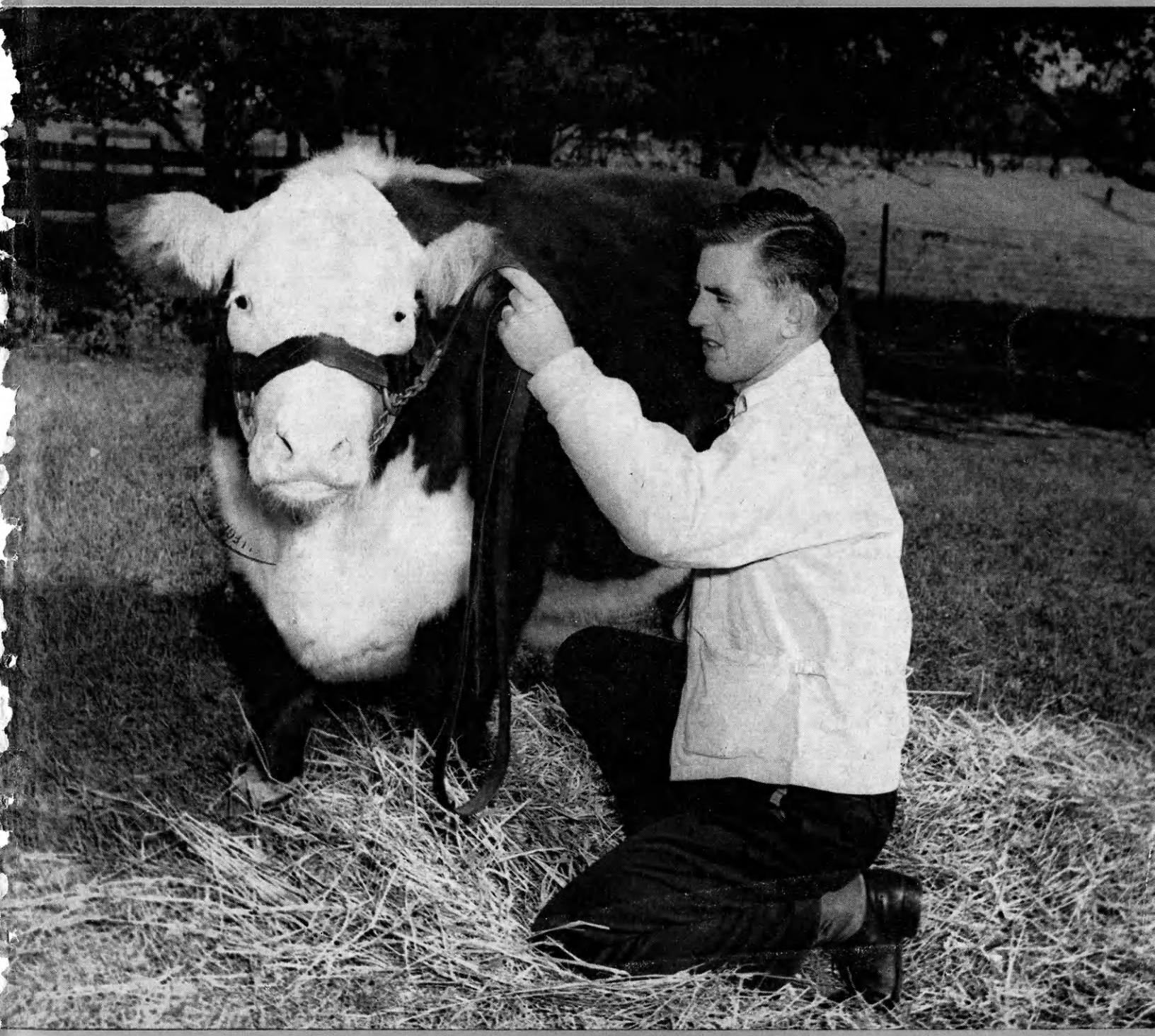


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COPY 1

THE KANSAS

Agricultural Student



Campus to GENERAL ELECTRIC

AIR CONDITIONING CHEMICAL ENGINEER

**D-Day Veteran John Stiefel concentrates on
G-E problems instead of chemical mortars**

After receiving his B.S. in chemical engineering at the University of Illinois in 1942, John Stiefel went into the Army Chemical Corps, landed in the sixth wave on D-Day, fought through France and Germany, mortared the Nazis, got mortared himself, and came out with a Purple Heart, a Bronze Star and a great eagerness to get back to the practice of non-destructive chemistry.

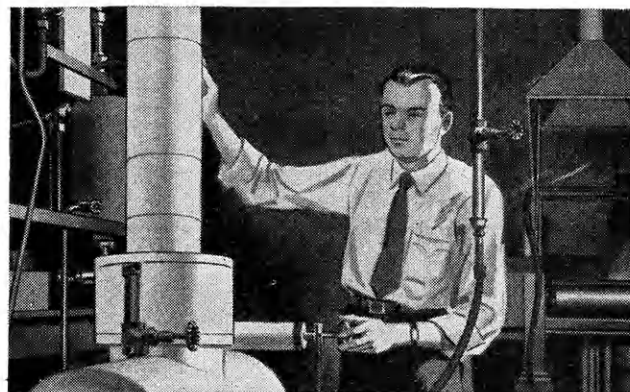
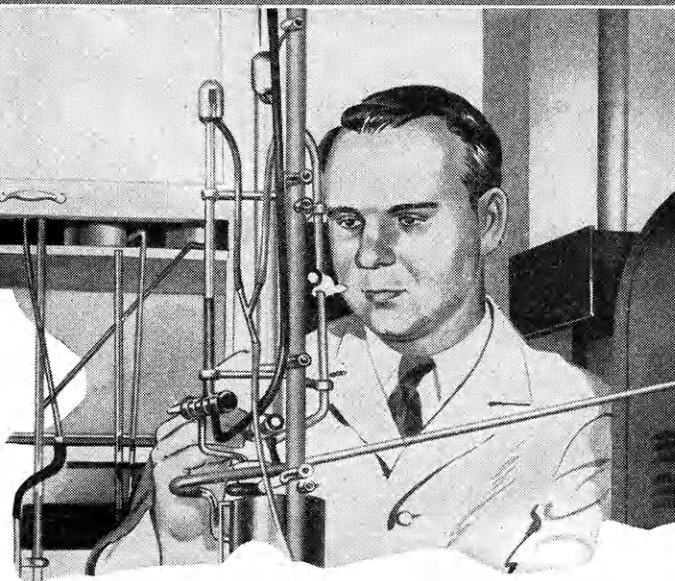
He spent three weeks travelling around the states from one employment interview to another. In the end he decided on General Electric—particularly the Air Conditioning Department in Bloomfield, N. J.

"I figured," he says, "that a company like General Electric, growing outside of purely electrical projects into such chemically-based fields as atomics, paints, and plastics, would offer all the chemical opportunities I could want. I wasn't wrong."

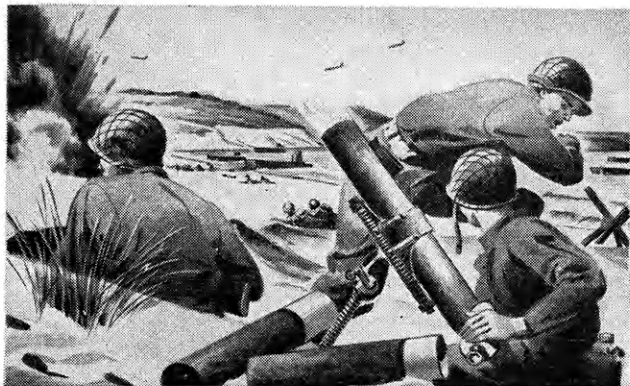
John joined the company in December, 1945, and went to work in the Bloomfield Works Laboratory. Although air conditioning is essentially the application of unit processes he had learned at Illinois, he had never had any specific training in the subject. He set out to learn about it and about General Electric. G-E courses in materials and processes and in sales analysis helped him.

At Bloomfield, John has helped establish the Works Laboratory, plan its expansion, and has prepared test methods for it. He is now the laboratory's Chemical Section Head and a consultant on chemical engineering problems for the Air Conditioning Department. With further expansion underway in personnel, equipment and floor space, John's job grows steadily.

For your copy of "Careers in the Electrical Industry," write to Department 237-6, General Electric Company, Schenectady, N. Y.



At Illinois John did some special work on distillation processes, but it has been his grasp on chemical fundamentals, he says, that has helped him most at G. E.



As commander of Company A of the 87th Chemical Mortar Battalion, John hit the Normandy beaches early on D-Day. He received five battle stars for service in Europe.

GENERAL  **ELECTRIC**



THE KANSAS
Agricultural Student
KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE
MANHATTAN, KANSAS

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On the Cover--K-State Steer Wins at Royal

By JAMES A. ORTON

He could be used to square the foundation of a building. Such was the impression of this writer after looking at Cee Kay, Kansas State's Hereford steer that won first place this year at the American Royal in the open class for Summer Yearling Steers. He placed fourth at the International Livestock Exposition, Chicago, in the same class.

On the front cover of this issue is a picture of James Collier, president of Block and Bridle, and member of the College Livestock Judging Team, holding this mass of beef on the hoof. It is hard to find points on which to criticize this animal, and he has been a headache to judges all over the country.

Cee Kay is sired by Brummel 6th, 3837291; his dam is C K Prairie Miss 10th, and he was calved May 1, 1946. He was given to the College while still a baby calf by John Vanier, owner of the C K Ranch at Brookville. A half sister to Cee Kay, the first calf sired by Brummel 6th, sold for \$1,000 while still a calf, and won blue ribbons at the first two shows in which she was entered.

This prize winning Hereford is hardly missed at home, because in 1946 John Vanier registered more Hereford cattle than any other rancher in the United States. Buyers at the ringside of the third annual C K Ranch calf sale held October 10, 1947, paid an average of \$448 for the 63 animals offered. These calves were sold without the benefit of brushing and fitting. At the 1947 Kansas Futurity sale held November 21, Tom Taylor, owner of the Walnut Hill Hereford Ranch, Great Bend, Kansas, paid \$6,000 for a C K Ranch bull. This is the highest price ever paid for a beef animal at a consignment sale in Kansas.

Managing the C K Ranch is Eugene E. Sundgren, who was graduated from Kansas State College in 1935. While at Kansas State, Sundgren played guard on the Varsity Football team which won the Big Six Championship during his junior year. He was a member of the Alpha Gamma Rho social fraternity, Alpha Zeta honorary fraternity and won Phi Kappa Phi recognition. He served on the Royal Purple board, Publications Board, and the Ag Student Staff.

John Vanier is president of the Hereford Cattle Breeders' Association of America. Two sons, Jerry, a sophomore in Milling Technology, and John, a freshman in Agriculture, are attending Kansas State College.

Cee Kay weighed 975 pounds when shown at the American Royal. He ran with a nurse cow until 10 months of age with free choice of a 1/2 corn, 1/4 cooked barley, and 1/4 oats grain mixture. In addition to this he was given one pound of linseed meal daily. This is the same ration fed all the College beef cattle.

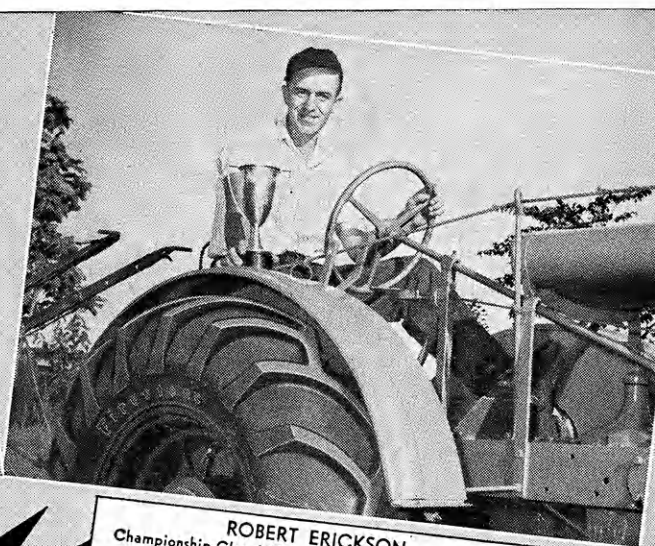
Surprising many people, including some members of the animal husbandry department, Hays No. 657 was crowned Champion Junior Yearling of the International Livestock Exposition held at Chicago during the latter part of November. He placed first in the open class for Hereford Junior Yearlings, and then out-classed the Shorthorn and Angus winners for the Championship.

This animal was purchased by the College in November 1946, when he was eight months old, from the Ft. Hays Experiment Station. Weighing 1220 pounds, he sold at Chicago to Wilson and Co. for \$518.50. He was bid in at 42 1/2c a pound by the packing company for a Chicago restaurant.

Kenyon Payne, Agron. '39, has been appointed Conway MacMillan Memorial Research Fellow in Botany for the academic year 1947-48 at the University of Minnesota.



HARRY SCHOGER, Plainfield, Illinois
Men's Class Winner in National plowing matches at Big Rock, Illinois, and Wheatland, Illinois



ROBERT ERICKSON
Championship Class Winner in National plowing matches, Big Rock, Illinois, and Wheatland, Illinois

Firestone

CHAMPION GROUND GRIPS

CHOICE of CHAMPIONS

IN ALL THREE 1947 NATIONAL
PLOWING MATCHES



GENE FERGUSON, Oskaloosa, Iowa
Open Class Contour Winner, Webster City, Iowa



CHAMPION Plowmen know that the performance of their tractor tires can "make" or "break" them in a plowing match. They must have tires that take hold and pull — on soft ground — on hard ground — on sod — on stubble. They must have tires that take a full, clean bite, a center bite — tires that plow right through under all conditions.

That's why winners in the three big national matches this fall (Big Rock, Wheatland, Illinois and Webster City, Iowa), plowed on Firestone Tires. They could not afford to gamble with a "broken center" tire that might let them down by clogging up with trash, slipping and spinning.

