

cap 2

KANSAS FARMER

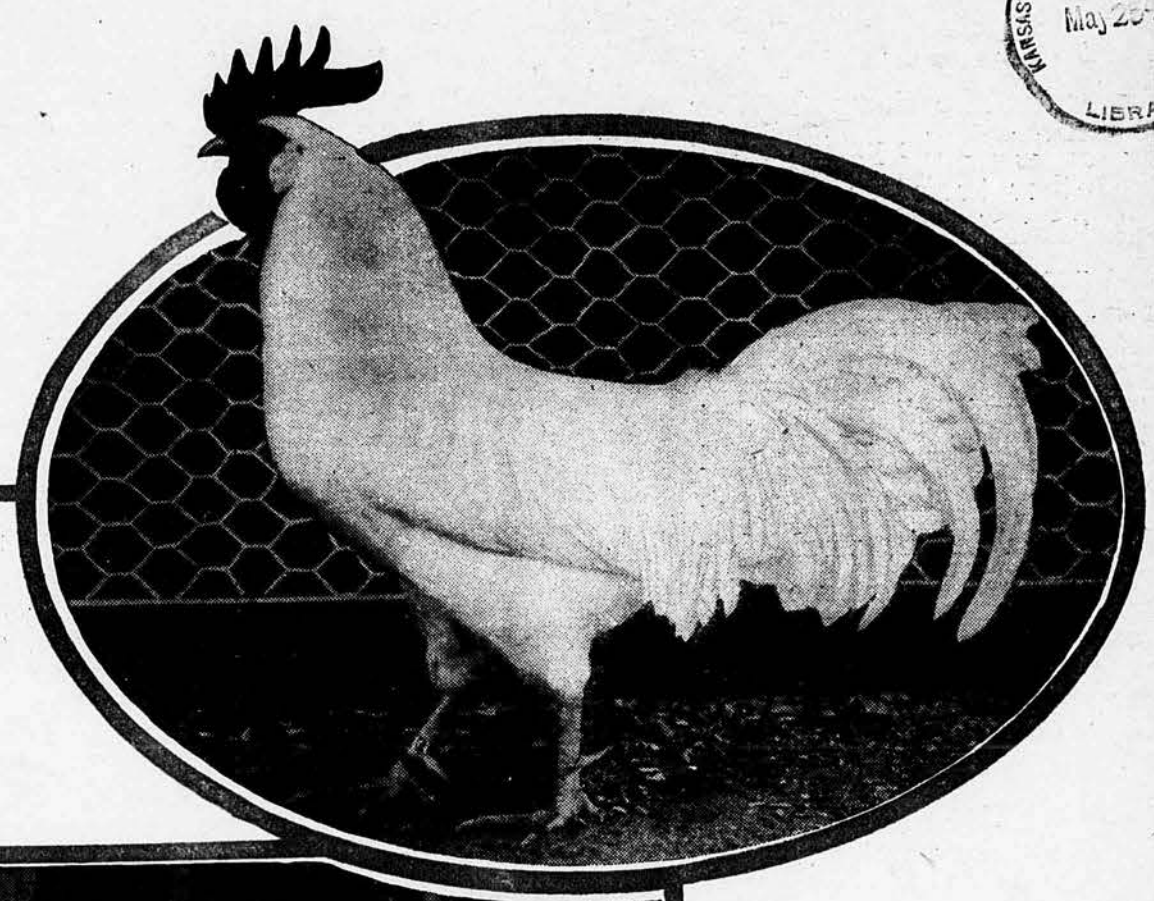
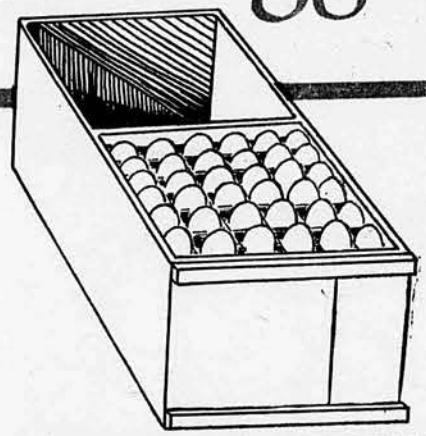
MAIL & BREEZE

Volume 66

May 26, 1928

Number 21

*A Penned
Rooster
Spoils
No Eggs*



CATERPILLAR

REG. U.S. PAT. OFF.

For Larger Yields From Kansas Fields Use "Caterpillars"

**Your
Protection**

The word "Caterpillar" cannot be stamped on or cast into the parts of any other tractor than the "Caterpillar." It is your guarantee of quality and your assurance of a long life tractor. The word "Caterpillar" means that the largest, oldest and strongest tractor organization in the world has used every resource at its command to build a tractor that will give you years of unfailing service at the lowest cost that efficiency of organization can make possible.



**RIDES
THE RIDGES
and
CULTIVATES
CORN 3 FEET HIGH**

DON'T BE MISLED

Don't make the mistake so many others have made in buying some other tractor, then trading it for a "Caterpillar," taking a heavy loss on the used tractor.

Buy the original "Caterpillar" and do your plowing, listing, harrowing, discing, planting and harvesting regardless of mud, sand, dust, snow or rain. THERE ARE FOUR SIZES—ONE WILL FIT YOUR NEEDS.

CATERPILLAR TRACTORS

have demonstrated the fact that they will last twice as long as any other tractor sold. They have demonstrated the fact that they will pay for themselves in their life by the saving of fuel alone. They have proven beyond question that they will do your work better, quicker and cheaper than you can do it by any other method. Any "Caterpillar" owner will tell you these facts.



Imitation Is the Penalty of Leadership

H. W. CARDWELL CO., Inc.

We Have a Salaried Representative Near You. Let Us Send You His Name.

DODGE CITY, KANSAS
108 Second Ave.

WICHITA, KANSAS
300 S. Wichita St.

SALINA, KANSAS
115 S. 5th St.

CATERPILLAR

REG. U.S. PAT. OFF.

In the Ottawa Territory Send Inquiries to Martin Tractor Co., Ottawa, Kansas

KANSAS FARMER

By ARTHUR CAPPER

Volume 66

May 26, 1928

Number 21

There's Profit in Pig Life Assurance

A Sanitation Check-up With Farmers, County Agents and Specialists

By Raymond H. Gilkeson

WHAT has it meant to Kansas farmers who have pulled their pigs out of the mud and filthy contamination of old hog lots? Are they saving more pigs, cutting down on the feed costs, getting their hogs on the market at a good weight in less time than heretofore, and improving their farms? Are these farmers being paid for the extra work required to give infant porkers a chance to make good?

Kansas Farmer wanted satisfactory answers to these questions, so they were put to specialists at the agricultural college, county agents and to farmers who have seen both sides of the thing on their farms.

Hog sanitation in Kansas runs from the very complete McLean County system down thru numerous modifications, and to systems worked out by farmers themselves. But whatever the process of obtaining sanitation, the results are unquestionably satisfactory.

"The McLean County system of raising pigs up to 4 weeks old has enabled farmers to raise larger and thriftier litters," according to C. G. Elling, swine specialist at the Kansas State Agricultural College. He views the proposition from a state-wide angle, knowing thru personal observation exactly what results have been obtained.

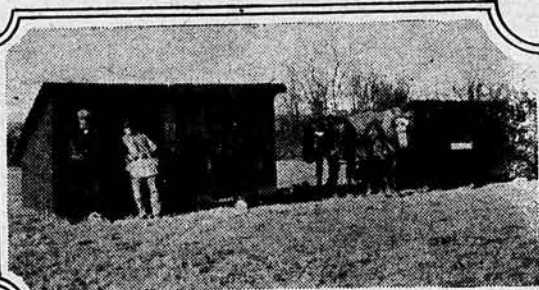
"In many cases farmers have been able to wean eight and nine thrifty pigs to the litter," Elling continued. "The clean system of raising pigs makes its biggest showing from farrowing until the pigs are 10 weeks old. Shotes raised the clean-ground way have made 100 pounds of pork on 6 bushels of corn and 20 pounds of tankage, while unthrifty pigs often have required 10 bushels of corn and 30 pounds of tankage. Pasture was used in both cases."

Further, Mr. Elling finds that sanitation has enabled farmers to save on an average of from 10 to 50 per cent of the feed, counting the feed eaten by pigs that died from the effects of old-yard ailments. Another thing, a better rotation has been followed, to keep pigs on clean pasture—a soil building proposition as surely as it keeps the pigs free from worms. A double-barreled benefit.

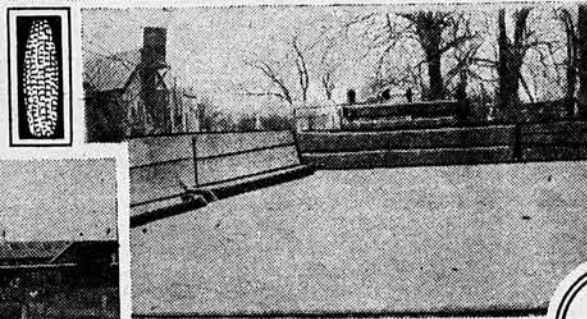
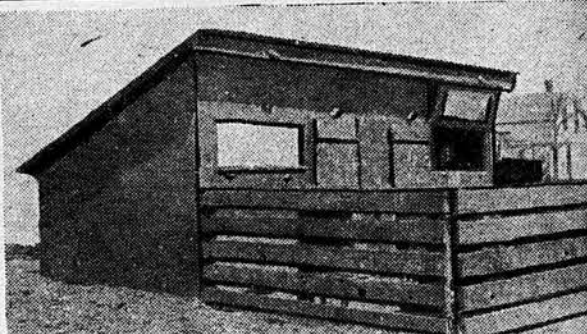
Hogs kept clean as pigs go on the market in less time and on less feed, so Mr. Elling finds. "February and March farrowed pigs can be made to weigh 200 to 225 pounds by September," he said, and the market nearly always is best at that time for spring-farrowed pigs.

"We have 500 farmers in Washington county who have followed the McLean County system of hog sanitation," so County Agent John V. Hepler reports. "It has enabled them to save two pigs to the litter in excess of the older method, save feed, get pigs off to a thrifty start and avoid a world of troubles. We know that good, thrifty pigs will put on 100 pounds of gain with 7 bushels of corn, supplemented with about 6 to 7 per cent of tankage or similar supplement, while the unthrifty pigs use around 10 to 12 bushels of corn to make the same gain. We talk continual gains from farrowing to market, and only with thrifty pigs can this be done."

"Hog pastures are an important part of our hog



In Top Oval, Nine Pigs Saved in Litter, Roy Reitzel Farm; Second Picture From Top, Tile Hog House With Steam-Boiler Sterilizer on J. H. Kappleman Farm, Washington County. Third Tier, Left, Will Moore and H. F. Tagge, Jackson County Agent, Keeping Company With Double-Type, Movable Farrowing Houses; Right, Movable Houses Lined Up on New Ground in Morris County. Immediately Above, Henry Hatersohl's Farrowing Houses, Washington County



Above, E. A. Elliott's Concrete Feeding Floor, Washington County, and Straw-Loft Farrowing House. Oval, at Center, Temporary Farrowing Quarters on New Ground, Clayton Jones Farm, Morris County. Left, Above, Uniform Pigs on Mosteller Farm, Washington County. Left, Hatersohl's 4-Month-Old Pigs Back in Old Lots and in No Danger

sanitation program, and there has been a considerable increase in acreage of alfalfa sown. F. C. McNitt, for example, of Washington, is definitely following a crop rotation system which arranged for and includes alfalfa for his hogs."

County Agent Hepler cites Roy Reitzel of Barnes as a man who has demonstrated that he can market hogs at 225 to 250 pounds in seven months and less. From 1924 to 1926 Mr. Reitzel raised and sold more than \$12,000 worth of hogs from an average of 10 sows. He was out for 1927, but is back again this year with eight sows averaging eight pigs to the litter.

Henry Hatersohl of Greenleaf said, the other day, "It got so I couldn't raise a hog. My herd was down to 10 sows and 25 scrub pigs. I changed to the clean system, and in last fall's crop 74 pigs were raised from nine gilts. This spring seven sows have saved 54 pigs." Mr. Hatersohl builds what he terms twin sheds, 7 by 14 feet, each sow having a section 7 by 8 feet. These are carefully disinfected, and for each litter are hauled to clean ground. The material for the sheds costs \$30, and it requires a day's time for two men to construct one. But it isn't difficult to figure a fat profit for Mr. Hatersohl in the difference between 25 scrub pigs to 10 sows and 74 pigs to nine gilts, after counting out \$15 a sow for a new house. And it must be remembered that the duplex houses will last for several years.

High mortality with his pigs, and slow gains on
(Continued on Page 30)

DEPARTMENT EDITORS

G. E. FERRIS.....Protective Service
 RAYMOND H. GILKESON...Livestock Editor
 FRANK A. MECKEL...Agricultural Engineer
 HARLEY HATCH.....Jayhawker Notes
 DR. C. H. LERRIGO...Medical Department
 A. G. KITTELL.....Poultry
 RAYMOND H. GILKESON.....Dairying

Entered as second-class matter February 16, 1906, at the postoffice at Topeka, under act of Congress of March 3, 1879.

KANSAS FARMER

Published Weekly at Eighth and Jackson Sts., Topeka, Kan.

ARTHUR CAPPER, Publisher

F. B. NICHOLS, Managing Editor

RAYMOND H. GILKESON, Associate Editor
 ROY R. MOORE, Advertising Manager

T. A. McNEAL, Editor

SUBSCRIPTION RATES: One Dollar a Year

DEPARTMENT EDITORS

FLORENCE G. WELLS...Farm Home Editor
 MRS. DORA L. THOMPSON...Farm Home News
 LEONA E. STAHL.....Young Folks' Page
 PHILIP ACKERMAN
Manager, Copper Pig Club
 T. A. McNEAL.....Legal Department

Please address all letters in reference to subscription matters direct to Subscription Department, Kansas Farmer, Topeka, Kan.

Passing Comment

By T. A. McNeal

IT NOW appears that Congress will adjourn without passing any farm legislation worth mentioning. Probably this is to be regretted. I should be glad to see the McNary-Haugen bill tried out. I do not know how it would work in practice, but at any rate I would like to see it given a trial.

