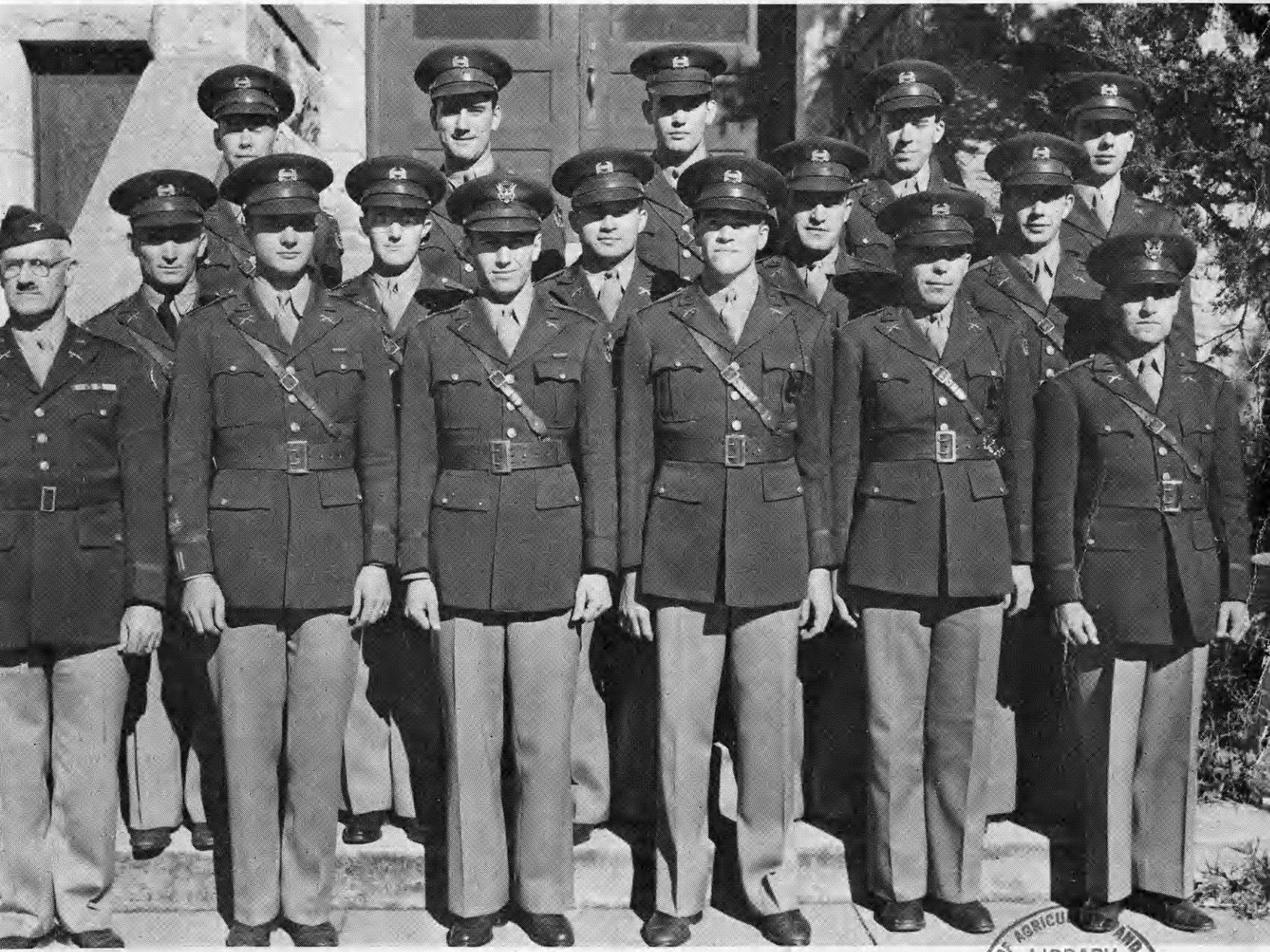


THE KANSAS

b8

COPY 1

Agricultural Student



December, 1942

2212

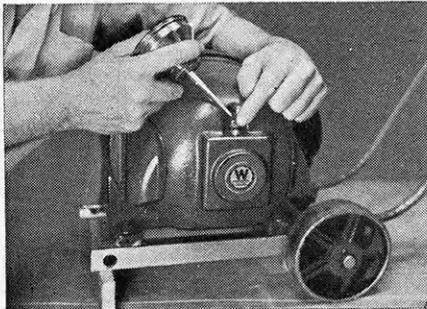


Farm Equipment may have to last for the duration ... learn to take good care of it!

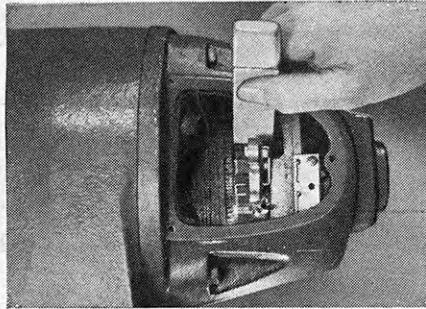
Since it will be difficult to replace farm equipment for the duration, it's up to American farmers to take the best possible care of their tools of food production. Students can be of great help in assisting in this vital work.

By doing this, they not only help conserve critical war materials... they help assure an uninterrupted supply of foodstuffs to our fighting forces.

Here are practical pointers which will help farmers add years to the life of their electric motors... and make farm equipment last longer and do more work.



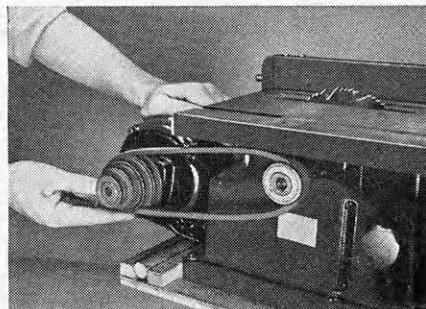
Lubricate correctly... Use lubricants sparingly. Avoid over-oiling, as this may injure insulation. Do not oil bearings while motor is running. Wipe off spilled oil. Inspect oil supply regularly and keep to proper level. Check ball bearings once a year... housing should be kept one third to one half full of special ball-bearing grease. Never use ordinary cup grease.



Keep commutators clean... If brushes spark, commutators may be worn or dirty. Clean by gently pressing 2/0 sandpaper, attached to stick, against commutator while motor is running. This will polish commutator bars and improve brush contact. Never use emery cloth. If commutator is worn in ridges or out of round, have armature removed and commutator turned down by experienced repair man.

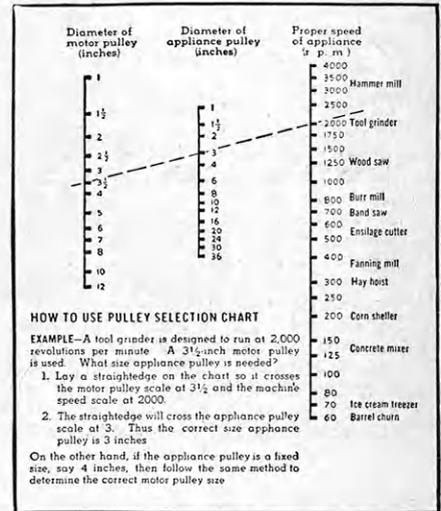


Protect motor windings... Dirt in windings restricts ventilation and ability of motor to cool itself. Clean the motor windings occasionally with vacuum cleaner or air hose. Proper location or shielding of motors will help keep them clean and dry. Totally enclosed motors should be used where excessive moisture, hazardous dust, or explosive vapors are present.



Avoid overloading motor... Heat caused by excessive or continuous overload may destroy motor windings and bearings. Temporary overload will do no harm if motor is allowed to cool off during normal operation. Overload protective devices should be added if not built into motor. Motors should be carefully applied to job. Often the motor load may be reduced by changing pulleys.

Pulley Selection Chart for use with Electric motors running at 1750 R. P. M.



Adapted from Georgia Farm Bulletin 467

For longer life and greater production, farm equipment should be inspected regularly and kept in the best possible condition. Knives should be kept sharp and properly adjusted. Shafts should be correctly aligned and bearings well lubricated.

Proper operating speeds are important... for excessive speed is not only dangerous, but wastes power and may destroy the machine. This can be avoided by proper selection of pulleys, as explained in the chart above. Manufacturers' recommendations for machine and belt speeds should be carefully followed at all times.

GET THIS FREE LITERATURE!

○ We will be glad to send you a free booklet, "FARM MOTORS," which gives valuable information on the selection, care, and use of electric motors. We will also send any of 12 free Farm Bulletins describing the wartime use of electricity on the farm. Just check the ones you want and mail the coupon, now.