Firestone Champion Ground Grips will perform for you on every job just like they perform for champion plowmen. They always take you through faster, without slipping. That means time and money saved.

Specify Firestone Champions when you order a new tractor or when you buy replacements for your present tractor. See your nearest Firestone Dealer or Store today.

Only **FIRESTONE CHAMPION GROUND GRIPS TAKE a "CENTER BITE"**

College Mill Face Lifting Planned for Near Future

By BILL RICHARDS

The Kansas State College mill is due for a face lifting operation when the recommendations of an advisory board, composed of men active in the milling industry, are carried through to completion. The board, appointed by R. I. Throckmorton, dean of the School of Agriculture, and J. A. Shellenberger, head of the Department of Milling Industry, has suggested that the college mill undergo a complete modernization process during the next few years.

In the present day of changing fashion and scientific advancement, the milling industry occupies a position no different from any one of a hundred other phases of our industrial economy. Across the nation in-

dustry is expanding in a constant upward spiral toward greater production capacities. As each new machine or process is developed, an old one becomes obsolete. This necessitates constant replacements in the race to maintain the pace of modern plant design.

For years the process of milling grain has been advancing both technically and mechanically. The nation's mills have added more and more new machines in their search for greater efficiency in methods of operation.

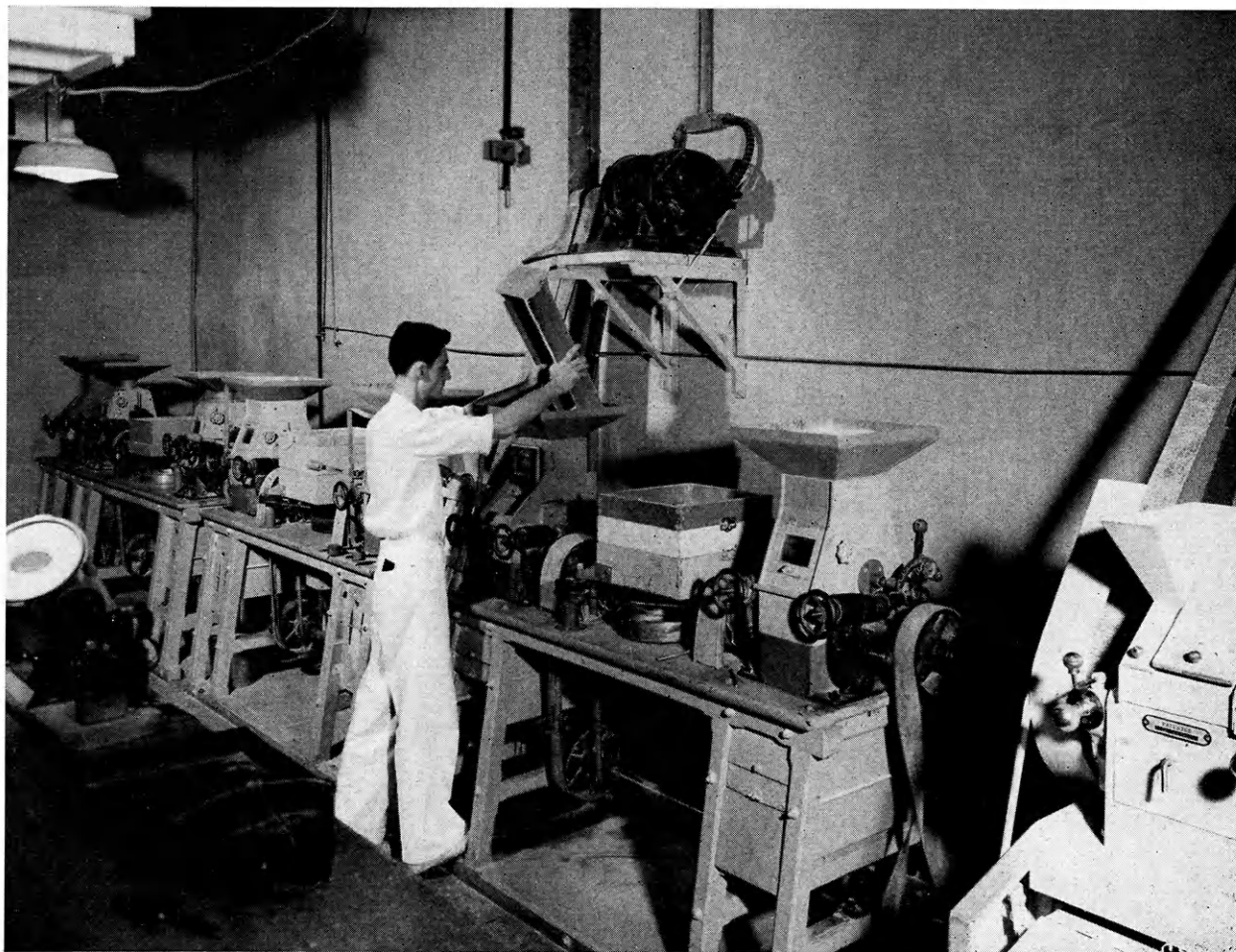
Meanwhile at Kansas State College where the only milling school in the United States is located, the student practice mill has gradually fallen behind the industry in type of equip-

ment. Although the college plant is complete in every detail, the machines are old and in many cases obsolete. In order that the future operatives in the milling industry may be trained in the technicalities and practical applications necessary to operate the equipment found in the modern mill of today, the advisory committee suggested the remodeling program for the college mill.

As the program progresses, old machines will gradually be replaced by modern equipment until the college mill affords an opportunity for Kansas State milling students to obtain the training and experience necessary for a job requiring practical knowledge of today's methods and machines.

The advisory committee, headed by J. W. Cain, president of the Midland Flour Milling Company of Kansas City, Mo., saw the need for assistance in selecting machinery and formulating a plan of procedure. Consequently, a second committee, com-

(Continued on page 11)



After the plant breeder has obtained a small sample of grain from a promising wheat variety, the grain is milled in this experimental mill to determine its milling qualities. The experimental mill, equipped to handle small batches of wheat, makes possible discarding inferior wheat varieties.

Mullen's Sound, Friendly Counsel Inspires Students



Dick Warren, Ag representative on the Student Council, and Dean C. W. Mullen work out plans for a coming Ag seminar. When Aggies need help in choosing electives, suggestions for an Ag activity, or personal advice, they turn to Dean Mullen. His friendly manner makes him one of the best-known men in the School of Agriculture.

By R. G. ALDEN

Aggies think of him as the man with the smile, the man they don't mind going to see even if they are on an "apologetic" mission. His pleasing personality and willingness to aid assures them of fair consideration and cooperation. He is the ag students' friend and they know it.

Clyde W. Mullen was born September 28, 1890, on a farm near Phillipsburg, and since boyhood has been associated in some way with agriculture. As a boy he farmed with his father and, unlike many boys reared on farms, he liked farming.

When his family moved to Oklahoma to farm cotton, he suddenly found the one type of agriculture which did not interest him. He still flinches when the term "cotton farming" is mentioned. The back-cracking toil of chopping cotton was the reason for his going to college instead of farming. One sizzling July day while chopping cotton he threw down his hoe, went to the house, and told his mother he was going to college in pursuit of an education.

He attended Oklahoma A. & M. College and received his Bachelor of Science degree from that school in

1915. Seeking further education he journeyed to Kansas State College, to receive his Master of Science degree in 1917. After this he served as grain supervisor for the United States Department of Agriculture in Kansas City for a year. Later he went to Great Bend where he worked as county agent of Barton County.

Soon after, he received an offer to become an instructor at Kansas State College and he came to Manhattan. Before he had been at Kansas State many weeks, he was offered the position of assistant editor of the Oklahoma Farmer-Stockman in Oklahoma City. He later became associate editor of this publication. At the same time he served as manager of the Farmer-Stockman Protective Association, an organization that investigated illegal activities used against farmers. Knowing this, students should be cautious in writing out excuses or trying to pull a sly one on the dean.

Dean Mullen spent 18 years with the Farmer-Stockman and in 1937 was offered the position of assistant dean of the agricultural school at Kansas State College. After 18 years of nearly continuous traveling, he

yielded to the desire to settle down, and accepted the position.

Since coming to Kansas State College, Dean Mullen has been a genuine friend to thousands of students. To him the career of the student is the most important thing. If a student is in a promising field and is interested, Dean Mullen will give encouragement in all possible ways. Seldom does one hear him giving advice. In most incidents he will question a student until the student arrives at the answer to his own problem.

He is happiest when a boy finishes college and has the opportunity to return to farming or ranching, as he believes that over a lifetime this offers more security and happiness than are afforded by most positions. Besides his diplomatic abilities, the factors which make Dean Mullen a good man for his position are his friendliness, sincerity, and interest in his work with students and associates.

Dean and Mrs. Mullen live in Manhattan and have twin daughters who were students at Kansas State College until 1939. At one time Mrs. Mullen was assistant registrar at the college, thereby making Dean Mullen and his family 100 percent Kansas Staters.

Dean Mullen is a member of Phi Kappa Phi, Gamma Sigma Delta, and Alpha Zeta honorary societies.

Thuma Receives Pathfinder Award

By HARRY MUDGE

Richard L. Thuma has been awarded the Pathfinder Corn Products Company Scholarship of \$300. Presentation of the first half of the award was made by Prof. C. D. Davis at the December Ag seminar.

The award was made on a basis of character, health, personality, and scholarship. The winner was designated by Dr. H. E. Myers, head of the Department of Agronomy.

Provisions of the scholarship state that the winner shall work during the semester under Dr. L. A. Tatum, who is doing hybrid corn research here. An opportunity to work for the Pathfinder Corn Products Company at Fairbury, Nebr., during the next summer is also offered, but is not a compulsory part of the scholarship. Thuma will be eligible for a second scholarship next fall.

Clean Wind Is Kansas Goal; Agronomists Begin Research

By SAM A. KOURY

Wide, brown plains; distant, wind-swept prairie swells; deserted homesteads; skies black with the dust of thousands of once fertile farms—how can we soon forget them all!

In those bleak, drab days of the early thirties, black blizzards broke the hearts of many a plains farmer. They filled the highways with a homeless, wandering people bent upon but one errand—to find a stable land, stationary ground upon which they could anchor their homes, families,

into basic laws and principles relating to agriculture and to improve and facilitate the marketing and distribution of agricultural products."

A rather general statement, this is, covering a multitude of sins, but it has led to the selection of the Kansas Agricultural Experiment Station for furthering research into wind erosion and its effects.

At present, personnel assigned to work on this wind erosion project are setting up offices and reviewing simi-



Kansas has long been known as a windy state. The agronomy department is arranging for a more constant supply of wind by constructing a wind tunnel like this one. The unwieldy contraption will be used in wind erosion control studies sponsored jointly by the United States Department of Agriculture and Kansas State College.

and crops. "Okies" and "Arkies" we called them, but they were people just like you and me. Only their struggle against tumbleweed and ever-shifting topsoil was far more futile. Very few in America did not know and feel the effects of the "Dust Bowl".

At last, through months and years of scientific struggle, man is beginning to hold his precious lands. One of the greatest boons to research is Public Law 733, popularly known as the Flannagan-Hope Bill. This bill has been officially designated as the Research and Marketing Act of 1946. Section 10 of the bill reads, in part:

"... to provide further research

lar work done in England, Canada, and California. The project calls for two professional agricultural engineers, two soil physicists, and four sub-professional men. Since the experiment is to be cooperative between the United States Department of Agriculture and the College, the department has assigned two professional ag engineers to the staff.

Austin W. Zingg, supervisor of the project and an ag engineer, was formerly with the Missouri State Department of Research and Development. He also was connected with the Erosion Experiment Station at Bethany, Missouri. The second engineer of the pair is E. A. Engdahl from the New

York Erosion Experiment Station at Ithaca. Both men have been in research since 1934 and are with the Soil Conservation Service.

In general, the purpose of the project is to study problems regional in character, specifically, plains and wind erosion problems. Laboratory type experiments and field studies at this location will be carried out through the use of soil blowing tunnels.

To the average person, a soil blowing tunnel is a rather vague phrase. Not to be confused with a "wind tunnel", it is merely a long box-like affair that rests directly on the ground. Wind is created by a power driven fan. The ground itself serves as the fourth and bottom side of the tunnel.

Rather large scale soil blowing tunnels, of the type shown in the photograph, will be used in the field where wind work is prevalent. They are portable and can be moved from place to place with relative ease.

With the aid of the tunnels, experimenters hope to perform analytical studies to gain a knowledge of development of new or improved methods of control of wind erosion and sand dune areas. Not only will actual farms in different sections of the state serve as testing grounds, but experimental plots with different crop spacings and various types of vegetation also will be set up.

It is through the use of these devices that the project members will study mechanical composition of soil material and conditions of the soil surface. Development of techniques to determine relationships of wind velocities and direction to soil structure, texture, moisture content, and vegetative content will result from these exhaustive tests.

Dr. H. E. Myers, head of the agronomy department, has been selected as collaborator of the experiment. Accompanied by Mr. Zingg, he left November 15 for Amherst, Mass., and Swift Current, Saskatchewan, Canada to review work being done there. They will be gone two weeks, and in that time hope to utilize any developments being made and to build on what the various organizations have done. In December, the pair will make a trip to California to review experiments conducted by the Soil

(Continued on page 24)



Jerry Moxley trains one of his calves to show. Last spring, this heifer was auctioned at the Kansas Hereford Association banquet. Mr. Moxley donated the \$4,300 sales price to the Morris County 4-H Club Camp.

Moxley, Veteran Extension Man, Raises Champ Cattle

By HAROLD BROWN

Nestled in the Flint Hills southeast of Council Grove is a 920-acre cattle ranch. At first one may not realize its importance, but soon he will discover that it is Moxley Hall Ranch, owned and operated by Jerry Moxley, and the home of some of the best registered Herefords in the nation.

