that will benefit all Allis-Chalmers employes.

Switchgear, along with transformers and circuit breakers, were recently shipped to Monrovia, Liberia, for use in power plants and substations. Shown is Judy Goebel, West Allis Works.

Radio announcer Bill Reynolds interviews Robert J. Mudd, an electrical engineer, about his role in helping develop atomic power to be used for peaceful purposes.

Machinist Edwin C. Klapka tells Reynolds about his job at Allis-Chalmers and what he enjoys doing in his leisure time. He started with the company as an apprentice.

Coil winder John A. Plaksij spent 25 years in Europe before returning to this country in 1946. As a child, he went with his parents to Poland due to illness in the family.

Three Voices of America

The voices of three Allis-Chalmers employes have become the "Voice of America".

Their descriptions of day to day work and relaxation in the United States were recently tape recorded at the West Allis Works and were broadcasted worldwide Aug. 29 over the Voice of America network. This network, 24 hours a day, seven days a week, beams to the world, programs in 35 languages from 87 broadcasting stations.

The men are Edwin C. Klapka, a machinist; John A. Plaksij, a coil winder, and Robert J. Mudd, an electrical engineer.

Their reflections on life in the United States were obtained by WTMJ, a radio station serving the Milwaukee area. WTMJ acted on a request by the Voice of America to interview a few industrial employes in the Milwaukee area.

The Voice of America since 1942 has attempted to carry an accurate impression of this nation, its people and its ideals to people abroad.

The stories of Klapka, Plaksij and Mudd were simply told in answer to questions by WTMJ announcer Bill Reynolds.

Klapka was born in America of parents who migrated to the United States from Austria. He started with Allis-Chalmers as a machinist apprentice 24 years ago.

Klapka described his normal eight hour working day as operator of a seven-inch boring bar, one of the largest in the plant. Because an in-plant union election was currently in progress, he described his duties as a member of the union election committee.

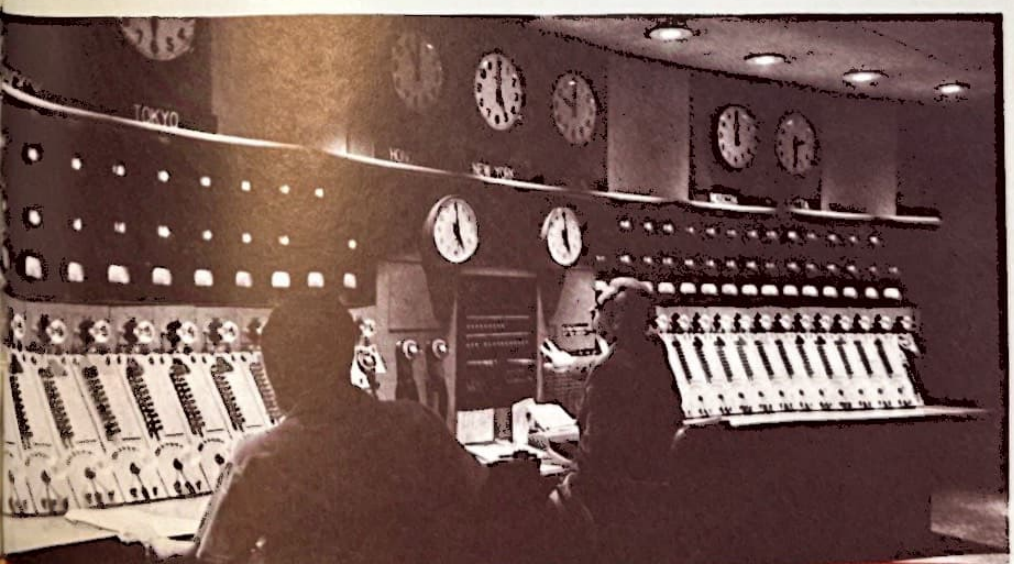
Through Klapka, the Voice of America audience got an idea of the type of recreations favored by some American families. He told how his family (four sons and two daughters) spends much of the summer at a 2½ bedroom cottage in Northern Wisconsin. Klapka joins them there for weekends and vacations. A hunting and fishing fan, he owns three boats, six motors, and an assortment of eight guns.

Plaksij, although born a United States citizen, returned to Poland in 1921 with his family. He was to experience rule under both the Russians and Germans before gaining permission to re-enter this country in 1946. He came to Milwaukee "with nothing but my two hands". (He had a brother in the U.S. Air Force stationed here.)