Westinghouse

Westinghouse Electric & Manufacturing Company,
Pittsburgh, Pennsylvania

ELECTRICAL PARTNER OF AGRICULTURE

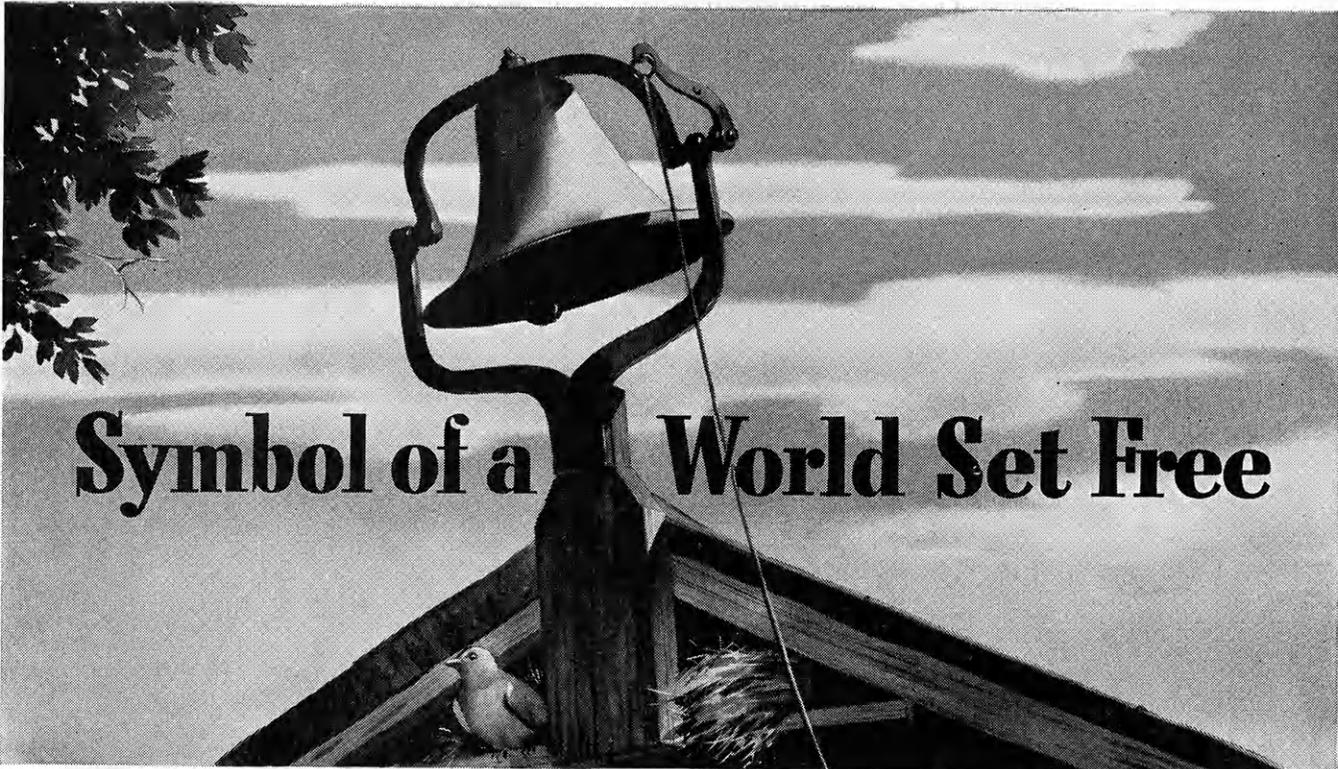
WESTINGHOUSE ELECTRIC & MFG. CO., Room 1410,
305 Fourth Avenue, Pittsburgh, Pa. (Dept. AC-122)

Please send me the free copy of "Farm Motors" booklet ()... also free Farm Bulletins on the application of electricity to the subjects checked below.

- Beef Cattle Cooking, Canning, and Preservation of Food Clothing
 Crops Dairy Cattle Handicraft Home Improvement Poultry
 Rural Electrification Sheep Swine Truck Gardening

Name.....

Address.....



Symbol of a World Set Free



Not until long after Philadelphia's Liberty Bell had clanged and cracked was this humble bell heard. It is the dinner bell on an old farmhouse in Illinois. Its voice is a call to eat, to abundance of hearty, wholesome food. It means more than ample fare for a farm family. This bell is the symbol of a system of farming which for the first time in human history can produce plenty of food for all of the people all of the time. Its valiant ring proclaims freedom to farmers from serf-like drudgery for a peasant's pittance.

Before this, no nation ever had been free from famine. For hundreds of years, the average in England was ten years of famine in each century. In Europe, whole cities were well-nigh wiped out as pestilence finished the ghastly work of starvation. That was in lands whose soils still produce more per acre than the average in America. When the first colonists came here they had all the wealth of a new world beneath their feet. Yet half their people died for lack of proper food.

Neither richness of soil nor abundance of acres has ever

of itself spared mankind from danger of death by hunger.

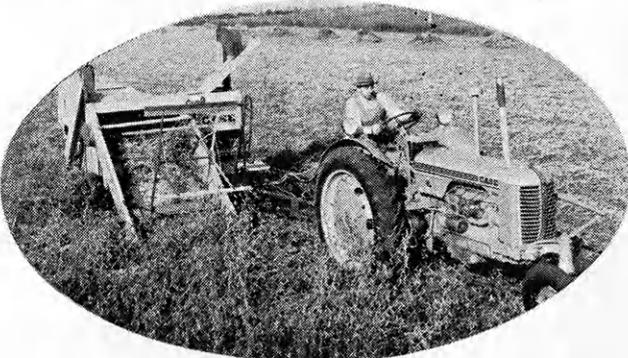
In the American way of farming hybrid corn and high-bred livestock, inoculated legumes and chemical fertilizers all do their bit to add production per acre. *But it is farm machinery that multiplies production per man and puts plenty in the place of scarcity.*

For less than five per cent of farm income, farm machines enable the farm family to feed itself and three other American families, to furnish fiber for most of their clothing, and still leave a huge surplus for export or for the miracles of chemistry. By freeing those other three families to create music and movies, automobiles and radios, high schools and hospitals, farm machinery gives us all our material blessings.

For a hundred years the American system of free enterprise has given us new and improved machines so thick and fast that it was good business to discard the old and replace with new. *We dare not do that now.* Every machine, new and old, must be kept fighting to its full capacity on the food front. To win the battle of food despite less and less of farm help, we must make machinery do more and more.

Speeding the Day of Victory

To meet the need for munitions, Case factories now are producing large amounts of war materiel. Case industrial tractors, too, are being built for the armed services, air fields, ship yards, docks, defense plants and other war agencies. Similar help with the war effort is provided by Case farm tractors, combines, and other machines. They multiply crop-producing capacity per man and help maintain food production despite depletion of farm manpower. On both the military front and the food front their performance reflects the endurance which has been a Case principle for a hundred years. J. I. Case Co., Racine, Wis.



★ ★ ★ ★ **CASE** ★ ★ ★ ★

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

VOL. XXII

DECEMBER, 1942

No. 2

STAFF

ROGER MURPHY *Editor-in-Chief*
 BILL DAVIS *Assistant Editor*
 HAROLD SNYDER *Exchange Editor*
 MARVIN CLARK *Picture Editor*
 JOE JAGGER *Business Manager*
 PAUL L. DITTEMORE *Advisory Editor*

DEPARTMENTAL REPORTERS

KEITH FISH *Agricultural Economics*
 DON WOOD *Agronomy*
 GEORGE CURTIS *Animal Husbandry*
 JOHN WEIR *Dairy Husbandry*
 RONALD CAMPBELL *Horticulture*
 LESTER BRENNEIS *Milling Industry*
 ED BUSS *Poultry Husbandry*

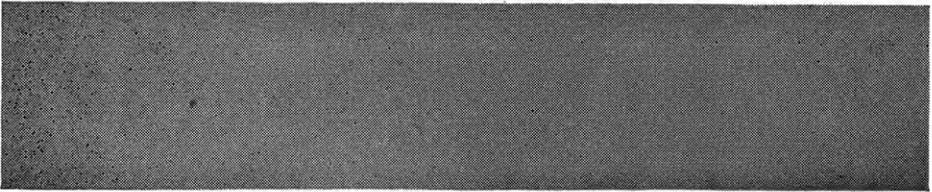
Contents

Individuals Must Act	2	Sorghum Starch Source of Income	10
Representative Ag Students	3	K-State's Finest	11
Frontispiece	4	Agronomists Use Course	11
Sheepskin From Beef Cattle	5	Hort Dept. Has New Farm	12
Students Need Work in English	5	Winner With Torpedo Squadron	12
Photography is a Good Hobby	6	Winter Gets Citation	14
Hines Sees Action	7	Happenings at Other Colleges	15
Silver-Tongued Orator Taught "Big"	8	The Last Word	16
Spencer Tops in Poultry Contest	9	Man With the Hoe	16

THE COVER PICTURE.—The men pictured on the cover are those in the School of Agriculture who will be leaving at the end of the first semester for active duty with the Army of the United States. They have completed their advanced military training here. The men shown are (Front row) Col. J. K. Campbell, head of the Department of Military Science and Tactics; Dale McCune, Delbert Townsend, George Curtis, George Inskip, Bruce Robertson. (Second row) Ronald Campbell, Edward Buss, Daniel Durniak, Harold Rall, Maynard Abrahams. (Third row) Keith Jones, Norman Kruse, Lee Wineland, Joe Jagger, Leslie Sherman. (Photograph by Hanna.)

Published by the Agricultural Association of Kansas State College of Agriculture and Applied Science, Manhattan, Kansas, on or before the Twentieth Day of the months of October, December, March, and May.

Entered as Second Class Matter, May 21, 1925, at the Post Office at Manhattan, Kansas, under the Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized May 21, 1925.



Individuals Must Act

Democracy, as a theory of government, is based on the belief that the people—common, ordinary citizens—have the mental capacity as well as the moral right to determine national policies, both foreign and domestic. A democracy, in other words, is a practical expression of faith in the intelligence of all of us: laborers and skilled workers, executives and taxi drivers, stenographers and farmers—even engineers and newspaper men.

In other words, we inheritors of American democracy have placed a bet—the most colossal bet in history—upon our moral integrity, our courage, and (most of all, since it includes the others) our ability to know and understand the world around us.

Will we win or lose that bet?

Well, we're in the process of finding out right now. We're facing the ruthless challenge of a group of men who have placed their bets on the lack of intelligence in the masses, on the stupidity and grasping self-interest of ordinary men, on their inability to work and sacrifice for the common good. Against the rock of our faith in men washes the corrosive acid of their cynicism, a cynicism which says that common men are incapable of critical thought, that they'll believe any lie if it's shouted loudly enough and long enough, that they desire, not liberty, but authority. And the frightening thing is that they, the cynics, have been winning their bets so far. Germany, Poland, France, Norway—all of them have fallen under the ruthless men, the cynical ones.

They fell because the quality of their response to the challenge of fascism was not high enough. These peoples did not understand what was happening in the world around them. They did not understand that the "facts" of history-in-the-making are not static "things" but rather "trends" or "processes"—that in the structure of societies there are no such static, immutable elements as there are, for instance, in such physical structures as houses or bridges. They failed, as peoples, to realize that in social structures all the elements are fluid and transitional, that everything in a living society is in the process of becoming something else.

And since they didn't understand, they were easily fooled by demagogues who appealed to prejudices clothed in such high sounding titles as "Business" and "Government" and "the Jews" and "Communism" and "Racial Superiority." By their failure to examine critically the slogans and the essentially meaningless terms which the cynics shouted at them day after day, these peoples proved their incapacity to govern themselves as free men. They were ignorant. They didn't think straight. Most of them didn't even try to think straight.

The moral is pretty obvious, isn't it? We can survive as free people only if we're willing to face the problems of our time honestly, acquire the information necessary to the sensible solution of them, and then ACT on the basis of the intelligent decisions which we make. For most of us, this means reading more books and serious magazine articles about the social and economic problems of our time—and then thinking critically about what we read. It means reading such books as Lewis Mumford's "Men Must Act," John Strachey's "The Coming Struggle for Power," de Sales' "The Making of Tomorrow," Hermann Rauschning's "The Revolution of Nihilism"—yes, and such basic documents as Hitler's "Mein Kampf."