I do not, however, agree that the case so far as agriculture is concerned is hopeless. I think a revolution of methods in farming might be accomplished without any particular national legislation. In other words, I do not consider the McNary-Haugen bill, or any other bill that has been so far proposed, necessary to the prosperity of the farmer, but I do believe the farming business must be brought in line with other big business; that methods of production and marketing must be systematized and perfected, so that only superior products will go on the market and be so systematically marketed that the supply and demand will co-ordinate with each other. This system will eliminate unnecessary cost of distribution. It will mean a higher standard of living. It will mean a real back-to-the-farm movement, or perhaps a better way to put it would be to say that the away-from-the-farm movement will be stopped, because farming will be both the most pleasant and the most profitable business in the world.

Julius H. Barnes, a leader in American business, draws a picture of the industrial revolution that is going on. He says, "The industrial revolution which made mass production and increased the standard of living by increasing the output of the individual worker has entered a new and complex phase.

"We are seeing an economic evolution, a development of a quality market, not only in this country but thruout the world. We are learning that human wants and desires are not limited, that we can stimulate production by stimulating appetite. We can make people not merely want more things but better things.

"The American table has become a quality table. The open cracker barrel of the corner grocery is superseded by the moisture-proof carton. No longer does the tin scoop dip sugar from the old burlap sack. The various mysterious classifications of eggs as 'fresh,' 'extra fresh,' 'fancy' and 'winter storage' have been abandoned for the egg rubber-stamped with its date of delivery. The old milk man no longer pounds the kitchen door to measure into the maid's pan a 5-cent quart of milk. The rubber-tired motor truck leaves the sealed bottle of high quality milk on your doorstep and collects 20 cents instead of 5.

"No subject, a few years ago, so wrung the heart as the tearful description of the abandoned farms of New England. Then, for the first time in history, came good wages, sustained individual preference, with adequate buying power, and the new invention of the motor truck, extending the radius of quality food 20 miles from each industrial center.

"The effect has been keen, indeed. The egg production of New England, some 30 million dozen annually five years ago, is now nearly double that. The per capita consumption of milk in New England has risen in five years from about 40 gallons annually to 55 gallons. Across all America the same tendency reveals itself. Butter, eggs, milk, ice cream, vegetables and fruits all show the stimulant of individual palates to buy what they prefer."

Mr. Barnes does not see much hope for agriculture in Russia. "Russia formerly contributed 150 million bushels of bread grain annually, and in recent years has shrunk to almost nothing. Under the Soviet regime Russia probably is out of the export column practically for good. Each summer you will read optimistic estimates of coming surpluses by Soviet authorities, and the close of each cereal year probably will see a continued disappointment in exports." He then states what he believes to be the reason for this disappointing outcome.

"Russian peasants have seen the production of their farms confiscated by edicts; have seen special agricultural taxes levied even this last January—not after orderly and public discussion, but by the sudden edict of tyrannical autocracy, levied especially to force the marketing of grain against the market judgment of its owner. The Russian peasant has seen the plow production under Soviet direction of its industries sink to a fraction of its pre-war state, and the import of agricultural ma-

chinery blocked by the government monopoly and its empty treasury.

"Vast areas of Russia are plowed today 3 inches deep with the wooden plow of generations ago. Shallow soil is robbed of its fertility. Broadly speaking, under Soviet control Russia probably will be no longer a material factor in overseas wheat supplies."

Taking up the other wheat exporting countries, Mr. Barnes says, "India, which used to export perhaps 50 million bushels annually, today plays only a small part in the international balance sheet because of increased home consumption. "Australia this year lowered to 50 million bushels its last year contribution of 100 million.

"Argentine has become the cattle reservoir of the world, a place formerly held by our United States.

"The great increase in wheat for overseas must come from North America."

There are certain items that may affect Mr. Barnes's predictions. For instance, Australia may develop a better method of wheat raising; the Soviet government may change its policy; the Mennonites are going into South America by the thousands and they are the best wheat farmers in the world.

'Tis a Complex Organization

YOUR "Passing Comment" never escapes my notice, and as a rule I agree with your views and appreciate them the more because of your unbiased treatment of practically all subjects commented upon. Your comments under "Questions I Cannot Answer" in the last issue of



Kansas Farmer were particularly interesting to me, and especially that portion in reference to unemployment due to improved machinery.

Of course, we would not want to go back to the methods employed during your childhood and mine, but in my opinion there must be some plan adopted, under Government supervision if necessary, that will insure every person, who is willing to work, a decent living for the necessary time employed to do his or her share of the world's work, so to speak, let that be eight, six or four hours out of 24, the income to be based on a decent living, rather than on the hours a day.

We are all of one vast human family, and the benefits derived from improved machinery should be distributed among all, aside from just and ample remuneration for the inventor. Under the present trend we are surely facing an upheaval, for the Government cannot long stand by and permit a large portion of its population to be forced into idleness, while industrial millions pile higher and higher.

Our national and state governments are now

taking a hand in governing freight and gas rates. Why not look to the interests of the most dependent portion of our population by demanding for them a minimum wage, at least, for the necessary hours a day to do the world's work?

Such a condition very likely would result in over consumption in a short time, and thereby more nearly bring into play the law of supply and demand of both products and labor. There would be nothing to hinder those with initiative and ambition from lifting themselves above the minimum class and obtaining wages accordingly.

As you so truthfully state, that eventually, "the individual must look to organized industry for his job," do you think it will be safe to trust the destiny of millions of such workers to the grasping tendency of a few industrial corporations?

Devices designed to save human toil are a grand thing when the human family, as a whole, derives the benefits, but when they are used as a lever to pry a large portion of our population out of an opportunity to make a living, there will be a day of reckoning, and considering the rapid strides being made along inventive lines, that day is not far off, in my opinion.

Coffeyville, Kan.

Edward Walton.

I agree with Mr. Walton that every individual in the United States should have the opportunity to earn a comfortable living, and that an economic system which denies any individual such opportunity is a faulty system.

Now that seems easy to say, and probably very few persons would take exception to that general principle. However, while it may seem to be a plain and simple truth, it is, as a matter of fact, a complex and difficult problem.

No system can provide for each individual the kind of work he or she wants to do, and to say that people must work at what they do not want to do smacks of industrial despotism.

Bellamy, in his book "Looking Backward," which had a very large sale a number of years ago, recognizing that certain kinds of labor were necessary but disagreeable, proposed that such employments should be made attractive by greatly shortening the hours of labor. In some cases, under his proposed plan, the worker would not be employed more than an hour a day, but would receive as much for his labor as the men and women who worked at the more agreeable tasks would receive for several hours of labor.

One of the objections to that plan probably would be that a disagreeable job cannot be made agreeable merely by shortening the hours of labor, altho, undoubtedly short hours and big wages would make it less disagreeable.

Neither is it easy to find employment for the folks thrown out of certain kinds of jobs. Take the case of the glass blowers. Formerly glass blowing was one of the most remunerative of the skilled trades. Men by long practice became expert glass blowers. They did not know how to do anything else. Suddenly invention changed the whole glass industry. Possibly there may be a few glass blowers employed, but speaking generally there is no such trade any more.

Now to throw these skilled workers out of employment suddenly and offer them instead some manual labor, works a great hardship. No matter how willing they may be to work, they are not fitted to work at anything except the trade they have learned. What are we to do with these skilled laborers who find themselves out of employment by reason of the invention of labor-saving machines? They are men of more than ordinary ability, otherwise they would not be skilled mechanics.

We ought to have the benefit of their experience, their skill, their brains. It seems like economic waste to make these men do work that requires only physical ability and endurance. Undoubtedly it will help to shorten the hours of labor, but even that will not entirely solve the problem. If a skilled trade is supplanted by the machine the mere shortening of the hours of labor will not help the old skilled hand workman.

But the case is, not altogether hopeless. The very things that are driving skilled workmen out of jobs by putting machines in their places are creating other opportunities and calling for even higher grades of skill and better brains on the part of the workers. But this great truth ought to be kept constantly in mind: the perpetuity and prosperity of our republic depends on an intelligent, well-educated and well-paid working class. I think I should amend that last statement. I do

not like the term, "working class." It seems to imply that there is an idle class. There really should not be classes at all in this country. Everybody who is able to work ought to do something useful. Every person able to work ought to be ashamed to be idle unless compelled by necessity. A better expression would be that in order to have a happy, prosperous and contented people every man and every woman able and willing to work should have the opportunity and a wage, salary, or compensation, whatever you may please to call it, that will enable such person and those dependent on him to live comfortably.

Answers to Anxious Inquirers

GOLDIE—I would not for a moment discourage you from entering into a state of matrimony, provided you have roped the right kind of a man. But if you have a steady job that pays you \$125 a month and are reasonably certain that you can hold it, do not tie up with a man unless you have good reason to believe that he can earn that much and some more. Also be right certain that he expects to support you out of what he earns and does not expect to be supported on what you earn. Do not pay much attention to his looks. He may appear like a jimson weed or a forked radish, but if he has the right kind of mental and moral qualities you will sort of forget how he looks, and, on the other hand, if he hasn't these qualities no matter how good a looker he is, marriage with him will be a failure.

S. A. R.—It is no doubt something of an honor to be able to say that some ancestor of yours fought in the Revolutionary War, altho since I have been reading some authentic history of those times I would want to know more about the ancestor than some of the Sons of the Revolution know about theirs. There was a time when I deeply regretted the fact that my ancestors didn't come across the water until after the Revolutionary War ended, but since I have read more of the history of those times I am much more reconciled to the fact that I cannot claim to be a Son of the American Revolution.

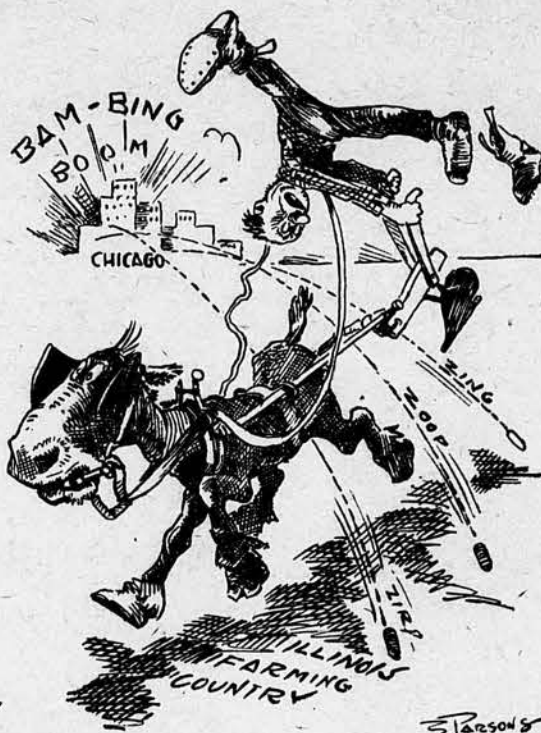
STUDENT—The expression "caveat emptor," a Latin term, means "Let the buyer beware." In other words, he takes his chances of being skinned when he has the opportunity to examine his purchase and does not do it. It probably has been the legal refuge for more scoundrels than any other principle of accepted law. The victims of it are persons who are naturally honest and inclined to assume that other persons are the same way. They are likely to be ignorant and simple minded, and not able to tell whether an article they buy is defective or not. Of course they ought to be aware of their own ignorance, but unfortunately most of us are not. The smooth scoundrel is smart enough not to make any direct promises or assurances when he is dealing with the credulous sucker and selling him something that is defective or selling it to him for several times what it is really worth. In all probability he even invites the buyer to make a close examination of the article he is selling, because he knows that after the examination the buyer will not know anything more about it than before he made the examination. He also knows that the boob will feel flattered by

the intimation that he is a competent judge. And when the boob is stuck and discovers it later he has no recourse because he cannot show that the seller made any false statements or warrants. The rascal is fully protected by the doctrine of "caveat emptor," and about all the consolation the sucker has is to reflect that "Them words is Latin."

Would Adopt a Child

We have just one little girl, and she seems lonely for a playmate. We have talked of adopting a little girl if we could find one some place whom we could take as our own. What are the requirements of the law for adopting a child and what is the cost? M. M.

Any person may appear in the probate court of the county of his or her residence and offer to adopt any minor child or children as his or her own. Thereupon the court shall investigate the matter and shall require that the minor appear or be brought before the court, and shall require that such minor's parents as are living in the state, and the guardian (if any), appear also in court, without expense to the public. If either or both par-



Illinois Is So Close to Chicago

ents of such minor are non-residents of the state, there shall be filed an affidavit made by all such non-resident parents or guardian setting forth that they are parents of such minors, and that they consent to such adoption by the applicant, and that such consent is free and voluntary.

If the probate court shall find that the minor and the living parents of such minor and the guardian (if any) consent freely and voluntarily to such adoption, the said court shall record its proceedings in the journal, declaring each such minor child to be the child and heir of such person so

adopting such minor. The law also provides that corporations organized for taking care of orphan children and providing homes for them may have the right of the natural parents to consent to the adoption of the children under the care of such corporation.

We have here in Topeka what is known as a Children's Home Finding Association, which has found homes for a great many orphan children. I would suggest that the person asking this question address a letter to The Children's Home Finding Association, Topeka, Kan., to get information concerning children it may have in its care. The expense of adoption is rather nominal. I would suppose there would be no necessity for expending more than \$20 or \$25, altho I do not know the charges exactly, and this would vary somewhat.

A Right to Recover

A and B were man and wife. B lived five days after C, her child, was born, February 18, 1925. In March, 1925, A made arrangements with D and E to take care of C, agreeing to pay \$20 a month and the necessary expenses for the care and keep of the child. A has paid \$70 to date. He promises to pay but does not. Can D and E collect from A? A is a Mason, and also an engineer on the Rock Island Railroad. He lives in Iowa. D and E live in Colorado. The agreement between A, D and E was a verbal one, but made in the presence of three witnesses. A will not agree to the adoption of C by D and E. S. W. K.

D and E may send the account to Iowa where A resides and may there get a judgment against A for the amount due, and then may garnishee his wages. From your statement there is no question about their right to recover.

Better Get a Divorce

I should like to know how to get a divorce. Does a man have to get a divorce after a certain time? If he has not seen his wife for seven years is a divorce necessary? R. T.

If your wife left you seven years ago and you are unable to find her whereabouts after using all reasonable diligence to do so, the presumption of death probably would be allowed by the court. However, I am not recommending that you rely on this presumption. You had better go thru the form of getting a divorce. Otherwise this wife might turn up and make matters rather embarrassing for you if you marry another woman.