He related that now he, his wife and two daughters live in a modern ranch style home. On his large lot he cultivates his own vegetables and flowers. Plaksij has become a Milwaukee Braves baseball fan in addition to retaining an interest in soccer, a popular European sport also played in the Milwaukee area.

Mudd was interviewed by Reynolds in the Allis-Chalmers computer laboratory where he has participated in the company's part in developing *peaceful uses* for atomic power. In fact, he said his most interesting assignment was helping set up a complete simulated nuclear power plant.

Kentucky-born, Mudd is a son of Irish and German parents. He began with Allis-Chalmers in 1952 as a Graduate Training Course student. He told Reynolds that through GTC he was exposed to a wide variety of assignments to determine where he was best suited.

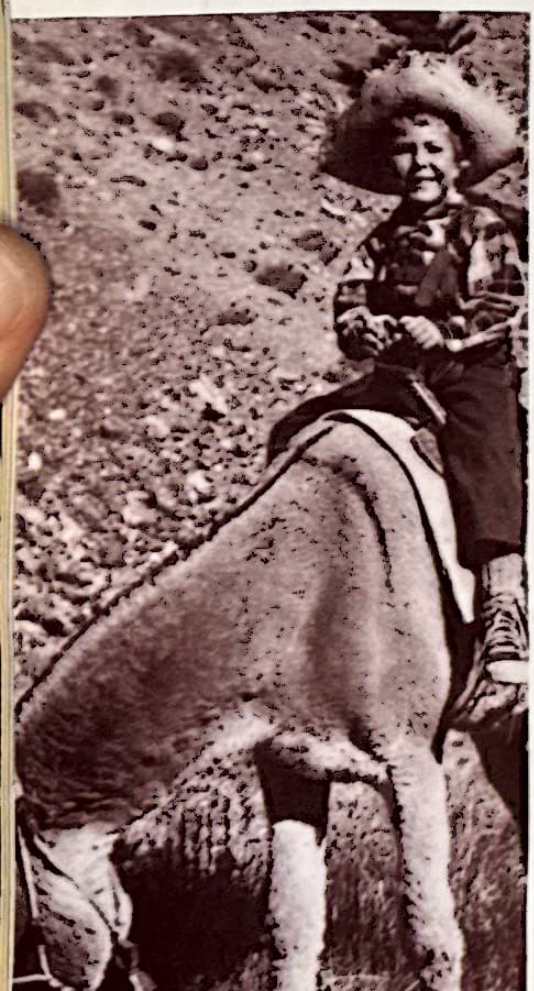


Voice of America is on the air 24 hours a day, seven days a week. It carries to the world programs about our people and ideals in 35 languages from 87 broadcasting stations.

Russell Snook, an Oxnard Works employe, pulls up the diamond hitch on a burro as the group he led into the Yosemite National Park prepares to set out on another leg of the journey. The moves from camp to camp averaged about seven miles.

Burro vacation

Oxnard man leads wilderness trip



While waiting for Tom the burro to be loaded, Renie Snook took a little ride. Her father is already planning next year's trip.

Led by an Oxnard Works design engineer, six California Families traded their automobiles for burros during a two week vacation trip into the wilderness area of the Yosemite National Park this summer.

Pack train leader Russell Snook, along with his wife Juanita and daughters Jonell 10, and Renie 7, joined five other families from July 30 to August 12 under the auspices of the Sierra Club.

The Sierra Club, founded in 1892, sponsors wilderness trips as a non-profit educational project to teach the safe enjoyment and value of our wilderness heritage.

The Snook family made much of their own lightweight camping and hiking gear.

Each family brought its own food and equipment (limits are placed on both) and camped and cooked as a unit. Two burros were assigned to each family for personal and family equipment.

In his instructions to his fellow campers, Russell said, "These (the burros) you will pack and saddle and love for two weeks. If you do both well our trail days will be a happy stroll. If you don't you'll soon know it. The burros and your fellow trail crew will be unhappy. The burros because of the uncomfortable load, the other members helping to repack."

The moves from camp to camp were short, averaging about seven miles a day. On layover days, the families could take side trips, fish, or whatever suited their fancy. On moving days the schedule was roughly this:

7 a.m. — Breakfast, round up burros and clean campsite.