This effort to know and understand should be part and parcel of our war effort. It's every bit as important, in the long run, as producing war goods and fighting battles—important as these latter are. Only if we know what we are fighting for, and what must be done to achieve our goal, can we as free men win the war and shape a permanent peace.—*Missouri Ordnance News.*

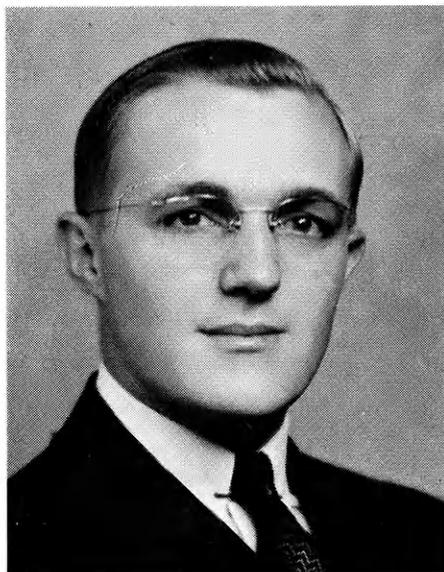
"Representative Ag Students Worthy of Our Recognition . . ."

● *Edward Buss, Francis Gwin and Darrell Russel are the men selected by the Agricultural Student's Faculty-Student Committee.*

Editor's Note—The three men pictured on this page were selected by a committee of three undergraduate students and two faculty members in the School of Agriculture as "representative Ag students worthy of recognition." *The Kansas Agricultural Student* plans to honor at least two students in each issue of the magazine. Some men in the Ag School are outstanding and deserving of recognition. In too many instances the contributions of these men aren't the kind that "make the headlines" but that doesn't make the men any less worthy of recognition. We hope that this recognition will call their achievements to your attention.

"Indefatigable" Is the Word for Edward Buss

The one and only poultry husbandry major at Kansas State is calm, quiet, serious Ed Buss. Ed is one of



... a one-man club ...

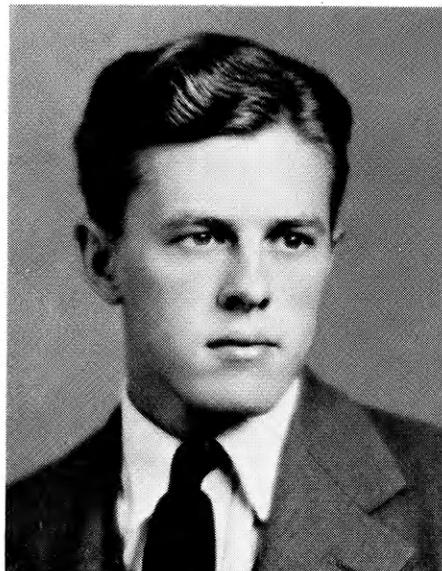
the advanced R. O. T. C. students that will graduate this January. He plans to stay in the army only long enough to see the finish of the war and then come back to K-State to take some graduate work in poultry husbandry.

A story of Ed's work in college is similar to that of a lineman in a football game. He has never had the whole spotlight, but you could find

(Concluded on page 13)

Gwin Is Good at More Than Playing Football

Spectators in the big stadium were quiet. Their spirits were falling and through the snow it was possible to see an under-dog Kansas State football team put the finishing touches to their 19-0 shellacking of the Nebraska University eleven on the Cornhusker gridiron. Play was halted by the final



... wanted to study music ...

gun, and "—when that gun sounded, it was the biggest thrill of my life," declared Francis Gwin, quarterback and captain of the Wildcat eleven.

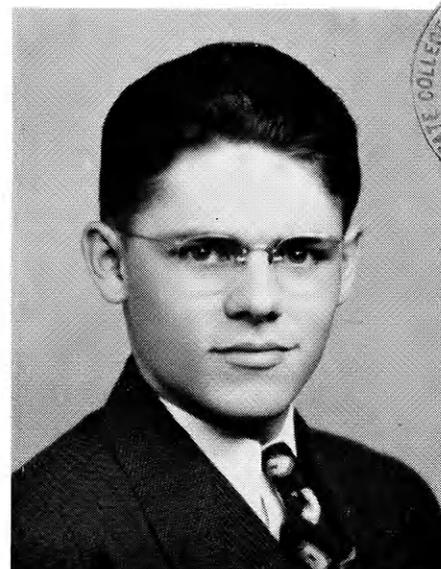
Francis Gwin is a 151-pound, blond haired streak of lightning on the football field and on the campus he is a senior in the School of Agriculture, majoring in agricultural economics. Not a blowhard, "Fritzie," as he is known by his friends, seldom speaks unless he has something to say and is well liked by his classmates. He is a member of Alpha Tau Omega fraternity and the Agricultural Economics Club.

(Concluded on page 13)

It's About Time Russel 'Made the Headlines'

When recognition is given to outstanding students, usually the men who are chosen are those who have made the headlines regularly. Those who have stayed in the background and plugged along, doing most of the work and getting no credit, are often overlooked. Such has been the case of Darrell Russel.

Darrell came to the Kansas State



... long on ambition ...

College campus in the fall of 1939 from Canton, Kansas, with little else besides a good high school record and plenty of ambition. He had been outstanding in high school because of his debating ability, having lettered four years, and because of his scholastic standing, was selected as valedictorian of his class.

He had also been active in 4-H work and had won many honors there. He had been state poultry brooding champion in 1937 and won a trip to the World's Poultry Congress at Cleveland, Ohio. He was sent to the National Club Congress at Chicago as a reward for being project champion of McPherson County. As a climax to his outstanding work in his local 4-H club, Darrell was awarded the Union Pacific scholarship, consisting of \$100, and this was all the financial aid which he had when entering college. However, his desire for a college education carried

(Concluded on page 13)





Jack Cornwell Realizing Sheepskin From Beef Cattle

● *Starting from scratch, Jack is building a registered Hereford herd that has aided him in obtaining a college diploma.*

By JIM SHAVER

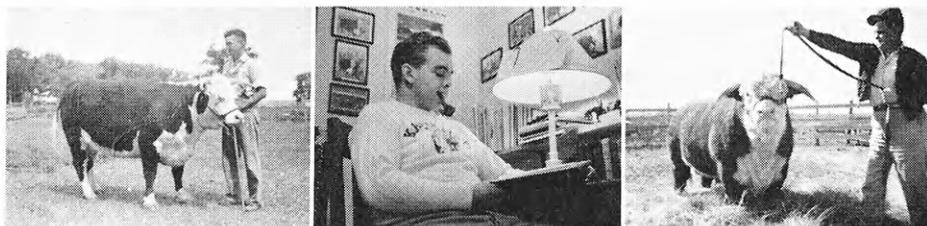
A YOUNG lad 10 years old sat on the corral gate one sunny afternoon and gazed contentedly at his father's cattle. His mind was far away. He was looking into his own future and building air castles like any young American.

That young lad was Jack Cornwell of St. John, Stafford County. One wonders what Jack saw and what he was thinking of? He was a boy with ambition, with courage and with desire. He saw himself reaching manhood with a college degree in agriculture. He saw himself with a herd of registered cattle, one of the best herds in the state and a farm of his own to manage. But with his foresight did Jack continue on and eventually explode his air castles as do

ning of a purebred cattle partnership with his father. A baby beef fed out that same year went on to win the grand championship at the county fair and champion Hereford at the state fair in Hutchinson.

The partnership herd began to grow until in 1933 a registered bull was added to the herd. The next two years eight more heifers were added and by then Jack was ready to enter high school and to begin his higher learning with money of his own earning. By this time his first heifers had increased to a sizeable herd. He went on to finish high school and in the fall of 1938 was awarded a week's trip, expenses paid to the national 4-H club Congress in Chicago.

Seeing new possibilities for himself



These three photographs show Jack Cornwell at various stages of his young life. At the left Jack is shown as a 4-H club youth with his champion Hereford cow. The center picture shows him in a studious pose and the picture on the right is of Jack and the herd sire of his string of purebred Herefords.

many young Americans? No! He set his jaw, bowed his back and started out by placing his foot on the bottom rung of that ladder that leads to success.

In the fall of 1930 at the age of ten he entered the 4-H club of Stafford county with a Hereford baby beef, a gilt, and a Jersey heifer. The year was very successful and Jack's first place with his baby beef in county competition only inspired him on to higher ambitions.

The next year is when the story really starts. Jack purchased two registered Hereford heifers which turned out to be the beginning of his dream herd. The heifers were purchased from S. S. Spangler of Hutchinson, Kansas, and marked the begin-

ning of his dream herd. Jack enrolled in Kansas State College at Manhattan in the fall of 1939. His purpose was to take up the scientific study of Animal Husbandry. With his herd at home rapidly growing in size and quality he too was still increasing his own learning. Last year he again won a week's trip to the International Livestock Exposition in Chicago as a member of the meats team.

Now in 1942 the partnership has grown to a registered string of eighty Herefords with seventy grade cattle. He hopes to increase it soon to one hundred purebreds. During this time Jack has continued in college and will graduate this spring with honors and a degree in Animal Husbandry as he is about to realize his childhood am-

bition. His cattle have helped him to acquire his degree and the prized sheepskin given to college graduates.

His ambitions, records, and will power should stand out to any day dreaming young American as a striking example of what can be done if one sets his mind to do it.



Students Need More Work in English, Faculty Agrees

● *Ag Teachers Hear Report on Tests Given Seniors in Arts and Sciences, Think Ags Should Take Tests, Too.*

Students in the School of Agriculture need a greater working knowledge in English and mathematics, it was agreed by the faculty at a recent meeting. This conclusion was reached after faculty members had listened to reports submitted by Miss Nellie Aberle, head of the English Proficiency Committee of the School of Arts and Sciences, and Dr. W. E. Grimes, head of the Department of Agricultural Economics.

Miss Aberle reported on the results of English proficiency tests given in the School of Arts and Sciences. "One out of every seven students who took the examination failed to pass it," stated Miss Aberle. "These failures can be traced to two fundamental causes," she continued, "a lack of a working knowledge of formal grammar and the inability of the student to organize his material in a logical manner."

Citing specific examples, Dr. Grimes pointed out the need for such tests in the School of Agriculture. "There is also a need for required training in elementary arithmetic for students," Doctor Grimes brought out.

A preliminary vote showed that the faculty unanimously agreed that such tests are advisable.—Don Wood.

Photography Is a Good Hobby But Not for Photographers

● So F. J. Hanna, College Photographer, Ex-Ag Student, turns to keeping bees as his hobby.