Not Any Difference?

Some time ago someone asked if the English government supported any church. You said yes. You are mistaken. The property owners have to pay a tithe. Each parish pays a tithe to its own parson. I pay a tithe myself on some old cottages in England. W. T.

This would seem to me to be a distinction without a difference. If the people are taxed to support this church, it seems to me it is a government supported church, just as our university and agricultural college are supported by the state thru taxes levied on all the citizens of the state.

Write to the Board

I should like to get some information on the rules and regulations on sewage, drainage and the disposal of sewage. A. T. S.

Write to the Kansas State Board of Health, Topeka.

Big Business Feels Disgraced

A MERICAN big business turns its back on the Oil Gang. It casts out the men who, while conducting a business of 1½ billion dollars annually, debauched a cabinet officer of the United States and sought to rob its people.

Big business feels it has been disgraced by the predatory oil gangsters and has branded them as outlaws. The spontaneous way this was done attests its sincerity and makes the action all the finer. I have seen no more encouraging sign of the times.

Having cast out these black sheep, the Chamber of Commerce of the United States calls on the stockholders of their respective corporations to complete the job, adopting this resolution:

"Stockholders cannot accept the profits flowing from corruption and escape the moral stigma of such profits. Neither can they permit those who act for them to profit personally thru corrupt corporate transactions, or shield others who do."

One stockholder did this before the national Chamber of Commerce had acted. Following the testimony before the Senate committee, John D. Rockefeller, jr., requested the chairman of the Standard Oil Company of Indiana to resign his office as head of the board.

Later, when the younger Rockefeller appeared at the annual dinner of the chamber as a speaker on its program, he was given an ovation of several minutes' duration by the assembled leaders of business, and the chairman of the great General Electric Company greeted him as the "exponent and defender of high standards in business and elsewhere."

Then the storm of applause broke.

Usually the annual address of the chairman of the board of the Chamber of Commerce of the United States is a review of business conditions. This year it was a scathing arraignment of the

"shyster" in business. Judge Edwin B. Parker who delivered it called on trade associations "to decline to receive into their ranks, or to expel an individual or an organization that wilfully violates the fundamental principles upon which sound business rests, or that persists in ignoring the decencies of business intercourse, and bespatters all business with the slime of corruption or with the muck of unclean practices."

Could anything be more plain spoken, forceful and to the point? The response on the part of this convention of more than 2,000 leading business men from all parts of the country was remarkable.

If we are to keep government out of business, business must be kept out of government. More than that, big business must obey the spirit of the law as well as the letter, if it is to be permitted to exercise the wide powers and the liberties which the people and their government have granted it as a servant of the public.

I am myself a business man, and as a business man and a citizen I think I can say this: Never at any time in the history of the world has business as a whole been conducted fairer and squarer than it is today in these United States. Today business seeks continually for ways to serve the customer as he would be served and at the least possible expense. This is the modern tendency. The reason is that this IS good business and that good business pays because only good business can prosper.

This is true of the individual business man and of the more successful of the great corporations. The crook in business is the exception and ultimately mends his ways or goes broke.

But the crooked corporation is a public menace, and must be treated as such, especially the one which being virtually the sole occupant of its field takes advantage of its powers to exploit the pro-

ducer or the consumer. These methods oftener are found in promoting and developing, exploiting or organizing a utility or a trade merger, or other combination.

There is a valid place here for Government supervision of business, just as we have Government supervision of banks and steam boilers and supervision and Government inspection of food. Without these and other forms of Government supervision, business itself would not feel safe and often could not prosper.

But on the whole both big and little business is morally healthy and will become more so. Yet the business millennium is by no means here, and we do not have to point to Teapot Dome to prove it. There must be some supervising authority somewhere. Where can this authority more safely and effectively be lodged than in government, the parent corporation, the corporation of corporations, the holding company of holding companies?

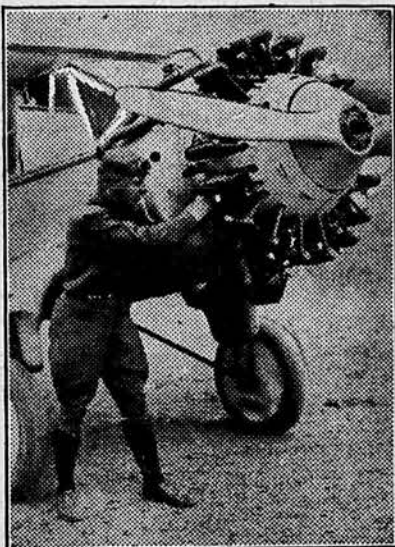
If business does not wish to be trammelled in any way, it must prove by good behavior that it does not need watching, that it will ferret out and purge itself of wrongdoers, just as the unethical doctor is cast out by the medical profession, and the scamp lawyer disbarred by the bar association.

It is a welcome and a hopeful sign that big business has come to feel that a corporation must have a conscience and use it as well as the individual. And this effect of the Teapot Dome disclosures may be worth all the humiliation they have cost us as a people.

Arthur Capper

Washington, D. C.

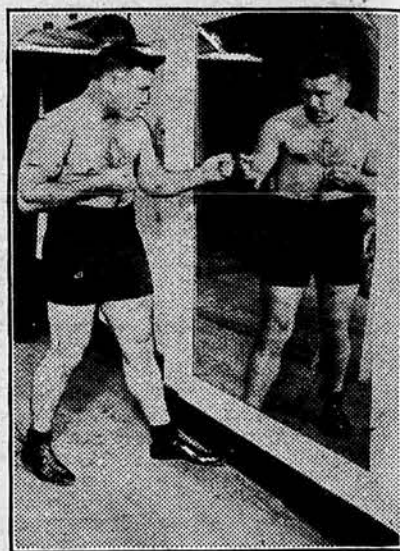
World Events in Pictures



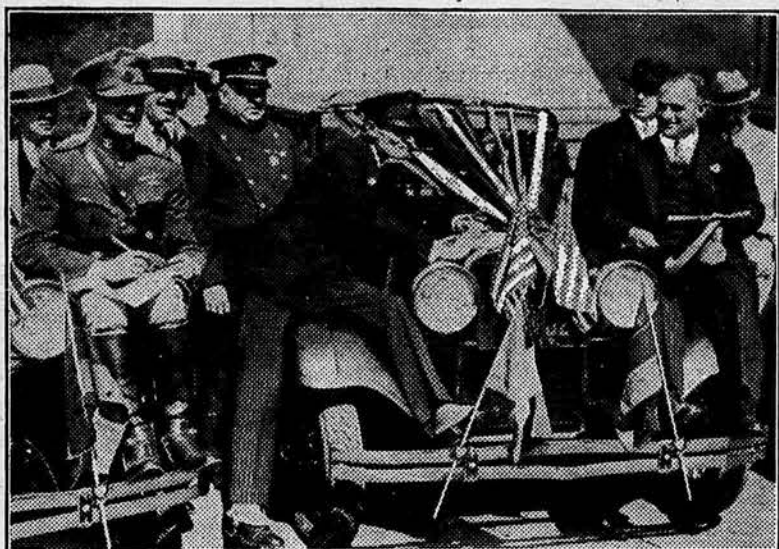
Lieut. Royal V. Thomas Working on the "Reliance" Just Before He Established a Solo Flying Record. A Few Days Later He Was Killed in This Same Plane



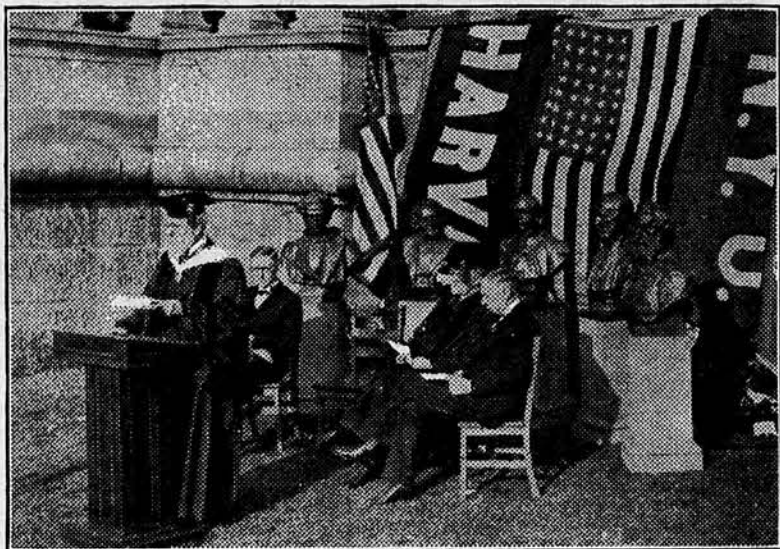
The Envy of 10 Million Boys. C. A. Lehman, Teacher in the Schools, Long Beach, Calif., and His Marvelous Collection of Locomotive Models Which He Made to Show the History of U. S. Railways from 100 Years Ago Until Today



The New Zealander, Tom Heeney, Before the Mirror—Part of His Training for the Championship Bout with Gene Tunney. Does Tommy Think He'll Make Gene See Double?



The Popular East-to-West Ocean Flyers, Draped Informally Around Three Brand New Automobiles Which Were Presented to Them in New York by Grover Whalen, Chairman of the Mayor's Reception Committee, on Behalf of an Anonymous Donor. Left to Right, Fitz, the Baron and Capt. Kohl



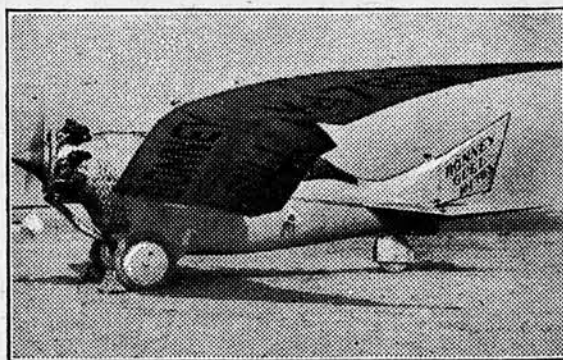
Noted Author, Editor, Statesman and Scholar, R. U. Johnson, Delivering Address at Unveiling of Busts of Immortals for the New York University Hall of Fame. The Busts Are of Rufus Choate, Statesman; Louis Agassiz, Naturalist; John Paul Jones and S. F. B. Morse



Princess Beatrice and Princess Christina of Spain, Dressed in Traditional, Castilian Sombreros and Boleros, While Visiting "Los Arenales," Country House of Count de la Maza. Their Quaint Costumes Amuse Spain's Great Bull Fighter, Antonio Marquez. Right



Julio Maniu, Leader of Opposition in Rumania in Greatest Political Movement That Country Has Experienced. His Eloquent Leadership of Peasant Party May Oust the Present Bratianu Regime



The Ill-Fated "Sea Gull," Designed and Built by L. W. Bonney. The Plane Was Equipped with Radial Motor and Had Wings Fashioned After the Sea Gull. It Crashed After First Flight, Killing Bonney



Komza Kimura, Prominent Woman Suffrage Leader, Tokyo, Japan, Showing Her Followers How American Women Carried Banners Demanding Equal Rights. Since Universal Male Suffrage Has Been Granted in Japan, the Women Have Organized to Fight for Their Vote



An Idea of the Misery Which Followed the Devastating Earthquakes in Bulgaria, Where Hundreds Were Killed and Hundreds of Thousands Were Made Homeless. In Philippopolis, the Majority of the Homes Were Destroyed. Survivors Fear Further Quakes

As We View Current Farm News



Agricultural Journalism Award Goes to Son of a Master Farmer

THE first agricultural journalism award at the Kansas State Agricultural College goes to T. J. Charles, jr., of Republic county. His name will be engraved on the shield presented to the department of industrial journalism last fall by Senator Arthur Capper, recognizing outstanding students in the field of agricultural journalism.

The scholarship trophy has a large shield bearing the engraving, "Recognition for superior attainment in agricultural journalism. Presented by Arthur Capper to students in the department of industrial journalism and printing, Kansas State Agricultural College."

Around the larger shield, and separate from it, are 10 small shields of the same pattern, on which the names of the winners from year to year will be engraved.

T. J. Charles, sr., Republic county, is one of the Master Farmers selected during 1927 by Kansas Farmer, and he received the Master Farmer gold medal and certificate from Senator Capper last fall. So young Charles comes by his winning honestly! Incidentally, he is a member of a prominent Kansas newspaper family.

Going at It Blindly

WE HAVEN'T any sense of direction. That is, if we are blindfolded, in a dense fog or out on a dark night, with nothing to guide us but our "sense" of direction, we will go in circles instead of a straight line. That is the opinion of Dr. A. A. Schaeffer, University of Kansas. The doctor is credited with having discovered the principle that all motile organisms, including man, are compelled to move in spiral paths when the guiding senses are not functioning.

He has blindfolded many persons in tests driving automobiles in open fields. Invariably they go in circles, some as small as 35 feet in diameter. Other persons, whether walking, rowing a boat or swimming, traveled in circles.

Going at it blindly, then, this world is one round of pleasures.

An Indian Legend Correct

AN OLD Indian legend is recalled by the recent tornado near White Cloud. Our copper-complexioned predecessors said that no tornado ever could strike this Doniphan county town.

This last storm struck on the Burl Taylor farm west of town, where it uprooted some trees and did other damage. Then it jumped entirely over White Cloud, striking just east of town on the Cox farm, where Mrs. Cox was killed and other members of the family injured.

Is it possible that the red man had wisdom far deeper, where the elements and nature are concerned, than the educated white man who came to take his place?

Some Good in Everything

IT IS said there is some good in everyone; there must be in some folks because none ever comes out. The same thing may apply to such things as Russian thistles, bindweed and cockleburrs. Nuisance tho they be, Ed Kraus, Ellis county, makes them pay their board on his farm.

It is in connection with his sheep-raising ambitions. His experience during the months past needed him some real cash from wool, pelts and fresh mutton. The grasslands on which the woolies fed were kept clean of all weeds.

"The sheep thrive on Russian thistles, bindweed and cockleburrs," Mr. Kraus advises. "In fact, they will eat the weeds before they will touch the grass."