Cattle were also of paramount importance to Jerry's dad, J. F. Moxley, who helped drive cattle 900 miles to Council Grove when he was seven years old. This was during the old trail days. The elder Mr. Moxley stayed briefly in Council Grove, and then moved to Osage County. Later, he moved to Kingman County, and finally homesteaded a farm in Oklahoma, which he still owns.

Jerry was born and raised in the vicinity of Osage City, where he attended high school. He enrolled at Kansas State College in the fall of 1917, but his schooling was soon interrupted by the advent of World

War I. After the war, Jerry worked with Hereford cattle at the Colonel Taylor plantation at Versailles, Ky., for two years. He then returned to Kansas State and in 1922 was graduated with a degree in animal husbandry.

An interesting sidelight to Mr. Moxley's schooling is the fact Dr. A. D. Weber, present head of the Department of Animal Husbandry, was his roommate throughout Jerry's college years.

After he received his degree, Mr. Moxley was privileged to manage a horse and Hereford farm near Leonardville.

After three years of managing the farm, Jerry became county agent in Brown County, a position which he held for 16 months.

It was then that Mr. Moxley accepted a job with the college as extension livestock specialist, and served with Extension for 20 years. During this period Mr. Moxley had

the opportunity to become acquainted with 25,000 cattlemen in Kansas. His job was to carry the recommendations of the college and its experiment station into the field for practical application. He resigned from the extension service on January 1, 1945, because his registered Hereford herd had become too large to allow him to continue his extension job.

Jerry Moxley started his purebred Hereford herd in 1934 near Manhattan, as a sideline to his extension job. In that year he purchased 33 of the best females he could find, and then started a 7,000-mile search to find a suitable herd bull. Speaking about this long trek, Mr. Moxley laughed, "My wife thought we were on a honeymoon, until I started opening so many gates."

In 1935, Mr. Moxley purchased the ranch which is now his family's home. The farm was under a manager from 1935 to 1945, when Mr. Moxley resigned from extension service and moved his family there. The original acreage of the ranch was 370 acres, but this has since been increased to 920 acres. Next year, he plans to keep 100 purebred cows, which is approximately the capacity of the ranch.

In giving his reasons for locating in the Flint Hills, Jerry explained, "The Flint Hills district presents the best balance between grain, forage crops, and grass of any district which I have surveyed in several states." About 200 acres of the ranch are rotated between alfalfa and silage crops. Also, he is seeding about 150 acres of his upland to brome and Lespedeza in order to extend his pasture season.

An irrigation plan has been put into operation on Moxley Hall Ranch. A pump is located in Rock Creek, and 20 acres have been irrigated in the past. The irrigation system is equipped to handle 70 acres of cropland if necessary.

From his start with 33 cows in 1934, Jerry used sires from the Wyoming Hereford Ranch. From this breeding, he has developed the very high quality breeding you may see on his farm today. He is still using six-year-old WHR Royal Treadway 8th, which has proved to be his best sire for fixing "type" in the herd. A young bull which is showing promise of becoming a superb sire is WHR Royal Treadway 75th, a junior yearling. Jerry chuckles, "People come

(Continued on page 31)

Steele Wins Morrell Prize For Meat Judging Record

By DEAN PROCHASKA

Bob Steele, animal husbandry junior, was awarded a specially designed leather traveling case by John Morrell and Company at Topeka, November 19. The case was awarded to the advanced meat student with the highest record for the semester in judging carcasses and wholesale cuts.

The presentation was made at a dinner following a contest at Morrell's Topeka plant earlier in the day in which members of the advanced class judged beef, pork, and lamb carcasses, and hams, bacons, beef ribs, and chucks. This is the second year that Morrell has offered the contest which comes as a final preparation for the meats team before competition at the International Livestock and Meat Exhibition at Chicago.

R. M. Owthwaite, vice-president of the company and manager of the Topeka plant, spoke following the steak dinner at the Green Room of the Hotel Jayhawk. He welcomed his Kansas State guests and presented D. L. Mackintosh, associate professor in animal husbandry and coach of the meats team, with a check for \$100 to be used by the team during their trip to the International. Mr. Owthwaite said he hoped the money would

not be used for traveling expenses but would be spent to help the team members have a good time.

Will J. Miller, State Livestock Sanitary Commissioner, told something of his recent tour of Mexico, inspecting American and Mexican progress in the control and eradication of foot and mouth disease.

Also attending the dinner were agricultural representatives of the Chamber of Commerce and representatives of the various departments of the Morrell plant.

Guests at the dinner were given cigarette lighters and decks of specially designed playing cards. Professor Mackintosh was given a "hot shot" electric shocker to help keep sleepy students awake in his classes.

L. P. Stream of Kansas City, regional government grader, officially judged beef grading and judging at the contest.

Gay Tuis, agricultural service manager for the Topeka plant and a Kansas State graduate, arranged details of the contest which began with judging and grading during the morning. Following lunch as guests of Morrell, contestants wrote reasons in one of the plant conference rooms.

Assisting Coach Mackintosh during

the contest were Don L. Good and Robert Henrickson of the animal husbandry staff and Douglas George, animal husbandry senior.

Contestants were Harold T. Black, Mike Burns, George R. Dunn, Hobart N. Falen, Donald W. Larsen, Howard B. Lindholm, Darrell C. Mounkes, Hal Ramsbottom, Bob Steele, and Thomas W. Sullivan.

Similar contests are held at the Ottumwa, Iowa, and Sioux Falls, South Dakota, plants of Morrell and Company for meats students of agricultural colleges in those states.

Ag Grad Returns From Peru Station

By KENNETH FRANTZ

Dr. Charles Swingle has just returned from Peru where for several years he has been director of the agricultural experiment station at Tingo Maria.

"Estacion Experimental Agricola de Tingo Maria" is located in the undeveloped section of the upper Amazon Valley where it is believed possible to establish an important agricultural region. There the inhabitants are in need of information as to adapted crops and methods for growing them.

Doctor Swingle, majoring in horticulture, was graduated from K. S. C. in 1920 and has been employed most of the time by the U. S. D. of A. since graduation. Before going to Tingo Maria, he was engaged in the program of collecting milk weed floss for use in making life belts for navy aviators. Prior to that time Doctor Swingle was located in Manhattan where he had charge of the Soil Conservation Nursery located southwest of Manhattan.

Doctor Swingle does not plan to return to Tingo Maria, but will probably be engaged in some phase of agricultural research work in this country.

Three Aggies have been named for the 1947-48 edition of Who's Who Among Students in American Universities and Colleges. Those honored are Hal Ross, Dean Schowengerdt, and Dick Warren.



The photographer didn't have to ask this group to smile during the awarding of prizes at the banquet following the Morrell meats judging contest. Shown above are D. L. Mackintosh, coach of the meats team; Bob Steele, winner of the award; R. M. Owthwaite, manager of the Morrell plant at Topeka; and Gay Tuis, agricultural service director for Morrell.

Flannagan-Hope Act Sponsors Marketing Study

By GLEN G. ALLEN

Should the farmer receive a larger share of the consumer's food dollar than the 52 percent which he received in July, 1947? Data in The Marketing and Transportation Situation, published by the Bureau of Agricultural Economics in September of this year, indicate that the farmer's share of this dollar averaged only 40 percent from 1935 to 1939, and that the marketing charges as a percentage of retail costs were 59 percent. During the war years, 1942 through 1946, the average amount of the dollar which the farmer received was raised to 48-54 percent, the remainder going to cover marketing costs.

Whether or not marketing should

claim such a high percentage of the consumer's food dollar is a question which is often asked, but which is as yet unanswered. Practical solutions to this problem and to many other problems concerned with the marketing, processing, and distribution of agricultural products are being sought through studies at the various experiment stations throughout the United States. Many new studies of these questions are a result of the Research Marketing Act, often referred to as the Flannagan-Hope Act, which was passed by the 79th Congress in August, 1946. This act authorizes the appropriation of funds to be used for further research into the basic laws and principles of agriculture and to improve and facilitate the marketing

and distribution of agricultural products.

Research resulting from this act is not expected to bring immediate relief to the consumer, but it will furnish factual data with which many of the inefficiencies of our present agricultural marketing system may be corrected.

Efficient production and utilization of products are essential to the health and welfare of our people. Sound and prosperous agriculture and rural life are indispensable to the maintenance of maximum employment, and national prosperity forms the basis for the enactment of this act. It is an attempt to assure agriculture a position in research equal to that of industry, an assurance that will aid in the maintenance of an equitable balance between agriculture and other sections of our economy.

The act is divided under two titles. Title I provides for research to be conducted principally by the United States Department of Agriculture and the state experiment stations. In accordance with Title II, research is also undertaken by these two agencies, but other public organizations, private organizations, and individuals may also conduct research in cooperation with the government. The first funds to be used for this research were appropriated by the 80th Congress in July, 1947. The appropriation amounted to \$9,000,000 for the fiscal year beginning July 1, 1947. Of the funds provided for under Title I, 20 percent must be used for marketing research.

The Department of Agricultural Economics, assisted by the poultry and chemistry departments of the Kansas Experiment Station, is cooperating in the marketing phases of this research. Six projects are being studied under the supervision of Professors George Montgomery, C. P. Wilson, Paul L. Kelley, and Joe W. Koudele of the Department of Agricultural Economics; Thomas B. Avery of the Department of Poultry Husbandry; F. A. Kummerow of the Department of Chemistry; and Karl G. Shoemaker of the Extension Service. The following marketing projects are being undertaken:

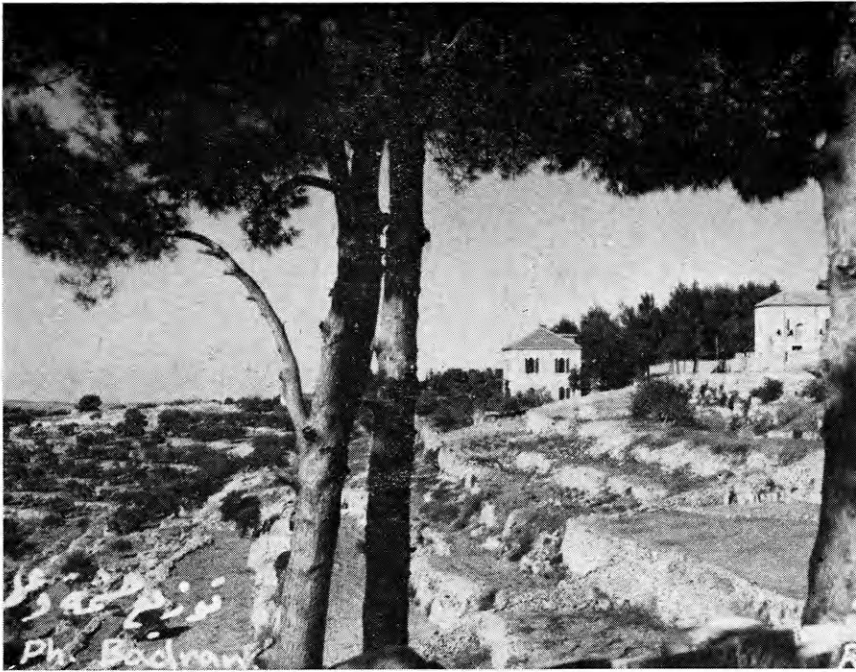
1. An Economic Study of the Marketing, Processing, and Utilization of Meat in Kansas.

2. Marketing of Kansas Potatoes,

(Continued on page 12)



Members of the Alpha Gamma Rho social fraternity duplicated a familiar agricultural scene to win the house decoration contest during homecoming festivities. Kansas State (Silo Tech) nearly upset the favored Nebraskans to make prophets of the AGR's.



Agriculture in Palestine is not a simple matter. Samir Shadid, junior in Agriculture, presents this glimpse of farm conditions in his native land. Shadid hails from TulKarm, Palestine.

Shadid Describes Palestine Farming

By SAMIR SHADID

Invariably as we glance through the headlines of our daily newspapers, we read accounts of events in Palestine. Every student of world politics has an opinion on the Palestine question. However, few know a great deal about the area or the background of the difficulty.

Feeding two million people on two million acres is the problem facing the Palestine government as well as the people. The government looks into the future, the people think of today—everyone is trying to find a solution.

Palestine is a strip of land forming a part of the Eastern borders of the Mediterranean. It covers 10,000 square miles, or equals about one-seventh of the area of Kansas. The climate is temperate, and the rainfall which occurs from the beginning of November to the end of March ranges from 8 to 24 inches according to locality and season. However, it is highly changeable and unpredictable. It may fall early or late in the season, may be well distributed, or come in downpours. The country may have water clogging or drought, or have them both in the same year.

Although only two million acres are under actual cultivation with a possibility of increasing the area to three million acres, the country is predominantly agricultural, with more than 50 percent of all the population living on the farm. This is not the whole story. The country, being practically devoid of natural resources, has to depend on its agricultural products as the source and stabilizer of its economy. When there is a crop failure, the town people as well as the farmer suffer, and temporary depression sets in.

Producing Areas

The country is divided into three producing areas: the plains next to the coast, the mountains inland, and a semi-arid portion, constituting a little less than half the country, in the southern part. This part receives an average of 5 to 7 inches of rain. Thus, farming is a hit and miss proposition. In this section the comparatively early maturing barley constitutes the main crop. Although barley was never king as is corn in the United States, the failure or success of the crop means happiness or poverty to thousands of people.

The coastal plains is the main producing area in the country. In this area our main cash crops—the citrus trees, wheat, sorghum, water melons, and vegetables are raised. The prices of field crops do not warrant irriga-

tion, so irrigation is practiced only when citrus trees and vegetables are raised. Water is pumped from artesian wells excavated for the purpose.