By DON WOOD

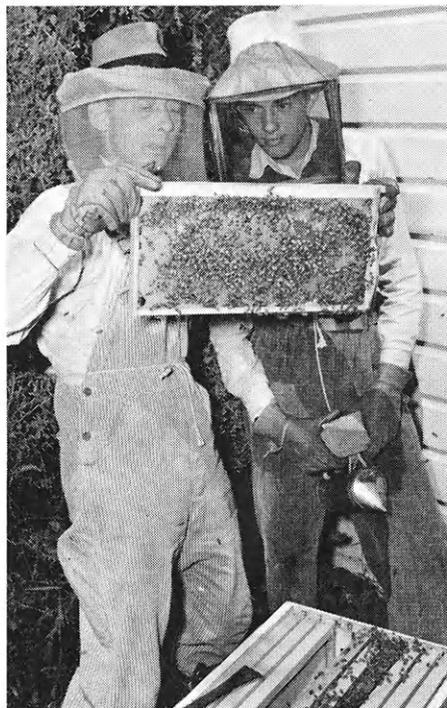
A CAR stopped near a tangled patch of weeds one hot June afternoon. A large man got out, jumped a drainage ditch, climbed over a barbwire fence and started wading through the weeds. A small, wiry man gathered up a large camera and various photographic equipment and tagged along. As the large man barged ahead he was busy searching the ground. Suddenly he stopped. "Here it is!" he exclaimed. Kneeling down, he started clearing weeds away from a small patch of ground. "Just what I want," the large man continued, "four field bindweed seedlings representing the four seeds commonly found in a seed capsule."

Without a word the small man unloaded the camera and set it up over the cleared area. After he had focused the camera for a few minutes he looked up, "Is that what you want to show?" he asked the large man, Dr. J. C. Frazier of the Department of Botany at Kansas State College. "That's fine," nodded Dr. Frazier as he bent over the camera and looked, "Just what I want." The small man nodded, smiled, "O. K., that's what you'll get", and with deft movements he inserted the film holder into the camera and snapped the shutter. The small man was Floyd J. Hanna following out one of his various assignments as Kansas State College photographer.

A farm lover since his boyhood days in Osborne, Kansas, Mr. Hanna enrolled in agriculture at Kansas State. As a student he found time to work in a photography studio and play in the College Band. In this case outside activities were more important than school work because the first activity turned out to be his profession and the second activity led him to the future Mrs. Hanna. The selected vocational study was transformed into a hobby—bee keeping.

"I've always wanted to keep bees," Mr. Hanna revealed, "but I thought that there wasn't room for them in

Manhattan. The fever hit me hard last June though," he continued, "so I finally bought two hives and a swarm of bees." "Later in the summer I caught another swarm to supplement the first one. I haven't collected any honey, of course," related Mr. Hanna, "but I've learned a lot about bees."



F. J. Hanna, the College Photographer, with his son Ray, and some of the bees that Mr. Hanna now has for a hobby.

As we delve into his past we find that when war clouds were gathering over the United States in 1917, Floyd Hanna was playing a clarinet for the Kansas State College Band. It didn't last long for when war was declared, the band enlisted as a unit as the band of the First Regiment of the United States Marines. They were shipped to the Philadelphia Naval Yards for training. While there they had visions of being members of the first American unit to set foot on European soil with the Marines who have

the reputation of being the "first to fight". Philadelphia was taken by storm by the band. Because of this extreme popularity the Commandant of the Naval Yards smashed the boys hopes by arranging for the band to remain in Philadelphia for "the duration".

Although the boys were disappointed because they didn't get to France, they had a good time in Philadelphia. "The Kansas band was quite a curiosity," chuckled Mrs. Hanna as she recalled the ripple of favorable opinion the band created during their stay in Philadelphia, "they seemed to be always in demand." "It was after one of these concerts that I first met Mr. Hanna," she recalled.

When the war was over the Hannas returned to Kansas, and a few years later Mr. Hanna again enrolled in agriculture at Kansas State. In seeking employment on the Campus he called on S. C. Colburn the College Photographer. He was employed, and in 1922 Mr. Colburn made Mr. Hanna the Assistant College Photographer. In 1930, Mr. Colburn left the College and Mr. Hanna was made College Photographer.

"One-Shot" Hanna is one of the best technical photographers in the United States," confided one of his colleagues. "He's like an electric motor," revealed another K-State faculty member, "he doesn't make much noise but he certainly turns out the work."

Twenty-three Freshmen Gain Phi Kappa Phi Recognition

Twenty-three freshmen students of the School of Agriculture were honored this fall by Phi Kappa Phi. A scholarship recognition certificate was presented to each student who had completed two semesters of college work with a B average.

Those students were John Hirleman, Charles Hall, Donald Riffel, Bryce Russel, Charles Herrick, Howard Furumoto, Floyd Rolf, James Wood, Austin Wright, Russell Ehrlich, Kenneth Chapman, Michael Newborg, Samuel Claar, Merle Brehm, Harry Mudge Jr., Jacob Mossier, Donald Flentie, Howard Borchardt, Marvin Jensen, Howard Spencer, Richard Holmes, Jack Muse, and Charles Glenn.—George Curtis.

Hines Sees Plenty Of Action in the Southern Pacific

● *True to Navy recruiting slogan, he is "seeing the world."—Now recovering from slight injuries in Brooklyn naval hospital.*

When Leigh Hines, Ag '42, joined the navy he was wishing for action, and very few have seen more in four months than Leigh's experience has afforded him. His recent letter is well worth reading in its entirety and follows:

"A big hello from New York! It sure is good to get back for a while. One can little realize what we have at home until he leaves it. Not bragging, but I'm a veteran of foreign wars now and I suppose a changed character. That Pacific ocean is no drop in the bucket and we covered it in pretty good shape. I also witnessed two major battles. The first one is pictured in December 14 Life on page 42. The carrier shown on the preceding page was in our task force. The upper left-hand picture shows the bow of my ship with Jap torpedo planes. They didn't last long. I had a ring-side seat and saw them drop like flies. The number of course we can't say. Anyway it was no picture show and every-one was playing for keeps.

"Things were peaceful for awhile before the next tangle. Did you ever hear of Savo island? Well, I'm one up on you—I have some souvenirs from that place. Our task force accounted for one Jap battleship, at least five cruisers, and one destroyer sunk. Also damaged one heavy cruiser, destroyer, and got hits on three other ships, probably transports. So we kind of evened up the score. I was fortunate enough to only pick up a minor leg injury, shrapnel in two places, but everything is ok now.

"I became a yeoman striker two weeks before shipping in. Now that I'm in the hospital, I suppose that's all blown up. Had a good set-up in the executive officer's office as he is second in command on the ship. Something else will probably come along. In the navy you only live for the next day—no more. We get paid every two weeks but money is absolutely worthless out there. Once in awhile

you can buy some poggie bait (candy) but that's not often. No soda fountain. Money sure goes easy when you get to port. Everything's sky high.

"After you see the way those Jap planes are built and one shell sends them to the bottom, it makes you wonder how our planes take it. The Zero is nothing but a plane with a fabricated covering—no armor plating and no sealed gas tank. All they have is a good motor and some of them come from the United States. One plane shot down managed to land on one of our destroyers. It had an American motor.

"This hospital has quite a few English sailors. They are OK. Just think, they only get 90 cents a day and \$18 of that is sent to the wife, if married. We just don't realize what we've got, do we?

"Nothing to do but this is the grandest Christmas I've ever had! My only wish is that every peace-loving citizen like myself could have the privilege to celebrate it as we are. No, I'm not one of the heroes. The only heroes I know are the more unfortunate ones who didn't have the opportunity to return.

"I probably won't get to come back to Kansas. We may get a 10-day furlough but that won't be long enough to make that trip. Our ship will be in New York for awhile yet.

"Tell all the boys hello and tell Mr. Mullen that those Japs are no saps."

Leigh majored in agronomy while in college. He was on the meats judging team which competed in Kansas City and Chicago and was elected to Alpha Zeta. He joined the navy the latter part of August, 1941. His home town is Kanorado, Sherman county.

ARTIFICIAL SUNSHINE FOR HENS

Modern poultry farm hens now bask for several hours a day under portable sunlamps developed specially for animals by Westinghouse lamp engineers. The new sunlamps, source of Vitamin D, eliminate the daily doses of cod liver oil usually fed to chickens but now restricted by the war.

Student

I. E. S. Lamps

\$4.95

**Aggie Hardware
& Electric Co.**

**1205 Moro
Phone 2993**

The young men of
our Armed Forces
are wearing the most
stylish clothes
of our times. . . .

If you're not wearing
the uniform of a
Soldier, Sailor,
or Marine,
We can supply you
with the best
in style -- and the best
in quality in
civilian clothing.

**Don and Jerry
CLOTHIERS**

The 'Silver-Tongued' Orator Taught "Big" to Ride a Bike

●C. O. Bigford, dairy farm employee, does a bit of reminiscing during chore time at the barn.—Once wanted to be "Wheat King."

By HAROLD HACKEROTT

"I SUPPOSE I'm about the only person in Manhattan or Riley County who had William Jennings Bryan as a teacher when I learned how to ride a bicycle."

That statement was C. O. "Big" Bigford's reply to a question put to him by the writer. "I reckon I was 8 or 9 years old," the small, black-haired Dairy Farm employee reminisced. "William Jennings Bryan was our next door neighbor in Lincoln, Nebr. He was just a young lawyer starting out on his long and active career. The bicycle? It was one of those tall affairs with a front wheel that seemed six feet in diameter and a little 'trailer' wheel. It didn't seem so strange then, but one certainly would be a sight today."

All this conversation took place out at the Dairy barn while "Big" was doing chores. Just about the time he finished filling the feed bunkers, he turned to me, and with a twinkle in his eye, confessed that "Later when Bryan got his reputation as the 'Silver-Tongued Orator,' and was a candidate for president of the United States, I used to get on a train and go for miles to hear him talk."

I then followed "Big", as he is affectionately known by everyone, to the locker room where he picked up an empty dinner pail and remarked, "I've been walking to work nearly every day since the tire rationing went on. I'm saving my tires for Sundays when I can ride around with my grandchildren," he chuckled.

"Big" took one hasty glance around to see that every thing was running smoothly, and then we started home. He paused long enough to pick up the half smoked cigar from the secret hiding place. "Big" lighted up and as he blew a cloud of smoke into the sky he said, "I don't walk very fast any more. Ever since a run-away tractor crowded me against a hay rake two summers ago I've got to baby this left leg of mine a little."