They Did a Gentle Job

NO USE to let a little thing like having the house moved interfere with the regular routine of things. That is the way Andy Harger, Decatur county, looks at the proposition. While the house was being moved to a more desirable location on his farm, Mrs. Harger cooked for the men as usual. The telephone and electric lights were kept in running order, and even the washing machine was left undisturbed on the porch during the moving.

More Attention to Rates

SIXTY-FIVE potato growers and dealers, of the Kaw Valley, recently formed an organization to bring about a readjustment of freight rates in their section. It is the object of the association to employ the services of an attorney who will handle all of the business for the organization and will work for the adjustment of rates in their particular district. The growers cite that rates in their

section are much higher in proportion than those in other producing areas in Eastern Colorado, Minnesota and Idaho.

A traffic officer will be employed to aid the growers in shipping. The annual production in this section will surpass the 5,000-car mark.

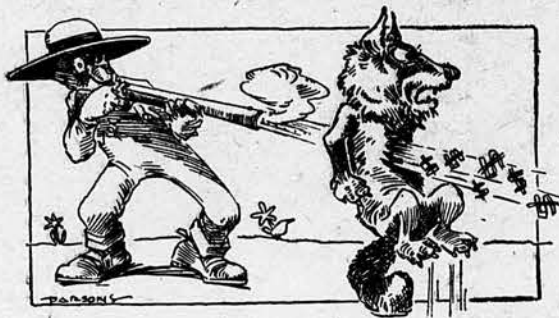
Rattlers, 50 Cents a Pound

VERY likely the market already is supplied, but if you have any rattlesnakes, and can vouch that they are alive and healthy, you might sell them for 50 cents a pound to H. K. Gloyd, of the agricultural college, the Zoological Department.

Or if you have a wonderful den of them, Gloyd will come and collect them himself. At 50 cents a pound, snakes are selling higher than any other farm "livestock." A. B. Kimball, county agent in Smith county, suggests it might pay to have a few pet rattlers to sell occasionally.

Coyote and Gopher Champs

THE championship as a coyote hunter in Chase county goes to Floyd Pinkston, so far. He has to his credit 22 coyotes killed during the last sev-



Cash in Coyotes

eral weeks. He claimed \$22 bounty on the scalps. Anybody beat this record?

And who has a better record as a gopher catcher than William Crouch? Recently he presented 108 scalps for which he collected \$10.80.

Room for a Big Crop

KANSAS has storage capacity for about 350 million bushels of wheat and other small grain, according to Dr. W. E. Grimes, of the agricultural college. Of this space, capacity for 250 million bushels will be found on the farms and the balance in elevators, mills and terminal plants. Kansas City, Topeka, Wichita, Hutchinson and Salina, of course, lead in storage space for towns.

So we haven't reached the limit by any means. If we can produce more wheat to the acre and thereby cut down the overhead and increase the profit, there will be plenty of storage space. The largest wheat crop Kansas ever produced was 180 million bushels in 1914. Incidentally, storage space on the farm might be used to good advantage in bringing up the price of wheat.

A Cotton Shower in Store

HOW many seeds will a cottonwood tree bear? Somebody asked B. R. H. d'Allemand, a Finney county nurseryman, that question, indicating a tree 45 feet high, and having a 40-foot spread.

Instead of making a guess, d'Allemand platted the tree and figured its density to find the number of seed pod bunches, or catkins, taking an average of 28 pods to a catkin and seven seeds to a pod. His answer was 28½ million seeds.

No wonder folks who are trying to paint their houses in the late spring become irritated and apply special pet names to the clouds of "cotton" that carry the tiny seeds thru the air and give the tree its name.

Annual Club Round-Up

ATHOUSAND 4-H club members, some of the best boys and girls from Kansas farms, will gather at the agricultural college in Manhattan, June 4 to 9, for the sixth annual round-up. A full-week's program has been planned that will well repay any club member who attends.

Class work is so arranged that every boy and every girl will be able to get everything on the program that could possibly be of interest to them. In other words, it is different from a three-ring circus, in that every club member will be able to see everything that goes on. Class work will be supervised by faculty members, and will include everything from livestock demonstrations to literature classes.

Call it school if you choose. But it is the kind that everybody can enjoy. It will be a happy, rollicking week. Aside from class work there will be time for games, contests and athletic events from swimming to setting-up exercises. One afternoon will be spent at Ft. Riley.

County clubs will compete with one another in holding model club meetings, style shows and musical events, and the like. And one of the most important things is the announcement of the health champions. The winning boy and the winning girl in the health contest will go to the international at Chicago. Senator Arthur Capper will pay their expenses this year.

X-Ray May Improve Poultry

TREATMENT of setting eggs by X-ray so that only female chickens can be hatched is one of the remarkable experiments described to the Associated Press by Dr. William H. Dieffenbach, New York. Experiments, he said, brought to light that chickens hatched from eggs exposed to X-rays show certain peculiarities. Exposure up to several hours produce chickens with deformities or mutations from normally inherited characteristics, such as absence of wings. The longer the eggs remained in the range of the X-rays the larger was the percentage of females hatched.

In many instances the changes that occurred in the hatched chicks were for the better and tend to create an improved species. To the general public these findings suggest bigger chickens, better eggs and more of them.

Maybe also the X-ray may prove to be the key to life's hidden source, if man is capable of such a discovery. Who knows but what Dieffenbach is, as he believes, on the road to the ultimate goal of all biological science—control and understanding of life force itself?

Now a Poultry Cathedral

THIS is going somewhat strong, but we must say that Tony Jermondy, Danvers, Mass., is sold on chickens. He has surrounded his poultry with an ecclesiastical atmosphere. The architecture of his hen house and its stained windows adorned with figures of angels, have brought it the nickname of "church for chickens."

It is just likely he thought chickens a nuisance until he kept records on them. Now that he has found them so very profitable, he can't do enough for them.

Fitch Goes to London

KANSAS will have an excellent representative, in the person of J. B. Fitch, at the eighth International Dairy Congress, at London, England, during June and July. Professor Fitch is head of the dairy department at the Kansas State Agricultural College. He recently received a certificate from the United States Government appointing him an official delegate.

Prof. O. E. Reed, who preceded Mr. Fitch as dairy head at the college 10 years ago, also will be a delegate from this country. Reed now is head of dairy husbandry at the Michigan State College.

More Cow Contentment in 1928

WON'T this make the cows smile? Farmers in Finney county are increasing their alfalfa acreage by one-third over a year ago. They have bought twice as much seed as during 1927. Considerable re-seeding is taking place. About 4,000 acres have been planted this year, most of it on irrigated land.

Saddle Worth More Than Pony

AT THE public sale on the Royal McIntyre farm, Sherman county, a saddle pony sold for \$21. The saddle that was on the pony sold for \$30 and the bridle \$2.50. Another pony failed to get a bid so didn't sell.

Perhaps soon saddle dealers will be giving a pony free with each saddle.

Trilby Led Again

HARPER county dairy herds show some real leadership. They captured nine out of 11 high marks for milk and butterfat production in the Kingman and Harper dairy herd improvement association. J. J. Zimmerman led with his famous Swiss "Trilby," producing in April 1,801 pounds of milk and 73.8 pounds of butterfat.

Exactly 342 cows were tested, making an average of 64.3 pounds of milk and 24.5 pounds of butterfat.

Folks Enjoy Mighty Good Times, Too

Farmers in the Country Around Longton Have Organized Six Rural Community Social Centers That Are Decidedly Popular

By Ora T. Stewart

THIRTY or forty years ago, going to "Literary" was a popular amusement for the folks living in farming communities. Here and there, at various country school houses, people met to enjoy a program of readings, music and debates or to hold ciphering and spelling matches. Gradually, however, these forms of entertainment have died out, almost entirely. This is true in Southeastern Kansas and, I believe, in general throughout the United States. In many communities, nothing has arisen to take the place of them.

About five or six years ago, the families living in the Oak Ridge School District near Longton, in Elk county, decided that their community life was not what it should be. As a remedy for this situation, they formed an organization which they called the Oak Ridge Community Club. Since then, five more clubs have been formed in as many school districts around the little town of Longton. These clubs are, in the order of their foundation, Elk Valley, Illinois, Hickory Creek, Hartford and Pleasant Hill. The last named had its beginning in the summer of 1927. These names for the various districts are local terms founded on landmarks or local traditions.

The membership of these clubs is made up of every family in the school district that desires to join and that will comply with the rules and regulations of the club. The majority of these clubs have made rulings to the effect that only those members who are over 14 years old may vote. Membership in several of the community clubs is not restricted to persons living in the immediate school district, but is open to families living outside as well.

Meetings Twice a Month

Each community club has the following officers: president, vice president, secretary, treasurer, chaplain and organist. Each club also has a constitution and bylaws regulating the duties of each officer and member and also the dues for each member. As a general rule, the dues in these community clubs vary from 50 cents to \$4 a year for each family. The officers serve for six months.

These rural community clubs each meet twice monthly, in their respective school houses. Meetings usually are held on Friday or Saturday evening so that the children's school work will not suffer on account of late hours.

The time of each meeting is taken up by the business session, program and "eats"—in the following order:

1. House called to order by the president.
2. Songs. Community singing of familiar hymns or old home songs selected and played by the organist.
3. Prayer by the chaplain.
4. Roll call of the officers.
5. Reading of the minutes of the last previous meeting by the secretary.
6. Unfinished business.
7. New business. Anything new which any member desires to bring to the club's attention, such as a new law or ruling or the voting in of new members.
8. Bills. As a usual thing, every item of expense in each of these clubs must be voted on by the club. For instance, nearly all of the six clubs own gasoline lamps, and current expense bills include gasoline, mantles or repairs for the lamps. Some clubs buy paper plates on which they serve refreshments, thus saving the trouble of carrying and washing plates or other dishes. These expenses are paid by the treasurer from the club funds, when, on presentation, the club votes him authority to pay the bills. If these funds are insufficient, then the club may vote at any meeting to levy an assessment, on the heads of the families represented in the club, sufficient to raise the money desired.

9. Program. As these community clubs were organized primarily for social purposes, the program is the most important feature of each meeting. This

program may consist of readings, songs, instrumental music, dialogues and stories. Perhaps someone can tell a joke well. Almost any rural community can boast of an old-time fiddler or a harmonica player. Grandma may "brush up" on her elocution and read some of the pieces she learned as a girl. As all persons present are neighbors who meet one another every day, no one is expected to perform like a professional entertainer. But it is imperative that each member, both old and young, try to contribute something in the way of entertainment at the time he is expected to do so, and not decline because he hasn't as much talent as someone else possesses.

The Hartford Club has been quite successful in using parlor games or guessing games as part of the program. The entertainment provided may be varied in accordance with special seasons, and holidays frequently are observed. For instance, the Elk Valley Club voted to have a masked party in-

of that nature is served with coffee. Each of the community clubs at Longton has for its use 3 or 4 dozen tin cups, thus eliminating the necessity for each family bringing cups from home to each meeting, and as I mentioned before, some of the clubs buy paper plates in quantities of 500 at a time, and each family brings only the knives, forks or spoons needed for its members.

In the summer, ice cream is the most popular "eats." Some of the clubs serve homemade ice cream and cake. The Illinois Club, during the summer of 1927, bought ice cream at wholesale prices, and each member paid 15 cents on each meeting night as his share of the expense. This club usually provided 5 gallons of ice cream for about 40 members and their guests. The Elk Valley Club has for several winters given a box social at their school house, the proceeds of which were used to buy their summer's supply of ice cream. In some clubs where home-

quested to furnish three or four numbers, one of which was a song by the club. At the 1927 picnic these club songs were judged, the club singing the best receiving 1 point. There also was a Charleston dancing contest, an old fiddlers' contest and a hog calling contest, the winners of which gained 1 point for their clubs. At the end of the program, these points were added to those won in the morning contests, and the club scoring the most points received a pennant.

While the real purpose of these community clubs has been to provide a means whereby the people living in a school district might get together twice a month for a friendly time, some of these clubs have done other good work as well.

The Elk Valley Club, from time to time, has obtained the services of professors from the Kansas State Agricultural College to lecture before the club on poultry raising and various other phases of farming. Every winter this club has a circulating library for its members. The Elk Valley Club, in co-operation with the school board of the district, has bought a piano. Part of the money was raised by giving a box social and applying the proceeds as a payment on the instrument.

Oak Ridge also has held an agricultural course for its members. The newest club of them all, Pleasant Hill, has purchased a piano.

These community clubs are purely local. They have no connection with any national organization. Neither do they conflict with the work of such national organizations as the Grange.

The families who make up these community clubs are not rich. They are just average American farmers that believe farmers are just as much entitled to a good time as their brothers, the city business men. The people living in any rural school district can form a club such as these and get together once in a while for a neighborly good time.

New 4-H Club Plans

Southeastern Kansas 4-H folks are starting something a little different to keep club work on the jump. A series of livestock judging schools and contests will be held during the summer months in which club members from all of that group of counties will participate.

Five schools in dairy judging and five in general judging will be held, the first one being scheduled for Allen county June 15. Other contests will follow in Cherokee, Montgomery, Labette and Neosho counties. A second school will be held in Allen county July 31.

Arrangements are being made with the officials of the Allen County Fair, so that the final contests may be held there, thus bringing to a climax the summer's work. These 4-H folks are bound to become better judges, and their activity is just one thing more that will keep Southeast Kansas on the map of progress.

Job Too Big for Bats

In connection with the war waged against the European corn borer by the Department of Agriculture numberless suggestions have come in from various sources all over the country offering possible means of controlling this pest. One recent suggestion is that bats, which are known to eat insects, be encouraged to roost in or near cornfields and feed on the borer. However, entomologists of the department have investigated this possible method of the "bat in the combat" against the corn borer and have found it impractical, principally because of the relatively small number of bats. Also, the Biological Survey is authority for the statement that the species of bats found in the regions of the corn borer do not congregate in great roosts or gather in large numbers during the summer months, when the corn-borer moth is active.



Let's Dive In

stead of their regular meeting one year when the meeting night came on Halloween.

10. Appointment of Committees. At each meeting the president of the club appoints a committee to plan the program for the following meeting. He also names a refreshment committee to plan and serve the "eats." Three or four persons act on each committee. The chairman of the program committee presides during the rendering of the program and announces each number as it comes.

