a-c scope

magazine of allis-chalmers people

january-february
1958

COVER PHOTO

As office manager at the St. Louis Farm Equipment branch, LeRoy Ottwell is responsible for the bookkeeping and paperwork necessary in a distribution and warehousing operation. Here, with mail clerk Helen Willis, he checks pigeonholes used to sort mail for the branch's 102 A-C farm machinery dealers.

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PHOTO CREDITS

Page 3 — Bill Hedrich, Hedrich-Blessing, Chicago, Ill.; Page 4, lower right — A. George Miller, Inc.; Page 4, others — Hedrich; Page 5, top — Miller; Page 5, center — Kimberly-Clark Corp.; Page 5, lower — Hedrich; Page 6, top two — Kimberly-Clark; Page 6, center right — Mike Durante, West Allis Works; Page 6, lower left — Durante; Page 6, lower right — Frank Hart, West Allis Works; Page 10, lower left — Herb Zeck, West Allis Works; Page 16, lower two — Alabama Power Co.; Pages 17-18, Alabama Power Co.; Page 22, top — Dave Ward, LaPorte Works; Page 22, lower — Edward Kiernan, Boston, Mass.; Page 23, top — Kiernan; Page 23, lower — Jerome Gosseck, West Allis Works; Page 24 — H. R. Smith, LaCrosse Works.

A-C SCOPE

MAGAZINE OF ALLIS-CHALMERS PEOPLE — Arthur V. Swenson, Editor . . . James A. Brammer, Assistant Editor. Published by Information Services, Industrial and Community Relations division, Allis-Chalmers Mfg. Co., Milwaukee 1, Wisconsin.

How Does It Look?

Words like "home" and "mother" have always rated high in lists of the 10 most beautiful words in the English language. They are standards, and rightly so.

The 10 most unpleasant words in the language will vary according to current events. In wartime, the word "telegram" might be unpleasant because of the apprehension it might cause. And "telegram" naturally sounds more unpleasant in proportion to the possibilities of receiving unpleasant news.

Right now, at Allis-Chalmers, there is a word which falls into the unpleasant class. It is "layoff," a term almost unheard-of at some A-C plants since World War II. Unfortunately, the general state of business today is such that the word layoff has forced its way into almost every A-C plant and the hardships of layoffs are being felt by some of our people.

But most employes recognize the fact that A-C is not inclined toward unnecessary, avoidable layoffs. The decisions which affect a worker's job status are made only after careful consideration. In many cases, the company has avoided frequent, widespread layoffs through careful planning and scheduling. However, it is not always possible to avoid a layoff — despite the best of intentions.

Meanwhile, a look ahead brings encouragement. Most competent forecasts indicate an upswing of business beginning by the midpoint of 1958. And recent sales meetings in both Tractor and Industries Groups brought out a note of optimism. In those gatherings, it was evident that in 1958 A-C sales people would continue to work hard in every market, for new business and more orders. Cooperative efforts on every job will make this possible.

National Electrical Week

During the week of February 9-15, publicity centers on the 111th birthday of the man who brought electricity out of the laboratory and into practical use.

Thomas Alva Edison helped found one of the nation's largest, most vital industries. It's an industry that has put the magic of electricity to work — to light our homes, preserve and cook our food, wash our clothes, power our factories and serve us in countless ways that build the strength and prosperity of the nation.

The birthday celebration is *National Electrical Week*. In this week, our attention is called to the wonders that electricity performs at the touch of a switch. Is it expensive? Not at all. It costs four-hundredths of one cent to pop a batch of popcorn. A living room carpet can be vacuumed for one-half cent.

Allis-Chalmers is a vital member of the electrical equipment industry that makes the products which bring this servant to our homes. The A-C trademark can be found throughout the United States and Canada.

The search for better ways to use electricity goes ceaselessly forward. With this continued research, the men and women of Allis-Chalmers have opportunity to use their skills in the ever-expanding electrical industry.

a GIANT and still growing

Imagine yourself in a Flash Gordon type of situation projected into the future some 200 years. Picture a wicked overlord who seeks to rule the universe and has developed a ray that will destroy all paper products.

Upon arising one morning you find that your shoes have no soles because the inner sole, made of heavy paper, has disintegrated. There are gaping holes in the roof of your home, no paper backing on the asphalt roofing shingles. Since paper cartons have disappeared, milk is running from the refrigerator, which, by the way, isn't operating because the electric power is no more. The electric company's transformers have lost their paper insulation.

The pulpwood logs begin their long ride through the paper mill here at the jackladder. They have been floated downstream to the mill and are now ready to be debarked.

There are no magazines in the rack and no morning paper at the door. Your basement looks like an artesian well because the building paper around the foundation has been dissolved. When you try to start your car nothing happens, the insulation in the battery is gone and all of the wrapping on the wiring is missing. Upon arriving on the job (if you can find a way to get there), the time clock doesn't work and the time cards racks are bare. The accounting department has no ledgers, no checks, no records. Blueprints are something of the past. The telephone directory is gone. No mail with orders enters the plant. Work is suspended.

All of our past knowledge has vanished with the destroying of books and manuscripts. The Bible is gone and church rituals must now be handed down by word of mouth. Your children can no longer go to school.

Well now, this is all beyond the realm of possibility (we hope) . . . but when you stop to think about it, paper plays a very important part in our daily lives.

The art of papermaking began more than eighteen centuries ago during the year 105 in China when Ts'ai Lun discovered the qualities of wood, water and acid factors could produce paper.

Actually, it was not until the year 770 that Japanese artisans first conceived the idea of printing upon paper. Nearly 1000 years passed before the Chinese technique of paper making was brought into Europe by the Moors of North Africa. This technique used rags and cloth instead of wood. Along the route from the Orient, the method for making paper from wood was lost. It took civilization nearly 2000 years to find its way back to this most practical and most plentiful of all paper raw materials.

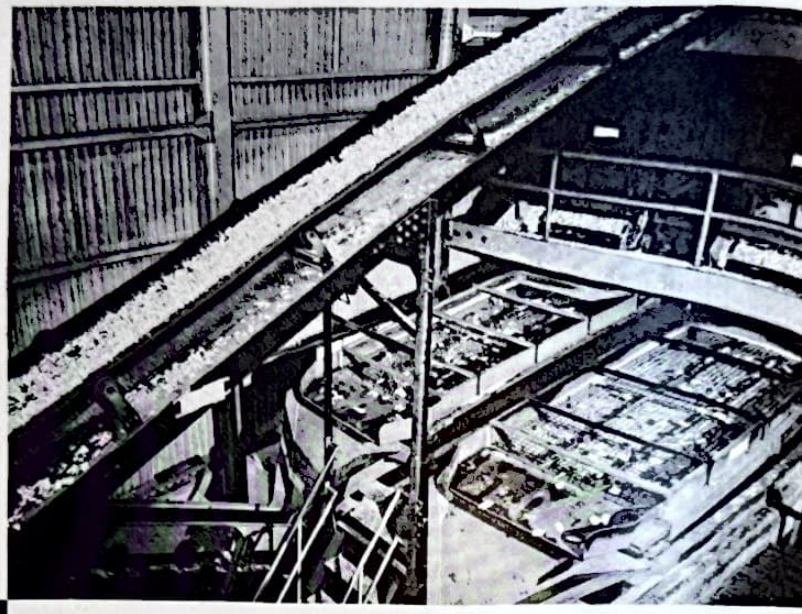
Until the 1800's the western world made paper from rags and cloth. Each sheet was individually turned out by dipping a screen into a vat of water suspended fibers and filtering the water out. A good worker could produce 750 sheets a day.

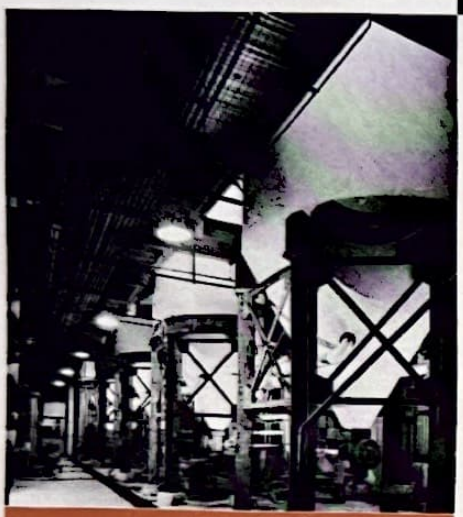
The process, using rags, was expensive and limited. It wasn't until 1850 that a German, Frederic Kellar, developed a machine for grinding wood into fibers. Then, in 1865, C. B. Tilgman, an American scientist, solved a major chemical problem with his discovery of the sulphite process for dissolving unwanted resins in wood.

Two years later, when a pulp grinding machine was imported from France to Stockbridge, Mass., the age of economical paper was launched.

After the logs have been pushed up the jackladder they enter the drum barker. The rubbing of one against another scrapes away the bark and leaves a clean white stick, as the logs are called around a paper mill.

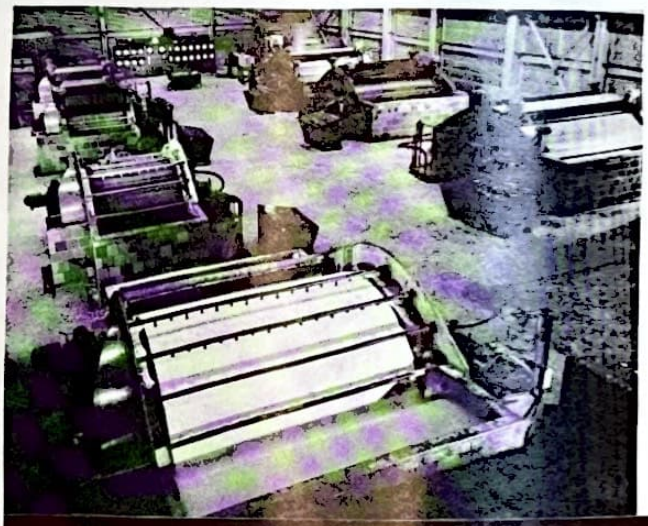
The screening of chips assures a uniform size and is another method in papermaking to guarantee quality and exactness of product. A-C screens can be found in many papermill woodrooms.

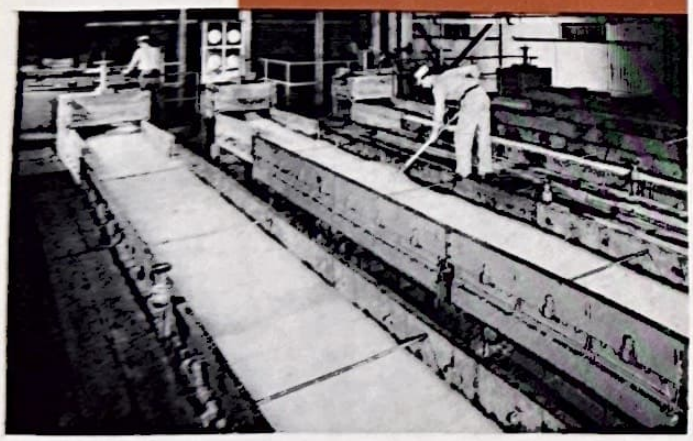




When the chips are ready to be put into the actual paper operation, they are dumped into these digesters to cook under pressure in a chemical solution.

A-C pumps move the pulp from the digesters into these large machines where it is bleached to remove the resins and lignin. After this operation the pulp is nearly a pure white.





Allis-Chalmers enters the picture again in the form of coarse groundwood screens that further refine the pulp, removing any chips that haven't fully broken down.

This large stack contains baled dry sheet of pulp that has been formed into "laps". These will be placed into huge beaters that will combine the pulp with other chemicals to give the paper a finish.

a GIANT and still growing

Between 1889 and 1900, the production of paper doubled to about 2½ million tons a year. Today, paper production is estimated at 40 million tons a year in the U. S. and Canada and each year brings more. Latest figures show that the paper consumption in the United States averages approximately 435 pounds per person per year. Canada averages 280 pounds per person.