We passed through the large wooden corral gate and walked along in silence for a while. It was a still, chilly evening and the sun was just going down. The fence posts cast long flickering shadows across our path. We could still smell the pleas-



C. O. BIGFORD

ing aroma arising from the sweet sorghum stalks in the barn lot. I broke the silence by asking, "Have you always been in the dairy business?"

"No," he replied as he chewed vigorously on his cigar. Then after thinking a while he continued, "I got some big ideas once and thought that I would be a 'Kansas Wheat King.' I farmed wheat for three years in western Kansas. One season I farmed over 1100 acres with horses." He smiled as he said, "I really hit those years lucky."

In 1909 Mr. Bigford was married, and he settled down on a dairy farm in Eastern Kansas. During the last war he started working at the Kansas

State dairy barn. For a year he bottled milk and worked at the dairy sales counter. Then he became herdsman at the college dairy barn, a position that he held until recently when he became the farm foreman.

As we walked across the corner of the campus "Big" glanced longingly back over his shoulder at the dairy barn and commented, "Things have sure changed during the past twenty-five years. We've got a new barn, new ways of feeding and the cows are even better, but just remember that there is still a lot of work to be done in the dairy business yet."

When we approached "Big's" house he flipped the cigar butt into the gutter and smiled as he said, "There is only one place where I don't smoke and that is in the house."

After "Big" had gone into the house and I was alone once again I thought—"Big" is really as big hearted as his name implies. Even though he has a frank, stern manner, in all the years at the dairy barn he has never made an enemy among his employees. He has a cheerful personality with an optimistic outlook on life. He is intensely interested in college students, and he has had two boys in school at Kansas State. His sound practical judgment as a farmer is respected by everyone. Small, wiry, energetic "Big" is always on the move and a man that gets things done.



Phi Kappa Phi Elects Three

Three students from the School of Agriculture have been elected to Phi Kappa Phi. Membership in this national honorary organization is limited to seniors. Selection is based upon scholastic records alone and only a small number of the seniors are eligible. Membership in Phi Kappa Phi is the scholastic goal of students in all schools.

Those students elected were: Warren Schlaegel, George Curtis, and Glen Schulthess.—George Curtis.

Howard Spencer Tops in Poultry Judging Contest

● *Helen Ramsour proves she knows her chickens by winning junior division of the annual affair.*

The largest student poultry judging contest ever sponsored by the Poultry Club was held November 7. Eighty-nine students including home ecs., vets, engineers, and ags competed for the turkey and other prizes.

Top honors in the contest went to Howard Spencer, a sophomore in agriculture. Howard made the highest total score in the entire contest. First prize was a fountain pen. He also won one of the turkeys and a blue ribbon for making the highest score in the senior division.

Helen Ramsour, a junior in home economics, really surprised every one when she made the highest score in the junior division. It wasn't just luck either. Helen has always ranked high in the previous contests. She was also a member of several 4-H poultry judging teams before coming to college.

Second place winner in the senior division was Wallace Lathan. Glenn McCormick was third and Dan Durniak, fourth. These men received ribbons and war stamps. The fifth and sixth placings went to Roger Wilkowske and Eldon May.

Voiland Engle must have looked the hens over carefully too, for he was only four points behind Helen Ramsour in the junior division. William Lichtenhan was third; Allen Shopmaker, fourth; Harold Ramsour, fifth; and Don Riffel, sixth.

Judges in the junior division outpointed those in the senior division in both production and exhibition judging. Voiland Engle made the highest score in production judging with Allen Shopmaker, second and Merna Vincent, third. Bill Hart carried away first place in exhibition judging with Grace Reed and Don Riffel, second and third.

In the senior division Carl Gray was the high scorer in production judging. Wallace Lathan was second while Glenn McCormick won third place honors. Roy Upham beat Cliff

Hartman by a single point to win first place in exhibition judging. Eldon May was third.

Every contestant in this year's contest received a prize. Sixteen ribbons were awarded along with the turkeys, war stamps, pencils, magazine subscriptions and notebooks.—*Ed Buss.*

Twelve New Members Elected to Alpha Zeta

The Alpha Zeta freshman scholarship medal was presented to John Hirleman, a sophomore in agricultural administration, who had a grade point average of 2.97.

Twelve new men were elected and formally initiated into Alpha Zeta this fall. The new men are Darrell Russel, Walter Smith, Harold Riley, Chester Wood, Carl Overley, Arthur Worthington, William Hadley, George Curtis, Robert Pickett, Harold Hackerott, Arthur Hibbs and Warren Schlaegel.

The stag banquet held in honor of the newly initiated members was attended by 37 active members. Bruce Robertson presided as toastmaster. The program consisted of an interesting talk by Doctor J. T. Willard, college historian, and the introduction of the new men by Jack Cornwell.

—*John Weir.*

Johnson Wins Swift Essay Contest

Malvin Johnson, Moran, Kansas, a Dairy Husbandry senior won the sixth Swift Essay Contest. Johnson received a check for \$50 to defray expenses to Chicago and return. While there he attended the International Fat Stock Show early in December and a four-day school sponsored by Swift and Company for winners from 25 or more state colleges.

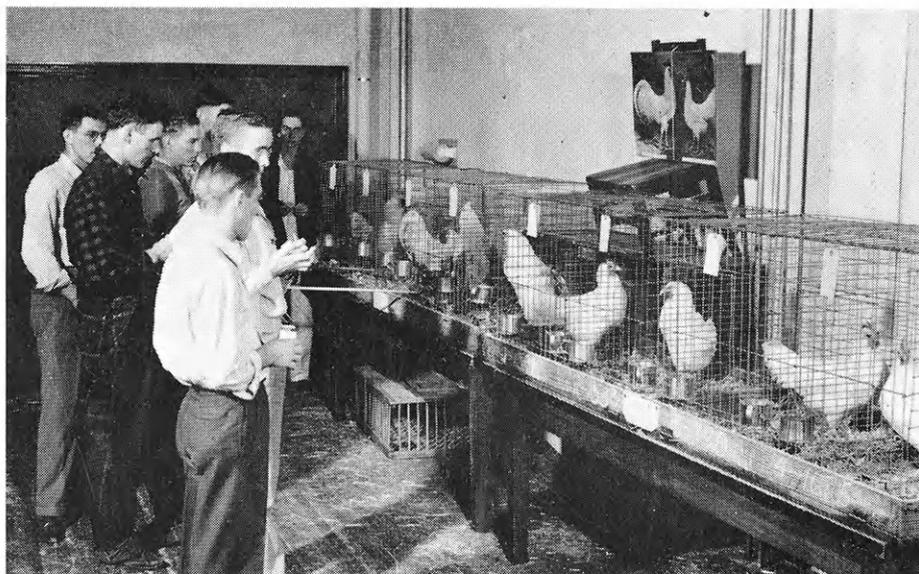
Malvin, who is working most of his way through college, is in the advanced R. O. T. C. He was on the college dairy cattle judging team last fall.

"College Life a Snap"

"If any of the boys complain about school running the year around, tell them they should be glad the army isn't running the college or they would be in school not only the year around almost the clock around, 24 hours per day. We're at it seven days a week almost 24 hours a day. But we think a Jap skin is worth while working for as well as a sheepskin."

Bill McMillan,
Army Air Corps,
Sheppard Field, Texas.

The Poultry Judging Contest



—Photograph by F. J. Hanna.

This photograph was taken during the annual Poultry Judging Contest staged by Ed Buss (alias the Poultry Club) and shows a few of the many students who entered the contest.

Sorghum Starch May Prove Source of Income To Farm

● *Chemists find in experiments that sorghum starch can compete on the market with corn starch.*

By HAROLD SNYDER

ORDINARY grain sorghums, that we have always known as a livestock feed, are now being converted into a high quality industrial product, which from all appearances promises to open up a new source of income for Kansas farmers. Good quality white starch, that can compete on the market with corn starch, has and is being made here on the campus, from nearly all the popular varieties of grain sorghums grown in the state. Possibilities are also very favorable toward the development of many different industrial products from the waste materials of the process as well as from the starch itself.

Impossible as these facts may seem, they have been brought about by a research project, started here in 1938 through the efforts of Dean L. E. Call, Director of the Experiment Station, Dr. J. W. Greene, Head of the Department of Chemical Engineering, Dr. H. H. King, Head of the Department of Chemistry and Dr. H. N. Barham, also of that department.

In addition to the ordinary white starch production Doctor King reports that they have found a much needed substitute for the waxy tropical starches or tapioca, in the starch made from the waxy sorghums such as Leoti Red and Schrock. Of the 350 million pounds of starch that was imported before, and is not available now due to shipping problems, 300 million pounds can be substituted by other products, but a product with the same peculiar properties of the waxy tropical starch is absolutely necessary for the remaining 50 million pounds. This starch is used in industry for producing mucilage for products varying from the glue on envelopes to manufacturing plywood.

Difficulty was experienced at first since the red color of the Leoti Red variety came out in the starch. A new hybrid, a cross between Leoti Red and Club Kafir, has been developed by A. F. Swanson at the Hays Branch of the Experiment Station,

which in addition to producing an easily milled white waxy starch, is a combine type which yields well.

In the Department of Chemical Engineering, where the starch is extracted from the grain, Doctor Greene reports that good quality starch has actually been produced from Milo, Cheyenne, Wheatland, Feterita, Pink Kafir, Red Kafir, Standard Blackhull, Western Blackhull, Early Sumac, Leoti Red and Schrock. The yields of starch were high, 60 pounds of dry starch being produced from 100 pounds of dry grain.

After the starch is extracted it is transferred to the Industrial Chemistry department where, under the supervision of Doctor King and Doctor Barham, work is progressing toward the production of many new products from the sorghums. This program has been nationally recognized and has been financially aided by industry by several thousand dollars. According to Doctor Barham several important steps have been made in the laboratory. Although not many definite products can be named as yet, he has a sample of varnish which appears to have all the qualities of a good product. However before new products can be produced, a compound must be used to make the change from the original substance to the product. These products, called "reactive intermediates" by the scientists, are the principal subject of study at present. Real progress is being made however, and according to Doctor Barham, one of the leading carbohydrate chemists of the United States, when shown a material they had produced here from sorghum grains, could only exclaim in amazement that "It's impossible!"

Those in charge of this program believe that plastics can be made from some of the derivatives of the sorghum grain. Doctor King points out that although plastics are widely used, as yet there is none in production that are really cheap. Starch, he says, is

cheaper per pound than the cellulose now used for plastics. Desk tops, wall paneling, woodwork and an almost endless number of objects will be made from plastics, as soon as a cheap plastic is found, and this is not likely to be far in the future, Doctor King states.