9 a.m. — Break camp and begin hiking.

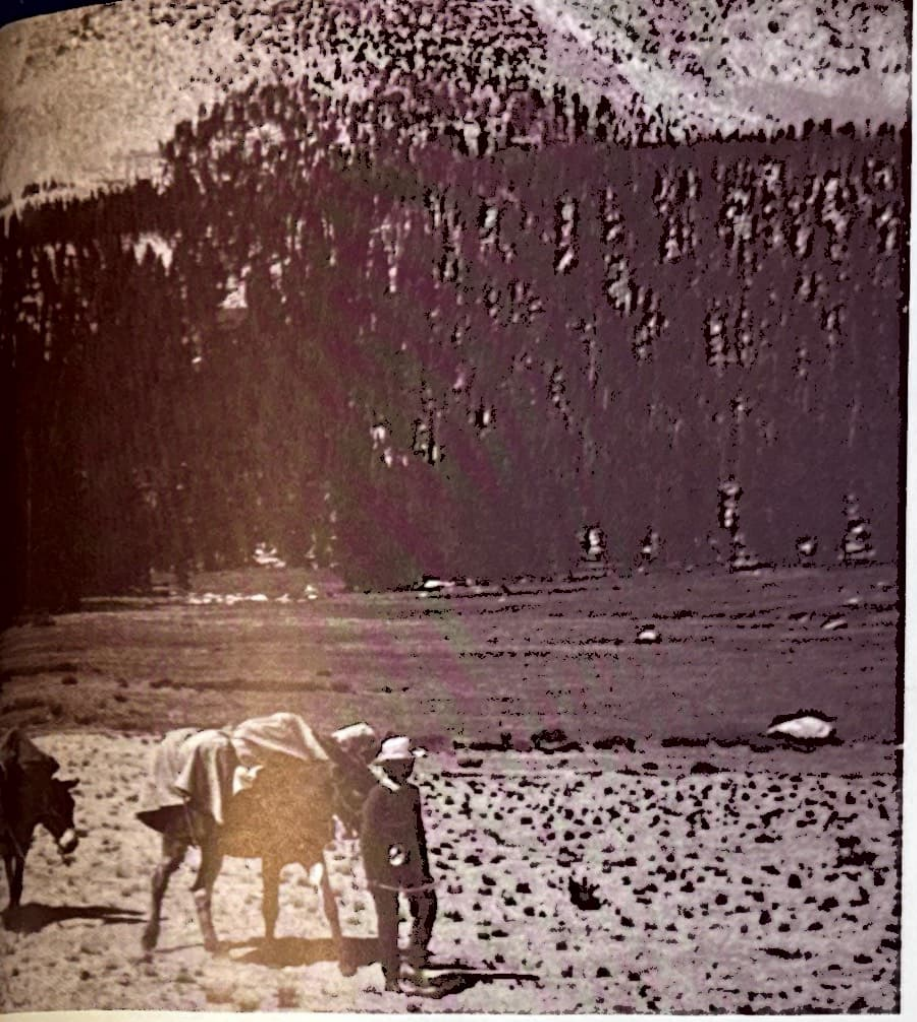
Noon — Cold lunch along the trail.

2 p.m. — Make camp, carry water, gather wood for fire.

6-7 p.m. — Supper, campfire singing, and bed. (They used sleeping bags.)

This was the third burro camping trip for the Snook family. Russell is already thinking about next year's excursion which will be in the Palisades Mountain area.

The family burro trip was one of 54 outing trips made this past summer under Sierra Club sponsorship. Trips are open to members, prospective members and members of other outing organizations, or for an extra fee to anyone.



The pack train skirts Mt. Kawiia. The trip was carried out under the sponsorship of the Sierra Club, a non-profit organization which teaches the enjoyment of our wilderness heritage.

The Snook family pose in their camping clothes on the final day of their two-week trip. This was their third burro-camping outing.

Making macaroni and cheese is Juanita Snook. In the foreground is a reflector oven. Although she has on rain garb, it never did rain.