Over-all, the United States and Canada produce eight times as much paper, paperboard and fiberboard as does the entire Soviet bloc of countries.

Wisconsin leads the U. S. in production followed by New York, Louisiana, Florida, Michigan, Georgia, Maine, Pennsylvania, Ohio and Washington. Quebec leads in Canadian production followed by Ontario and British Columbia.

How does Allis-Chalmers fit into the paper making picture? Well, just as we depend upon paper in our everyday existence, so does the paper industry rely on A-C equipment to help satisfy the growing need for its product.

Perhaps the best way to analyze the extent of Allis-Chalmers participation in this industry would be to look at the basic materials after they reach the mill. Pulp wood logs, or sticks as they are referred to around the mill, are floated downstream or transported by rail from the cutting point.

When the sticks enter the mill, they are pushed into a debarking drum or a stream debarker. The action of the sticks rubbing against each other removes the bark and leaves a nearly white log. Here, at the beginning Allis-Chalmers can be seen. Hydraulic debarkers *(STREAM-BARKERS)* are produced by A-C.

When the sticks leave the debarking operation, they are then ready to be fed into a chipper to be reduced to a ⅜ inch size that facilitates handling. A-C again enters the picture when the chips are ready to be carried to the cookers. For this step, large A-C screens separate the chips into uniform sizes.

The chips are then pressure cooked in acid or alkaline liquor in large vessels called digesters.

Three Basic Ways

There are three basic methods of preparing pulp chemically. The oldest uses caustic soda and was orginated in England in 1851 and came to America in 1854. The next is the sulphide process. It employs sulphurous acid to separate the four components of wood; cellulose, hemicellulose, lignin and resins. The other method is known as the sulphate process which is also known as "Kraft."

Cooked pulp looks like a soggy grocery sack and must be washed and screened to remove the black "liquor" formed by the lignins and resins and undigested chips. A-C motors enter the picture here to drive the washing units in this operation.

The pulp is again screened to assure a uniform size and quality. Flowing along the screens, the pulp, now considerably whiter, enters the bleaching machine. Here the pulp simmers in a bleaching solution and is given a final washing to develop the desired characteristics and brightness. Allis-Chalmers pumps, of many ratings and sizes, are in abundance in the paper mill. Throughout the entire process there are A-C pumps carrying water to the screens, to the debarkers, and pulp to the various operations.

When the pulp has bleached it is then ready to enter the final stages of paper making. It is accumulated on a cloth covered wire cylinder where the water is passed out and the raw pulp remains. This is conveyed on felt to a wooden press where it builds up into a heavy sheet called a "lap." The "lap" is taken to the beater room where the fibers are mixed with other components for paper making on the machine. The type of paper desired indicates what these other ingredients will be. For instance, fine white or china clay along with calcium carbonate and titanium dioxide are used to give printing paper (like the paper A-C SCOPE is printed on) the surface characteristics and the ability to take ink needed to produce the best results.

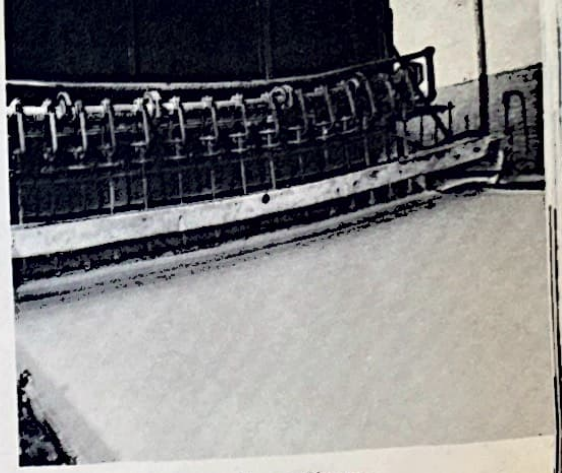
After the fibers have been mixed in the proper proportions, the giant paper making machines take over. The mixture is fed over a very fine mesh screen called the Fourdrinier to draw as much water from it as possible. It is then threaded through a long series of rollers where more water is extracted and the final product emerges as a strong sheet of bright white paper.

It is hard to describe adequately the paper making machine. At the wet end, the stock is about 99% water. At the dry end, there is the apparent miracle of a finished roll of paper produced at a roaring speed that may exceed 2,000 feet per second. Jokingly, the men of the industry say that they "spend a million getting the pulp into water and two million getting the water out of the pulp."

From the paper making machine, the finished product is then routed to the area where it will be converted into any of the thousands of products that use or are made of paper.

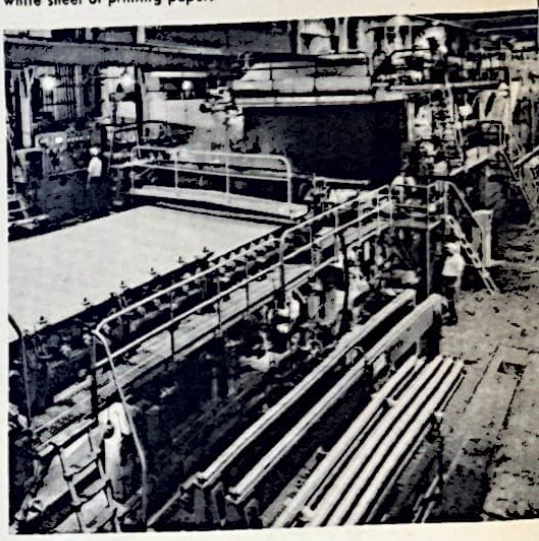
We have traced the making of paper from the sawing and chipping of wood to the final result, although rather briefly. Entire books have been devoted to one phase of the process. It would take volumes to describe the whole process.

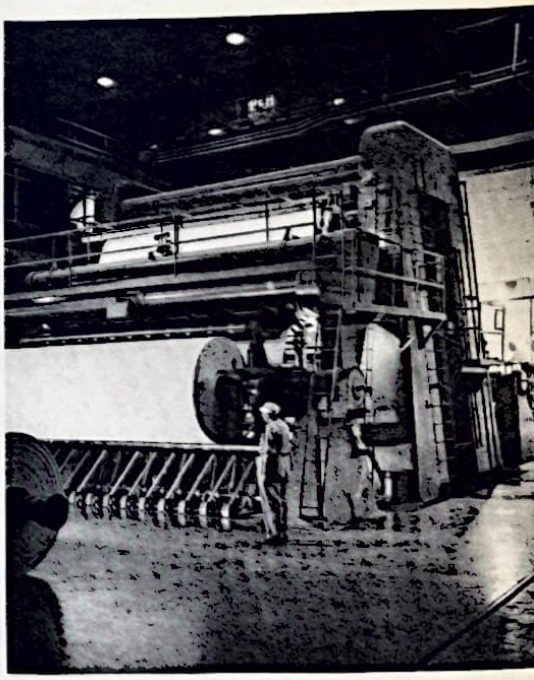
What about the future? It is unlimited! The nation's increasing population and rising standard of living will require more paper, more kinds of paper, more uses for paper.



This headbox on the papermaking machine receives the mixed pulp and distributes it over the screen in the foreground. This is called the Fourdrinier and serves to remove as much water as possible from the stock.

The huge papermaking machine performs the apparent miracle of transforming stock that is approximately 85 per cent water into a clean white sheet of printing paper.





After the paper is taken from the papermaking machine, it is fed through the supercalander. This process actually acts as a finisher and gives the product a glossy luster.

a GIANT and still growing

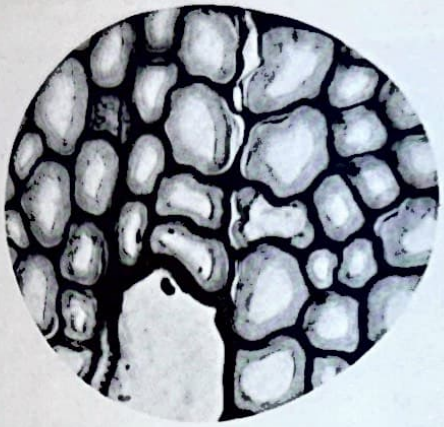
To answer the demand, the industry has embarked on a research program that will soon cost $50 million per year. The chemical and machinery and equipment industries are also engaged in extensive research programs to develop better methods for the processing of paper. Thirty-six research institutions in the United States, Canada and Europe are inquiring into the qualities and new possibilities of these products. Much of their work is financed directly by the allied industries.

Research Center

One of these is the Institute of Paper Chemistry located at Appleton, Wis. It was conceived as a partnership between industry and education in a graduate school to train men in the pulp and paper field. It is also intended as a research center where the latest scientific equipment and knowledge could be accumulated and made available to the industry. The Institute is supported by 125 paper companies in 34 states. It also is given support in the form of scholarships from other industries associated with the pulp and paper fields.

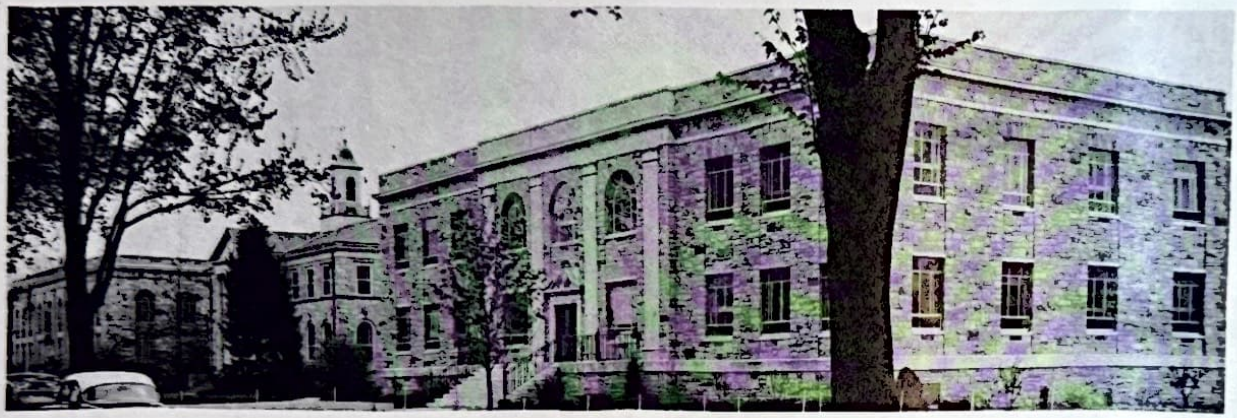
Just one of the many studies that the Institute carries on is the problem of stream pollution, often linked with the paper industry. The researchers have recommended that waste treatment plants be built to duplicate nature's purifying process. These eliminate many undesirable elements from the water before it is returned to the stream. They have found new uses for what was considered waste before. Spent sulphide liquor was a prime contaminator. It is now used as a road binder for unpaved surfaces and a dust deterrent.

This research will find new ways for the paper industry and its products to be vital to our everyday life of tomorrow.



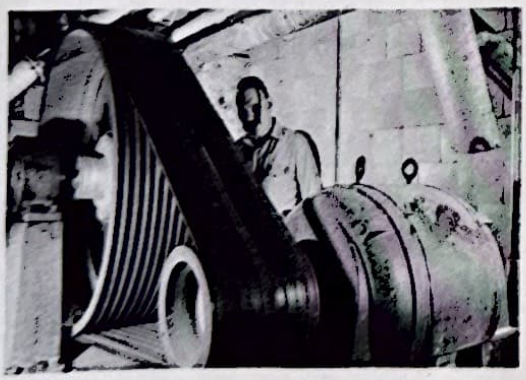
This might be a newly finished field stone wall but it is a cross section of hardwood. The dark portion is removed in the digesting process and that which appears gray is the material that makes paper.