The range of mountains which starts in the northern part and continues south to include about two-thirds of the country borders the eastern producing area. The mountains, which range from foothills to 3,000 feet, are badly eroded. Cereal crops do not thrive well in this area except when the climatic conditions are favorable and the rainfall is well distributed. However, fruit trees and olives thrive and give good yields. Planting and raising those trees is not simple. The land has to be well terraced and many stone walls have to be built. Sometimes there must be a stone wall built around each tree to keep the shallow soil from eroding. I have often seen it necessary to blast away rock to get down to soil in which to plant a tree. Most of the olive oil, grapes, figs, peaches, plums and apricots come from this area. The country produces from 10,000 to 15,000 tons of olive oil every year, most of which is used in soap manufacture or as an edible oil in fat substitutes.

East of the mountains is the Jordan Valley, where there is a very narrow strip of land which can be called the greenhouse of Palestine. This area is below sea level and stays warm all year. Bananas and vegetables are raised here. The vegetables which could not be raised successfully during winter in other parts of the country yield a good crop in this part.

Fertilizer Use Increasing

Maintaining soil fertility is a problem. The average farmer does not keep enough livestock to supply organic manure, so the organic content of the soil is very low. The growers of citrus trees have difficulty in securing the manure which is necessary for their trees. Chemical fertilizers are gaining in popularity. They are extensively used for vegetables, citrus trees, and, to a limited extent, cereals and fruit trees.

We export about 10 to 15 million boxes of citrus fruits every year to Europe. During the war, exporting the fruit was impossible and people fermented the fruit and used it as manure. Truckloads were sold at \$2 and \$3 a ton.

This experience caused the govern-

(Continued on page 22)

Kelly Renews Grub War, Outlines Plan of Attack

By DON ALEXANDER

"This year of all years, we must conserve feed and farms must handle their cattle as efficiently as possible. Cattle grubs have already appeared in southern cattle shipped into Kansas and should be treated immediately. There are power sprayers in every county in Kansas and a considerable number in Oklahoma and Texas. Three to four million head will be treated for cattle grubs this year." So

trol of cattle grubs and nodular worms in sheep. The major portion of this fund was used in developing the cattle grub program and in demonstrating the use of power-driven spraying machines.

The success of the spraying method for cattle grub control is self-evident. More than 400 power-driven sprayers are now in use by county agents, cattlemen, dairymen, and general farmers throughout the state. Also



Dr. E. G. Kelly demonstrates grub control at an extension meeting. "My classroom," says Dr. Kelly, "is a corral in a practical farmer's pasture; my students, farmers seeking to improve their management practices."

spoke Dr. E. G. Kelly, extension entomologist, during the livestock insect control hop-off program.

Doctor Kelly's all-out warfare on cattle grubs dates from 1939 when he first used a new insecticide called rotenone on some badly infested calves. The experiment proved effective. He recommended this treatment to a number of cattlemen in Harvey and Butler counties who treated about 5,000 head that winter.

During the winter of 1946-47 and summer of 1947, more than 500,000 head of cattle were washed or dusted with rotenone.

In 1943 the Kansas legislature voted appropriations to be used for the con-

tinuation of the cooperative control of cattle grubs and nodular worms in sheep. Reports received by Doctor Kelly this fall indicate that many farmers are using hand sprayers in an effort to rid their herds of the cattle grub.

The 1947-48 livestock insect control hop-off program was broadcast over station KSAC November 13. Attending this meeting in Manhattan were many national, regional, and state entomologists as well as several nationally known livestock authorities. The fight against insect pests gained much impetus at this meeting.

Bulletins and circulars may be obtained from the Kansas State Extension Service for the proper treatment of livestock to control various insect pests. An eight-point attack on insect pests outlined by Doctor Kelly is as follows:

1. Have cattle and other livestock free from parasites this winter so they may utilize roughage and feed to the best of their ability.

2. Remove cattle grubs this winter so not one grub will remain on the farm to change to a heel fly next spring. Spray or dust with rotenone. Cattle grubs interfere with the growth of calves.

3. Get rid of lice so that calves will grow into strong, young animals and be in the proper condition to utilize grass in the spring.

4. Destroy the tiny black horn fly with DDT when it begins its attack on cattle in early summer. If this is done, cattle will rest and enjoy their feed.

5. Spray barn with DDT. Flies cannot live in a sprayed barn.

6. Treat sheep so they will be free from parasites and make better use of their feed.

7. Treat old sows, shoats, and small pigs with the newly discovered remedy, BHC. One spraying or dipping in BHC will cure mange and keep the animals free for many months.

8. Last and most important—watch all calves for the appearance of grubs in the spring. Grubs will appear in native Kansas cattle about mid-December to February. Treat with cube when the grubs begin to show. Use 7½ pounds of cube in 100 gallons of water, or dust with 1.66 percent rotenone dust. Do not use 1.66 percent rotenone in water.

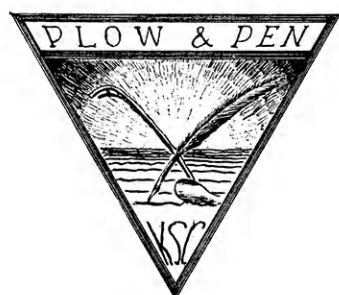
Kansas is well protected by quarantines which prevent the entry of infested livestock from other states, and a well organized veterinary service safeguards Kansas livestock from death-dealing epidemics.

Perhaps the happiest visitor in Kansas last month was Drew Pearson. The people of Kansas had just added more cars to the Friendship Train than any other state along the train's journey. The Friendship Train, which Mr. Pearson inspired, was carrying precious food to the millions facing starvation in Europe and the nation's breadbasket was anxious to preserve peace thru world brotherhood.

'Plow and Pen' Titles New Ag Journalists Club

By WILLIAM S. BORK

Plow and Pen is the name chosen for the new departmental club recently organized in the School of Agriculture. The club was formed by a group of students enrolled in the new



agricultural journalism curriculum and at present is composed of 16 charter members. The officers are president, Philip Sanders; vice-president, Don Alexander; treasurer, Paul Gwin; secretary, Norville Gish; and reporter, James Orton.

The new organization will promote the accurate and timely reporting of news in the field of agriculture. It will also endeavor to unify and set a high scholastic standard for those interested in farm writing as a profession. If desired, the club will assist in giving publicity and news coverage to various college farm activities.

Membership is not confined to those enrolled in the ag journalism curriculum but is open to anyone whose major interest lies in that field. Of the faculty, two are charter members: Prof. Ralph Lashbrook, head of the Department of Industrial Journalism and Printing, and Asst. Prof. Elbert B. Macy, experiment station editor. Mr. Macy is faculty adviser.

An attempt will be made later to interest other colleges in forming a regional or national organization. Iowa State, Oklahoma A. and M., and Wisconsin along with Kansas State are among the few who specifically offer a curriculum in agricultural journalism. The curriculum here was added in the fall of 1946.

At a luncheon held recently in

Thompson Hall, Professor Lashbrook told how the Ag school and the journalism department had cooperated in training ag writers, even before the curriculum was considered, and of the large number of Kansas State graduates now leaders in that field.

A walking plow and a quill crossed on a triangular insignia make up the emblem of the new club. The design for the insignia was submitted by Winston A. Schmidt, senior student in architecture, and approved by Plow and Pen members.

COLLEGE MILL FACE LIFTING

(Continued from page 3)

posed of operative millers, was selected. Roy K. Durham, technical service director of the Miller's National Federation, was chosen to lead the operative group.

Last summer, the operative committee met with the milling faculty on the K-State campus for the purpose of inspecting the equipment now in use. Following the meetings, the operative committee submitted their report to the original advisory group for action. The recommendations of the inspecting millers were based on actual conditions in the milling industry. The program will be de-

veloped with the object of providing a thorough program of education and research.

The plan of the combined committees calls for a long range program. The complete modernization process will probably be projected over a period of two years. Although the plan of operation is the work of the advisory and operative committees, the actual installation of the machines will be carried out by the College milling staff.

Finances for the project have been obtained partially but much of the total cost remains to be secured. As a start toward the success of the venture, the Kansas legislature has appropriated \$10,000, while the Miller's National Federation has shown interest in the project with an initial contribution of \$5,000.

Further plans for the financing of the modernization operation include solicitation of additional funds from firms engaged in the milling business. In the past, it has been the policy of certain major companies interested in milling to contribute large sums to the college for the purpose of research. It is from such sources that much of the remaining financial aid is expected to come.

Furnish Seminar Room As Tribute to Grimes

By GLEN G. ALLEN

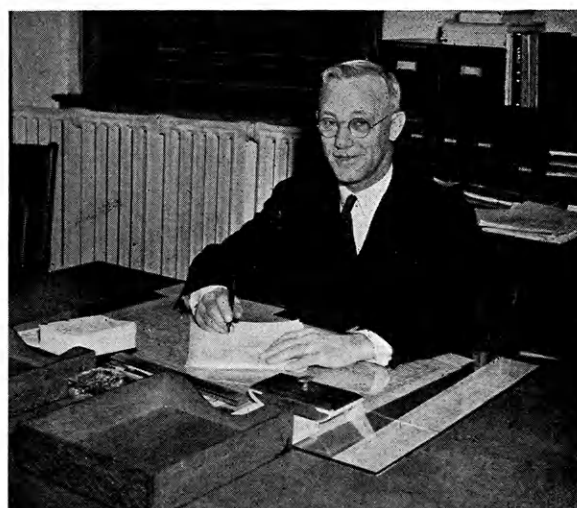
As a memorial to the late Dr. Waldo E. Grimes, former head of the Department of Economics and Sociology, Room 313 in West Ag is to be fitted for use as the Waldo Grimes Memorial Seminar Room.

The room was used by Dr. Grimes as a seminar room for 20 years. In the room there will be a library of books and periodicals on economics, sociology, and business administration. The books are to be purchased from time to time from a Waldo Ernest Grimes Memorial Fund made up of contributions.

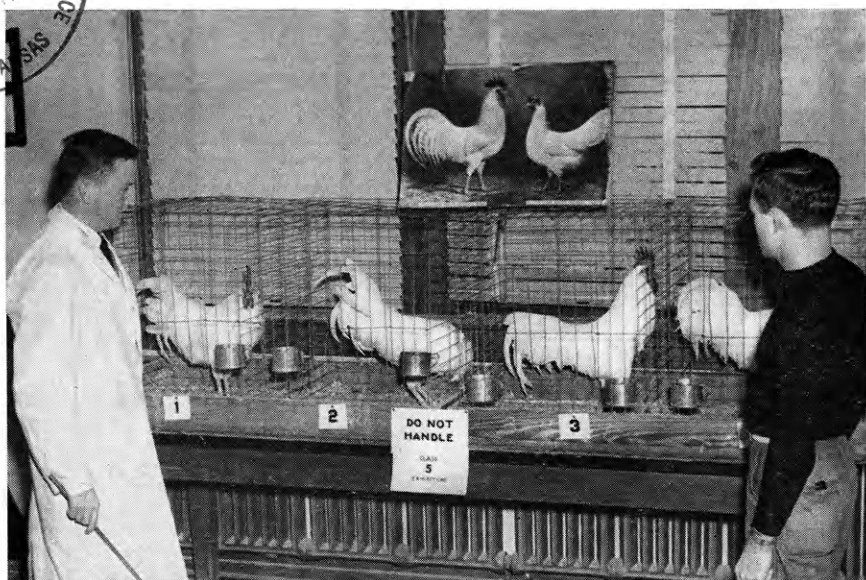
An oil portrait of Dr. Grimes, contributed by his family, is to be hung in the room. The portrait of

Dr. J. E. Kammeyer, former head of the economics department, will be transferred to the seminar room.

To safeguard the memorial and to supervise its care, use, and improvement, a committee has been set up in the department. Members are Dr. F. D. Farrell, Dr. J. A. Hodges, Prof. C. R. Jaccard, and Prof. R. C. Hill.



DR. W. E. GRIMES



"Now compare this Number 3 bird with the ideal", explains Tom James, newly-elected president of the National Collegiate Poultry Club, to Max Deets, freshman in Agriculture. The occasion was the all-school poultry judging contest, and the Number 3 bird did place first in the class.

Gleue Brothers Dominate Poultry Judging Contest

By DON MCWILLIAMS

When the feathers stopped flying after some 110 would-be prize winners investigated the possibilities of the feathered representatives, Poultry Science Club officials started sorting placing cards and adding the scores of the competitors. Let's glance at the results of the student poultry judging contest, held November 22.

In a way, the contest was largely a family affair as the Gleue brothers of Leroy walked off with the major prizes. Richard Gleue coasted to the junior division championship while Fred was but three points off the pace in the senior division for a second place victory.

Another event adding to the drama occurred when Robert Watson of Independence, Mo., judging in the junior division proved that the senior judges weren't so smart after all when he made the highest score in the production section.

In the junior division, Richard Gleue won first place by scoring 828 out of a possible 900 points. Don Stamback was second and Forrest Stockton and Keen Umbehr tied for third place.

In the senior division, John Tasker was first, scoring 1067 out of a possible 1200 points. Fred Gleue was only three points behind for second place, and Victor Dewhirst was third.

The contest included four classes of production, three of exhibition, and two classes of live market poultry. The seniors also graded 20 dressed market birds, 50 eggs, and classified 20 birds on an R. O. P. selection basis.

Prizes included more than \$100 in cash plus a variety of merchandise awards.

FLANNAGAN-HOPE ACT

(Continued from page 8)

Melons, Onions, Fruits and Minor Crops.

3. Development and Analysis of Improved Techniques for Marketing Eggs.

4. A Study of Factors Affecting the Seasonality of Milk Supplies and Prices.

5. Marketing Slaughter Livestock by Carcass Weight and Grade.

6. Place of Frozen Food Locker Plants and Home Freezer Units in

the Slaughtering, Processing, Distribution, and Consumption of Meat.