The Illinois Club has a system by which the refreshment committee of one meeting automatically becomes the program committee of the following one. The Elk Valley Club has a list of the names of their members arranged in alphabetical order. Three or four families act on the refreshment committee when, according to the alphabetical name list, it falls to their lot to do so. Each family, on the refreshment committee is allowed to invite as its guest one family from outside of the club.

11. "Eats." Next in importance to the program are the refreshments. The "eats" may be anything the committee desires to serve. In the winter, sandwiches, doughnuts, pie or something

made ice cream and cake are served the president appoints certain persons on each refreshment committee to furnish ice cream and others to provide the cakes.

Each summer in the last three years the community clubs at Longton have joined together and held an all-day picnic—with fried chicken and all the other good things that farmers' wives can cook, at the noon-day meal. Each club takes the lead in planning this annual picnic as its turn comes, by a system of seniority. For instance, the first Community Club picnic, in 1925, was supervised by the Oak Ridge Club, the second by the Elk Valley Club, and the third by the Illinois Club.

At the annual picnic last summer the morning was given over to various competitive athletic contests between the clubs; running races for men, women, boys and girls, jumping contests and horseshoe pitching—all the old fashioned contests. Each victorious contestant gained 1 point for his club.

For the dinner at the annual community club picnic, each club provided food sufficient for its own needs, and its members ate around a table reserved for them.

After the dinner was over, there was a program. Each club had been re-

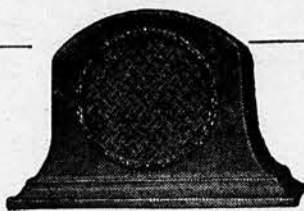


RADIOLA 16

will give you a seat on the platform
at the Presidential Conventions

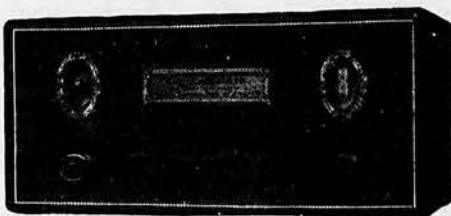
THE whole country will listen in when the big political conventions gather at Houston and Kansas City.

With a Radiola 16 in your living room or on your front porch, you and your neighbors will hear everything from the pounding of the Chairman's gavel to the final "The convention stands adjourned." The bands, the cheers, the tumult of the marching delegates, the nominating speeches, the polling of the States—you can hear it all at home with the wonderful Radiola 16.



RCA LOUDSPEAKER 100A

Most popular low-priced loudspeaker ever designed. Its rich, mellow tone places it in a class by itself. \$35



RCA RADIOLA 16

Compact storage battery receiver with 6 RCA Radiotrons. Simply tuned with one control. Mahogany finished cabinet. A big performer for a low price. Equipped with Radiotrons \$82.75

Radiola 16 was designed by the same engineers of the Radio Corporation of America and its associated companies—General Electric and Westinghouse—who built the great broadcasting stations that will report the conventions. It's small and moderately priced—but it's ruggedly and expertly built, employing the same tested materials and the standard RCA Radiotrons that are found in cabinet sets selling at much higher prices.

The best loudspeaker to use with the Radiola 16 is the popular RCA Loudspeaker 100A.

Buy with confidence



where you see this sign

RADIO CORPORATION
OF AMERICA

RCA Radiola

MADE BY THE MAKERS OF THE RADIOTRON

NEW YORK • CHICAGO
SAN FRANCISCO

We'll Get Cheaper Nitrogen Presently

Manufacturing Costs Are Being Reduced, and This Saving Will Be Passed Along to Kansas Farmers in Lower Fertilizer Prices

By Dr. H. E. Howe

SINCE the recognition of fixed nitrogen as a factor vital in agriculture, the natural tendency has been to secure this fertilizer element in the form most abundant, most suitable, and at the lowest net cost. When the great deposits of Chile became available, there could be had for the first time sufficient inorganic nitrogen to enable it to be used on a scale sufficiently large to really influence crop production. Such quantities were required, however, that before the end of the last century Sir William Crookes made his famous prediction of comparatively early starvation of the race, due to a nitrogen shortage and soil exhaustion, with consequent reduction in crop yields. Fortunately fulfillment of the prophecy has been indefinitely postponed, first because the Chilean deposits proved more extensive than was thought to be the case when Sir William spoke; second, because better methods of nitrate extraction from Chilean caliche have been perfected; and third, principally because the laboratory has given us a method of securing from the air abundant nitrogen in a form available for plant use.

Chemists made profound studies upon the element nitrogen many decades before the deposits in Chile were discovered, and as early as 1755 English investigators found that the nitrogen of the air could be burned to oxides of nitrogen by passing an electric spark. In other words, the hot spark caused the nitrogen and oxygen of the air to unite and the oxides dissolved in water gave nitric acid.

Then Came the Electric Arc

These observed facts lay dormant in the records of chemistry and physics until 1902, when Bradley and Lovejoy, two Americans, applied the electric arc to the process of nitrogen fixation on a commercial scale. The oxides of nitrogen were dissolved in water to form an acid, and when lime is treated with this acid it becomes nitrate of lime or calcium nitrate, in which the nitrogen is fixed in a form available for plant life.

This first plant for the commercial fixation of atmospheric nitrogen did not remain long on the North American continent, because the arc process is inefficient, requiring some 67,000 kilowatt hours a ton of nitrogen fixed, or, in other words, using but 2 per cent of the power necessary for the reaction. Even with the comparatively low-cost power at Niagara Falls in those days, the cost was too high, and subsequently the arc process found its home in Norway where the supplies of hydro-electric power are great and where there is no such diversified demand for power as exists here. In Norway the scientific and engineering organizations headed by Birkeland and Eyde have brought the arc process to a high state of perfection, but the power demand has remained excessive.

Other European countries sought to develop for themselves fixed nitrogen plants, for Chile is far away and both modern industry and agriculture must have fixed nitrogen, not to mention the demands of war. Other forms of furnaces for variations in the arc process were developed, always in the effort to discover ways for fixing nitrogen of the atmosphere with less power. Very few spots are so favored as Norway in having so much power in excess of requirements that prices are kept very, very low.

The first big advance toward a cheaper process was that devised by two German scientists, Frank and Caro. They found that, under certain conditions, finely ground calcium carbide, made in the electric furnace from coal and lime, will absorb nitrogen. They obtained the nitrogen in sufficiently pure form by liquefying air, and in this manner separated the other gases of the air, including oxygen, from the nitrogen desired for the process.

Cyanamide Grew in Favor

The product of the Frank and Caro process is called cyanamide. The method came rapidly into favor. Whereas the arc needed 67,000 kilowatt hours a ton of nitrogen fixed, the cyanamide process required only from 12,000 to 15,000 kilowatt hours a ton of nitrogen fixed, and its product could be used directly as a fertilizer, according to the European system of agriculture. Plants grew in size and number, and before the World War had been erected in a number of countries.

Industrial competition is nowhere more keenly felt than in the ever changing chemical industry. Why not combine directly the nitrogen of the air with hydrogen, thus forming synthetic ammonia, which consists of 1 atom of nitrogen combined with 3 atoms of hydrogen to form 1 molecule of ammonia? Theoretically this was attractive; and yet both the elements nitrogen and hydrogen are so passive and so disinclined to combine with other elements that many renowned scientists freely predicted failure for the effort to make such elements combine with each other. The reward was great enough to encourage continual work, and the man who carries on in a modern research laboratory is not easily discouraged.

Eventually the conditions were found under which nitrogen and hydrogen could not only be made to combine in the right proportions, but also to combine with such rapidity that the process became commercial. One of the elements of success was the discovery of the catalyst.

Now a catalyst is a substance, or it may be several substances, which by its mere presence promotes a desired reaction without itself being altered in the process. A catalyst has been called a chemical parson, for, like the parson, it unites two individuals to form a new family without becoming a member of that family itself.

Chemists having discovered the proper catalyst for the fixation of nitrogen, and learned that it worked best at high pressures and high temperatures, there was no lack of means for perfecting the process, especially since it had been shown that

This article is of particular value just now because of the widespread interest in the possible use of electric power at Muscle Shoals in producing cheap fertilizers. Doctor Howe is editor of Industrial and Engineering Chemistry, and is one of the foremost industrial chemists in the United States. He calls attention to what the real chemists of this country have known for a considerable time: this is that the Haber process is going to drive out the cyanamide process of making fixed nitrogen. Some manufacturers believe that within three years the cost of nitrogen in Kansas will be less than half the present prices.

the power required was far less than in either of the earlier processes, being but 4,000 kilowatt hours a ton of nitrogen fixed.

Here was a new process requiring little more than one-fourth of the power necessary for the cyanamide process, which had superseded the arc process because it required but one-fourth the power needed for it. But the synthetic ammonia process, or the Haber process as it has come to be known, was in a still more favorable position, since such power as it did require did not have to be electric power. The other processes required electric power, whereas the synthetic ammonia process is more of a chemical process and the power needed is for the driving of compressors and for other mechanical processes where other forms of power can be used.

Before the war, say in 1913, seven arc plants were producing 18,000 tons of fixed nitrogen a year, 15 cyanamide plants were producing 60,000 tons, and one synthetic ammonia plant, in Germany, was producing 7,000 tons of fixed nitrogen. When the war dictated the necessity of providing plants within our own boundaries for the fixation of nitrogen, the only process concerning which enough was known to justify the building of a plant was the cyanamide process, so that whatever the future use of the cyanamide or No. 2 plant at Muscle Shoals, its erection is held to have been justified.

However, even then it was felt that the process upon which dependence was being put in Germany for the supply of nitrogen necessary for agriculture and munitions was one which might ultimately command the situation, and hence nitrate plant No. 1 at Muscle Shoals was authorized as an experimental plant. While it did not succeed in fixing nitrogen, it served its purpose as an experimental plant, and its existence has been largely responsible for developments since made in our country which have put us in a favorable position so far as the knowledge of the fixation of nitrogen is concerned.

Following the war, the Fixed Nitrogen Research Laboratory, now in the United States Department of Agriculture, was set up to obtain for America complete knowledge of the process of nitrogen fixation, with the result that it has trained many men for the industry and has devised catalysts and methods which are equal to any developed anywhere else in the world.

The Atmospheric Nitrogen Corporation erected a pioneer plant near Syracuse, and while it has produced anhydrous or liquid ammonia solely for its own use, nevertheless this experience is the foundation upon which the Allied Chemical and Dye Corporation will develop the great plant at Hopewell, Va., in accordance with details announced some time ago thru the public press. Lazote, Inc., a subsidiary of the DuPont organization, has built a model plant at Belle, W. Va., the first unit of a greater plant which will be built when certain large scale experiments have been completed to

the satisfaction of their owners and when business demands a larger output.

Commercial Solvents erected a plant in Peoria, which began the manufacture of ammonia and then was converted into a methanol plant, since that product more nearly fits in with the other lines of Commercial Solvent's products and market conditions dictate the wisdom of such course. There have been numerous other plants, one at Seattle, those in the Niagara Falls district, and others mostly of small capacity which likewise are the result of experiments begun under the urge of a war emergency.

One particular point has been emphasized in the course of this new development, namely, the importance of gas rather than the importance of power. In the earlier work on nitrogen fixation, it was shown that fully 70 per cent of the cost of the anhydrous ammonia was represented by the cost of gas production and gas purification. Later methods have reduced this cost to perhaps 50 per cent, but, nevertheless, an adequate supply of cheap, pure hydrogen is the outstanding controlling factor.

Power becomes less and less important as the chemical developments become perfected, and today the criteria in plant location, where the nitrogen of the atmosphere is to be fixed for whatever purpose, are availability of gas, or coal or coke for its manufacture, and nearness to consuming markets for whatever products may be prepared with ammonia as the starting point. Coal therefore as a source of gas manufacture is far more important than proximity to hydro-electric power under American conditions, for the power would have to be considered for gas production.

Needs Some Cheap Power

This means the manufacture of hydrogen by the electrolytic decomposition or breaking down of water to form the gases hydrogen and oxygen. Careful calculations show that power would have to be not more than \$6 a horsepower a year to make hydro-electric power attractive in hydrogen manufacture, as compared with coal as a source for the same raw material.

The question has been asked: "Why has no ammonia been made for fertilizer purposes in the United States, if all that is said concerning the progress of synthetic ammonia is true?" The answer is very simple and conclusive. Ammonia made synthetically is cheaper for the purposes to which liquid ammonia is put—refrigeration and chemical manufacture—than ammonia secured as a by-product from coal distillation. This latter ammonia has been forced into a different field by the coming of synthetic ammonia, and now is used largely as ammonium sulfate. The demand for this new anhydrous ammonia has been equal to the supply, and the prices secured for it more attractive than the fertilizer market can pay. As the supply of synthetic ammonia has increased, it has found uses in place of Chilean nitrate, in the manufacture of sulfuric acid, and is steadily displacing Chilean nitrate in the manufacture of nitric acid. Until these markets are satisfied, we could not expect synthetic ammonia to come into competition with other sources of ammonia for the fertilizer trade.

However, the progress in nitrogen fixation has already been of direct benefit to agriculture. The increase in the supply of ammonium sulfate has been indicated. The cost of nitrate has been lowered, and there has been developed a group of new concentrated fertilizers, the forerunners of a new list of materials which will be offered the farmer in competition with the older and less efficient forms of fertilizer. The new era of concentrated fertilizers carrying high percentages of plant foods would have been indefinitely delayed—if it had ever materialized—in the absence of research in the fixation of atmospheric nitrogen.

'Tis a Raw Material

Of late there has been much discussion of the relative growth of the cyanamide and the synthetic ammonia processes throught the world, some statements being made without reference to differences in conditions in the several countries. Sight also has been lost of the fact that cyanamide is also a raw material for other chemical products, such as the cyanides largely used in metallurgy, and for insecticidal and germicidal preparations into which much of it has gone. Abroad, where the several fertilizer ingredients are separately applied, cyanamide has been in favor, but notwithstanding constructive efforts of the advocates of cyanamide in this country, it is still unpopular as a fertilizer material, and what is used in that industry finds a place in the seasoning of mixed fertilizers and not as a fertilizer per se.