The Institute of Paper Chemistry at Appleton, Wisconsin. This graduate school is supported by the industry and annually graduates experts in the field of papermaking.

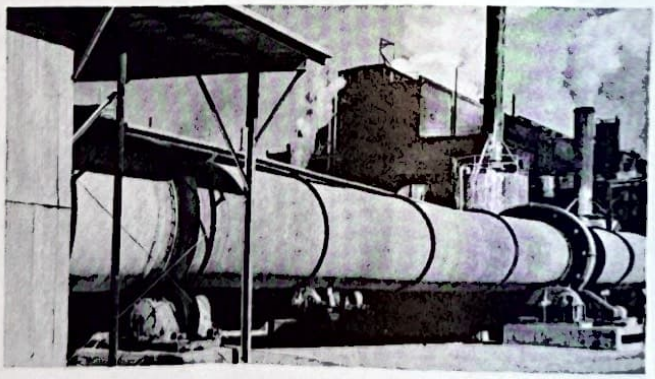


John Ernst, Jr., right, Allis-Chalmers sales representative at the Appleton, Wisconsin branch office calls on Kimberly-Clark's general purchasing agent L. C. Stilp.

A-C pumps, found in abundance in the paper mill operation, are adapted to the many different needs of the industry. Here unscreened bleached stock is being pumped to the flat screens.

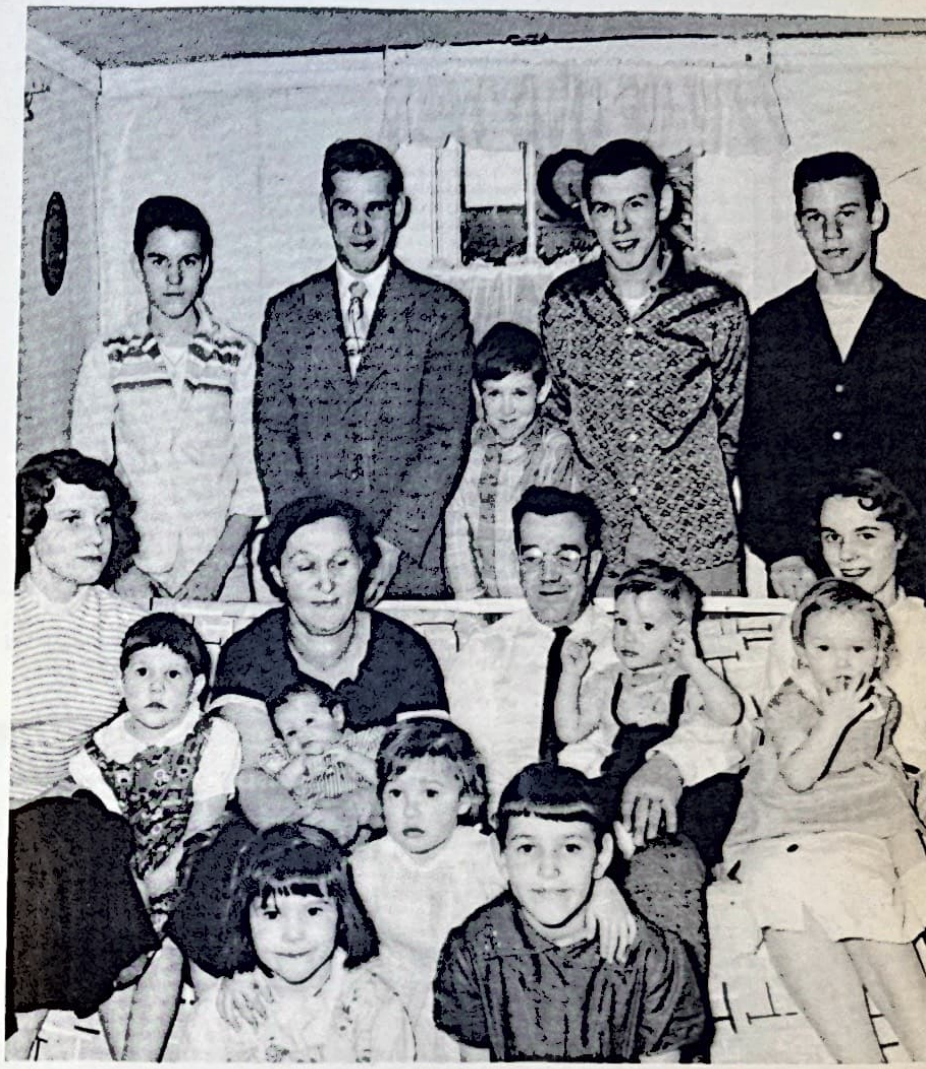


The combination Allis-Chalmers motor and Texrope V-belt drives have proven themselves in the paper industry. The unit pictured here is driving a dyno-pulper at a southern paper company.



Some of the larger equipment that A-C supplies to the papermaking operation is this 10 x 165 feet lime sludge kiln. Dollar-wise this type of kiln will be very productive in reburing and reclaiming lime sludge.

The Harold Oxley family of Independence, Mo., poses for a family portrait. Back row (left to right) are Bobby, Miles, Jack, William, Ralph. Seated, same order, are Margaret, Ruth, Mrs. Oxley (holding Maynard Lee), Mr. Oxley (holding Jan), Edith (holding Patty). Foreground, same order, are Ann, Mary Ellen and Sandra Kay. Absent is James, who went hunting the day the photo was taken.



one big happy family

Shoes, Meals, Haircuts Pose Problems for Independence Couple

Bill Oxley, 20, reports for work on the second shift at Independence Works as his father heads home for supper with the family.

The family dinner — linked with holidays and reunions — usually means extensive cooking and baking in preparation for the actual meal. But for Mrs. Mildred Oxley of Independence, Mo., every meal is a good-sized gathering and every menu is a major undertaking.

Her husband, Harold J. Oxley, is an assembler at Allis-Chalmers Independence Works and the proud father of 16 children. And the Oxleys may well be proud of their tall, strong boys and pretty, bright-eyed girls. The family ranges in age from Margaret (25) to Maynard Lee, born a month before Christmas, 1957.

Actually, only 13 of the Oxley children live at home, since Margaret resides in Canton, Ohio, and Harold E., 24, is in the army. Another son, Norman, who was killed in an auto accident two years ago, would have been 23 last fall.

As Harold Oxley puts it, "It takes a pretty remarkable woman to manage a household with 13 children." The Oxleys drink two to four gallons of milk per day, buy their eggs five dozen at a time and figure to consume about four pies at dessert time. Mrs. Oxley uses a loaf of bread in making sandwiches for the school-age children's lunches, not to mention the cookies, cakes, fruit, etc., that go into the noontime meals.

"There are some drawbacks to having a large family, naturally," Oxley admits, "but there are a lot of pleasures, too." The well-mannered Oxley children help their mother with the housework — cooking, cleaning, washing dishes, ironing, etc. Mrs. Oxley can watch Miles, 22, make a succulent beef pie and say, with more than a grain of truth, "He'll

Margaret, home from Canton, O., takes a pie from the oven as she helps her mother prepare the family's meal.

Mrs. Mildred Oxley with the newest member of the family, Maynard Lee, a bright-eyed lad of one month.

"The dishes are my job," says Bobby, 14, as he cleans up the kitchen after a family meal.

At Independence Works, Harold Oxley is shown putting the finishing touches on a grain hopper for a Gleaner combine.

James, 17, tries his hand at ironing one of his sisters' dresses as Mrs. Oxley gives him some pointers.

make some girl a good husband."

The older members of the family help the pre-school children learn to feed, bathe and dress themselves, too, so it's just the very youngest that require considerable parental attention.

When it comes to clothing for a large family, Mrs. Oxley is a skilled seamstress and she's been able to make dresses for the younger girls and make them over as they are outgrown. She shops for remnants and bargains in material the same as she watches for the right price on fruit and vegetables for home canning.

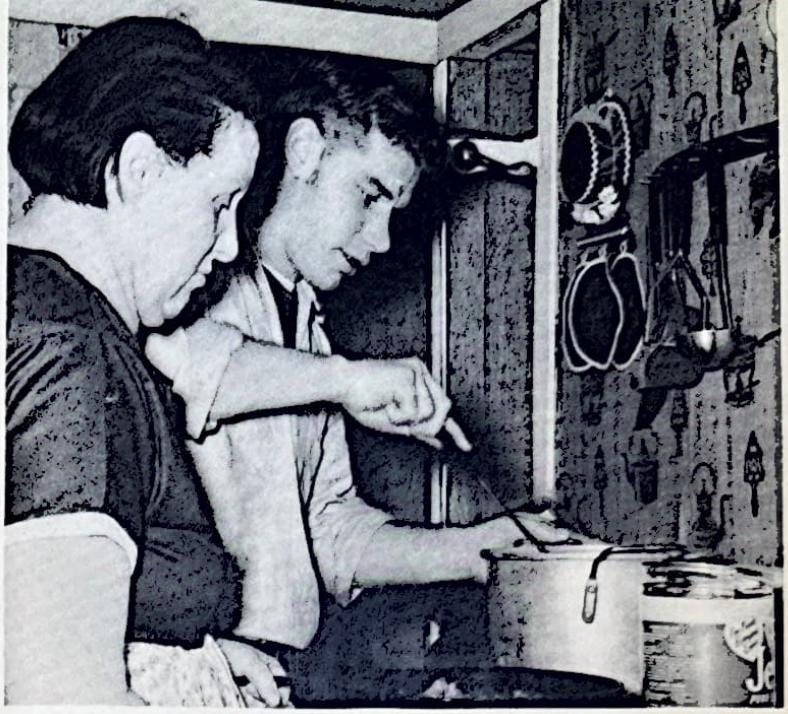
One major item in the clothing budget can't be made at home or handed down, and that's shoes. When you figure that an average youngster may wear out four or more pairs of shoes in a year, and then multiply that by nine children between the ages of two and 17, you can understand why Mrs. Oxley says, "Just about every week, someone needs a new pair of shoes."

And the haircuts for seven boys (not including the latest arrival) would be a major expense without the use of a home barber set. Just about every other "large family" problem was solved by the Oxleys as their family grew. The children do not lack food, shelter or clothing, and they certainly are not lacking in family love and companionship.

"We've always tried to be fair with them," says Mrs. Oxley. "When one gets something, they all get it. When one goes to the movies, they all go. I don't think we could do it otherwise."

Large families are more common today than they were a generation ago, and so far as Mr. and Mrs. Oxley are concerned, they're a blessing. Each child is a separate person with his own likes and dislikes, and the children blend together into what is truthfully "one, big, happy family."

And the Oxleys wouldn't want to live their lives any other way.



Miles, 22, and Mrs. Oxley combine their talents to prepare a delicious beef pie. With dishes like this, nobody goes hungry at the Oxley table.

Sandra Kay, a third grader, helps amuse the younger children by reading to Ruth (left) and Mary Ellen.

"That's our brother," say Jack, 9, and Ruth, 4, as they display a photo of Harold, Jr., who is in the army.

Ralph, 13, gets help with homework as Miles shows him how to figure batting averages for arithmetic assignment.

Part of the 4-H delegation from Virginia, taking a break at the International Livestock exposition. Left to right are Jack Tyree, associate state 4-H agent; Carol Miller, national clothing award winner; William Bradley, Virginia Polytechnic Institute, and Vivian Spradlin, national garden award winner.

LeRoi Heaven, national garden winner from Alas checks the horse show program with Miss Marian Lars territorial 4-H club leader from Alas

gardening pays off

Among those seated at the speakers' table at the national 4-H garden awards recognition dinner sponsored by Allis-Chalmers were Jean Bethke, national winner from Colorado; Edwin Leonard, national winner from Ohio, and W. L. Voegeli, general sales manager, Farm Equipment division.

"And if you evah get down Virginia way, y'all come out in the garden and we'll pick you a mess of snaps . . ."