The first two projects are supported by funds allocated directly to the experiment stations. Money for the third project comes jointly from the experiment station and regional research funds. The last three projects are financed by funds of the North Central Region of which Kansas is a member. Other states in this region are North Dakota, South Dakota, Nebraska, Missouri, Iowa, Minnesota, Illinois, Wisconsin, Michigan, Indiana, and Ohio. Experiment stations in these states are also conducting research on the last three projects, and all results secured by them will be combined and issued yearly.

The Flannagan-Hope Act, Title I, Section 10, also provides for research in the utilization of agricultural products. This work is to be done by the laboratories of the Department of Agriculture. The Secretary of Agriculture may enter into contracts with public or private organizations and individuals in order to carry out special research studies.

As the act states in substance, agricultural production research is considerably ahead of marketing research. The Flannagan-Hope Act is a major opportunity to bring agricultural marketing research up to a level more nearly equal to that of production research. It provides for the most comprehensive study in the field of agricultural marketing ever undertaken by our experiment stations.

Emery Castle really blinked during the last assignment period. As soon as he had completed assigning Wayne Harris, freshman in the two-year ag course, a student sat in the chair opposite him and said "My name is Wayne Harris. I'd like to enroll in two-year ag". After he caught his breath, Emery came up with the solution. The second Wayne Harris is now known as Wallace W. and profs. no longer dream of mistaken identities.

Ralph Ricklefs, senior in Landscape Design, is serving on the Managerial Board of the Kansas State Engineer.

The gross income from chickens, eggs, turkeys, and broilers passed the \$3 billion mark in 1945.

Hayes Wins Swift Essay Trip

"Meat for Americans"

By ROBERT H. HAYES

Have you, as a consumer of meat and meat products, ever stopped to think just how much work is involved in that steak, bacon, or butter, cheese, and eggs you buy from your local butcher shop? It has been estimated that fifty-five and one-half million pounds of meat per day, or more than eighteen and one-half million pounds of meat per meal, are consumed by the American people. That is a large order to fill every day of the year, especially when the average pound of meat is moved one thousand miles from where it was produced. It is the function of the meat packing industry to make this meat, and meat, dairy, and poultry products, available to your local retail dealers for final delivery to you, the consumer. This is a tremendous task and it has been made possible only during the last century by the inventions of artificial refrigeration, refrigerated railroad cars, and many other modern machines and methods for handling meat.

When the population became so large that the local farmer could not produce enough meat for the demand, he pushed westward to seek new grazing and farm lands. Thus, the continual westward spread of population and the consequent western movement of livestock production, together with the building of the railroads, led to the establishment of the packing plants in the middle west. They faced a problem of transportation because, even with railroads, meats could not be transported long distances without spoilage, and meat packing became a seasonal business.

The first great boon to the meat packing industry was the introduction of artificial refrigeration and the refrigerated railroad car, which made possible the year-round production of cured and fresh meat and the delivery of it hundreds of miles without spoilage.

Thus came the development of a national organization as well as a local organization of each meat packing company. Since two-thirds of the

livestock is produced west of the Mississippi River and two-thirds of the meat is consumed east of it, the packing plants are located in the producing areas so that it requires a minimum amount of transportation to move the live animal from the producer to the packing plants. The large meat packing companies have expanded to include plants which are specifically set up to produce dairy and poultry products in areas where these products are predominant elements of livelihood. After the slaughtering and processing of the products they are delivered to branch selling houses located in the large consuming centers which distribute the products



Robert Hayes is the winner of this year's Swift Essay contest. As a prize, he received \$65 with which to visit the International Livestock Exposition at Chicago and participate in a market study tour sponsored by Swift and Co.

Hayes is enrolled here at Kansas State as a pre-veterinary medicine student. In addition to carrying a full scholastic load, he works at the Perry Packing Co. in the afternoons.

He served for three years in the air corps and saw service in the Pacific, Guam, and Iwo Jima. He received his discharge in December 1945 and resumed college work the following February.

to smaller towns and communities by means of refrigerated cars or trucks; thereby forming a network supplying nearly every community in the United States. To the farmer this means a steady outlet for his livestock and dairy and poultry products; to the consumer it means an adequate supply of perishable products even in

low producing periods and at a price determined by supply and demand conditions all over the United States.

As each company became a national organization it adopted brand names which the packing industry considers a basis of improvement because it has caused the consumer to become brand conscious. The consumer has come to realize that he is receiving carefully selected products of uniform quality when he asks for products bearing a name which has gained national recognition as a quality product. This is especially important to the consumer because he can be confident he is receiving the same quality of products in practically every meat market wherever he goes in the United States that he purchased from his own butcher, by asking for the product by its brand name.

Another advantage the consumer gains by purchasing products from the larger meat packing companies which do interstate business is that they are required to have all products federally inspected. The meat inspection act was established by an Act of Congress in 1906. The Federal Government inspectors are veterinary medicine graduates and they must pass a rigid civil service examination before they are appointed as inspectors. The authority of the act is placed in the Bureau of Animal Industries, United States Department of Agriculture. In general the act was put into effect to protect the health of the consumer. Therefore it enforces sanitary methods throughout the processing of the meat. Also the construction of the plant and the type of equipment to be used must be approved and meet set government standards before a plant may start doing business.

The inspection of the meat itself involves two types of inspection—ante-mortem and post-mortem. The ante-mortem inspection is done before the animal is slaughtered. If the animal is tagged by the inspector as a suspect, it is slaughtered separately from accepted animals. The post-mortem inspection is taken at intervals in slaughtering. Special attention is paid to glands in head, neck, and viscera; also to the vital organs of the carcass.

The meats that pass this inspection are declared wholesome and healthful, and are marked "U. S. Inspd. &

(Continued on page 30)

Designers Meet To Sketch Zoo

By HOWARD BORCHARDT

One of the busiest classrooms in the Ag School these days is Dickens 101, where the Landscape Design students meet for a three-hour laboratory on Tuesday and Thursday afternoons. The reason for all the increased activity is the big project of the semester's work—the annual Class B Landscape Exchange Problem.

The Problem is a contest among all Landscape Architecture students throughout the nation, and is entered with the same enthusiasm and preparation as the animal husbandry boys exhibit as members of the meats or livestock judging teams.

During the fall semester each year a subject is chosen for the contest, the particular phase varying from year to year. Last year's work was a plan of an island estate for a retired business man. Early this fall, Prof. L. R. Quinlan of the horticulture department received a letter giving the details of this year's contest. It requires the complete plans for a small zoo, to be located in the outlying part of a mid-western city. A preliminary survey map and sheet of general regulations accompanied the letter.

The project is considered a five-week problem, with the final drawings completed and ready for mailing December 19. On November 14 Professor Quinlan presented the instructions to the class and allowed three days in which to draw up an "esquisse", or initial sketch in ink on the plan of the development. During that time no reference material was to be consulted or criticism received. The student had to rely entirely upon his background training in planting design, material, and practical experience.

On November 18 the actual development of the esquisse started, with numerous extra hours and night sessions being held in the drafting room. This year six advanced design students at K-State are participating in the contest. They include Robert Bell, Kansas City; Roy Pennak, Cincinnati, Ohio; Margaret Ricklefs and Ralph Ricklefs, Salina; Howard Borchardt, Leavenworth; and Kwong

Yew Ting, graduate student from Canton, China.

Particular elements to be shown in the plan include a group of buildings and cages for the major part of the exhibits, sea lion and penguin pools, a flying cage, a stable and bridle path for Shetland ponies, and small supervised playgrounds and shelters. A restaurant with outdoor terraces, administration and service buildings, and additional features are to be designed also. A section through the principal part of the scheme must be shown in elevation.

The final drawings must be completed in the remainder of the allotted time after finishing the esquisse. Free use may be made of reference and criticism. Each student is the sole author of the drawings signed by him and he may have assistance only in the manual processes on the final sheet.

The completed drawings will be 30" by 40", rendered in water color, and will bear the designer's name in the lower right hand corner where it can be covered during the judging at Ohio State, January 17, 1948. After the judgment has been completed, an itinerary for a traveling exhibit of the winning problems will be prepared for all participating schools. The exhibit will probably arrive at K-State sometime in March for a week's showing in Dickens Hall.

Mrs. Lull Writes K-State Story

By BOB FISER

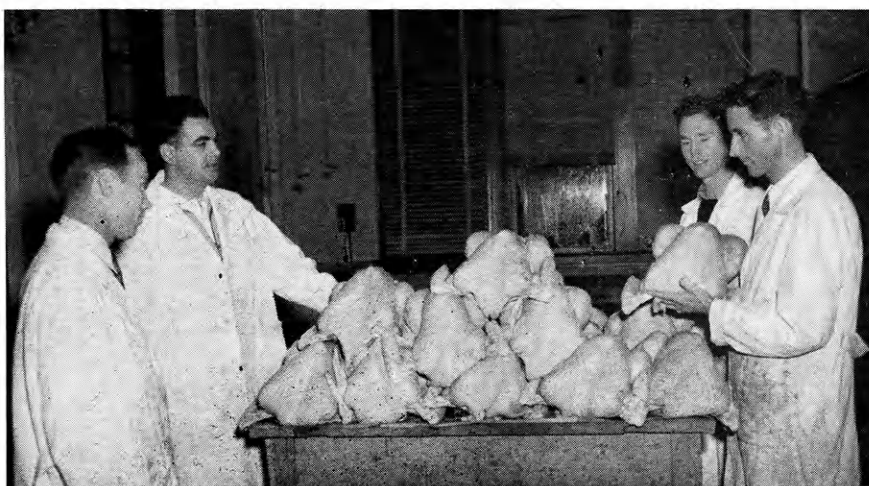
Drug stores and news stands in Manhattan did a land office business when the October issue of *Mademoiselle* hit the street. This surge of trade was undoubtedly due to the article in the magazine by Mrs. Linton Lull, on the life of a married student at Kansas State College.

Mrs. Lull's article was the fifth in a series of articles on American colleges published by *Mademoiselle*. It described the problems of the married student at Kansas State College, including housing facilities and the near impossibility of living on a subsistence check.

Perhaps the most interesting thing in Mrs. Lull's article was the fact that, contrary to the current trend away from rural life, she and the wives of several other agriculture students are ready and anxious to begin life on their respective farms.

The Lulls, Mrs. Lull and Linton, an animal husbandry major, and their small son Murray plan to move to their farm near Smith Center upon Mr. Lull's graduation in February.

Poultrymen Dress Turkeys



Arthur Carey, Ellis Wise, John Hillerman, and Claude Moore gather round a pyramid of turkeys following a turkey dressing session. Members of the faculty of the poultry department and students in the poultry Science Club dressed and sold 150 turkeys before the Thanksgiving holidays. Another 50 birds will be sold before Christmas.

Other students cooperating in the turkey dressing project are Max Smith, Victor Dewhirst, James Mall, John Wood, Herman Smith, Dale McClaskey, Jack McClaskey, Tom James, and Bill Carinder.