Under American conditions, therefore, we must consider cyanamide as a raw material from which ammonia must first be made before this fixed nitrogen becomes important as a fertilizer. This fact, together with its greater power requirements, puts

(Continued on Page 19)



G.E. FERRIS
MANAGER

Protective Service

Membership in the Protective Service is confined to Kansas Farmer and Mail & Breeze subscribers. Free service is given to members consisting of adjustment of claims and advice on legal, marketing, insurance and investment questions, and protection against swindlers and thieves. If anything is stolen from your farm while you are a subscriber and the Protective Service sign is posted on your farm, the Protective Service will pay a reward of \$50 for the capture and conviction of the thief.

Thieves Should Think of Their Families Before They Steal and Face the Judge

BEFORE Clifford E. Luellen, age 35, of Doniphan county was sentenced to the Kansas State Penitentiary, he made application for parole. Parole was not granted. Now that he is serving his one-to-five-year sentence he has plenty of time to realize that, because the house burned in which he and his family had been living, such a misfortune was not grounds enough to justify him to steal and sell apples for the support of his family. The court ruled that similar conditions prevailed so often in the case of convicted persons that they could not be considered grounds for parole.

A petition protesting against the parole asked for was received from the local Anti-Horse Thief Association by the court where Luellen's case was filed.

Last fall when pickers were gathering apples in the large orchard of George W. Kinkead, located near Troy, piles of choice apples were discovered along the outside edge, on the opposite side of the orchard from where the pickers were working. Oscar Kinkead and George, Jr., knew these ap-

larceny. He was given his preliminary hearing in the court of Justice E. C. Winzer and was bound over to the January term of the Doniphan county district court. Additional information against Luellen proved he had at various times marketed choice apples at a very low price in St. Joseph, Mo. When Luellen came before District Judge C. W. Ryan, he pled guilty and was sentenced to from one to five years in the Kansas State Penitentiary.

The \$50 Protective Service reward has been paid to Oscar Kinkead to be divided between his brother George, Jr., and Ben Williamson.

As long as you are a paid-in-advance

subscriber to Kansas Farmer you are entitled free to the benefits of the Protective Service department. If you do not have posted a Protective Service sign so a \$50 reward can be paid for the thief who steals anything from your farm, order one today. A sign will be mailed with subscriptions sent to the Protective Service Department, Kansas Farmer, Topeka, Kan., at the following rates: 1 year \$1.10, 3 years \$2.10, and 5 years \$3.10.

Poison for Cutworms

BY J. J. DAVIS

One of the first of the destructive insects to appear every year is the cutworm. Cutworms attack all crops, usually causing injury by cutting off the plants near the surface of the ground, but sometimes climbing up the stems of the plants and eating the buds. They appear early in the season, and unless observed when they first show up will do considerable damage. Watchfulness and the use of poison bran bait will prevent losses, which are likely to occur in the flower or vegetable garden as well as in the commercial crop fields, as onions and corn.

Cutworms are the feeding and growing stage of night-flying moths. The moths are active in late summer, laying eggs in grassy and weedy areas. These eggs hatch, and the young cutworms, which usually are grayish or brownish, attain about half their growth before cold weather.

Crops planted on such ground the

following spring are subject to injury by cutworms, and precautions should be taken to avoid damage.

The most effective control is poison bran bait, which is made with the following materials:

Bran 25 lbs. ..or 2 quarts
Paris green .. 1 lb. ..or 1 teaspoonful
Molasses 2 qts ..or 1/2 teacup
Water 2-3 gals. ..or 3 teacups

If Paris green is not available, use white arsenic, but not arsenate of lead. The molasses should be a cheap grade with a strong odor.

Thoroughly mix the bran and poison. Dilute the molasses with the water and then mix the liquid with the bran. The bait should be damp but not soppy. Sprinkle along rows or broadcast at the rate of 12 to 15 pounds an acre. The application should be made in the evening, as the cutworms come out then.

Plants, which are transplanted, such as tomatoes, can be protected with a wrapper of paper about the stem. This tube of paper should be an inch below and an equal distance above the surface.

For the Potato Growers

Some of the means by which the potato wart fungus is disseminated are discussed in Technical Bulletin 56-T, "Factors of Spread and Repression in Potato Wart." A copy may be obtained free by writing to the United States Department of Agriculture, Washington, D. C.

Kansas should grow more alfalfa.



From Right, Oscar Kinkead Who Engineered the Capturing of Luellen, and W. W. Thompson, Kansas Farmer Circulation Representative in Doniphan County

ples must have been put there by someone who intended to come and get them on the sly. They decided to lay in wait that night and capture the thief.

Reception Committee Waited

The Kinkead brothers notified Sheriff George Larson what they were going to do and he gave them guns and black-jacks with which to make the thief a prisoner. About 8 o'clock that evening, in company with Ben Williamson, of Troy, they began their vigil.

They did not have long to wait before they could see, under a full moon, the thief loading a basket of the apples. When he put the filled basket on his shoulder and started toward the road to his truck, the boys ordered him to halt. Instead of halting he dropped his basket and ran. Three other men who were helping him also ran.

All three of the boys attempted to stop the man they had seen carrying the basket of apples. When he did not obey their orders they shot at him and then chased him. When they caught him they identified him as Clifford Luellen, who told them they never would take him to jail alive. But he was wrong.

Complaint for Luellen's arrest was sworn out by George W. Kinkead. A subsequent complaint with more information was sworn out by County Attorney H. O. Delaney, Jr. Luellen was arrested on a charge of grand

That Crop of Yours

(Act Fast to Save It)

That Crop of Yours is ripening in the field. Just one more step and you turn it into money at the bank. That step is harvesting, and it is most important. For the profit lies in the last few bushels that are saved.

That is why you will need the Nichols & Shepard Combine to harvest and thresh that crop of yours, the crop you have worked so hard to raise.

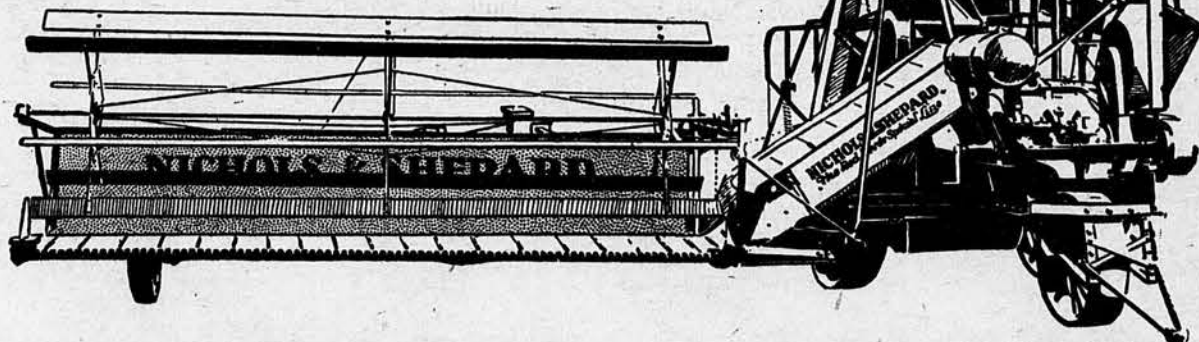
It is the greatest grain saving Combine built.

It is the Combine that does unusually good work even under unfavorable conditions. It will make money for you.

It threshes like the Red River Special Thresher, with the famous Big Cylinder and the Man Behind the Gun that Saves the Grain. You know that a Nichols & Shepard machine is a high quality machine in every particular.

See your Nichols & Shepard Dealer, or wire our Branch today.

The
Red River
Special
Line
for 1928
Combine
15' cut
20' cut
Prairie Type
Threshers
22x36
28x46
30x52
32x56
36x60
Tractors
N & S
Lawn Mower
20-35
20-40
Nichols &
Shepard
Corn
Picker
—Husker
Nichols &
Shepard
Steam
Engines



NICHOLS & SHEPARD

In Continuous Business Since 1848

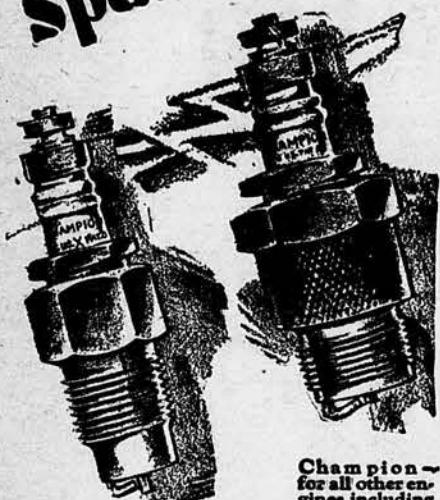
284 Marshall Street, Battle Creek, Michigan

1323 Hickory St., Station A, Kansas City, Mo.

7th & "Q" Sts., Lincoln, Nebr.

The Greatest Grain Saving Combine Built

CHAMPION Spark Plugs



Champion X-
for Model T
Ford and Ford-
son Tractor
-60c

Champion -
for all other
engines including
Model A Ford
-75c

a Genuine Economy

NEW Champion Spark Plugs installed once a year in all engine-driven farm equipment are a proved economy.

After a year of service spark plugs lose efficiency, no matter how well made they may be. The spark is weakened and combustion is accordingly incomplete. Gas is wasted, power is lost, and performance greatly impaired.

New Champion Spark Plugs give an intense spark which insures complete combustion and saves gas and oil. Easy starting, quick pick-up and full power are restored. Performance is greatly improved.

Farm owners who expect the utmost in efficient and economical service from cars, trucks, tractors and stationary engines know that a new set of Champions maintains the high standards of performance the engine had when new, and is therefore a genuine economy.



Corn Has an Excellent Stand

And the Winter Wheat Crop Is Making an Outstanding Growth These Days

BY HARLEY HATCH

SEVERAL very warm, sunny days last week brought virtually all the early planted corn up to a good stand; that is, there seems plenty of corn up in the fields on this farm, and I assume conditions are the same on all others of the locality where planting was done before April 25. No rain has fallen during the week, but the soil was full of moisture at the start. The warm weather has given way to much cooler temperatures, and yesterday we had a fall of moisture too light to be called a rain, but which slightly moistened the top of the ground. Such conditions are very favorable for grain and grass growth; wheat is excellent and oats are beginning to get under way. All prairie pastures and meadows are in prime condition; the growth is not so forward as one year ago, but the stand of grass is 100 per cent. Another year of cheap prairie hay is forecast, especially if the rest of May provides normal moisture. It is the month of May that, more than any other, makes or mars the native hay crop.

Cane, a Popular Crop

With at least an average stand of corn assured on this farm and with no replanting in prospect, we plowed and planted the 15 acres of Red Top cane which we intend for cattle roughness next winter. It is just a little early to plant cane for feed, but we wanted the job off our hands so we could turn to other work. Conditions for plowing and planting were good, too, so we plowed the ground, double harrowed it and drilled in the seed with a planter equipped with furrow openers, using 1 bushel of seed on the 15 acres. This is less than usually is planted by most farmers; a general rule is about 1 bushel of cane seed to 10 acres, but the variety of cane we planted has very small seed, and last year 1 bushel planted on 14 acres made a very heavy stand. As a seed crop there is no profit in cane but as a forage crop we much prefer it to kafir. Cane is the most nearly certain forage crop we can grow, and it makes a good roughness ration, especially when it is fed seed and all. At the price cane seed has sold during the last few years it has paid better to feed it than to top, thresh and haul it to market.

'Tis a Good Paint Job

After the cane was planted we all turned painters. The barn, granary and other farm buildings were painted. The paint used was made by mixing linseed oil with a paste paint, largely English oxide. This oxide was bought for \$2 a gallon, and 1 gallon of this would take up a gallon of oil, making 2 gallons of good quality barn paint at a cost of \$1.50 a gallon. We prefer this to the common mineral paints, as we know the oil used is pure linseed, and it is the oil in paint that does the good. We then turned to the house and gave it one good coat of pure white lead and oil; the lead mixed nicely with the oil, and a fine quality of paint resulted at a cost of about \$2.25 a gallon. The first coat carried more oil than we will use in the second coat. The window sashes and screens were painted a blind green. We bought this green paint ready mixed, and got the best quality we could find, for even the best green fades all too soon under our Kansas sun. I think we have turned out a pretty fair job, probably almost as good as could be done by a professional painter. Such painters charge from 80 to 90 cents an hour, which makes the cost of applying much greater than the cost of material.

Steers Are in Demand!

An auctioneer in this county several years ago began holding "community" sales, at which all kinds of farm property was sold. These sales proved successful, and as time went on property to be sold began coming in from long distances, and the crowd of buyers increased greatly. Then cattle and hogs began to be sold by the hundred, be-

ing shipped to the sale from all parts of the country. Then other lines were added: harness, hardware, dry goods and blankets, in fact, everything that could profitably be sold at such a sale. All property sold at these sales seems to bring good prices; as a sample, three cars of steers weighing a little more than 700 pounds each sold for an average of \$85 for each steer, or around \$12 a hundred. This indicates that buyers have plenty of faith that the future course of the market is to be favorable. These sales attract buyers from several counties, and the coming of spring has not stopped them, as it has the regular sales of farm property. It is evident that sellers are satisfied with the prices realized at these sales, for they are willing to provide plenty to be sold; buyers evidently are satisfied, also, for they come by the hundreds and buy everything offered.

Merchants Have Troubles

Competition, both plain and fancy, surrounds the common old time country merchant these days. Formerly the small town merchant had little competition aside from that provided by the county seat or some other large town in driving distance with a team. Then came the mail order houses, and for a time the country merchant and local newspaper man competed, both trying to see who could "holler" loudest about the nefarious mail order house that took your dollar so far away that you never would see it again. Then thick and fast came the chain stores, the radio sales stations, the branch mail order houses that are moving their business right out into the country, and now comes this "community" sale competition. Surrounded by competition on every side, the local merchant and newspaper man have quit "hollering," and have begun to meet competition in the only way it successfully can be met—by quoting prices that will move their goods. There are many folks who think that the small town business is doomed; that the big towns within motor car distance—which means 50 to 60 miles—will take the cream of the trade, leaving the small town man only the skimmilk. I believe that the small town man is going to meet most of this competition, because he now is meeting it even more successfully than he did the mail order competition of 20 years ago.