This remark by a 17-year-old southern belle literally brought down the house at the National 4-H Garden Awards 12th annual recognition dinner sponsored by Allis-Chalmers during the 4-H Club Congress in Chicago Dec. 1-5.

Vivian Spradlin of Vinton, Va., was the speaker. She was one of 50 state and territory garden program winners who attended the 4-H Congress as guests of A-C, and was one of eight national winners, each of whom received a $400 scholarship from the company.

The garden program winners were selected from 4-H members who participated in the company-sponsored national garden program. They were among the 1300 4-H club delegates who converged on Chicago from the 48 states, Alaska, Hawaii and Puerto Rico, to represent more than two million 4-H members.

For the delegates, the trip to Chicago was a big event in their young lives — just as it was for the adult 4-H leaders, federal, state and county extension workers and international visitors.

The delegates, in addition to A-C's garden award winners, represented the best in state and national 4-H contests in categories such as beautification of home

The fur parka belies the fact that southern Alaska's growing season is about the same as the northern United States, but LeRoi Heaven can't be blamed for exhibiting the unusual garment for the benefit of Jean Bethke (left) and Vivian Spradlin. LeRoi's garden produced tomatoes, cabbage, cauliflower, celery, kohlrabi, squash, beans, carrots, potatoes, onions, spinach and many other vegetables.

Highlighting the day at the livestock show was the parade of 4-H delegations by states. Here's Vivian Spradlin as they sang the 4-H anthem.

grounds, canning, clothing, dairy, field crops, forestry, health, meat animal, poultry and safety.

From the time they arrived until the time they departed, the delegates, leaders and visitors were moving in a busy whirl of breakfasts, banquets, teas, luncheons, tours, dances, movies, dinners, sight-seeing, the International Livestock exposition and horse show, press, radio and television conferences.

The Allis-Chalmers banquet was the highlight for the garden program winners and their leaders. Everett Mitchell, of the Allis-Chalmers National Farm and Home Hour, served as master of ceremonies. After the invocation by Edwin Leonard, national winner from Elyria, O., Mitchell introduced the state and national garden program winners, company representatives, 4-H leaders and other national and international guests.

Tractor Group's W. L. Voegeli, general sales manager, Farm Equipment division, welcomed the group, congratulated the winners and pointed out that the date of the banquet coincided with his 30th anniversary as an Allis-Chalmers employe. Miss Spradlin expressed thanks on behalf of all of the winners for making the nation-wide 4-H garden program possible.

The eight national garden program winners were outstanding in their garden accomplishments.

Miss Spradlin, for example, has combined garden prizes and profits of $1400 to apply toward a college education. She has given demonstrations, won prizes at shows and fairs, and made numerous radio and television appearances in the course of her 4-H garden work.

Another of the eight national award winners at the dinner was LeRoi Heaven of Wasilla, Alaska, the first national garden program award winner from Alaska. He and his fur parka drew special attention from the press and his fellow-delegates.

What can a gardener grow in Alaska? Just about anything that can be grown in the northern United States and southern Canada, LeRoi pointed out during an interview on the National Farm and Home hour. LeRoi found gardening so profitable he's decided to make farming his life's work. He is using garden profits of more than $2500 to help his father buy a farm which they will operate together. He sells produce to neighbors and through a cooperative association.

Was Polio Victim

Her 4-H garden paid off in more ways than one for another national winner, Jean Bethke of LaPorte, Colo. She took up gardening to help her recovery from a polio attack and found mental as well as physical compensation in her work. Miss Bethke has won six grand championships and 116 blue ribbons with her vegetables, in addition to supplying fresh, canned and frozen foods for the family table.

Although he lives at the fringe of a great metropolis (not far from A-C's Harvey Works) Bill Lorenz of Chicago Heights, Ill., was another outstanding 4-H gardener. Bill sold his produce at a roadside stand and arranged his crops so he'd be able to pick sweet corn while the customers waited. He is now studying agriculture at the University of Illinois.

Martin Brasted of Hornell, N. Y., is in his third year at Cornell university, where he is majoring in vegetable crops. His garden and roadside stand have helped pay for his education and he has given gardening demonstrations at local, county, district and state levels.

Edwin Leonard of Elyria, O., inherited his love of gardening from his father and grandfather, who have been truck farmers for 32 years. Edwin is the youngest stockholder in a grower-owned marketing association. He expects to use his garden profits to go to college.

The eighth winner, Charles Diesen of Kirkland, Wash., started six years ago with 800 sq. ft. in the family garden. Now he uses more than 5000 sq. ft. to raise vegetables for family use and for sale, and one of his specialties is pumpkins for Halloween. Like the others, he'll use his profits toward college expenses.

Those were the eight young men and women honored as national garden program winners at a banquet which culminates a year-long program of Allis-Chalmers participation in farm youth activities at local, state and national levels. Company efforts in this direction are appreciated, as was indicated by the applause which greeted Mitchell when he said, "I have been asked to announce that Allis-Chalmers will sponsor the national 4-H garden awards program in 1958."

Don Ackerman, West Allis —
D-14 farm tractor in Georgia (used in direct mail advertising). 8 x 10 Dierdorf, Ektachrome.

At a time when many galleries are exhibiting the works of selected artists, A-C Scope would like to present a 21-man show. It is the work of the Allis-Chalmers photographers, the men you are likely to see anywhere in the plant, camera in hand and pockets bulging with flashbulbs.

Each man was asked to submit his "favorite photo," along with the type of camera used, lens setting, shutter speed, etc. Not all of the photographs are of A-C products or facilities, but each photo was taken for use by Allis-Chalmers in advertising, employe publications or some other fashion.

Here, from a group of professional photographers, is

"my favorite photo..."

Walter V. Beaver, Pittsburgh —
A new process, photographed for employe publication. 4 x 5 Speed Graphic, F:32, 1/100 sec., Tri-X film, three No. 25 photoflash lamps.

Martha J. Duffin, Pittsburgh —
Placing bushing on top of power transformer. 4 x 5 Speed Graphic, F:22, 1/100 sec., Tri-X film, one No. 25 photoflash lamp for fill-in.

Joseph E. Goulet, Jr., Springfield —
March of Dimes picture "Can You Spare a Dime?" 4 x 5 Speed Graphic, F:32, 1/100 sec., Super XX film, single photoflash bulb at camera.

Mike Durante, West Allis —
Spiral casing for hydraulic turbine. Hungry Horse station. 8 x 10 Dierdorf, F:22, 5 sec., Type B film, 10 No. 3 photoflash lamps.

Bill Jack Rodgers, Cedar Rapids —
Retirement portrait of Frank Jancik for employe publication. 8 x 10 Speed Graphic, F:11, open flash, Royal Pan film.

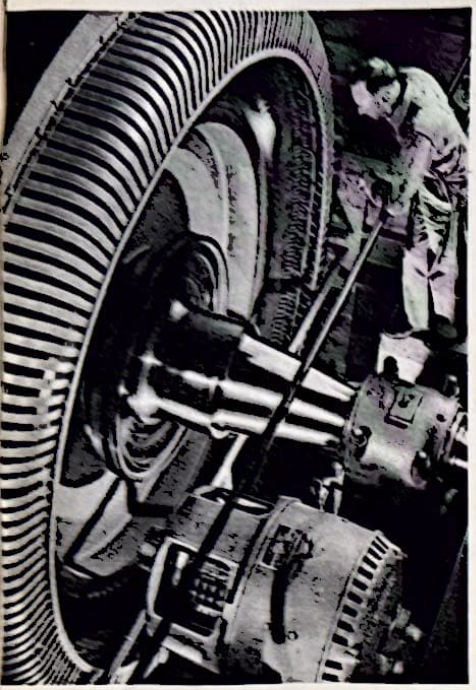
Dale Coffeen, LaPorte —
Cover photo for Easter issue, employe publication. 8 x 10 Speed Graphic, open flash, one No. 2 photoflood lamp.

H. R. Smith, LaCrosse —
Ice fishing cover photo for employe publication. 4 x 5 Speed Graphic, F:16, 1/50 sec., Ansco Superpan Press film.

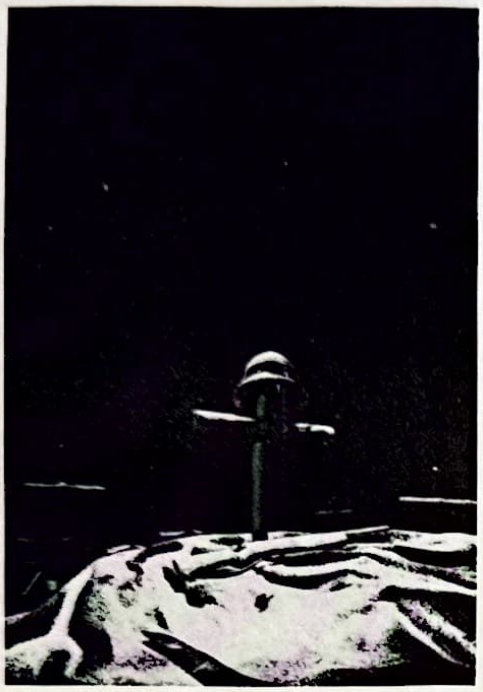
Darrold Pries, West Allis —
TS-360 motor scraper highballing to the fill.

Henry O. Navratil, Pittsburgh —
Annealing Furnaces, Pittsburgh Works. 8 x 10 view camera, F:32, open flash, Tri-X film, eight No. 3 photoflash lamps.

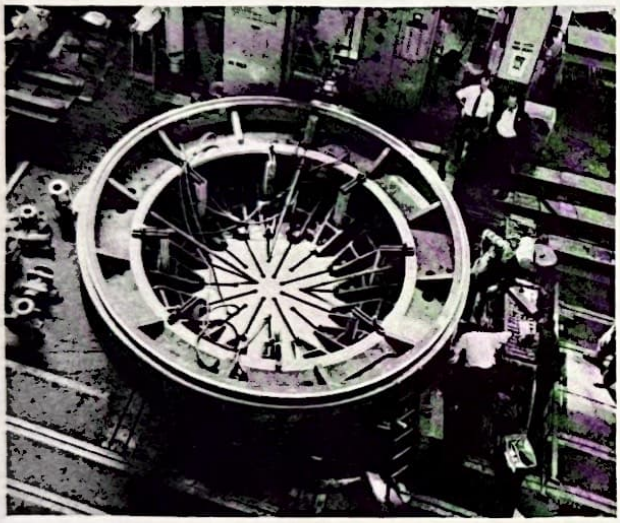
Clarence Hansen, West Allis —
A-C generator in public utility, Hillsdale, Mich. 8 x 10 Dierdorf, open flash, Superpan Press film.

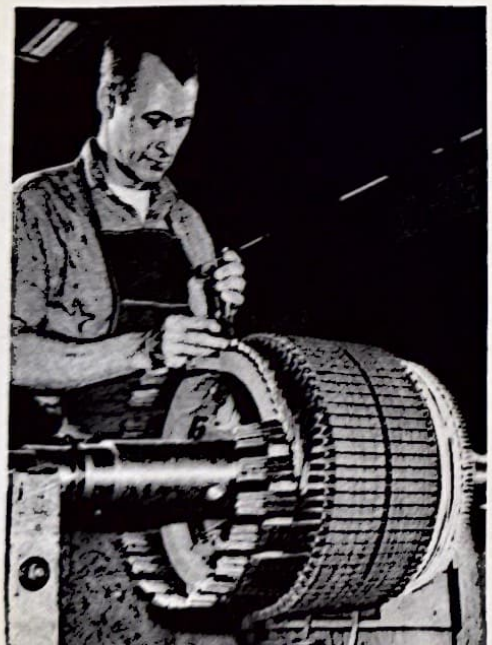


David R. Ward, LaPorte —
Veterans Day cover photo for employe publication. 4 x 5 Speed Graphic, F:11, 1/10 sec., Double X film, one No. 2 photoflood, one No. 1 photoflood diffused.