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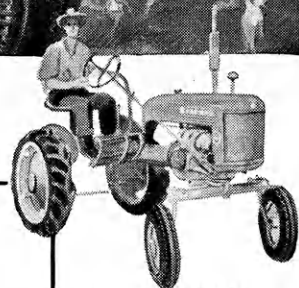
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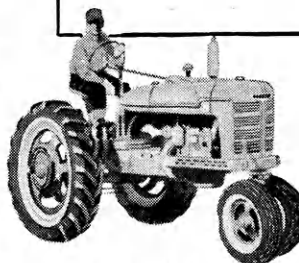
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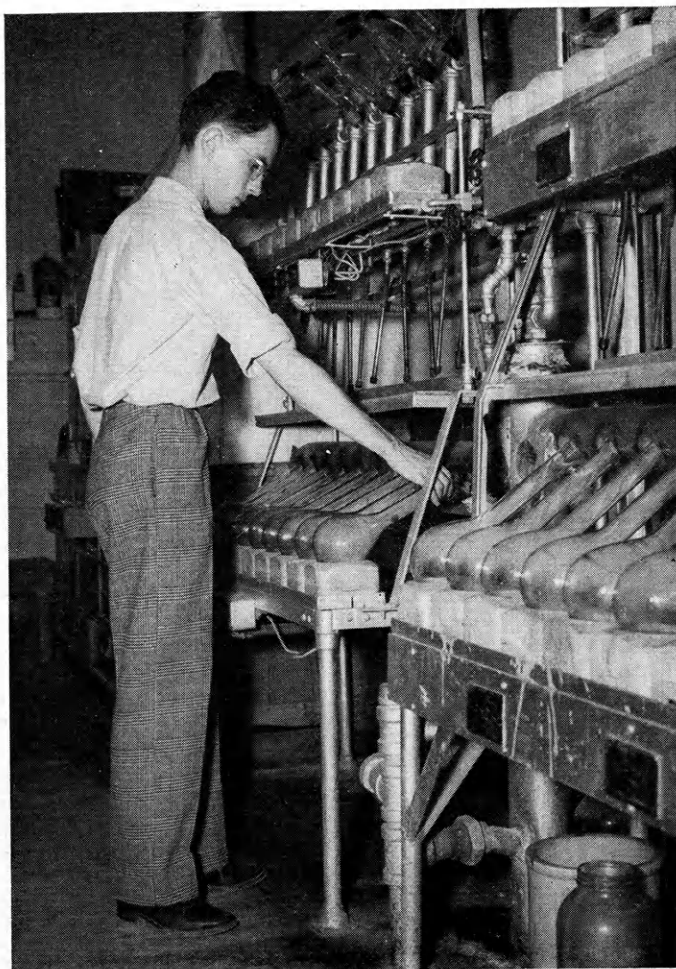
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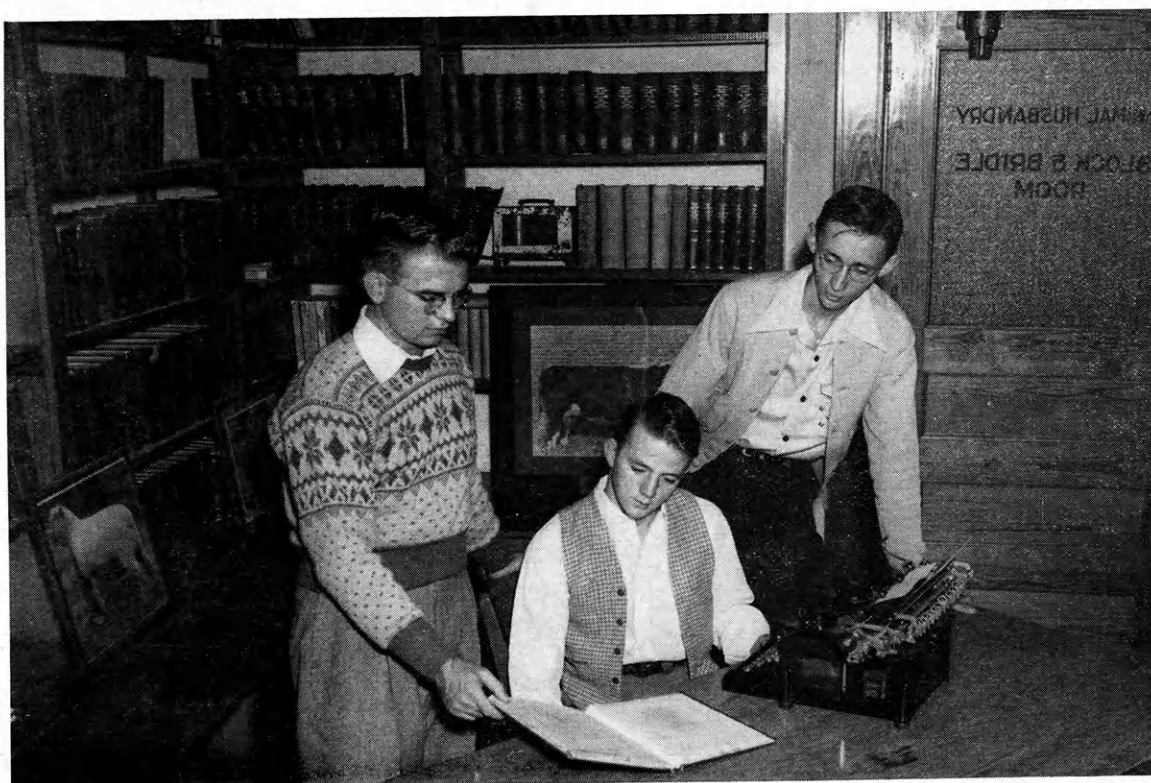
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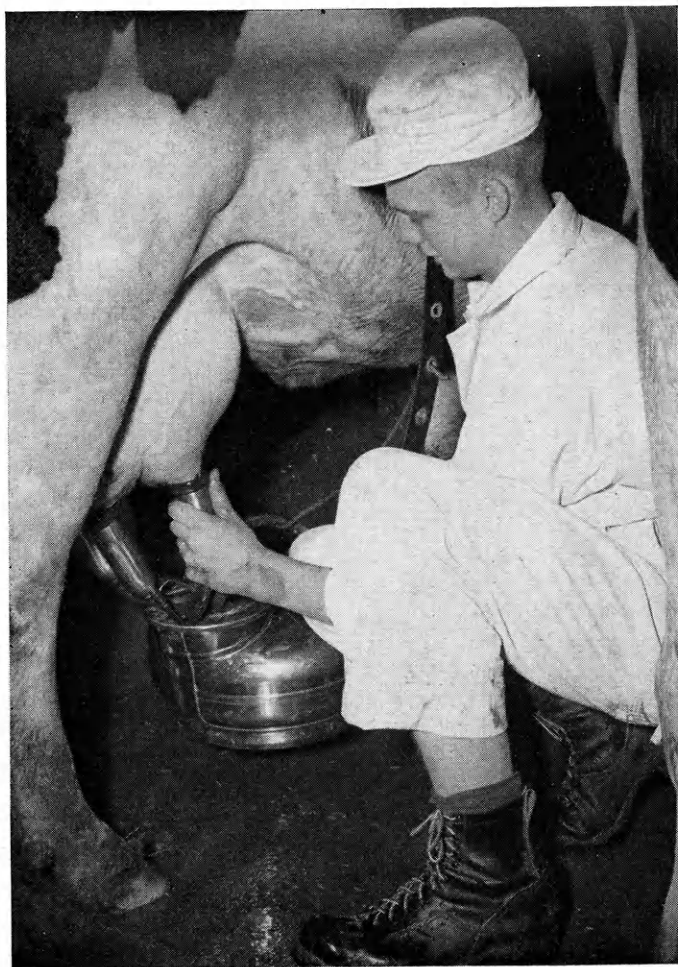
Donald Abbott, secretary of Alpha Mu, demonstrates protein analysis techniques in the milling lab. Protein content of flour is an important factor in determining quality of baked goods.

Bennie Bird, Robert Acre, and Mike Burns put the finishing touches on the Block and Bridle Yearbook. Each year, an account of the activities of Block and Bridle is compiled into a yearbook. This yearbook is then submitted in national competition.



E ACTIVE

Dairymen hesitate to estimate their losses from mastitis. Always, it seems, the highest producing cows are the ones infected. The cups of a milking machine furnish one of the more common agencies for the spread of the disease. The dairy department hopes, by the use of this new type milker, to lessen the losses due to mastitis.



To many of us National Flower Week was only a signal to wear a flower in our lapels. To students in floral arrangement class, the week was recognition of their chosen field. Here students experiment with different techniques to make a better bouquet.





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REED'S TIME SHOP

SOSNA THEATRE BLDG.

AGGIEVILLE

K-State Judging Teams Return from Contests



Members of the Kansas State livestock judging team are F. W. Bell, coach, Richard Winger, Philip Sanders, Linton Lull, James Collier, Charles Nesbit, Clair Parcel, and Dick Warren.

Livestock Judging Team

By GARRETT SEATON

K-State's livestock judging team placed eighth in the judging contest at the International Livestock Exposition. In this contest, 30 teams competed; Iowa State won top honors. Kansas State had previously taken second place at the American Royal with 17 teams competing.

"This was one of the best teams we have ever had as far as ability is concerned," said Coach F. W. Bell. He added that he thought the boys are an exceptional group and will continue to distinguish themselves after they are graduated from school.

At the International, Clair Parcel was high individual in sheep judging. Clair made 248 points out of a possible 250. For this he was awarded a stockman's cane by Successful Farming Magazine. James Collier tied for ninth place in the hog judging contest. He was also high man in cattle judging at the American Royal. Three of the men placed in the first 10 at the Royal. Clair Parcel was fifth, Dick Warren sixth, and James Collier tenth in the contest.

The men on the team are Clair Parcel of Coldwater, Dick Warren of Arkansas City, Linton Lull of Smith

Center, James Collier of Alta Vista, Richard Winger of McCune, Philip Sanders of Miller, who served as alternate for the team when they journeyed to the International, and Charles Nesbit of Manhattan, who was alternate for the team at the Royal.

Professor Bell was recognized at the dinner held for announcing the awards as the coach having the longest service and having produced more high ranking teams than any other coach at the dinner. All of his teams have ranked in the upper 11 places in all of his years of taking teams to the International.

This is Professor Bell's last year as coach of the judging team. He described himself as a football coach who couldn't sleep the night before the contest or the night after. Don L. Good will coach the team next year.

Crops Judging Team

By RALPH C. ARNOLD

Ronald Livers, Charles Roy, Dale Hamilton, and Wayne Pearce won third place for Kansas State College in the Kansas City national collegiate crops judging contest, November 24 and fourth place at the Chicago inter-

national collegiate contest, November 28. The Kansas City contest was won by Texas Tech with Oklahoma A & M placing second. In this contest Livers placed second in individual scoring only eight points behind the top man.

The Chicago event found Kansas State dropping to fourth place. The same seven schools competed in both contests. The schools in the order of their placing in the Chicago contest are as follows: Oklahoma A. and M., Texas Tech, Texas A. and M., Kansas State, Penn State, Michigan State, and South Dakota.

At Chicago the team placed second in identification. Livers was second high in identification in this event. Also at Chicago, Charles Roy placed third in the individual scoring in the grading portion of the contest.

Team coach is Prof. J. W. Zahnley of the agronomy department.

Meats Team

By SAM KOURY

In the meats judging contest at the Chicago International Livestock Exposition, Kansas State placed 12th out of the 16 teams competing. First honors went to Ohio State with a total of 2416 points. K-State ran up a total of 2272 points.

Members of this year's team, under the direction of Prof. D. L. Mackintosh of the animal husbandry department, were Harold Black, Bob Steele, Tom Sullivant, and Howard Lind-

holm. The students judged Tuesday, December 2, at the Wilson and Co. Chicago plant. Tying for sixth place in the pork division, Tom Sullivant came up with 236 points. As a team, the College tied for seventh with Ohio State in pork judging, but got nowhere in the beef and lamb sections.

Top teams in the various classes were Ohio State in beef, South Dakota State in pork, and Oklahoma A & M in lambs. In the classification and grading of beef carcasses, North Carolina tied with Ohio State.

Wilsons gave a dinner Tuesday night, December 6, to announce the winners of the contest. Will J. Miller, formerly president of the Kansas Livestock Association, presented the awards to the top teams.

Dairy Judging Team

By LLOYD ALVEY

The Kansas State dairy judging team completed the year's activities by competing in the Waterloo Dairy Cattle Congress, Waterloo, Iowa, against teams from 18 colleges. The team, coached by G. H. Beck, associate professor of dairy husbandry, included Arthur Jacobs, Harry Mudge, Thomas Bentley, and Richard Eaton.

Arthur Jacobs paced the Kansas State team by placing second in the Holstein breed, fourth in the Ayrshire breed, and twelfth in all breeds. The team judging was characterized by keen competition and as a result a

(Continued on page 29)



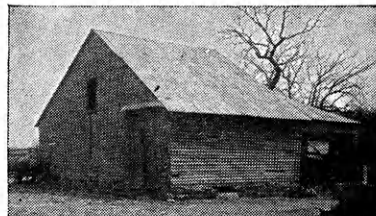
Members of the Kansas State meats judging team are Thomas Sullivant, D. L. Mackintosh, coach, Bob Steele, H. T. Black, Howard Lindholm, and George Dunn.

TIME

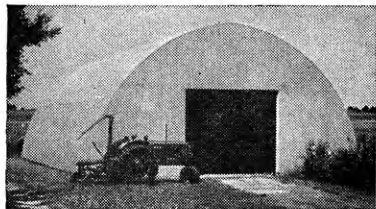
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Sunflower Has Industrial Value

By JACK D. WISE

Historians say the sunflower was brought to Kansas by dirt clinging to the wheels of the freight wagons coming from the southwest on the Santa Fe Trail. Helianthus, or wild native sunflower, had already been discovered by the Indians to be a source of seed, oil, and fiber. Early settlers who first planted the sunflower for its beauty later discovered the seeds and stalk were good for cattle feed.

The Kansas legislature in 1903 accepted the sunflower to be the state's official flower. The sunflower, according to the legislative act, "has to all Kansans a historic symbolism which speaks of the frontier days, winding trails, pathless prairies, and is full of the life and glory of the past, the pride of the present, and richly emblematic of the majesty of a golden future, and is a flower which has given Kansas the world-wide name, 'The Sunflower State'."

Sen. George P. Morehouse, author of the law, stated, "This native wild flower is common throughout our borders, and is always hardy and conspicuous. It is of definite, unvarying and striking shape, ever beautiful in gardens of the rich or lingering near the humble habitation of the poor. It gracefully nods to the caresses of the earliest morning zephyrs. Its bright face greets the rising orb of day and faithfully follows him in his onward course through the blazing noontime, till the pink-tinted afterglow of sunset decorates the western sky and marks the quiet hour of eventide."

Mrs. Marguerite Stevenson of Garnett became interested in the sunflower and made investigations as to its commercial possibilities. She recently published a pamphlet, "Kansas, The Sunflower Capital of the World," that has brought inquiries from the nation's industrial and chemical research organizations. Information gathered shows that foreign countries have planted more than 12 million acres of sunflowers annually.

The sunflower has many uses. Its blossoms are attractive to bees, its petals are the source of dye, its seeds make excellent poultry feed, and the roasted seeds are eaten like peanuts in many sections of the world. The seeds can also be ground into flour for bread and pastry. The oil, according to Mrs. Stevenson's report, is comparable to the best vegetable oil and contains vitamins A, B, and D.

Oils from the sunflower would be valuable in the manufacture of oleomargarine, shortening, candles, soap, medicine, textile dressing, paint, varnish, illuminating fluids, and fuel. The cake which remains after the oil is pressed out is good for cereal and for fattening cattle, hogs, and sheep.

The stalk is used for fuel, rope fabric, paper, life-preserving equipment, and fodder or ensilage. When burned, the ash contains 62 percent potash.

Chemistry and research are developing a new field for the products of the sunflower. The sunflower, often a nuisance to agriculture, can now benefit the farmers through its profitable future.

By-products of the sunflower may open new fields for Kansas' industries and continue in the progress of the prairie state.

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'Daddy' Nesbit Wants Angus Job

By PHILIP SANDERS

Because of his desire to learn and work with livestock, Charles Nesbit of Wichita, a senior in Agricultural Administration, has spent the majority of his spare time for the past year and a half working at the animal husbandry farm. Right now, however, he is spending all of his time with his wife Betty and little Catherine Elizabeth, who made her arrival November 19.

Charlie came to Kansas State in February of 1946 after spending four and one-half years in the Army Air Forces, nine months of which were spent in Italy with the 15th Air Force. At the time of his discharge, he held the rank of lieutenant colonel in the U. S. Army. Prior to his entering the service, Charlie worked for the Wichita Eagle for seven years and attended Wichita University for one and one-half years.