Efforts are now under way to construct a sorghum starch plant here, of about 1,000 bushel capacity, so that the actual cost of commercial production can be determined. At present eastern industrial companies are definitely interested. So within a few years farmers may be hauling sorghums, not only into feed lots, but to the starch mill to be converted into commercial starch. It now appears very possible that these sorghums may then be shipped far and wide, after being manufactured into innumerable industrial products—from Kansas farms!

Kansas City has the largest grain elevator in this country and Wichita has the largest broom corn market in the world.

Books and Supplies

FOR ALL

Classes

AND

Laboratories

AT THE

COLLEGE BOOK STORE

*The Friendly Book Store Nearest
the Campus*

Eleven of Kansas State's Finest



The men pictured above, with the exception of Carroll Mogge, all are graduates of the School of Agriculture now in some branch of the Armed Forces. The pictures were taken while the men were visitors on the Campus. The men are: (top row) Lieut. Merrill Abrahams, Army Air Forces; Lieut. Wm. Alsop, Army Air Forces; Ensign Bert Danielson, U. S. Navy; Lieut. Leo Hoover, Quartermaster Corps, U. S. Army; Lieut. Nolan McKenzie, Infantry, U. S.

Army. (Bottom row) Carroll Mogge, radio technician, U. S. Navy; Pfc. Warren Rhodes, Military Police, U. S. Army; Ensign Joe Rogers, U. S. Navy; Yeoman Henry Smies, U. S. Navy; Lieut. Arlin Ward, Army Air Forces; and Lieut. Mack Yenzler, Quartermaster Corps, U. S. Army. (Photographs by Hanna.)

Two Agronomists Put College Course To Work

- *Wood and Rake use experience of grain grading and judging class during summer jobs.*

Two Agronomy students broke into the professional world last summer by making a practical application of the knowledge made possible by the purchase of a \$3.00 Grain Grading and Judging fee card.

Dale Rake and Don Wood patiently bent their necks and fought spring-fever while they gazed into grain samples, given them last spring by Prof. J. W. Zahnley. At that time it was just a routine job which they knew would add two hours to their major electives, but later proved to be quite different. Scarcely had they taken the final examination when that opportunity everyone "dreams of knocked on their door.

"If you ever take a Civil Service Examination, put on your thinking

cap," said Dale Rake, "because the tests are tough and thorough." After passing the test, Rake was hired by the Kansas State Grain Inspection and Weighing Department at Topeka, Kansas. His job consisted mainly of taking, weighing, and grading samples of wheat sent in from all parts of Kansas.

After working nearly a month at Topeka, Rake was transferred to Atchison, Kansas. Kansas summers are known to be hot, but according to Dale, box cars of wheat have no cooling effect. Rake asserted that his work was interesting and hopes to follow the grain trade for a life occupation.

Don Wood was employed at the State AAA Office in Manhattan, Kansas. His work consisted primarily of making grade determinations on the wheat samples sent from all sections of the state. These grades were the basis on which the Commodity Credit Corporation made government loans to the farmers.

"A course in Grain Grading and Judging is time well spent," said Wood, "I'll check it highly."

—Carl Overley.

DIAMONDS

Our selection
excels in

Brilliancy

Perfection

Beauty

*Variety of
Settings*

REED'S TIME SHOP

SOSNA THEATRE BLDG.

Horticulture Dep't. Now Has a New Farm

● 57-acre tract southwest of Manhattan will afford facilities for research in fruits and vegetables.

Plans are being perfected for the development of the new horticultural farm located in the Ashland Bottoms 6 miles southwest of Manhattan, immediately south of the Soil Conservation Nursery.

Buildings, which are to be constructed of stone, will include a dwelling house to be used by the farm foreman, a barn to house work animals and store feed, a packing shed to be used for storage of vegetables and fruits, and a tool and machinery shed.

The most extensive plantings will be made next spring if the necessary labor and materials are available. The main divisions of the planting will be fruits, vegetables, and nuts.

The fruits to be planted are the tree fruits, small fruits, and grapes. The tree fruits with four important sections are: first, for testing new varieties; second, for testing of rootstocks; third, for the growing of a simulated commercial orchard; and fourth, a student orchard for practice work.

The small fruits planting will include brambles and strawberries in which varieties and soil management practices will be tested.

The grape varieties will be tested for productivity, hardiness and quality of fruit.

In the vegetable plantings particular attention will be given to the testing of new varieties and the improvement of cultural practices. If a well with sufficient capacity can be secured it is planned to irrigate all the area devoted to vegetables.

The nut grove will include plantings of black walnut, pecan and hickory and will be an ornamental feature as well as source of study.

The soil, a well-drained deep fertile sandy loam of alluvial deposit, is ideally suited in all respects for a horticultural enterprise.

—Ronald Campbell.

Bill Winner Now With Torpedo Plane Squadron in Pacific

Ensign Bill Winner, Ag '41, piloting a Grumman Avenger in the South Pacific, writes of a show he put on for the ground crew and in which he had the leading role.

Writes Bill, "Had a little excitement yesterday to help take the dullness out of flying. I pushed over in a dive and about half-way down the oil started siphoning out of my engine. It also caught on fire. The boys said it was a swell show. Flames and smoke rolling out of it. Just lost 23 gallons of oil but I got everything under control and a couple of minutes later had it setting on the field below. I was glad it happened near shore or otherwise I would have had to try my rubber lifeboat and I am not in a hurry for that. With no oil in an engine it takes only a few minutes to burn it up. Got the issue of the Ag Student. Boy, those corn-fed lassies look pretty good out here. Tell me all the news. I can't even figure out how many years it has been since I left K. S. C."

Bill majored in agricultural economics in college and was a member of the senior poultry judging team which won first place at Chicago. He was elected to Alpha Zeta and Gamma Sigma Delta and was on the Ag Student Staff. His home town is Topeka.

College Sheep Win Many Prizes at American Royal

Kansas State College really brought home the bacon with their sheep winnings at the American Royal Show this fall. Twelve first prizes, two championships, and two grand championships were the places won on the entries shown by Tommy Dean and Prof. R. F. Cox.

A look at the awards shows that Kansas State had the first place wether and the first place pen of three wethers in each of the following breeds: Shropshire, Hampshire, Southdown, Rambouillet, Heavy Crossbred, and the light Cross-bred. In the Dorset classes second place was won on individuals and second place on the pen of three. In addition the College had the champion Cross-bred and the champion purebred wethers. Finally the College had the grand champion wether and the grand champion pen of three wethers. Both of the grand championships were won with Southdowns.

Tommy Dean and Professor Cox both deserve a lot of praise for their efforts in making this sweep of the American Royal prizes.

—George Curtis.

The principal use for buttermilk other than as a food is in paint.

It is estimated that every year in this country cattle grubs spoil enough leather to put soles on the shoes of nearly 31 million men.

Diamond rings
Birthstone rings
Expansion bracelets
Identification bracelets
Locketts and Crosses
Leather Goods
Silverware

Paul Dooley

JEWELER

Aggieville

Open Evenings

EDWARD BUSS

(Concluded from page 3)

Ed where there was work to be done. He played a clarinet in the College band for two years; he is a member of the Athenian Literary Society and has been a member of the Inter-Society Council as a representative of the Athenian organization. Every Collegiate 4-H member knows of his work in that organization. Probably he has gone on more advertising trips for the Who's Whoot than anyone else in college. Ed also won a Camp Miniwanca scholarship in 4-H work. Some of his activities in Y. M. C. A. have been cabinet member and program chairman. Every fall Ed could be depended upon to help with the Ag Barnwarmer, and of course the Poultry Club is Ed's own exclusive club now. He, as the only member, staged the largest poultry judging contest this year than ever before.

Ed has been entirely self-supporting all through college and because of this the first two years of college life he resided and worked at the poultry farm. He still works there but since the fall of 1941 he has lived at Farm-House Fraternity. He has been treasurer of this fraternity since last spring. Ed made Phi Kappa Phi honors when he was a freshman and was elected to Alpha Zeta in the fall of his junior year.

With all his extra-curricular activities you wonder how he finds time to go to school, let alone work, but here is a record for any freshman to shoot at; during Ed's junior year he got up at 4:30 or 5:30 every morning to work at the poultry farm and carried 38½ hours of College work. One record that Ed is especially proud of is the fact that he has missed going to church only one Sunday since he started to college. This well illustrates his good character and personal traits.

—Bill Davis.

GWIN IS GOOD

(Concluded from page 3)

Music is Fritzie's hobby, and he means classical music—not jazz. "I've had voice lessons every semester except this one," he revealed. "I also played the violin in high school but I gave it up when I came to college because I didn't have time for it. I've always wished that I could have had enough money to go to a conservatory

of music," he confided.

Fritzie had nothing to reveal about his future plans. "R. O. T. C. and the army are making all my plans for the present," he explained, "so I leave at the end of the semester to take my slap at a Jap."—Don Wood.

DARRELL RUSSEL

(Concluded from page 3)

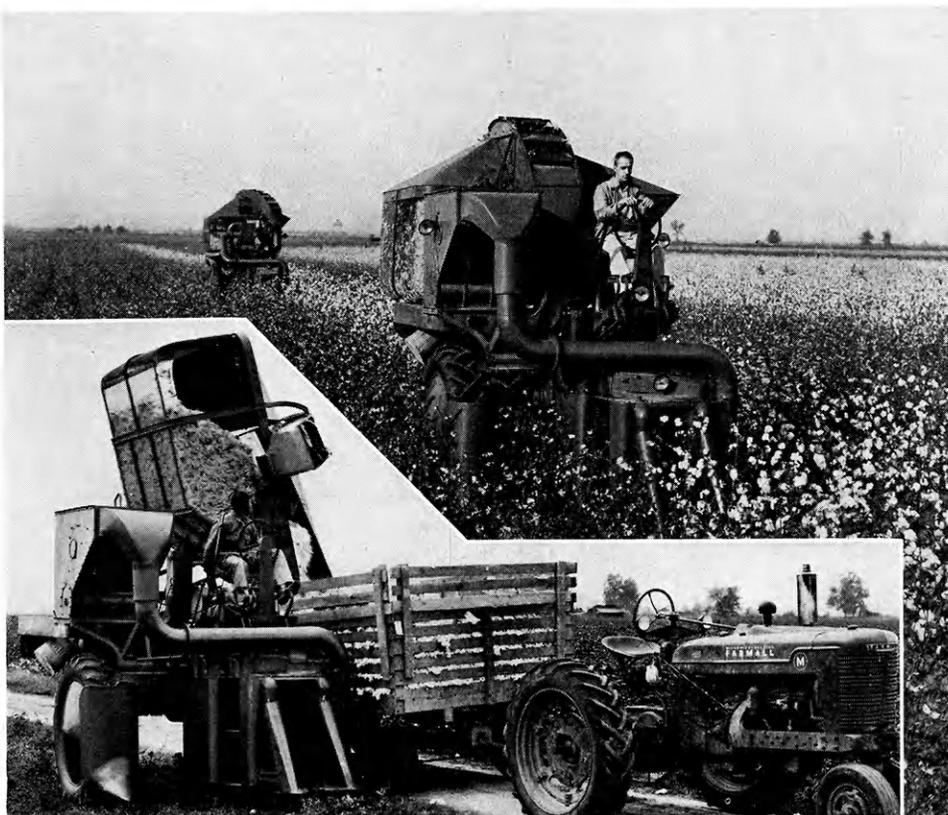
him through and he was able to get work enough to pay his school expenses. He has worked all his own way from that time until now.