"my favorite photo..."





Larry Dore, Lachine —
Gear for 11½ x 14 ft ball mill. 4 x 5 Pressman camera.

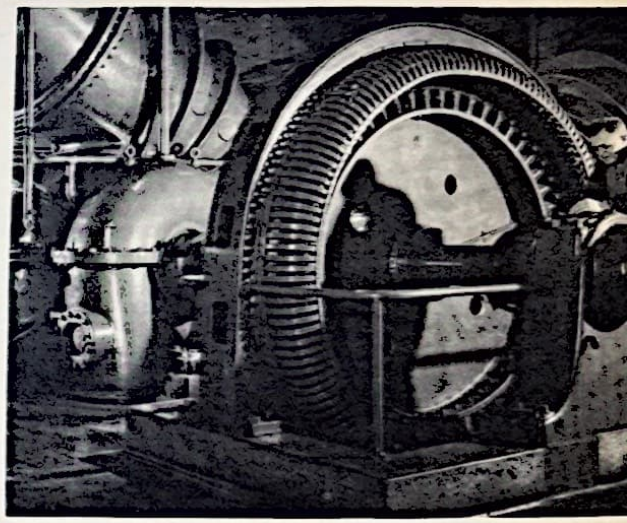
Charles Schorman, Norwood —
Rotor winding for cover of A-C Trends, distributor magazine. 8 x 10 Speed Graphic, F:16, 1/200 sec., Royal Pan film, three No. 5 photoflash lamps.

Howard Williams, Springfield —
Cover photo for employe publication. 4 x 5 Speed Graphic, F:32, 1/10 sec., three No. 4 photoflood lamps.

D. C. Irvin, Gadsden —
Fred Duke and family gathering mistletoe, Christmas, 1956. 4 x 5 Crown Graphic, F:22, 1/50 sec., Royal Pan film.

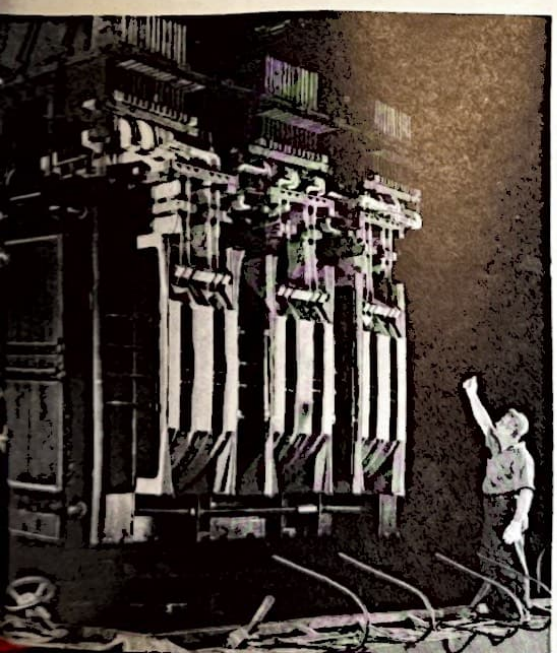
Richard Bruce, Terre Haute —
Pangborn shot blast room with low voltage transformer tank. 4 x 5 Speed Graphic, F:22, open and closed shutter, Royal Pan film, 14 No. 3 photoflash lamps.

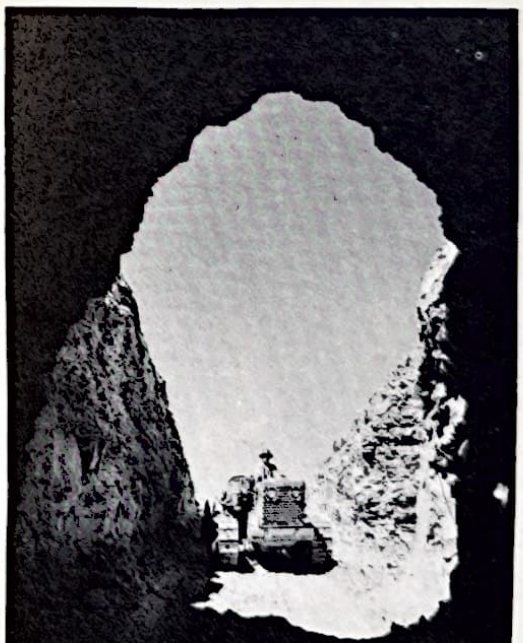
David F. Bond, Harvey —
Picnic photo for employe publication.
4 x 5 Speed Graphic, F:16, 1/100 sec., Tri-X film.



Harold Shrode, West Allis —
Core and coils, 42,000-kva furnace power transformer. 4 x 5 Speed Graphic, F:22, open flash, three No. 3 photoflash lamps.

Jerome E. Gosseck, West Allis —
Synchronous motor driving pump unit. 8 x 10 Dierdorf, F:22, open flash, four No. 3 photoflash lamps.



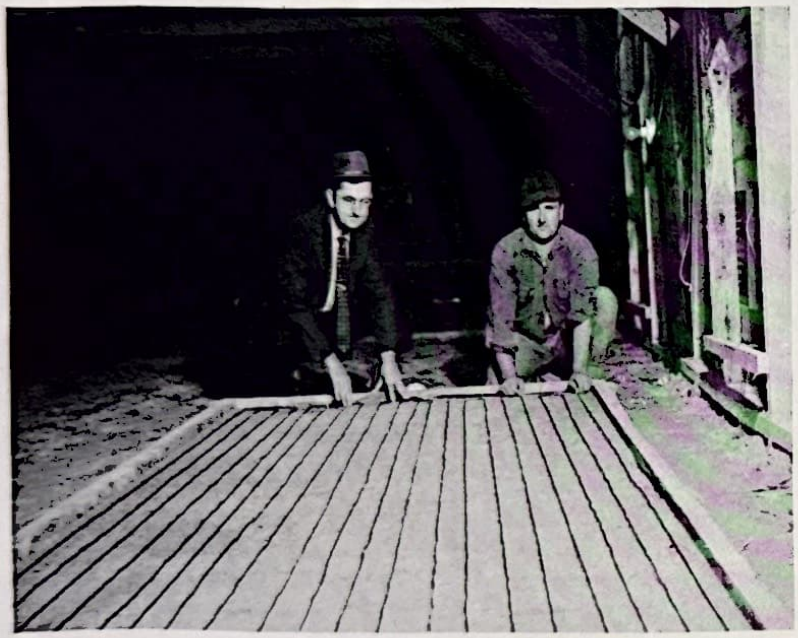


Dick Bucher, West Allis —
HD-6 crawler tractor entering uranium mine, Edgemont, S. D. 8 x 10 Dierdorf, F:32, 1/50 sec., Royal Pan film.

Members of the portion of the National Farm and Home Hour dealing with Alabama Power Company face the mike during the recording session. Left to right, Milton Bliss, agricultural representative, N.B.C.; Don Looper, Bert S. Gittins Agency; W. T. Cox, Farm Building Specialist, Auburn Extension service; E. C. Easter, executive vice president, Alabama Power Co.; Tom Eden, Educational Television dept., Auburn; and Fred Kummer, head of Agricultural Enginering dept., Auburn.

FARMERS' FRIEND IN DIXIE

ALABAMA POWER COMPANY
Helping Develop Alabama



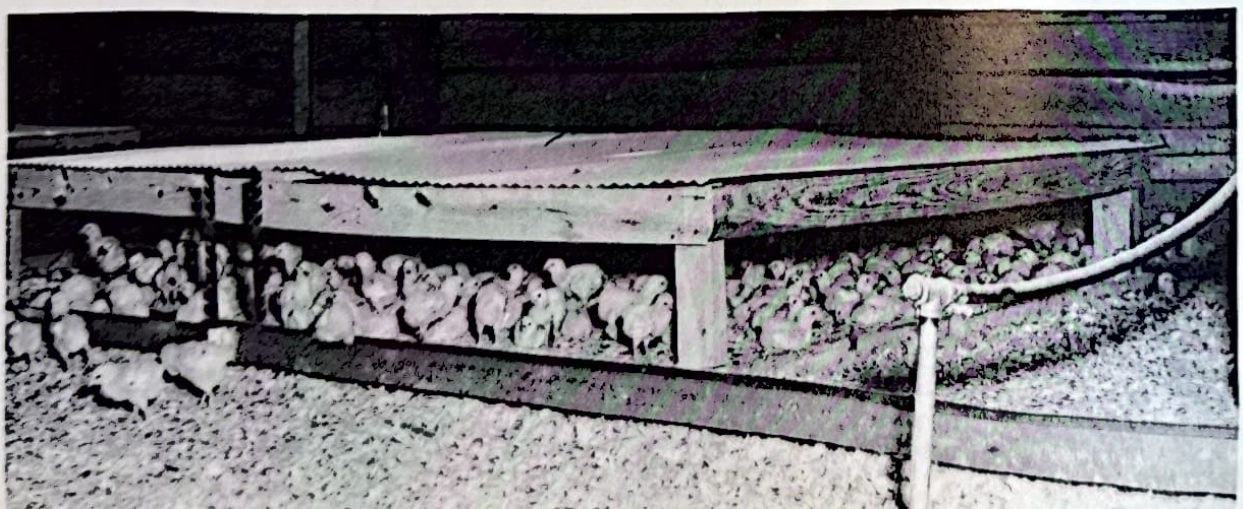
Electricity has contributed in many ways to making life more productive and easier for the nation's farm population. Providing electric power in one important section of the country is the Alabama Power Company, which served exactly 111,000 rural customers as of last December.

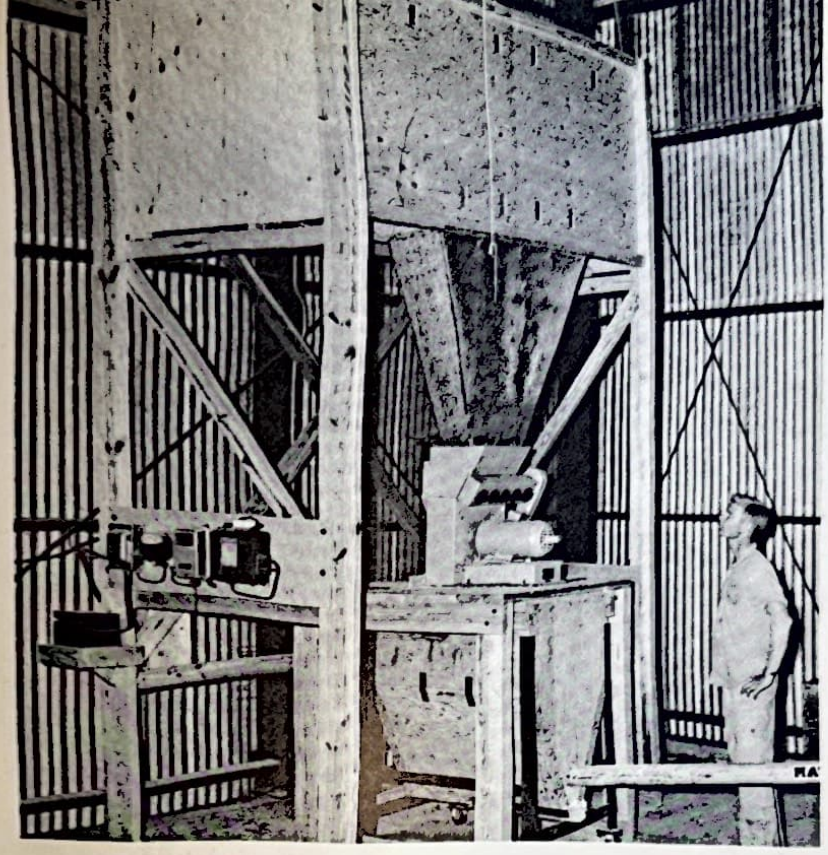
Let's look closer at this company and learn how it has led the way. Some of its unusual efforts were featured on a recent National Farm and Home Hour NBC radio program sponsored by Allis-Chalmers.