As yet Charlie's plans for the future are indefinite, but his chief desire is to raise Angus cattle. He will graduate in January with a B. S. degree in Agricultural Administra-

tion. Having stressed animal husbandry in all of his electives, Charlie has proved his ability by qualifying for this year's Senior Livestock Judging Team. An account of his record with the team is carried elsewhere in this issue.

Here at Kansas State, Charlie is active in many college organizations. Last April, he was elected to the vice-presidency of Block and Bridle. He is also a member of the Agricultural Economics club.

Last month, Charlie was one of the group carrying hoes during Alpha Zeta initiation. He also teamed with Elmer Blankenhagen to manage this year's Ag Barnwarmer. Last year, he served as a student member of the all-college committee determining student eligibility.

After reviewing this list of Charlie's extra-curricular activities, one might wonder whether or not he had any time left for class work. He has, however, maintained the same standard in this field with better than a 2.5 grade point average.

SHADID DESCRIBES

(Continued from page 9)

ment to impose restrictions on planting citrus trees. They realized that an economy based on one type of crop alone is unsafe.

Palestine's farms are small. Consequently the standard of living is comparatively low. You might imagine what a farmer can do when all he possesses is 10 to 15 acres of land. Size prohibits mechanization of the average farm in the country. The only machines used to any appreciable extent are the tractor and harvester. These are usually owned cooperatively or by an individual who does custom work.

The trend now is toward diversifying the source of income of the farmers. This, besides being more economical, will distribute the farmer's activities over the year. A milk cow or two, a few beehives, a hundred to two hundred chickens may prove to be the solution of the problem. The people of Palestine look to the future with confidence. Although they realize that the standard of living cannot be raised to any appreciable extent, they believe they can and will have a contented farmer with the words "extreme poverty" eliminated from his vocabulary.



Judy, the family favorite, provided Marvin Lundquist with subject matter for his entry in last spring's Ag Student photo contest. Marvin proved that it isn't necessary to own an expensive camera to take home a little extra cash. He took this shot with a box camera. His choice of subject matter rated excellent with the judges. Take a few shots of your own for the next contest.



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— Ralph Waldo Emerson

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New initiates of Alpha Mu, dressed in their white coveralls, wait for the signal to obtain the signature of the actives on the Alpha Mu paddles. These pledges are Ralph Wolffing, Max Gould, Arnold Latschar, Prof. Max Milner, Blair Hackney, Jim Otto, Bill Porter, Richard Nelson, and Cuauhtemoc Salazar.

Men in White Join Alpha Mu

By BILL RICHARDS

The white clad figures carrying wooden paddles and boxes of candy which were seen in East Waters Hall this semester were not wandering hospital interns or lost engineers. They were only the 11 new initiates of Alpha Mu, honorary milling fraternity.

The 11 men were added to the official rolls of Alpha Mu in a formal initiation ceremony December 1. For one week before the ceremony the neophytes were required to wear white miller's coveralls, carry a wooden paddle and treats for the actives, and obtain the signatures of all active members of the organization on the paddles.

According to chapter president Hal Ross, Alpha Mu at Kansas State is the only honorary milling fraternity in the world. The reason behind this apparent distinction lies in the fact that Kansas State College is the only school in the United States which offers a bachelor of science degree in milling industry.

Alpha Mu bases the requirements for membership in the organization on scholastic standing and active participation in school affairs.

The 11 men who were honored with

Alpha Mu membership are Bill Glover, Max Gould, Blair Hackney Jr., Arnold Latschar, James Otto, Ralph Wolffing, Royce Pence Jr., Bill Porter, Cuauhtemoc Salazar, Richard Nelson, and Max Milner.

CLEAN WIND IS KANSAS GOAL

(Continued from page 5)

Conservation Service at the California Institute of Technology.

One of the biggest objectives of the December trip will be to locate two soil physicists for the agronomical research to be done. However, Doctor Myers wishes to stress that all personnel will become members of the Department of Agronomy staff.

To many of us, information and results of this experiment will be priceless. We have seen the fatal wind taking away our foundations and destroying millions of years of nature's patient, methodical work. Let us hope that the folks back in Vermont or Maryland will never again have to close their windows with the remark, "Here comes another Kansas farm."

We sincerely believe that the wind of the future will do no more than rustle the leaves or bend the heads of wheat. A clean wind is a safe wind—a good wind.

Test for Turkey Feed Economy

By DON McWILLIAMS

The first annual Turkey Feeders Day was held at Garden City November 14 summarizing the results of a turkey feeding project. In the experiment, the investigators compared the feeding value and economy of cereal grains commonly grown in western Kansas.

Farmers from the western section of the state generally had made little profit in their turkey feeding enterprises this year. Feed prices skyrocketed without corresponding increase in turkey prices. Consequently, turkeymen were anxious to check which feeds had provided the most economical gains in the Garden City experiment.

Cereals tested were oats, barley, corn, wheat, kafir, and milo. Asst. Prof. C. L. Gish of the Department of Poultry Husbandry found that turkeys fed oats made the greatest total gains in the test. Although the oat-fed turkeys were comparable to wheat-fed birds in quality, the former lot did not make the cheapest gains in the test. Some 83 percent of all birds dressed AA or A grades.

Less gain was made by turkeys fed kafir with a standard mash than was made on any other cereal tried. However, kafir ranked first in economy. According to cost of production per pound of gain, the feeds became more expensive in this order: kafir, milo, barley, corn, wheat, and oats.

Among the speakers for the Feeders Day program were Prof. Loyal F. Payne, head of the Department of Poultry Husbandry, Professor Gish, M. A. Seaton, extension poultry specialist, and L. M. Sloan, superintendent of the Garden City Branch Experiment Station. Approximately 100 turkey feeders attended the demonstration.

Two students of the School of Agriculture have been named to Phi Kappa Phi, national honorary scholastic fraternity. Election is based on scholarship for three and one-half years of completed college work. Ags elected were Roy Dale Gear and Howard Furumoto.

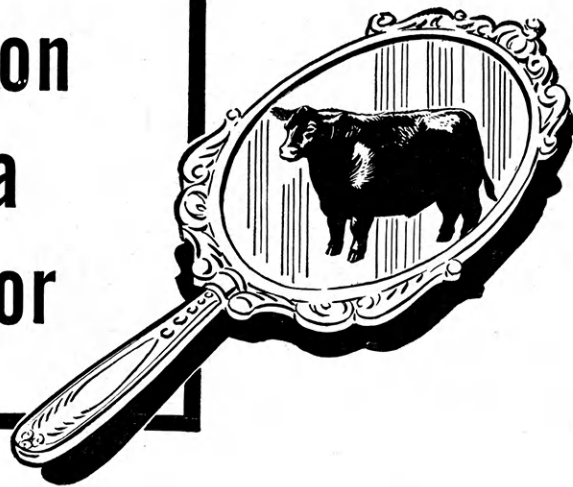
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Lesson in a Mirror



Future producers of pork, beef and lamb, accustomed to seeing animals on foot, should be equally familiar with the carcass. For the carcass reflects the breeding, feeding, care and handling of livestock. Its quality determines the cuts, texture and flavor of the meat that is sold to the consumers. Knowledge of the carcass is the key to successful livestock production... success in any business hinges on the ability to give the public what it wants.

ARMOUR and Company

Saves Chopped Hay with Drier

By J. J. ROCKERS

Tools, devices, and unorthodox methods of all kinds were devised in industry and on farms during the war to save manpower and in some cases material. Many of those tools and ideas will be useful in normal peacetime operations. The hay drier developed for stacked hay is one of those tools.

Since labor was scarce on the farm during the war, many farmers began using field choppers and blowing the hay into the barn, thereby saving time as well as labor. This worked well since relatively small amounts at a time were blown into a large floor space and heating was not a problem. However, farmers with larger lots of hay encountered trouble with heating.

Alfalfa hay cured to a point where it could be safely stacked, using conventional haying methods, heated when chopped because of closer packing and less air circulation.

Inquiries were made by farmers to the college regarding possibilities of forcing air through stacks for a few days after stacking to insure against heating. Plenty of information was available on mow driers, but little was known about stack driers.

Work was started when Harry Converse, a student in Agricultural Engineering from Eskridge, decided to study stack drying in connection with his work on a master's degree. Converse stacked two stacks of alfalfa around air ducts and blew air through each stack from the center toward the outside for about 10 days. Some difficulty was encountered, but the experiment indicated that stack drying would be practical. Much information was obtained regarding size of blowers, power, and cost.

During the past season, Ralph Lipper, stationed here at the college as a research engineer for the Kansas Committee on the Relation of Electricity to Agriculture, continued the experiments. With knowledge obtained from Converse's work and other new ideas, he put up some very successful stacks.

Mr. Lipper found that hay to be stack-dried could be stacked when moisture content still was slightly over 30 percent. This means stacking about one hour before the leaves become brittle and begin to drop off on a good drying day.

Data obtained by workers regarding vitamin A and D content of hay cured in such a manner indicate no measurable difference in vitamin D content, and a slight increase of vitamin A over hay completely cured in the field.

The Kansas Committee on the Relation of Electricity to Agriculture has done much work such as this in co-

operation with the college since about 1924 when it was formed.

Many people felt, and some still feel, that the stack drier is a hair-brained, impractical, and uneconomical machine. People expressed doubt in 1924 on whether or not the electric iron would ever be practical. In 1925 they asked the same question about electric refrigerators for the home. Today many people believe that the electric iron and refrigerator are among essential items for living. Maybe the stack drier will be essential for good farming someday.

E. R. Halbrook, formerly extension poultryman here, has been selected as the faculty adviser for the monthly magazine being started by the Ag Club at Montana State College.



Children make good subjects for prize-winning shots. Harold Ray won second place with this shot of Jean Pfeifer in the first photo contest.

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Just one of the many campus beauty spots that would make prize-winning subject material in next spring's Ag Student photo contest. This silhouette of Anderson Hall won third place for Calvin Swindler last year.

Dean Call Offers World Ag Course

By RALPH C. ARNOLD

A contemporary course in "world agriculture" is the latest addition to the list of electives available to students interested in agriculture. Dean Emeritus L. E. Call is now preparing the material that he will use in teaching the course. This course is being designed with a twofold purpose. The first objective is to supply information to the student in the field of agriculture who is interested in foreign service or who plans to work for a company engaged in foreign trade. The second purpose is to supply students in curriculums other than agriculture with information relative to agricultural production in various

parts of the world so that they may have a better understanding of agricultural problems encountered in their work.

The course will be limited to senior and graduate students. Because of the complexity of the material and because of the limitations on enrollment in the course, it will be offered only in the spring semester. It will be a three-hour credit course and Dean Call warns that it won't be an easy three hours.

Dean Call will initiate the course with a discussion on the historical background of agricultural production in world trade. Following that will be a talk on environmental factors affecting agriculture. Topics to follow vary from rice to cotton and vegetable fibers other than cotton, from tobacco to rubber and synthetic rubber, and from nonalcoholic bev-

erages to spices and flavorings.

Dean Call indicated that each student will be assigned a certain commodity on which to keep market forecasts and trends.

Department Offers Milling Short Course

By DON ALEXANDER

A non-credit short course for the benefit of operative millers will be offered by the Department of Milling Industry February 5 to March 6 if approved by the administration and Board of Regents, according to Dr. J. A. Shellenberger, head of the department.

The course is designed to train men already working in the industry for more responsible positions. At present, the course is being limited to 50 members, Doctor Shellenberger said.

Included in the courses expected to be offered are engineering drawing, experimental milling, flow sheets and flour mill construction, grain judging, labor relations, mathematics, mechanics, mill sanitation, and operative milling.

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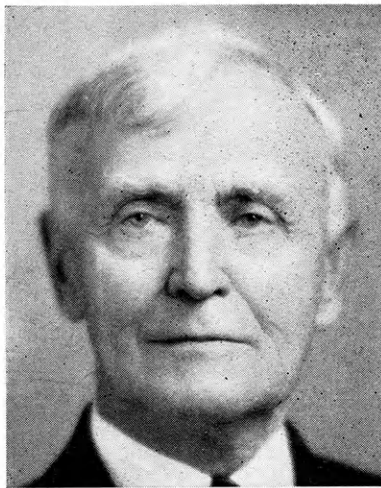
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DR. C. O. SWANSON

Swanson Honored By Milling Library

By BILL RICHARDS

A milling library is being started as a tribute to Dr. Charles O. Swanson, head of the milling department from 1923 to 1939 and research worker and teacher at the College from 1906 to 1944.

The library idea started when members of the milling industry throughout the state heard that Dr. Swanson planned to donate his books to the milling department.

Jess Smith, president of the Associated Millers of Kansas, raised \$1,550 to buy the books as a nucleus of a library to be established in the department.

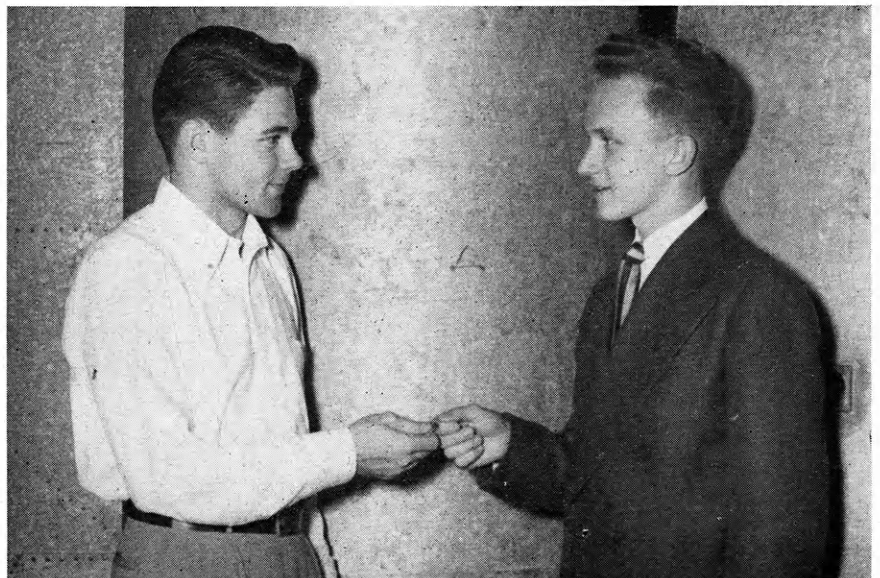
Many of the books in Dr. Swanson's library are out of print and are collectors' items. Included are a complete set of Chemical Abstracts, valued at \$900, bound volumes of Cereal Chemistry magazine, and 300 other books.