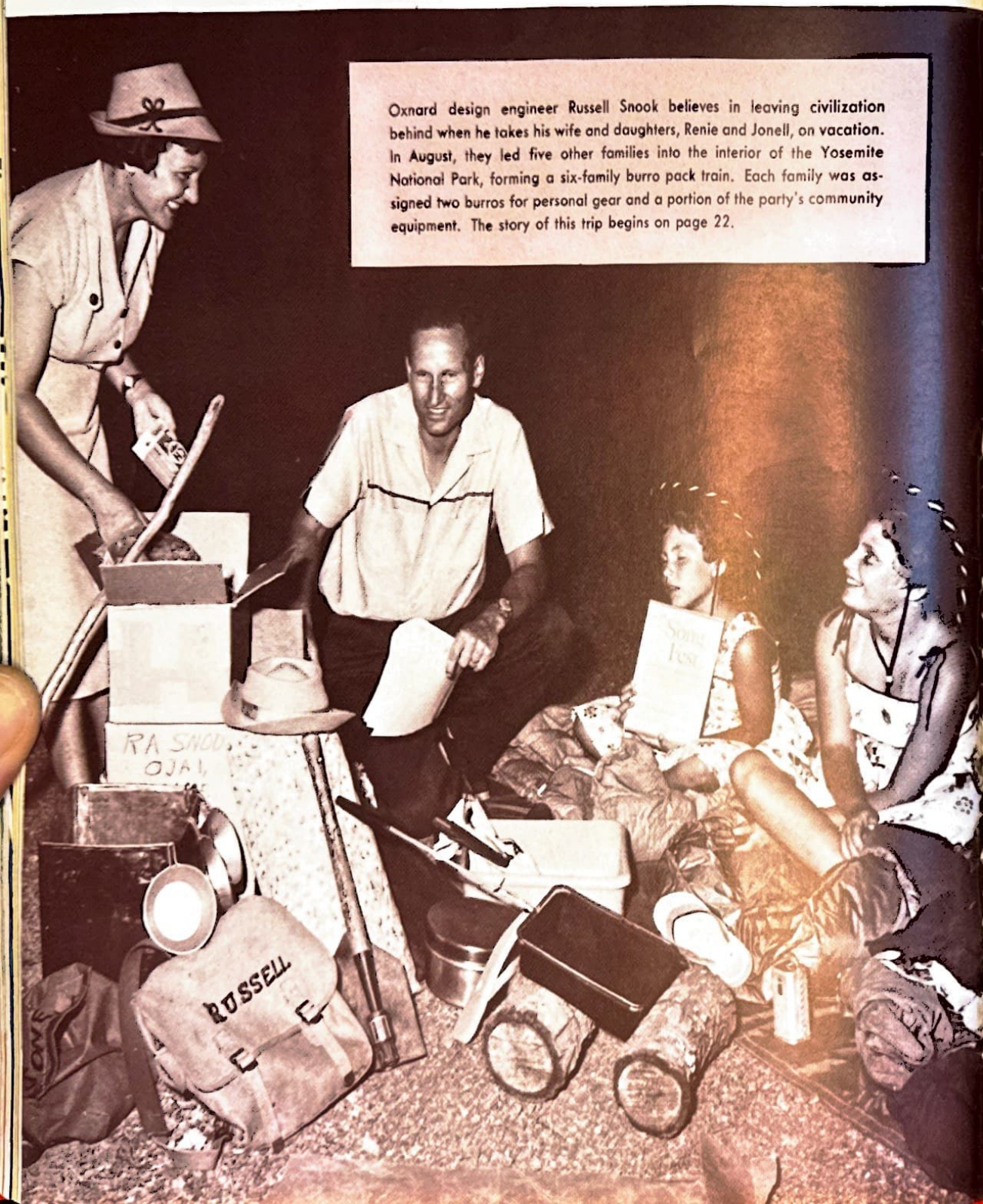
Lunch! Each person was limited to a certain amount of gear and food. The burros, smaller and more sure-footed than mules, can carry 80 pounds comfortably.

Jonell uses a Sierra cup for a drink from a stream. All water in the mountains is drinkable. Renie celebrated her seventh birthday on the trail.

While hiking, everyone carried a sweater, wind jacket and lunch in his pack. When moving from camp to camp, the day began with breakfast at 7 a.m.

a-c scope

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



Oxnard design engineer Russell Snook believes in leaving civilization behind when he takes his wife and daughters, Renie and Jonell, on vacation. In August, they led five other families into the interior of the Yosemite National Park, forming a six-family burro pack train. Each family was assigned two burros for personal gear and a portion of the party's community equipment. The story of this trip begins on page 22.