Alabama Power Co. was actually evolved rather than founded. The south

Insulated wiring is laid into the forms before the concrete truck arrives to start pouring the slab. Alabama Power rural engineers supervise this phase on the farm of poultryman G. W. McKinney of Hale county.

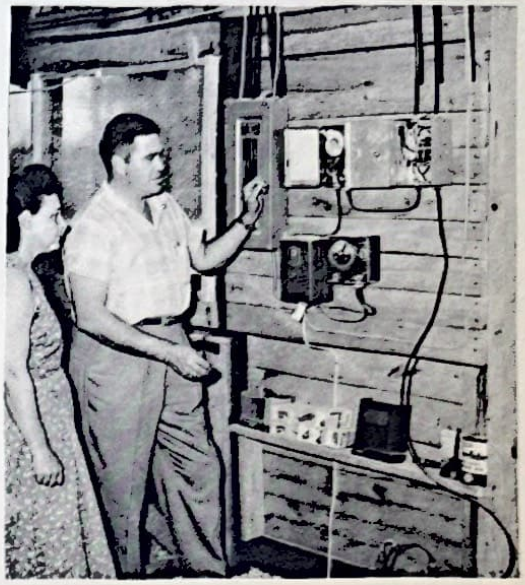
Young chicks purchased from the hatchery are free to roam about the chick brooding area. The poultryman is relieved of the worry of freezing with the warm slabs and heat retaining covers maintaining an even temperature.





The experimental model of the feed grinding and proportional mixing bin was installed and tested in Alabama Polytechnic Institute, Auburn, Alabama. The machine is responsible for increased feed output in the right quantities and is allowing Alabama farmers to do more in a day's time.

Mrs. Lee Bonner, Tuscaloosa county poultry woman and service engineer John M. Spence check the auxiliary power supply installed in the brooding house. This assures light even if there should be a power failure on the Alabama Power Company line into the farm.



did not immediately participate in the industrial revolution which was going on elsewhere in the United States after the Civil War. Consequently, when industrialization did come to these states after 1900, it came with the benefit of not only steam but also two added factors — the gasoline engine and electric power.

In 1896, the citizens of Montgomery Ala., decided to develop a power site on the Tallapoosa river. This plant was completed in 1902 with a capacity of 8,500 horsepower and a 33,000-volt transmission line into Montgomery, some 25 miles distant. The company got its beginning here and was reincorporated in its present form in 1911, after its formation in 1906.

Alabama Power steadily progressed and through two world wars supplied power to the many factories and manufacturing operations that came to the south.

Statistically, the company sold three billion kilowatthours in 1947. During 1957 sales were more than double that figure, nearly 7½ billion kwh. Rural sales jumped from 86 million in 1947 to 319 million kwh in 1956.

In 1924, the company and Alabama Polytechnic Institute (Auburn) joined in a program of research to determine just how the farmer might use electric power profitably once it was made available to him. Since that time, both the Institute and Alabama Power have progressed to the point where most of the work is spent with the farmer who has electric service . . . trying to make that service mean more to him.

One of the first considerations in trying to help the farmer make better use of his electric power is that of improving farm wiring. This is part of a national campaign entitled *HOUSEPOWER*, sponsored by Edison Electric Institute. Of course, it related to the city as well as to the farm, but where the farmer is planning the installation of a slab brooder or a milking parlor, more attention must be given to adequate wiring.

The slab brooder was one of the more recent developments. Basically, it is an insulated concrete slab heated by electric cables. The slab is installed in the chicken houses of poultry raisers (incidently, Alabama is rated number four in the nation in the production of broilers; Georgia is first).

The young chicks are purchased from the hatchery and placed in the brooding areas. The slab conserves heat, reducing the cost of other heating devices. Poultry raising often presents problems very different from other animal husbandry. For instance, the poultryman must have an auxiliary power supply for lighting. The young chicks will pile up as high as three feet on top of each other if there is no light. This results in the smothering of many and, consequently, a definite loss in profits.

Another project that Auburn is engaged in is the development of grinding, processing and handling of livestock food on small farms. Alabama Power made funds available during 1955 to carry on the research.

Alabama is beginning to come into its own in the production of both beef and dairy stock. Figures show that in 1946 the state had 1,268,000 head of stock and in 1956 had increased this to 1,816,000 head. Over the 10 year period this is an increase of approximately 50 per cent.

The milking parlor is giving the dairyman the opportunity to produce better milk and also enables the consumer to enjoy milk that is never touched by human hands. In most larger farms the cows are assembled in a large cement area and then led up an inclined ramp to the milking area. Each of them is washed down and the surge milkers attached. The milk goes from the milking machine through stainless steel tubing to a large refrigerated tank. The milk company truck arrives at the farm and the milk is pumped from the tank into the truck. At the creamery the truck unloads into the pasteurizing drums and then the milk is either bottled or converted to other dairy products.

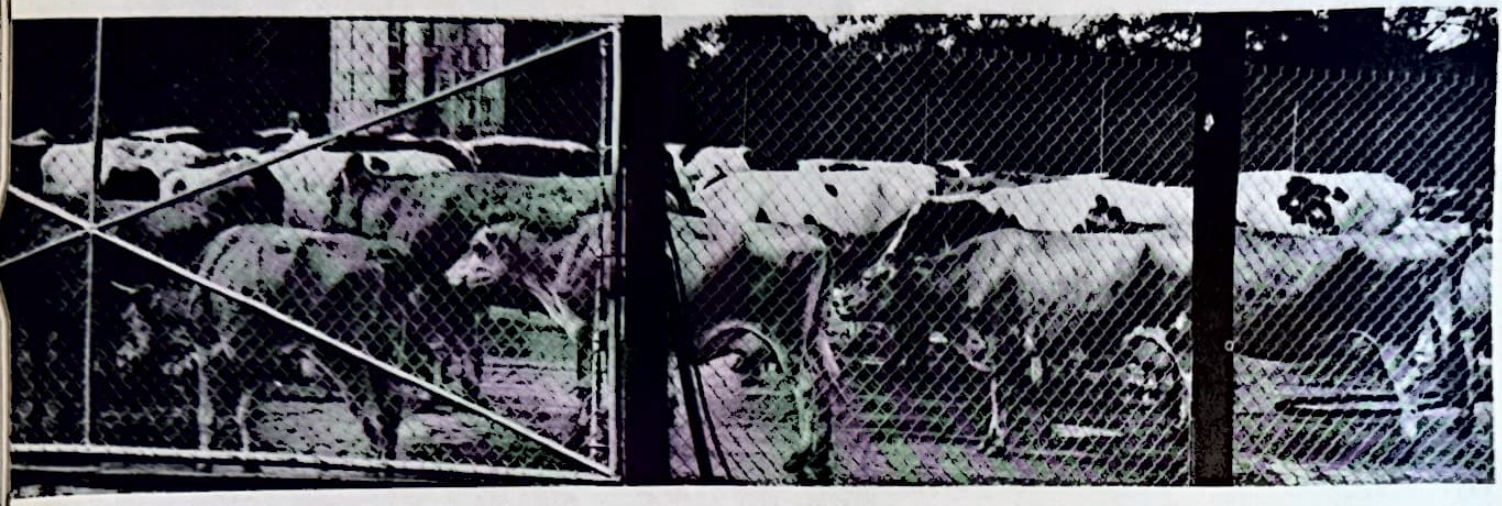
Farm water systems in the service area of Alabama Power reached a total of 8,718 last year. This was an increase of 43 percent. For this activity the power company was presented the Frank Watts National Farm Electrification Award.

As an Allis-Chalmers customer in the Dixie area, Alabama Powers uses much A-C electrical equipment to help bring electricity to the farmer.

Throughout the service area A-C transformers, switchgear, circuit breakers and pole type distribution transformers are very much in evidence, helping Alabama Power Company make the farmer's life a more profitable, easy and fruitful one.

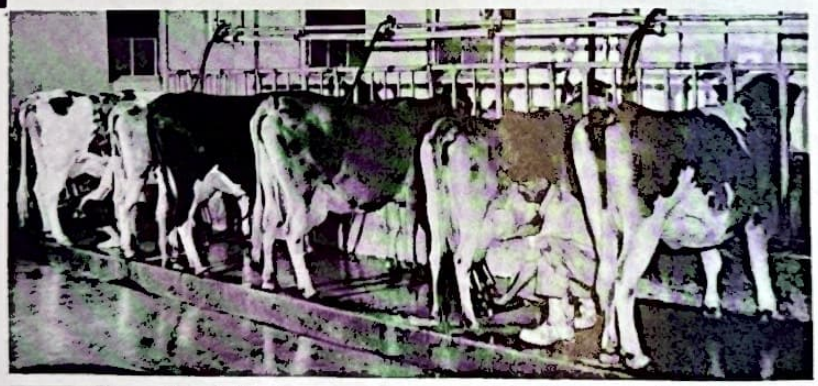
FARMERS' FRIEND

This clean concrete yard houses the herd before they enter the milking barn. Dairymen find that "Bossy" prefers this to being driven from the field right into the barn.



Leaving the concrete yard the herd lines up to enter the milking area. This method permits faster milking and adds to the dairyman's daily output.

Here the cow gets a final wash down before the milking machine is attached. Throughout the entire milking operation, utmost care is taken to insure cleanliness.



This view of the milking machines in operation is a different barn than the others but it best illustrates the machines and the stainless pipes that carry the milk from them into the refrigerated storage tank.

C. E. Bachelor (left) Escambia county Alabama dairyman and Alabama Power rural service engineer C. M. Pettus look over a 500 gallon bulk milk tank. The milk remains in this refrigerated tank until it is picked up by the dairy truck.

Bridging the gap

At a hotel in Vandalia, Ill., St. Louis Branch Manager W. W. Schutt tells dealer representatives how their parts and service programs can add to their income from sales of A-C farm machinery.

Allis-Chalmers Tractor sales and service organizations in the United States and Canada were regrouped into three operating divisions at a sales meeting in Milwaukee Dec. 16-17. Under the new arrangement, the sales manager for each division will report directly to the general manager of his division.

The Farm Equipment division will operate from its present 31 branches in the United States and four in Canada. W. L. Voegeli is general sales manager.

In the Construction Machinery Division, 12 new branches have been created. All except a new location at Denver will operate in present branches. A. E. Dorn is sales manager.

The Engine-Material Handling division, which is the new name for the Buda Division, is comprised of six newly created branch organizations. Five will operate at present branches and the sixth will be located in Chicago. J. C. Baseheart is sales manager for engines and J. D. Harmison is sales manager for material handling.

Now that Allis-Chalmers has 35 Farm Equipment branches in the United States and Canada, plus 12 Construction Machinery branches, plus six Engine-Material Handling branches, the question might logically arise:

Just what is a Tractor branch house?

After all, most A-C employes are located in shop or office areas of a manufacturing plant in the United States or Canada. As a group, these A-C people realize that the products they make and the orders they process represent dollars of income for the company.