Three books written by Dr. Swanson are included in the collection. They are *Wheat Flour and Diet*, *Wheat and Flour Quality*, and *Physical Properties of Dough*. He is also author of more than 100 scientific reports, bulletins, technical articles, and papers.

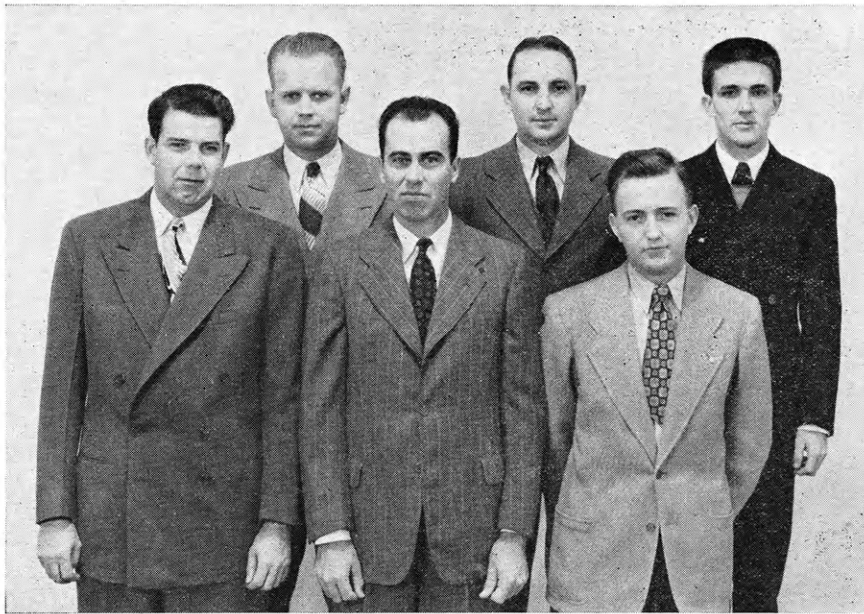
Thomas James Heads National Poultry Club

Thomas M. James is the newly-elected president of the National Collegiate poultry club. James was elected during the national conclave held in connection with the national poultry judging contest at the Chicago International Livestock Exposition.

Other newly-elected officers are W. T. Chaffin, Kentucky, vice-president; S. E. Davis, Iowa State, secretary-treasurer; M. J. Giles, South Dakota State, publicity agent; T. B. Avery, Kansas State, faculty adviser; and Dr. O. E. Goff, Tennessee, grand secretary.



Blair Hackney receives the Alpha Mu scholarship award from President Hal Ross. Each year Alpha Mu presents a plaque to the sophomore student in milling who maintained the highest scholastic average in his freshman year. Hackney won the award with a 2.5 average.



Members of the Kansas State poultry judging team are T. B. Avery, coach, Tom Carleton, Fred Gleue, Victor Dewhirst, Thomas James, and John Tasker.

K-STATE JUDGING TEAMS

(Continued from page 19)

mere 100 points separated the last place and second place teams.

The Waterloo contest was the only competition of the year as the National has not resumed operation since being discontinued during the war. Prior to the above contest the team made trips to the Kansas State Fair and the Kansas Free Fair at Hutchinson and Topeka respectively. In addition the team visited several dairy farms on the trip to Waterloo.

Poultry Judging Team

By JAMES P. WOOD

Fred Gleue, Victor Dewhirst, Tom Carleton, Tom James, and John Tasker as the 20th Kansas State poultry judging team took sixth place at the 22nd Intercollegiate Poultry Judging contest. Assoc. Prof. T. B. Avery coached the team. Fred Gleue tied for second high individual in the production judging classes.

Minnesota won first place to gain a second leg on the trophy as 16 teams competed. Kansas State, Purdue, and Missouri also have two legs on the trophy. Permanent possession of the trophy will go to the first school to gain three first place victories.

En route to the contest held at Chicago during the International, the

poultry team members worked out at the Universities of Missouri and Illinois. In Chicago, they attended a marketing tour of the city sponsored by Swift and Co. On the return trip, the group visited Iowa State College.

Siebert Named Borden Winner

By R. G. ALDEN

Cecil R. Siebert, senior in agronomy, is the winner of the \$250 Borden Agricultural Scholarship for 1947. The scholarship is available each year to seniors who have a high scholastic record and who have had two or more dairy courses.

Siebert, whose home is in Pretty Prairie, has maintained a 2.5 grade average while at Kansas State. He is a member of K-Fraternity, Gamma Sigma Delta, and the Varsity Band. He received Phi Kappa Phi recognition as a freshman and lettered in track two years as a member of the two-mile team. During the war he served for two years as a construction foreman with the U. S. Army Engineers.

Siebert was selected as winner of the 1947 award by a committee including Prof. F. W. Atkeson, chairman, Dr. A. D. Weber, and Prof. C. W. Mullen.

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Are a Swell
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*They Add to
the Friendly
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DUNCAN HINES'
*"Adventures in Good
Eating"*

Hotel Gillett Dining Room

You'll Like the Food
and the Service



Getting a flock of sheep to pose is a problem according to John Parsons. He succeeded and won sixth place in last year's contest. Watch the March issue for contest rules of the second annual photo contest.

HAYES WINS SWIFT ESSAY TRIP

(Continued from page 13)

Passed". The mark is placed on each wholesale cut of meat.

In order that the consumer may not be deceived by false and deceptive labeling or misleading statements, the trade labels must be approved by the inspectors and the contents of the package must be in accordance with the statements on the label.

The larger companies also have their

own inspectors to see that rules of cleanliness and sanitation are enforced from the time the product leaves the Federal inspector until it is actually delivered to the retailer.

As has been stated before, artificial refrigeration was of great importance to the meat packing industry; but due to improper handling of products in past years, cold storage products, especially eggs, were not readily accepted. With improvement in equipment and scientific research, the conditions of storage are becoming perfected so that the cold storage product is gaining public approval because the housewife has discovered that the quality of stored products is as good in quality and flavor as the "fresh" product. Of course the quality of the cold storage product depends on its quality when it was put in storage. For example the freshness of eggs is determined upon certain internal factors and these factors are retained under proper cold storage conditions. Fresh (non-cured) meat must be frozen solid to be held in storage and the quality may be retained several months. Chilled beef must reach the consumer within two or three weeks after slaughter to be in quality condition. Cold storage for the meat packer is therefore money in the consumer's pocket because if some of the butter, eggs, cheese and poultry were not stored in the abundant periods of production, the prices of these products would go up in the light producing periods.

Meats and the other products produced by the meat packing industry are undergoing changes as to methods of processing and ingredients used in processing, due to scientific findings

BETTER WHEAT MAKES IT BETTER FOR ALL

The continued practice of using only the certified seed of approved wheat varieties, and the adaptation of better cultural methods will help to keep the major raw product of KANSAS OUT IN FRONT.

KANSAS WHEAT IMPROVEMENT ASSOCIATION

UNION NATIONAL BANK BLDG.
MANHATTAN, KANSAS
CLIFF SKIVER, DIRECTOR

from experimental work done by the packing industry. The functions of the packing industry laboratory include the standardization of products, the improvement of products, the development of new products, and discovery of new uses and new outlets of the industry's by-products.

The latter of these functions—discovery of new uses for by-products—is a highly important factor in the operation of the packing industry, because the market for by-products increases the value of the animal to the producer and at the same time lowers the price of meat to the consumer. The price of meat is not the only thing the consumer enjoys from the manufacture by the packing industry of by-products that are important to the comfort and health of the human being. There are at present in general use more than 140 different items, all of animal by-products, many of them vitally significant in the field of medicine. Some of the extracts taken from the animal body are pepsin, which is taken from the lining of hog stomachs; adrenalin and cortin from the adrenal glands of cattle, hogs and sheep; insulin from pancreas glands of cattle, calves, and hogs; and such others as pancreatin liver extracts and pituitary gland extracts. Only the plants working on large scale production are capable of doing this work because approximately twenty-five thousand animals are required to produce one pound of the precious adrenal substance, cortin.

Not all by-products are medicine, for there are those which are of a purely commercial variety. Some are those that man used before research opened a new field of others. These include hides and pelts used for clothing and foot wear, also grease and fats. The fats are used in the manufacture of soap, thus developing another by-product, glycerin, which is produced in the manufacture of soap. The horns and bone have numerous uses, from handles and buttons to fertilizers and bone meal for livestock feed.

The next time we purchase meat

or other products from our local butcher and ask for it by a well known brand name we may be assured that we are receiving a quality product, inspected for our protection by competent government inspectors and according to a price set by demand, not by a small community but by the nation.

MOXLEY VETERAN EXTENSION

(Continued from page 6)

farther to see my bulls than they do to see me." According to many of the experts, Moxley Hall Ranch also owns the top senior Hereford heifer in the state.

A proof of the fine breeding of the purebred Moxley Herefords is the fact that in the last five state sales, the Moxley ranch has produced either the top price or the champion animal.

Four of Mr. Moxley's special rooters are his wife Edna, and his three bright-eyed children, Lynn, Hall, and Tom.

The late John D. Rockefeller made his first money at the age of seven, raising turkeys.



Start with a Royal Purple Beauty queen and the rest is easy. So says Lester Crandall and he should know. He won fourth place in last year's contest with this shot of Dorcas Wilson. What judge could resist?

There are more than 400 different kinds of flowering plants in Greenland.

Farm Bureau Members

WILL SAVE

More Than \$1,000,000

THIS YEAR ON AUTOMOBILE INSURANCE

Nine years ago, the members of the Kansas Farm Bureau organized their own car and truck insurance company for the purpose of manufacturing automobile insurance at cost for Farm Bureau members. Today they have more than 51,000 policies in force.

The Farm Bureau Mutual Insurance Co.

Home Office, Manhattan, Kansas

"Insurance At Cost"

HOLSTEIN CALVES ARE HUSKY

They are the largest calves at birth of all the dairy breeds. Heifer calves average 91 pounds when born as compared with 64 pounds for 3 other dairy breeds. They're vigorous, too, coming from a breed that can adapt itself to all climates. For a minimum of calf troubles, raise Holsteins.



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The Last Word



We of the Ag Student would like to recognize the work of Shannon Nickelson, Ag Student Photographer.

When people have commented favorably on the Ag Student, invariably their praise concluded with "and the photography was excellent".

When publication of the Ag Student was resumed after the war, Lewis Schafer, editor, appointed Nick Ag Mag photographer. Immediately Nick started taking Ag pictures. Even in the short time before the first issue was printed, Nick offered us a sizeable collection of pictures with which to illustrate the articles.

Not only has Nick supplied pictures for the articles, but his pictures have furnished the ideas for many of the features of later issues. He has written many of these articles himself.

As photographer, Nick has done more than just handle pictures. Last spring, he promoted the Ag Student Photography contest. This was the first such contest. Nick, however, didn't need precedent to guide him. As a result of his drive, more than 50 pictures were entered in the event.

Many students have suggested that we print a personality sketch of Nick as an outstanding Aggie. Certainly Nick's activities throughout the school would furnish adequate material for such a feature. However, as a member of the staff, Nick always suggested another Aggie for the honor.

Nick will be graduated at the end of this semester. We wish him the

best of luck with his chosen work.

Not only do we wish to recognize Nick's work, but I would like to add my personal "thank you" for the job he has done.—JT



SHANNON NICKELSON

World Peace May Rest with Ags

In a radio address on Sunday, December 7 of this year, Secretary of Agriculture Clinton P. Anderson told the nation of the great progress that has been made only recently in the field of agriculture. With a host of newly developed chemicals for agriculture, the use of hybrid vigor even in livestock, the feeding of radioatoms to plants in the study of plant nutrition, and with rapid education of the people as to what and how to eat, the future of agriculture does look especially bright.

But along with this rapid advance-

ment in the science of farming comes the prospect of more mouths to feed, less land available for production, and responsibility resting with fewer farmers.

Meeting this responsibility, Anderson emphasized, depends on the preservation of peace thruout the world, conservation of our soils, and the support of beneficial farm legislation.

How vital this business of farming is!

R. M. B.

Dust Off the Cameras For Ag Photo Contest

Ag students interested in photography will want to enter the second annual Ag Student Photo Contest which opens with the publication of the next issue of the Ag Student. Rules of the contest will be published in that issue. Pictures need not be recent nor taken in the United States, but must be taken by the entrant.

First placing in the contest last year, received a cash-merchandise prize of \$15, and in addition the print was used as the cover picture of the May issue. Cash or cash-merchandise prizes were awarded for seven places. All prints that placed were printed in the May issue of the Ag Student. The Ag Student staff reserves final judgment on the use of the winning print as the cover picture.

Judges last year placed greatest emphasis upon subject matter. This allowed students with box cameras to compete with the better cameras. To give some idea of the selection of subjects for winning pictures the Ag Student is reprinting several of the prints which placed last year. With these as an index you can either take a picture for entry or go through your old negatives for a winner.

Melvin Cotner, Business Manager, represented the Ag Student at the conference of staff members of Ag magazines at Chicago during Thanksgiving Vacation.

J. F. Cavanaugh, Ag '42, will be first assistant secretary of the American Jersey Cattle Club, according to a recent announcement. Cavanaugh had served as associate editor of Hoard's Dairyman.