Darrell has not let his having to work for an education interfere with either his scholastic standing or his extra-curricular activities for he has given a good account of himself in both. His 2.10 average in addition to his other abilities was sufficient to warrant his election to Alpha Zeta

and to keep him in the upper bracket of his class. He is an active member of Collegiate 4-H and has served as recreation chairman, marshal, and was president during the 1942 summer term. He was one of the delegates from the Collegiate club to the 1941 conference of the American Country Life Association held at Nashville, Tenn., and has also worked on the business staff of the Who's Whoot. Among other extra-curricular activities are membership in the Klod and Kernel Klub and the Athenian Literary Society.

Darrell's immediate future is already planned for he will receive his commission in R. O. T. C. at the close of the present semester. He will be a few hours short of completing his agricultural course and looks forward with anticipation to the ending of the war when he can return to the K-State campus to complete work for his degree.—Tommy Benton.

At Last, a Cotton-picking Machine!



Share-croppers and writers of "Mammy" songs, both groups having some interest in picking cotton, should begin to wonder where this cotton-picking machine will put them eventually. This machine, developed by the International Harvester Co., is shown in field trials. The upper photo shows the machine in operation and the lower photo shows the hopper being unloaded into a waiting barge which will haul the cotton to the gin to separate the fiber from the seed. (Photos courtesy International Harvester Co.)

Lt. "Stan" Winter Gets Citation for Conduct in Action

● *Former barnwarmer manager now with U. S. forces in African campaign—May get promotion in rank.*

Word has recently been received in the Dean's office of citation for "exceptional meritorious conduct in action," with a recommendation for promotion in rank, for Lieut. J. Stanley Winter, Ag '41. While in college Stan majored in animal husbandry. He was manager of the 1940 Ag Barnwarmer and a member of both the junior and senior livestock judging teams at Denver, Kansas City, and Chicago; and was on the Ag Student Staff. He was elected to Alpha Zeta, Gamma Sigma Delta, Dynamis, and Phi Kappa Phi.

As evidence of some good home farm experience and some information picked up in his meats course, Stan says, "Boy, was I in my glory yesterday. We bought a couple of hogs for Christmas and I showed these New York hicks we have in the company how to butcher them. We're barbecuing one for tomorrow then are going to roast one for New Years. The men are really getting a kick out of it. Two of the darndest rowdies are voluntarily standing out in the rain turning the spit and taking care of him. In fact, I'm getting quite a kick out of it myself. (I don't know why I say "outside" because all the shelter I have is a canvas lean-to rigged up under a couple of pine trees. It's not bad though and I'm

going to be a tough hombre when I get back.")

Stan was sent to England last July and made the trip to Africa with the invasion forces in November. His home town is Hoxie, Sheridan county.

Alpha Mu Initiates

One Kansas State College senior and three sophomores were initiated into Alpha Mu at the fall initiation. Flour sacks, paper grits sacks, and white coveralls worn by the initiates, floured the campus during the week of the initiation.

The senior miller elected was Hall Milliard from Manhattan. The sophomores included Kenneth Chapman, Abilene, Jack Muse, Manhattan, and Foster Yeager, Manhattan. All four students are majoring in cereal chemistry.—*Lester Brenneis.*

120,000,000 POUNDS OF BEEF

Americans in 1941 consumed more than 120,000,000 pounds of beef made extra tender with the aid of invisible ultraviolet rays generated by Westinghouse germ-killing Sterilamps. Part of a process known as Tenderay, the germ-killing lamps enable packers to use higher temperature and humidity to speed up tenderization without danger of bacteria and mold growth which would ordinarily spoil the meat.



K-State Ags Rate Recognition

Among the list of K-State students who were selected for membership in "Who's Who Among Students in American Universities and Colleges" are listed four students from the School of Agriculture. Those students whose names and biographies will appear in the 1942-'43 edition are Keith Jones, Penalosa; George Inskeep, Manhattan; Ned Rokey, Sabetha; and Joe Jagger, Minneapolis.

The selections are made by impartial committees of faculty members and are based on the requisites of membership of the national organization. The requisites are character, scholarship, leadership in extra curricular activities, and potentiality for future usefulness to business and society. Juniors, seniors and students in advanced work are eligible.—*Don Riffel.*

College Drug
621 North Manhattan Ave.

BOXES
FRESH
CANDY

Johns' Candy
Shop
AGGIEVILLE

Interesting Happenings At Other Ag Colleges

No Show at Illinois

The University of Illinois will not hold their "Little International" this year since—"After considerable deliberation—the Hoof and Horn Club decided that in the face of present conditions it would not be advisable." The main reasons are the low animal husbandry enrollment, and comparatively few show fattened stock at the farm. The principal reason for the show was to provide funds to send judging teams to contests, which is no longer important since judging teams have been disbanded for the duration.

Barns Burn at Cornell

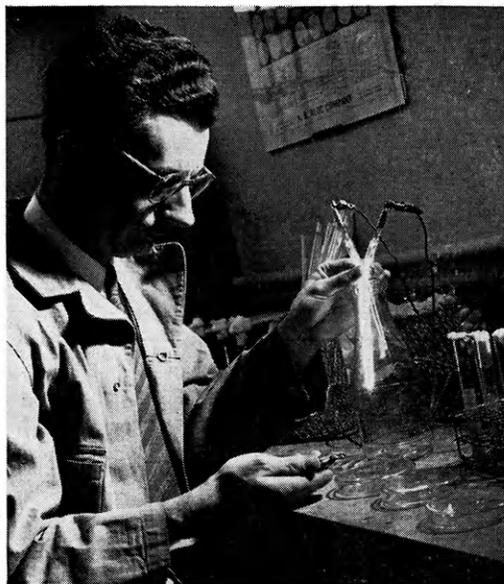
Fire swept the horse barns at Cornell University, damaging the buildings to an extent of \$50,000. The fire which was of unknown origin occurred on a Sunday afternoon late in October. The building housed the University work horses and some experimental animals as well as a large amount of experimental air conditioning machinery. The machinery was ruined and several experimental animals suffocated and burned to death but all the horses were brought out safely. The barn was built only four years ago.

Dairy Course at Georgia

The University of Georgia announces the establishment of a dairy department, which will give instruction to college students in dairy farming and in manufacturing and processing of dairy products. Short course training of a practical nature will be offered for those persons engaged in both production and manufacturing work. Official testing and herd improvement will be a service feature available for dairymen and breeders of Georgia.

Wisconsin's Idea a Good One

The University of Wisconsin has recently reorganized their "Agricultural Activities Bureau," which consists of a representative of each club or organization of the Ag School and keeps complete information as to the time of meeting, purposes, fees and officers of each. The bureau meets three afternoons per week for inter-



A Westinghouse research worker demonstrates the new ultra-violet sterilizer used in sterilizing milk bottles.

views on extra-curricular activities or any other problems of campus life and may also be called on outside of these hours. This gives an opportunity for people on the ag campus, especially freshmen and transfers, to become familiar with the numerous clubs and organizations. Students are informed of coming events by a bulletin board posted by the bureau.

Tennessee U Tests Cotton

The University of Tennessee has set up a new cotton fiber testing service in connection with its Fiber Research Laboratory which through the use of three machines, the Fibrograph, Arealometer and the Pressley instrument, test the length, area and strength of the cotton fibers, for persons sending in samples.

From Pilot to Prisoner

Bob Jones, M. I. '40, is a German prisoner of war according to word received on November 19 by his parents at Wichita from the War Department. He was piloting a Flying Fortress (B-17) that was downed over Germany sometime during October.

Bob went into the Army Air Corps a short time after he was employed by the Standard Milling Company following graduation. He received his "wings" last summer.

While here in college, Bob was an active member of Theta Xi social fraternity.—Lester J. Brenneis.

First Lieut. Lee R. Mitchell, who was a student in the School of Agriculture in 1937, '38 and '39, has been reported killed in an airplane accident in the North African battle area.

Damage from stem rust to wheat, oats, barley and rye was less in 1941 than in the last 22 years.

YOU'VE MISSED A TREAT

If You Haven't Tried
Slim's 3-Star Specialty

- ★ Slimburgers
- ★ Coors
- ★ Foot-Long Hot Dogs

Also Full Line of Smokers'
Supplies

"SLIM'S"
Shamrock Tavern

619 N. 12th Aggieville Phone 4184

The Last Word

Editorial Comment



Editor's Note—

(Mr. S. M. Harris, who wrote "The Man With The Hoe", is a farmer living west of Manhattan. He was formerly employed by the Department of Horticulture. Mr. Harris has had nine children graduated from Kansas State College.)

Don't Overlook College Training

Next semester's enrollment in the School of Agriculture will be the smallest in many years. Only a few freshmen are expected to re-enroll. The army and the farm labor shortage are the main causes for this decrease.

President Farrell has urged students to remain in school as long as possible before joining the armed forces. He has emphasized that the army and navy need trained men and that college is the place to get this training.

This is also true for the post-war period as America will need more trained men than ever before. The years following the war will be the most important and trying times of this country's history. There will be a great demand for the man who knows how and why.

It is always hard to come back to school after laying out a few years. The need to get started farming or working will seem more important than your college education. You may think you are too old to go to college or that you can't afford it. Just remember that everyone will be in the same situation. And don't overlook the fact that you can help your country and yourself more, now and in later years, by continuing your college training.

If it is necessary for you to drop out of school, plan to finish your education at some future time.