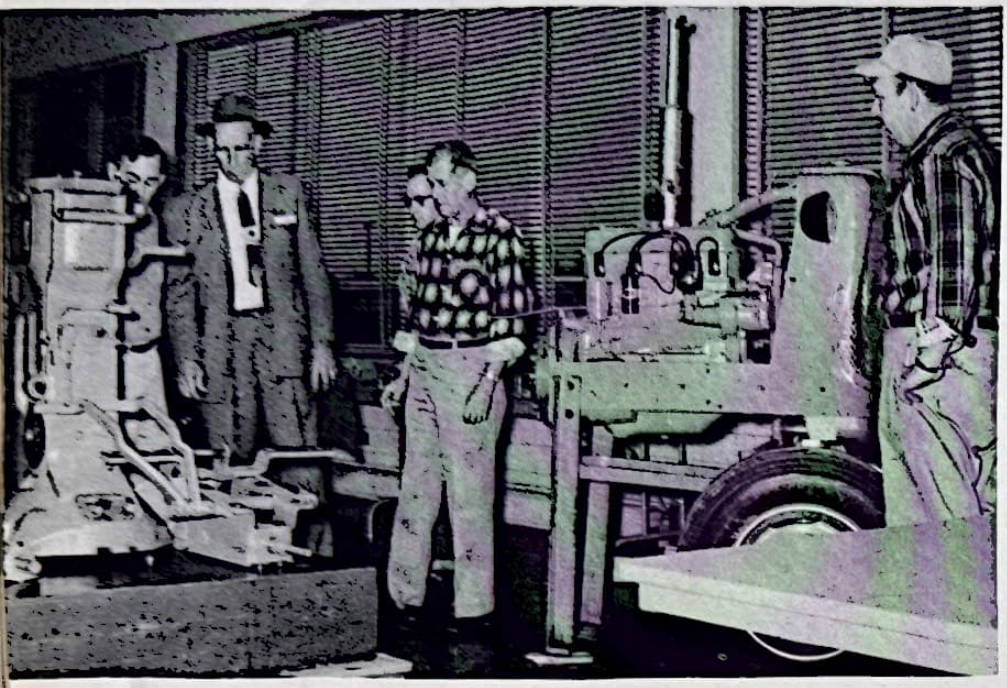
But they may not know just how the products get to the customer and how the dollars get back to Allis-Chalmers. In the case of the Tractor Group, which accounted for roughly 55 percent of the company's income for 1956, sales of Allis-Chalmers products are handled by independent local dealers for each product line. There are farm equipment dealers, construction machinery dealers, engine dealers and material handling equipment dealers. Allis-Chalmers has no direct contact with the retail customers, since each dealer, regardless of which A-C products he handles, is responsible for sales of A-C equipment.

But an extension of the company does exist to bridge the gap between the manufacturing plant and the independent dealer. It is the branch organization. And the branches and their more than 1400 employes have the responsibility of getting the goods to the dealers, helping them sell it and getting the sales dollars back to the main office.

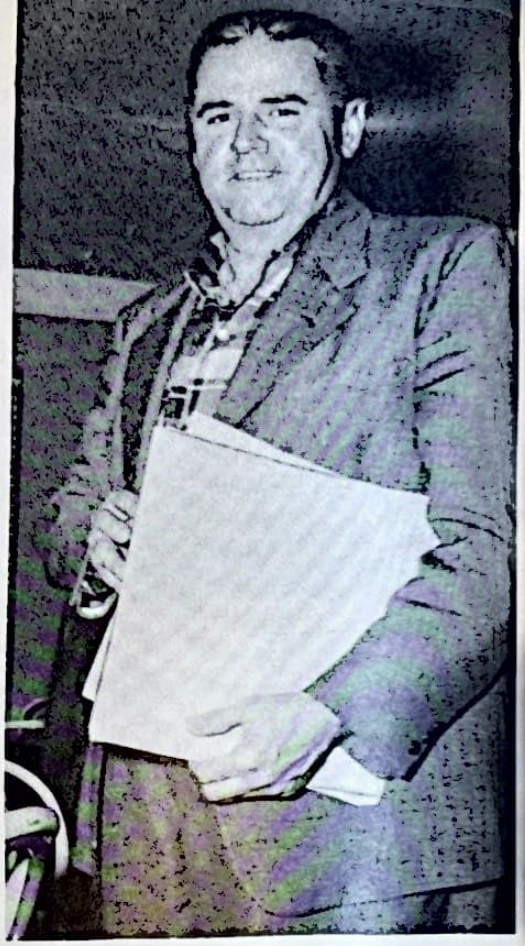
Just what is a branch house? Basically, it is a base of operations, an extension of the Allis-Chalmers sales and service organization. It is established to promote the sales and service of A-C machinery within a specified territory. Since farm machinery is no better than the service it receives, the branch is responsible for maintaining adequate stocks of parts for A-C machines used within the territory. Dealers, naturally, are encouraged to stock sufficient parts to meet immediate requirements.

Branch activities may range from introducing a new product to conducting schools for dealer sales and service men and helping the dealers' salesmen demonstrate and sell A-C products.

Preparing for dealer service school means moving a partially dismantled D-17 farm tractor into the branch's meeting room. Here (left to right) are Orville Edwards, agricultural service manager; Ed Elgin, West Allis Works service representative; Clyde Matlock, parts man; Paul Gubane, warehouse man, and Vernon Horstmeier, warehouse man, setting the stage for the meeting.



Forrest Barbee smiles as he leaves a successful dealer meeting in Vandalia. Barbee's ability to work with A-C farm machinery dealers helped make his block the best in the nation last year from the standpoint of total sales.



What comes in must go out. Here is parts man Ralph Travis writing up an order for shipment to an A-C dealer in the St. Louis territory.

Assistant Manager L. L. Nevins (right) goes over a blockman's report with Schutt. Teamwork between these two and sales force has helped make St. Louis "the best branch in the country."

bridging the gap

To understand how a farm equipment branch operates, let's look into the company's St. Louis branch office, which recently moved into new quarters on Highway 66, near the St. Louis airport. This branch has been one of the company's top-ranking farm equipment branches for a number of years, and its people are proud of this distinction.

Approximately 50 A-C employes make up the staff of the St. Louis branch. They handle bookkeeping, warehousing, shipping and receiving, sales and administrative duties, much the same as similar people would handle similar jobs in a small manufacturing plant.

Heading up the farm equipment activities at the St. Louis branch is W. W. Schutt, the branch manager, who joined Allis-Chalmers when the company had two branch offices, 30 years ago. Schutt's staff includes an assistant branch manager, farm equipment sales manager, office manager, parts and service managers.

The main purpose of any A-C branch is sales, and in this case, farm machinery sales. In the St. Louis branch territory, sales direction is provided to 102 A-C farm machinery dealers, by a staff of 14 "blockmen."

The title "blockman" defines a man who serves the dealers within a certain block of the branch territory. The blockman lives in his territory, spends most of his time in the field working with dealers and their customers. He rarely calls at a branch house unless a meeting has been scheduled.

Many of the blockmen at St. Louis and at other A-C farm equipment branches have a farm or small-town background, which is admittedly helpful for selling farm machinery. It's not an absolute requirement, though, and many city-bred men are very successful blockmen.

What does a branch manager look for in a potential blockman? Schutt says, "All I ask is three things — he must be honest, he must be ambitious and he must be a gentleman."

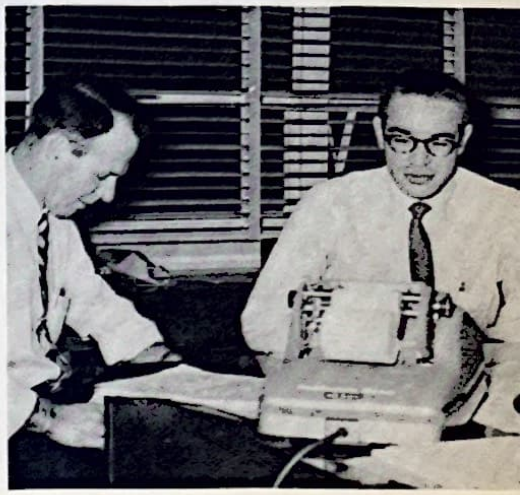
Not all farm equipment branches have the same number of dealers or blockmen as the St. Louis branch. This depends upon the size of the territory, the number of farms and dealers, and the amount of farm income in the area. Each of the branches operates from a building which has office, warehouse, shipping and receiving facilities.

The new building at St. Louis is Schutt's pride and joy. From the highway, the one-story, 66,000 sq. ft. building resembles a small manufacturing plant. It is identified by the words "ALLIS-CHALMERS" and a huge diamond and seal trademark.

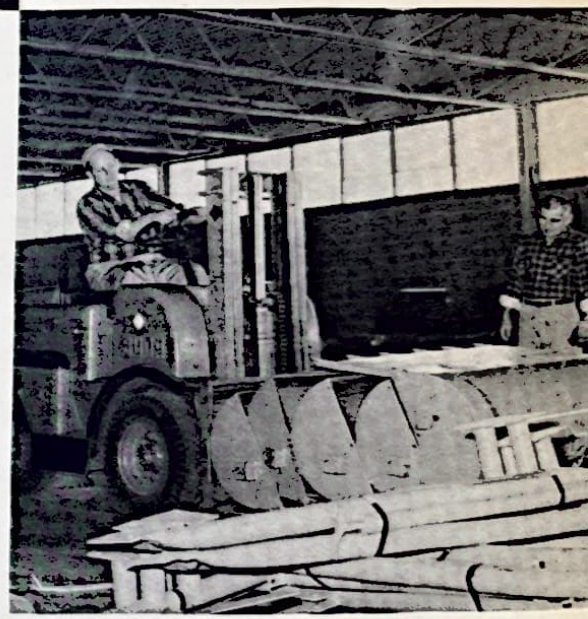
"When we were downtown," Schutt recalls, "we didn't have much room for storage. We had no parking facilities for dealer trucks and visitors. If we had a sales meeting, we had to get the dealers

The St. Louis branch as seen from Highway 66. Offices are in right foreground, warehouse and loading docks in rear at left. Signs are visible, day or night.

Dealer records in St. Louis and other branch territories are periodically audited by branch personnel and Tractor Sales representatives. Here are Lyal Woolsey (left), parts department manager, and Gerhardt Schneider, West Allis Works, going over their figures.



A-C fork lift truck is used in warehouse to move heavy machinery components stored at St. Louis branch. In photo below, Paul Gubane, warehouse man, directs the operation as Vernon Horstmeier, moves a load of front end loaders into place.



downtown. Now we can hold our meetings right here at the branch."

"Dealers like the idea of our being located on the outskirts of town," Schutt adds. "As the city people moved out and subdivided the farmland, we've moved farther out and stayed close to the farms. Another thing, we're out here on one of the busiest highways in this part of the country. When a car drives by, day or night, the people can't help but see the A-C trademark out in front."

Any problems in moving a branch with 50 employes from the heart of St. Louis to the suburbs? Did anyone complain or quit? "No," Schutt says, "as a matter of fact, everyone seems to like it better out here. We even have a couple of car pools going, to get the non-drivers to work."

Formerly, when the branch invited dealers in to see a new piece of equipment, the branch manager had to find a place to demonstrate the machinery, hire a truck to get the equipment to the site, provide chairs, rent a tent in case of rain, get a caterer to bring food "way out there," and then hire a watchman to guard the equipment and materials until the day of the meeting.

"Now, with this new branch building," Schutt says happily, "we have three acres out in back — plenty of room for a demonstration. We have our meeting right here in the building, provide a lunch, let the dealers look over our parts and service setup and keep all the necessary equipment right in the warehouse. It worked fine for the introduction of the new D-17 farm tractor."