New Home for the Cattle

About 30 years ago we built on this farm the cattle sheds which have been in use since that time. Part of the side walls were laid up with rock which we found in old tumbledown walls, and part made of lumber. These sheds have provided shelter of a kind, the rock walls straining out the coarsest of the cold. But the walls are beginning to lean, and the board walls are rotten, so it is "up to" us to provide something for next winter. When stock cattle bring \$10 a hundred one can afford something better than a dry laid rock wall, and we have our plans made for a cattle barn 60 by 52 feet, the center to be for hay clear to the ground, with a space 16 feet wide for cattle on each side, and racks to separate the stock from the hay. Investigation of the different materials led us to choose hollow tile for the entire walls. We figure that such a wall will cost little more than one made of lumber and that it will be more durable, warmer in winter and cooler in summer, and in addition fireproof. The tile for the walls has been bought. The plans call for 5,500 hard burned tile to cost \$56.25 a thousand, plus freight from Southern Kansas. Aside from the ground foundation the bill calls for 78 sacks of cement. I will endeavor to keep you informed as to the cost and progress of this barn from time to time.

All Dolled Up

The bride wore a becoming costume being a string of pearls. —Corpus Christi (Tex.) paper.



BROKEN-UP!
—saves painting time

Pure White Lead Paint is now easier than ever to use. Eagle Soft Paste White Lead comes already broken up to a very soft paste—quickly thinned for painting—saves your time.

Soft Paste is pure Old Dutch Process white lead with more pure linseed oil ground in—15% instead of 8%. Send for new mixing formulae. The Eagle-Picher Lead Company, 134 N. La Salle Street, Chicago.

EAGLE
Soft Paste
PURE WHITE LEAD
OLD DUTCH PROCESS



Save the surface and you save all—dirt!

\$1.85

5-Year GUARANTEE

To advertise our business, make new friends and introduce our new bargain catalogue of Elgin watches, we will send this elegant watch by mail post paid for ONLY \$1.85 (safe delivery guaranteed). Dust proof case, stem wind and stem set, newest style decorated dial, a perfect timekeeper and fully guaranteed for 5 years. Send this advertisement to us with \$1.85 and watch will be sent at once by mail post paid, or send \$3.00 and we will send two watches. Satisfaction guaranteed or money refunded. Address CHICAGO WATCH AND DIAMOND CO. 4737 Broadway, Chicago, Ill.

Fallowing; a Good Practice

But We Must Remember This Is Not a Panacea for Successful Wheat Raising

BY H. R. SUMNER

This is the second of a series of articles by Mr. Sumner on the preparation of land for wheat in Kansas. The first appeared on page 3 in the issue of May 19.

THE fourth idea which should be considered when farming in Western Kansas is the practice of summer fallow. The primary purpose, object and result of a good summer fallow is to store and conserve moisture. A certain amount of plant food, already present in the soil, also is liberated for immediate plant use. Still again, fallow is sometimes used to free a field of weeds.

Summer fallow is a profitable practice in the western half of the state, particularly so in extreme Western Kansas. However, in this section it is not advisable to use fallow every other year, but rather plan to fallow a field one year out of three or four or even five. This is true because there seems to be a cumulative or "hold over" effect with fallow.

This after effect of fallow is well illustrated at the Hays Experiment Station, where the folks have found that wheat yields two years after fallow average only 5 bushels less than the first year and even the third year wheat on fallow yields within 4 bushels of the first year. It is quite apparent that such yields would not make a system of alternate fallow and wheat a profitable one.

'Tis a Simple Plan

It also must be understood that there are some years when wheat on fallowed ground may be the poorest wheat raised. In other words, summer fallow is not a universal panacea for successful wheat raising, as some persons would lead one to believe. Here again we refer to the original suggestion in this paper, which was that summer fallow, wide spacing, early seedbed preparation and weed control are merely ideas which should be understood and applied as seems desirable. A proper combination of these ideas will serve to remove much uncertainty in wheat production.

The method of summer fallow is quite simple, altho there are folks who try to make it appear complicated. First it must be realized that the purpose of fallow is to conserve moisture. How may that be accomplished? First, permit no crop or weed growth because they use moisture; second, secure a cloddy surface soil in order that the rain may readily penetrate into the ground. The cloddy surface also aids in preventing soil blowing.

Some men talk about summer fallowing when the wheat fails and it is plowed up in May or June. That is not summer fallow—it is a poor attempt to mask over a crop failure. Neither is a growth of weeds in place of a crop a fallow—that is misplaced confidence. Summer fallow is the practice of handling the soil from one harvest until the following year's seeding so that the rain which falls penetrates the soil and nothing grows during that period to use the moisture.



Speaking of Reckless Drivers

low, yet some men talk and argue about it in a bewildering fashion.

The manner of preparing summer fallow has been studied by the Experiment Stations at Colby, Garden City and Hays. They have (1) plowed immediately after harvest and re-plowed in the spring; (2) plowed in the fall and left the ground rough over winter; (3) left the land in stubble over winter and plowed in May; (4) left the land in stubble over winter and plowed in June; (5) listed in the fall; (6) fall listed and sub-soiled; (7) fall listed and spring plowed; and (8) plowed deep in the fall.

Have Used All Methods

All these methods except one have given practically equal returns. One method resulted in lower average wheat yields, and that method is the winter stubble, with June plowing. Thus it is found that it makes little difference how land is prepared for fallow except that it be worked sufficiently early to kill the spring weeds.

The best methods of working fallow ground thruout the summer vary somewhat. The main idea is to work the ground with any tool which will (1) kill the weeds, (2) keep the surface roughly cloddy and (3) turn up the least possible amount of fresh soil. It is necessary to kill weeds because they use moisture. It is advisable to keep the surface cloddy in order to let the rains penetrate and to prevent soil blowing. Also, if the surface is pulverized too finely, the soil will puddle in a heavy rain and the surface runoff will be heavy. It is necessary to avoid turning up fresh soil because such tillage dries out the soil. A very good example of such a case happened with a co-operator in Hodgeman county during the summer of 1927. This co-operator fallowed a field all summer and ended the season with 0.5 per cent less moisture than when the fallow was started. The reason was correctly attributed to pulverizing and drying the surface soil.

The machine used in working fallow ground should be of a type which can do the three things mentioned in the preceding paragraph to the best advantage. There are many tools adapted to such work. One, however, which is the most commonly used is the worst possible type. That machine is the tandem disk. Use any other tool rather than the disk. Its pulverizing and drying action makes it unfit for good summer fallow tillage. Manufactured duck foot or spring tooth cultivator weeders or home made bar and knife weeders are the types which will handle fallow ground properly.

(TO BE CONTINUED)

A Better Sires Report

An honor list of counties which have been especially active in livestock improvement under the "Better Sires—Better Stock" plan is included in the thirty-fourth quarterly report of this work carried on by the Bureau of Animal Industry, United States Department of Agriculture. The report shows briefly that 17,214 persons have agreed to use purebred sires exclusively, that 44 counties each have 100 or more participants in the work, and that three counties are now entirely free from scrub and grade bulls.

The report describes an interesting livestock-improvement campaign in the Punjab, India, where the castration of inferior bulls is being conducted on an extensive scale, now averaging more than 200,000 operations of this kind annually. It also contains a list of posters and educational literature available to county agents, extension workers, and others who are interested in improving the livestock in their localities.

Copies of the report are obtainable free on application to the Bureau of Animal Industry, United States Department of Agriculture, Washington, D. C.

The vision to see is as important as the ability to perform.

Put your Model T Ford in shape for thousands of miles of additional service

MORE than eight million Model T Fords are still in active service and many of them can be put in shape for two, three and five more years of service—and even longer—at very small cost.

The following list gives the approximate labor charges for re-conditioning the Model T Ford—

Engine

Tune motor (including replacement of commutator case, brush and vibrator points if necessary)	\$ 1.00
Grind valves and clean carbon	3.75
Overhaul carburetor	1.50
Reline detachable car transmission bands	1.50
Install new pistons or connecting rods	6.00
Tighten all main bearings	6.00
Overhaul motor and transmission	\$20.00 to 25.00

Rear System

Replace rear axle assembly	2.50
Install universal joint	3.00
Reline brake shoes	1.50
Tighten rear radius rod	.60
Replace rear axle shaft, drive shaft pinion, or drive gear	5.00
Overhaul complete rear axle assembly	\$5.75 to 7.00
Rebush spring and perches	1.75
Oil and graphite springs	3.00

Front System

Overhaul front axle	\$4.00 to 5.00
Rebush spindle bodies and arms (both sides)	2.50
Replace or straighten spindle connecting rod	.75
Tighten radius rod or steering ball cap	.60
Tighten all sockets and joints of front end	1.50
Replace front spring tie bolt or new leaf	2.50
Straighten front axle	1.50

Chassis

Tighten all nuts and bolts	3.00
Replace rear fender	1.75
Overhaul steering gear	3.50
Repair muffler	1.00
Overhaul radiator	7.50
Line up front wheels	.50
Repaint Coupe	25.00
Repaint Sedan	20.00
Repaint Touring Car	8.00
Reupholster Runabout	15.00
Reupholster Touring Car	2.50
Repair seat cushion	4.00
Replace top deck (Coupe or Sedan)	3.00
Overhaul starting motor	2.60
Overhaul generator	2.60

These prices are approximate and are for labor only, because the number of necessary parts needed depends on the condition of each car. The charge for these parts is low, however, because of the established Ford low-price policy.

So that you may get the greatest use from your Model T Ford over the longest period of time, we suggest that you take the car to the nearest Ford dealer and have him estimate on the cost of putting it in good shape. A very small expenditure may be the means of giving you thousands of miles of additional service.

FORD MOTOR COMPANY

Detroit, Mich.

In the Land That God Forgot

Centuries of Tradition Hang Heavily Over the Walls of the Ancient City of Kano

BY FRANCIS A. FLOOD

OF ALL the interesting cities that I've ever seen in my life, Kano, Nigeria, in West Africa, stands well up among the first two. There are many folks who will insist that the streets of Cairo offer more thrills a square inch of paving stone—but they've never been in Kano.

Few have, Kano is accessible only to those who boil down the fever-laden west coast of the Dark Continent to Lagos, which is 6 degrees north of the equator and fully as many degrees hotter. From there one steams on inland thru the stifling mangrove jungles of the tropical seaboard and for 800 miles northeast into the black heart of Africa itself.

And there he will find the great walls of the ancient city of Kano. This long, long wall, 30 feet thick and nearly as high, encloses nine hills, a little lake, and thousands of mud houses, from the dingy kennels of the blind black beggars of the streets to the 40-acre palace where the Emir of Kano stables his horses and his three score ten of wives.

Killed by the Riffs

Of course there are other routes to Kano, even as to the kingdom of heaven. Some broil up from the candel Congo south. Some trails lead from the north and east across the white sands of the Sahara—thru the back doors of the Dark Continent. But these are not the prevailing trade routes of the Cook's tourist or the garden variety of travelers. It is true that one of those miracle men who are always turning some phenomenal trick that no one else has ever dared attempt did succeed in driving an automobile to Kano, smack across the desert from the very kitchen door itself—but he was killed by the Riffs on his way back. His is not the popular route today.

Jim and I approached the old walled city from the west coast side, riding up from Lagos on our way across Africa by motorcycle. We left, going north and east and heading for the edge of the Sahara and somewhere on the other side of Africa. But I wouldn't advise any friend of mine to go that way.

We had heard before we arrived that no foreigner, and especially no Christian white man, is allowed to spend the night within those old Mohammedan walls. Naturally, then, Jim wanted to sleep within the city or at least stay inside as long as we could hold our own. And we are both white—and I am a Christian.

The Jungle Pagan's Voodoo

Fortunately we learned that a British District Officer and one missionary are now allowed to reside permanently within the city walls. That took away all the desire on Jim's part, for there is not as much sport in being one of a few as there is in being the first, or the only one. Instead, we stopped at a government rest house in the European settlement outside the city limits.

There are several hundred Euro-

peans, mostly English, in this beautiful city outside the vast walled native town itself. And built around this modern town, entirely outside the original walls, bulges the lusty municipal ensemble that makes the city of Kano the whacking metropolis of Western Africa that it is.

The East is east and the West is west—and in Kano the twain have met. It is one of those few places in the world where the strapping, marching Occidental and the tranquil, silent Easterner have shaken hands and sat down to the same bowl of rice.

Here the kinky-haired variety of African negro, low browed and phlegmatic, rubs his flat black nose with the finer-featured, sensitive Bedouin tribesmen of the desert and the light, refined Egyptian and Arab of the East. Here the peace of the Christian religion removes in part the Eastern Mohammedan curse of the "evil eye" and the jungle pagan's voodoo fears as well.

Just to the south is the greatest jungle in the world, Africa's boundless "bush." And just to the north is the greatest desert in the world, the stark Sahara itself. Two irreconcilable extremes. And yet Kano is the fusing ground for these just as for the two equally irreconcilable extremes, the dreamers of the East and the schemers of the West who have come thus far and met.

Cairo is the front door to the African Egyptian East, with the mystic civilization of its forgotten ancients. Capetown and Johannesburg are the gateways to that booming, modern civilization in productive, progressive South Africa. Lagos and Matadi are the side door entrances to the Congo and Niger jungles in the uncivilized African bush. Kano is the inside lobby to them all. It is the crossroads of Africa.

Huge Pyramids of Peanuts

Kano is at the northern end of the Nigerian railway, and to this railhead come, by camel, by donkey and by countless weary head loads every year, thousands of tons of peanuts for export to other lands. We were there during the peanut season and saw great piles of 200-pound bags of peanuts stowed away in huge pyramids, acres and acres heaped high with thousands of tons of this lowly nut.

Here rest the great herds of long horned beef cattle, massive and gaunt, with a hump on their back and a great waving dewlap flapping as they walk. From Timbuctoo, from far away oases in the desert, from the short grass, semi-arid grazing regions of the Bahrel-Ghazal, a thousand miles away, these hordes of cattle have marched for months on end to Kano, there to be re-sold and driven on down to Southern Nigeria for slaughter.

Here stop the tired camel caravans, at Kano, the end of a month's long trek from every corner of the desert. Here start the long trains of the Eastern merchants, their goods stowed away on camels, donkeys, and great lumbering cattle, heading from the metropolis Kano into every cranny of that vast region which it serves.

Here is Northern and Western and Eastern Africa all walled up for inspection by the visitor who will have a look.

Our guide in Kano was not a Cook's conductor to rattle off his litany about the city's 13 gates and the Emir's 139 children, but an American missionary who knew the city as his own. Besides speaking most of the languages current in the Kano market he was as energetic in his getting about as a goat on a rock pile. He answered every question we could think to ask and a good many more besides. He was a regular gasoline engine in pants.