No Royal This Year

The Little American Royal has long been an outstanding feature of Farm and Home Week. But this year the decrease in enrollment has made it necessary to discontinue the Royal. The decision was made when it became apparent that next semester's

enrollment would be even smaller than this semester's.

The Royal was started twenty years ago. Since then many visitors at Farm and Home Week have filled the judging pavilion to watch students vie for top honors in the Dairy and Block and Bridle divisions of the contest. The contestants had an opportunity to demonstrate their skill in fitting and showing animals. Many farm boys came to college without experience in fitting show animals and learned how it was done while participating in the contest.

Along with judging teams the

Royal becomes another outstanding activity of the School of Agriculture to be temporarily suspended because of the war. But when the war is over we'll all look forward to seeing another Little American Royal.

RICE WEEVILS TO TELEVISION

A high frequency radio tube which now helps to make television broadcasts practical was originally used to kill weevils spoiling millions of bushels of grain each year (a problem which has been successfully accomplished). Insects which came within range of the 60 million cycle tube died instantly of a high fever.



The Man with the Hoe

I am the man with the hoe.

I am the lawful consort of the Graces, Ceres, Pomona, and Flora,
And the faithful coworker with Health,
I draw sustenance from the bosom of Mother Earth
And give nourishment to man and beast.

I search the ends of the earth for plants that may be used for food and clothing for man and the beasts of the field that serve me.

I am the man with the hoe.

I take from the hand of Nature, and adapt to human use.
I hybridize, I select, I discard.

I bud, I graft, I cultivate, I change, I transform.
Thus forming a partnership with the Creator.

I am the man with the hoe.

I take the briar and the bramble and transform them into fruits and flowers.
The weeds of the woods and roadside, and make of them things of beauty.
I bring to your homes the beauties of distant lands,
And fill the air with the odors of mountain and valley.

I am the man with the hoe.

I imprison the snows of the mountains, and lead the streams into the desert;
I make the habitat of the horned toad and the rattler to yield nectar,
And replace the cactus and sage brush with the fruit tree and the vine.
I clothe the valleys with fruitfulness, and the hills with verdure.

I am the man with the hoe.

I take the land of the bison and the antelope, and make it to grow the best wheat in the world.
I fill the hungry world with bread, and send my meats to distant lands.
I bring to your doors the merchandise of foreign lands and clothe your daughters in silks and jewels.

I am the man with the hoe.

Neglect me and your fields wither
Your trees cast their untimely fruits;
The bloom fades from the cheeks of childhood,
Sickness and poverty invade the land, and crime increases.

I am the man with the hoe.

Companion with me and I will lead you into ways of pleasantness and paths of peace.
Your bins shall be filled with abundance, and your shelves with dainties;
Homes shall spring up in the land, and become as the bowers of Eden.
I am the man with the hoe.

—S. M. Harris.

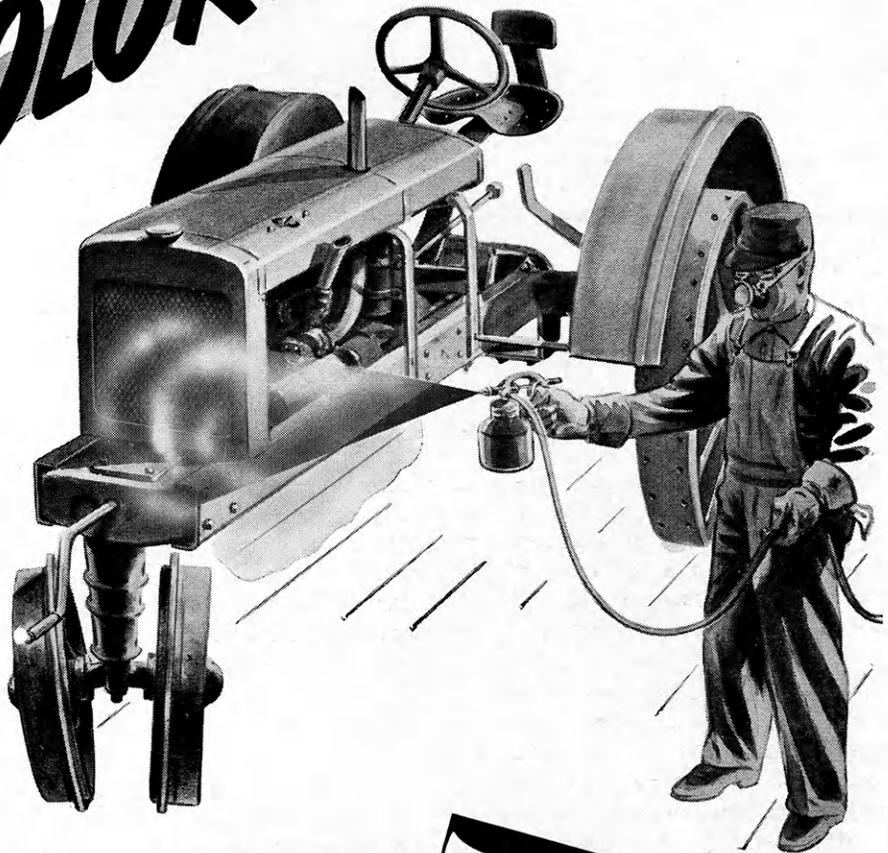
THEY CALLED to the COLORS

THEY have covered a lot of ground in their time, these models of a bygone year. Yet now they face the severest test of all—growing a crop that must not fail, in a year of long hours and hardship for all men and machines.

It's the old timers with shaky bearings and tired pistons that have a battle on their hands. Without new machinery to take their place, they must carry a full load alongside the younger streamliners.

Can they stand the pace? That depends on how quickly farmers act. There is still a chance for implement dealers to give all such machinery a thorough going-over. But farmers must get started *immediately* . . . order repairs in time to notify factories what will be needed.

There is a tender spot in your Allis-Chalmers dealer's heart for the old-timers he has sold. He has seen them introduce power farming in the community, pay for farms and send youngsters through school. With special pride, he is decorating them now with the Farm Commando eagle emblem . . . sending them out once again newly painted and "Ready to Roll!"



Every A-C machine ready for peak performance and passing inspection by Allis-Chalmers dealers will be awarded a beautiful red-white-and-blue FARM COMMANDO emblem.

Watch for your A-C dealer's Farm Commando machinery and tractor school—your chance to get first-hand tips from factory experts. Local officials, ag classes, 4-H and FFA boys are invited to attend this educational short course on machinery care.

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE • U. S. A.

TO BETTER LIVING

TO BETTER FARMING

TO VICTORY

BUY WAR BONDS
AND STAMPS!

INSPECT
EQUIPMENT NOW!

TURN IN YOUR
SCRAP!

ALLIS-CHALMERS MAY BE ABLE TO HELP YOU

ALLIS-CHALMERS MFG. CO. Dept. 43, Tractor Division, Milwaukee, Wisconsin
Gentlemen: Can you help me locate the following equipment, no obligation to me:

I have the following equipment for sale to someone who needs it:

Name _____ County _____

R. F. D. _____ Town _____ State _____





Farm Machine Production Cut to ONE-FIFTH!

THE War Production Board on October 20 issued the 1943 Farm Equipment Limitation Order, fixing the amount of farm machinery which can be manufactured between November 1, 1942, and October 31, 1943. As this new order drastically affects the ability of the International Harvester Company to supply machines to its farmer customers, we feel that a brief statement is necessary in order that you may plan your future operations far enough in advance to safeguard the nation against any serious interruption in the Food-for-Freedom program.

New Machines Cut to ONE-FIFTH

The purpose of the 1943 Limitation Order is to limit the entire farm equipment industry to produce for American farmers during 1943 not more than 20 per cent, or one-fifth, of the amount of new equipment that was built in 1940.

The government has further adopted the policy of concentrating this limited production for 1943, insofar as possible, with smaller manufacturers. The 1943 Limitation Order therefore provides that preference shall be given to manufacturers on the basis of their size. A group consisting of the smallest manufacturers has the smallest cut in production, a second group of small to medium-size manufacturers comes next, and the larger companies have the largest cut in production.

The result is that the 1943 Limitation Order stops production completely on the great majority of farm machines heretofore manufactured by International Harvester. On a comparatively few machines we are permitted to continue production on a severely reduced basis. It means that our company's 1943 production will fall substantially below the 20 per cent of 1940 average for the whole industry. On a tonnage basis, our company's 1943 production of new machines will be only 14 per cent of 1940, and 12 per cent of the 1941 output. Other companies similarly classed as large manufacturers will be similarly affected.

All Equipment to Be Rationed

As you have been previously advised by the United States Department of Agriculture, this small amount of new equipment will be rationed to farmers, under a rationing system established by the Department of Agriculture.

The 1943 production program was adopted by the War Production Board, in cooperation with other governmental war agencies, as a part of its plan to curtail use of steel and other critical materials so as to increase the amounts available for the production of ships,

planes, and weapons of war. Only the government could decide a question of such far-reaching importance.

Harvester's Wartime Pledge

Our company, of course, is keenly aware of the shortages of manpower and equipment with which farmers in many sections of the country are contending. Much has already been done by resourceful farmers and many patriotic groups to overcome these handicaps. Governmental agencies are undertaking to deal further with the problem. We are sure that the farmers of the nation will make every effort to produce the food required in 1943.

The International Harvester Company desires to state clearly that it will cooperate earnestly with the government's 1943 Limitation Order. We pledge anew to the farmers that we shall do our utmost, within these limitations, to help them with their equipment problems in 1943.

We can be of greatest help to our farmer customers in every community by continuing to supply them with repair parts and services for the McCormick-Deering equipment on which they have relied for so many years. The 1943 Limitation Order permits production of substantially the same volume of repair parts as produced in 1942. Harvester will continue to produce repair parts up to the limitations of the order and available materials, and will do everything in its power to help the McCormick-Deering dealers maintain the best service facilities possible under wartime conditions.

Put New Life in Your Old Machines!

The owners of McCormick-Deering machines can perform a patriotic service by ordering needed parts and arranging for service to keep their existing equipment in use for the longest possible time, thereby saving steel and other materials for war manufacture. McCormick-Deering dealers will make every effort, within the restrictions imposed on them, to carry adequate stocks of repair parts and maintain service men for that purpose. This should make it possible for our customers to continue using the machines with whose design, performance, and quality they are familiar, and to maintain their farm production at the highest possible levels under the circumstances.

For your country and your peace of mind, check over your machines and tools. *Make sure that you order all parts and service work in time for the job ahead!*

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue Chicago, Illinois

INTERNATIONAL HARVESTER