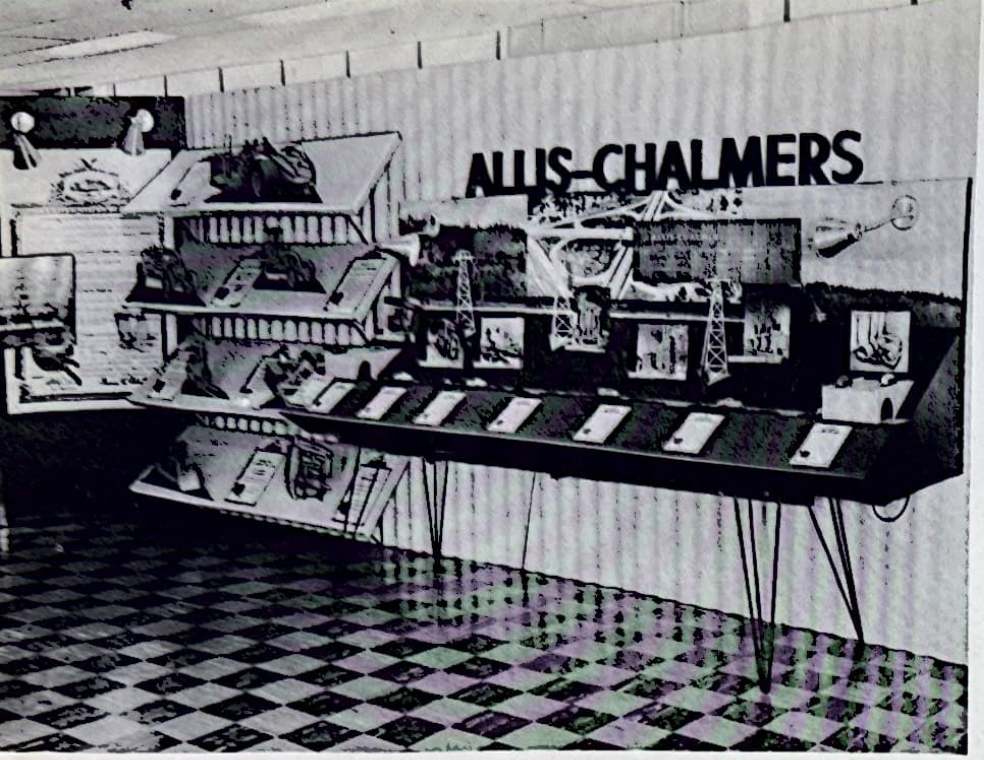
A branch may play host to dealer representatives on occasions other than the introduction of a new machine; for example, parts and service schools. The branch manager and his staff also go out into the field to work with the blockmen at meetings held within the blocks.

The St. Louis branch, like other A-C farm equipment branches, has some big dealers and some small ones. Schutt believes that the success of a sales organization is measured by how well the dealers and blockmen work together, year in and year out, to sell Allis-Chalmers machinery, parts and service.

What do the dealers expect from Allis-Chalmers? A well-designed, well-made product that meets the requirements of the farmers. Prices competitive with similar equipment sold by other companies. National advertising to support local sales activities. Training for dealer personnel. And the feeling that the company is ready to lend a hand with a special problem or a rush request.

That's why the branch house is there, to work with dealers and customers, to take its place in the chain that starts with the drawing board and the production lines through the shipping areas to the branch house, the dealer's shop and the customer's farm.

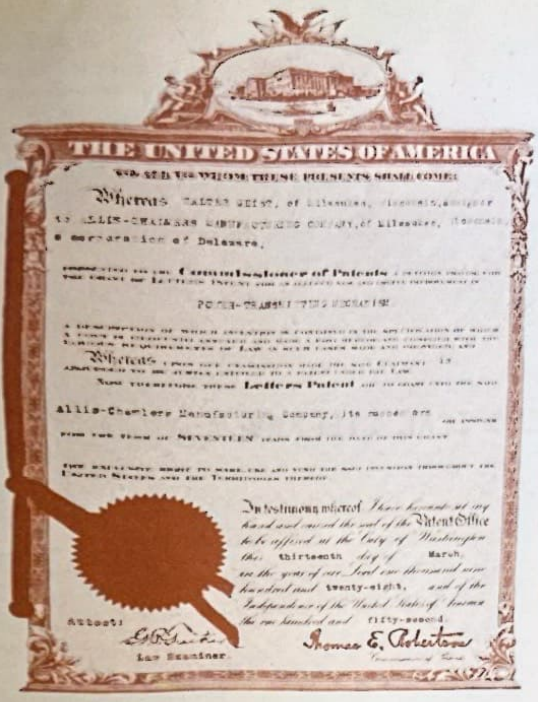
St. Louis branch was selected to try out new record-keeping system. Here (left to right) are Margaret Finn, Roberta Jacobs and Gusta Bay, parts department clerks, with files and "tubs" containing part of the branch's records.



Part of the Patent department's display as it appeared at LaPorte Works. Note the tie-in of patent material with photographs of products made at various A-C works.

FOR IMPROVED PRODUCTS

Local businessmen enjoyed the chance to take part in the patent program at Boston Works. With them are (left) J. L. Desmond, manager of industrial and community relations, Boston Works, and (nearly hidden) J. E. Kerwin, assistant general patent attorney, West Allis Works.


THE UNITED STATES OF AMERICA

Boston Works manufacturing department employes saw many of their plant's products in the exhibit. Shown below (left to right) are James Cadegan, Ray Martin, Edward McGrath, Americo DiBenedetto, Charles Price, Frank Harvey, Orlando Vittorini, Manuel Caravalho and Frederick Frueh.

Many A-C employes have seen the Patent department's traveling exhibit in its visits at various works. The exhibit was originally displayed at the Department of Commerce building in Washington, D. C. It showed some of the patents obtained for A-C product improvements.

Continuing as an activity of the Patent department is a program of panel discussions at various works. The discussions are aimed at graduate training students, engineering and supervisory personnel — the employes who have the greatest amount of contact with the patent system. The program demonstrates how patent service is provided to Allis-Chalmers operations.

While the patent discussions fit in with the scientific and educational programs at the plants, night sessions have been held with A-C foremen's clubs, engineering society chapters and local civic and business leaders. In addition to helping A-C people become more familiar with the patent system, the panels have stressed the importance of linking patent service with the company's commercial picture.

The patent system can be called one of the great contributions to the encouragement of creative thinking. Lincoln said "The patent system added the fuel of interest to the fire of genius in the discovery and production of new and useful things." Considering the new and useful things that have been developed since Lincoln's time, we must agree that the "fuel of interest" has been effective.

It should be just as apparent that the patent system has contributed to the welfare of Allis-Chalmers people. Why? Because at Allis-Chalmers patents are thought of in terms of commercially valuable protection for product improvements.

An example is U. S. Patent No. 1,662,-511, issued to Allis-Chalmers on March 13, 1928, for a power transmitting mechanism. This patent covered the system of multiple V-belt drives developed by Walter Geist, who later became president of Allis-Chalmers. Although the patent has since expired, it gave Allis-Chalmers sole right to make and sell what is marketed today under the name of *Texrope* V-Belt drives.

The patent itself is a government grant, provided for by the United States constitution. It gives the inventor of a new and useful idea the right to exclude others from making, selling or using his invention for a period of 17 years.

A substantial part of patent activity at Allis-Chalmers concerns the avoiding of any conflict with the patents of others. A-C's interest also involves the obtaining of patents which usually result from employes' making product improvements because of their thorough understanding of problems relating to A-C products.

There is no reciprocity between nations so far as patents are concerned. Therefore, A-C files patent applications in foreign countries according to its commercial activity in that land.

Since A-C looks at patents as a means for protecting product improvements, patents are a job security "plus" for A-C employes, resulting from creative thinking on the part of their fellow-employes. Patents are evidence of public recognition of creative thinking, just as suggestion awards and the Better Methods program are ways of stimulating creative thinking.

Creative thinking, in any job, at any Allis-Chalmers location, will go a long way toward improving the company's products and manufacturing processes. And the improvements, if protected by patents, will be reflected in a better sales position and greater job security.

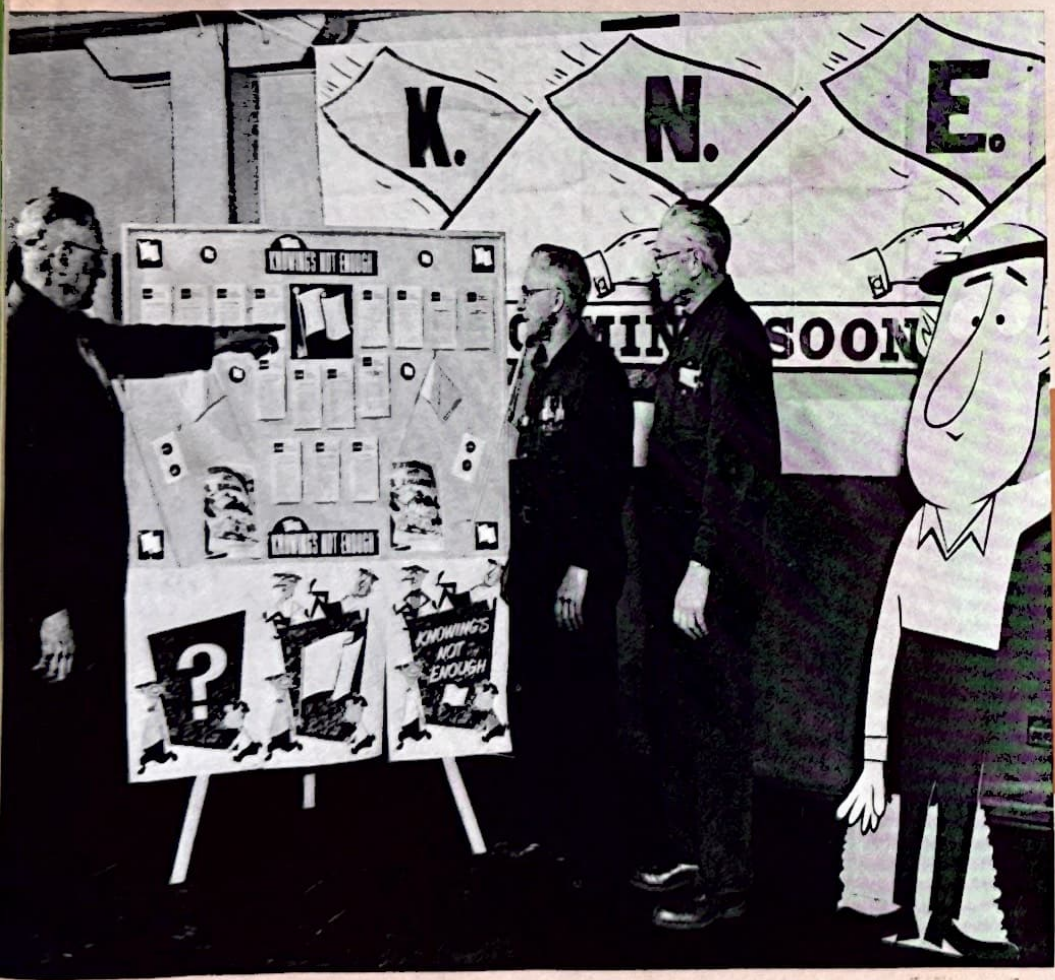
Recent innovation in patent work is use of recorder to aid engineer in transmitting patent application material to attorneys. System has reduced time necessary for preparation of patent application, speeded up Patent department's service. Left to right are A. M. Streich and W. B. Swartwout, Patent department, with C. D. Wilson, chief turbine design engineer, Steam Turbine department.

a-c scope

Box 512
Milwaukee, Wis.

It is seldom that a company has access to an accident prevention program with the universal appeal of "Knowing's Not Enough." The campaign, which will run through all of 1958, is built around a motion picture which will be shown to all Allis-Chalmers employes in the United States and Canada. The picture opens with a filmed message from A-C President R. S. Stevenson, who expresses this thought:

"...because of the tragedies which occur, I strongly urge all of us to take the message of 'Knowing's Not Enough' to heart and put it into practice so that we may come closer to our goal of an accident-free life here at Allis-Chalmers, in our homes and on the highway."



"Knowing's Not Enough" kicked off at LaCrosse Works in January with banners, buttons, yellow flags, posters and a "teaser" in the ACE Reporter, employe works publication. Shown viewing some of the materials which will be used in the company-wide accident prevention campaign are (left to right) William Koepcke, fabricating shop superintendent; Spence LaFore, drill press department foreman, and Theodore Schomers, warehouse department foreman.