"Here eat this—if you can," he challenged, and tossed us each a hunk of molasses candy the color of red hair and the taste of so much raw pepper on fire. He had grabbed it off a dingy grass mat on the head of a naked black girl, and he tossed her a ha'penny for payment.

"Those are Tuaregs," he explained,

The GIZZARD CAPSULE



INSOLUBLE CAPSULE A Wonderful New Invention

NOW you can rid your fowls of Tape worms and Round worms too, all at the same time. The wonderful new GIZZARD CAPSULE makes this possible.

Intestinal worms are living things. It takes strong medicines to get them. The GIZZARD CAPSULE is a combination of strong medicines for Round, Tape and Pin worms, contained in an insoluble capsule.

Being insoluble, this container keeps the medicines from injuring the membrane lining of mouth, throat, crop or glandular stomach; keeps the medicines from sickening the bird; or from affecting egg production or fertility.

Far More Effective Against Worms

Contained in this insoluble capsule, the medicines cannot mix with the fluids of the crop and glandular stomach, which would greatly dilute them the ordinary way. The medicines are released when the capsule is ground up by the gizzard and quickly pass into the intestine in full strength and undiluted. This gives the greatest possible efficiency in killing worms.

Suitable for chicks at ten weeks (2 lbs.) to full grown. Give your birds a chance to put on size and weight; keep worms from slowing up your laying hens; keep them from sapping the strength and disease-resisting power of your fowls. Give GIZZARD CAPSULES now.

50-capsule package, \$1; 100-capsule pkg., \$1.75; 500-capsule pkg., \$7; 1,000-capsule pkg., \$12. At our dealers everywhere, or direct from us, postpaid. Samples free to poultry raisers on request.

GIZZARD CAPSULES and Germonozone are sold and recommended by more than 10,000 drug stores, feed dealers and chick hatcheries. Not sold by peddlers. Order from your dealer, or direct from us, today. Ask for your copy of "The Lee way" free book.

GEO. H. LEE CO.,

60 Lee Bldg.,

OMAHA, NEBR.

DEMPESTER HAY TOOLS

Save Time, Labor and Wages—You can handle your hay crop faster, easier and with less hired help with Dempster labor-saving hay tools. Built for convenience, speed and long life.

Dempster No. 16 Two-Wheel Rake—The only rake with a positive unloading device. Foot trip permits head to slide forward three feet on teeth making unloading quick and sure.



Dempster Hay Stacker—Pitches hay like a crew of experienced farm hands. Takes a load, swings it into place quickly and without strain.

Ask Your Dealer to show you these different and improved Dempster Hay Tools. If there is no Dempster dealer near you, write us for full information. (H1).

DEMPESTER MILL MFG. CO.
719 South 6th Street
Beatrice, Nebr.

Wear Proves it

WEAR-TESTED DENIM COWDEN OVERALLS are much BETTER



Mere talk is worthless—selling claims mean nothing unless backed by quality. Read the Cowden Guarantee—then ask yourself how a manufacturer can give one so broad. The answer will be found when you inspect Cowden Overalls at your dealer's—and again when you have given your first pair the WEAR TEST.

Cowden Manufacturing Co.
Kansas City, Mo.

CONQUERS HARD WEAR

A Little Reading—

Will sometimes save a lot of money. Look on the Farmers' Market page for bargains in used machinery.



nodding toward a lithe old prince on horseback at the head of a half-dozen graceful cavaliers. They were dressed in the gray, flowing robe of the desert, with a head cloth masking all of the face except their black, steady eyes and their high foreheads.

"You know the 'Terrible Tuaregs'?" Known the world over as a fierce band of roving murderers. But they're known here, and up in the desert where they come from, as a clean tribe of warriors, as straight and honest as any. They'll give any man a square deal—and expect the same in return."

The magnificent, steady eyes, almost hidden behind the gray mask of the Tuareg horseman, and the angular turn of his light brown forehead, narrow and high, gave me more confidence in him than the long knife sheathed on his arm or the heavy spear across his saddle could destroy. We learned later that these silent, stately Tuaregs, for all their reputation as the fiercest of the desert Bedouins, are some of the "best citizens" of the Sahara.

Yonder was a dusty caravan just arrived from far away Tibesti in that death-dry country back of Chad. A month's journey where every thirsty hour counts as 10 and oases are days apart sometimes.

"They've brought down a few goat skins full of dates and perhaps some leather work to sell. Then they'll buy some Manchester cotton print, a few strings of beads for the eternal feminine back in the sand and maybe some sugar or some tea," explained our guide. "Then all they've got to do is wait for their camels' backs to heal a bit, load up and start on the long trip back."

That Eternal Feminine

A few months gone for the round trip to Kano and return. But what is time to these roving Bedouins, whose ancestors have lived and died for generations past, trekking here and there in the desert that something has made them love? Sometime I want to live awhile with them in their flapping tents in the sand and gurgling the warm water from their goat skin camelbags and trek with them back into that land that God forgot. Just a while. Not long, for I wouldn't want the mysterious spell of the desert to keep me there a satisfied citizen of the Sahara.

The leading camelteer, a swarthy pirate with a collection of leather-bound talismans tied about one upper arm and a long, thin knife sheathed loosely on the other, was unloading his grumbling, groaning camel as we approached. A three months' journey to market three goatskins of dried dates! A few dollars would have bought him out. I ignored his dates but paid him a pound for his beautiful native-woven blanket, double length and neatly designed. It had taken months to make—but a pound is a pound in England, Africa and Wales.

All about were caravans, some load-

ing on the ever grumbling camels, the optimistic little gray donkeys, and the great docile cattle, bale after bale of cotton cloth and cheap blankets, boxes of rusty padlocks, shiny mirrors, red beads and what nots. Months later these same wares would come down from the same protesting tired camels, patient little donkeys, and worn out cattle in far away Darfur, a thousand miles to the east, or in some other cranny of this vast desolate land. It has been called the land that God forgot, but the merchants have remembered it just the same.

Always activity in this great mart of Africa. Everyone was busy, from the toothless and shriveled old cripples in the street, holding out their bowl for alms, to the hordes of shining black children who swarmed about us, blocking every street behind the strange white men. For Kano is not a tourist town. It required the combined efforts of ourselves, our guide, and a few loud-shouting black policemen to clear the way for our motorcycles.

Trousers 18 Feet Around

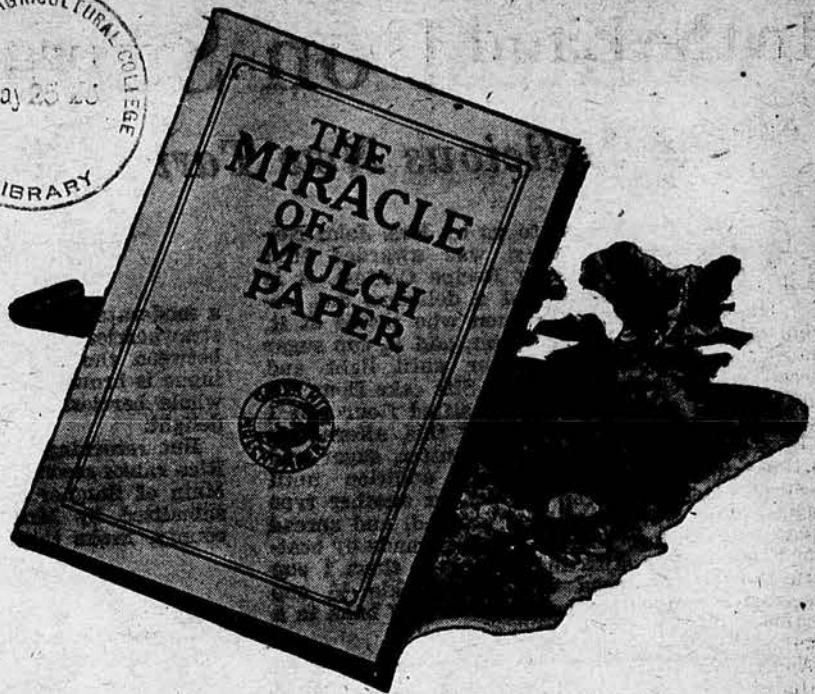
Motion picture taking was impossible except from the roof of a house where the swarms couldn't reach us. It was impossible on account of the crowds to photograph the grinning old blackamoor who tried to sell me a pair of white baggy trousers, fully 18 feet around the waist. They are normally suspended by a draw string which takes up the 15 feet of slack. Nor could we photograph the rows and rows of money changers sitting cross-legged on their rugs, bartering francs for English sterling.

We did finally break away and dash on our motorcycles to the foot of the tallest hill within the walls. We climbed to the top, past shallow graves on the steep hillsides, some so badly washed away that human bones protruded from the path. And from the top of this hill we viewed the famous old city secure within its miles of walls, centuries of tradition from any modern changes.

There was the lake, tiny and stagnant, but still a reservoir for water. There the Emir's palace and his great compound for the housing of his wives and concubines. There the glittering Mohammedan mosque. There the teeming market place, acres and acres, fairly packed with tiny stalls of petty merchandise and the narrow lanes between flowing with blacks, blacks, blacks. Men and women by the thousands, children by the tens of thousands! There the caravanseral with its dusty caravans coming in and going out, keeping Kano secure in its place in the west African sun.

And away out and over the wall to the east there stretched the white trail of sand, toward Zinder and Lake Chad—the trail across Africa—the trail that we would follow on the morrow.

A much larger acreage of legumes is needed in Kansas.



Write for this free booklet on farming under GATOR-HIDE MULCH PAPER

"THE MIRACLE OF MULCH PAPER", based upon actual trials of paper mulch in this country and abroad during the past few years, gives some astounding figures on increases in yields for almost all crops. It shows how paper mulch affects the moisture and temperature conditions of the soil. It shows the proper methods of using paper mulch in connection with different types of crops. It shows how to plant THROUGH the paper and BETWEEN rows of the paper. Be sure to send for YOUR free copy today.

Gator-Hide Mulch Paper, made by the world's largest paper manufacturers under the Eckart Patents, is available to all planters today in limited quantities. Thousands of rolls are now in the fields under test. Farmers everywhere are seeking to determine for themselves just what paper mulch will do for them in the form of increased yields, reduced cultivation expense and EARLIER crops.

When sending for the booklet, "The Miracle of Mulch Paper", place your order at the same time for a few rolls of Gator-Hide Mulch Paper and see for yourself just what its possibilities are when applied to YOUR particular problems. But, whether you decide to try Gator-Hide or not, send for the booklet. It's FREE and it's IMPORTANT.

The supply of Gator-Hide Mulch Paper is limited today and we are shipping not more than four rolls to an individual. By early 1929, however, we expect to meet all demands and we believe that distributors located throughout the country will then have a supply always available for your use.

In TWO TYPES

Type A—for Annuals, primarily in field culture.

18" width — 300 lineal yards to roll, (approximately 27 lbs.) - \$3.00

36" width — 300 lineal yards to roll, (approximately 53 lbs.) - \$6.00

Type B—for Perennials in field culture and all garden work.

18" width — 150 lineal yards to roll, (approximately 30 lbs.) - \$3.00

36" width — 150 lineal yards to roll, (approximately 60 lbs.) - \$6.00

While not more than four rolls will be sold to the individual, any combination of four may be had. Orders, of course, can be placed for one, two or three rolls, as well. Only C.O.D. orders accepted for shipment by American Railway Express. Do not send check.



This paper is completely covered by the Eckart Patents under which the International Paper Company has the rights for production and sale EAST of the Rocky Mountains only.



INTERNATIONAL PAPER COMPANY
Department A18, Pershing Square Building, Park Ave. and 42nd St., New York City



It Looks Like Business at Last

Contest on Summer Desserts Closes

A Delicious New Tart Is Chosen and Variations Are Suggested

BLIXT TART, sent to us by Mrs. John Nelson, Marion county, was awarded first prize in the Dessert Recipe Contest. It is an unusual dish, and a delicious one, according to the men and women who tasted of it. To make it, cream $\frac{1}{2}$ cup butter, add $\frac{1}{2}$ cup sugar gradually, and cream together until light and fluffy. Add 4 beaten egg yolks. Sift cake flour. To 1 cup plus 1 tablespoon of the sifted flour add 1 teaspoon baking powder and add this, alternately with 4 tablespoons milk, to the butter, sugar and egg mixture. Beat after each addition until smooth. Place in a deep pie pan or another type of deep pan, which has been greased, and spread a meringue on top. This meringue is made by beating 4 egg whites stiff and adding to them 1 cup sugar and 1 teaspoon vanilla. Sprinkle $\frac{1}{2}$ cup chopped nut meats on the meringue and bake in a



What Pickles Do You Make?

THAT is what the contest editor is asking this week and she will not be satisfied until she hears from every Kansas woman who has a favorite or an unusual pickle recipe. If someone makes pickles out of some food that no one else had thought of using in that way, that is news to the contest editor, or if someone makes pickles out of an old food, in a new way, that will interest the contest editor too.

Send in your recipes early so that every one can use them this summer and for the best three recipes there will be special prizes of \$2.50 each. For every recipe that can be used we will pay \$1. Address your letters to Contest Editor, Kansas Farmer, Topeka, Kan. If you would like to have the pickle leaflet when it is completed, you may send a 2-cent stamp when you send your recipes and the leaflet will be sent to you.

hot oven. Cut in squares and serve with or without whipped cream. The tart is quite crisp.

Much of the success in making this dessert depends on the use of a very hot oven at the beginning of the baking. If this is not done, the batter will run out of the pan. After the batter is partly baked and set, the heat may be reduced to cook the meringue thoroughly.

In working with recipes, almost all women sometimes become venturesome and try new stunts. I was seized with the desire to try a new way with Blixt Tart. I baked the batter first and let the cake part cool. Then it was placed on a baking sheet, the meringue was piled on top, shredded coconut was added and the whole was set in a slow oven to brown the meringue.

This brought to my mind a recipe for Strawberry Cake that was sent to me by a friend in New York. To make it you use 2 cups sifted cake flour, 4 teaspoons baking powder, $\frac{1}{2}$ cup butter, 1 cup sugar, 4 egg yolks, beaten, $\frac{3}{4}$ cup milk and 1 teaspoon vanilla. The butter is creamed and the sugar is added gradually. The mixture is beaten until light. Then the egg yolks are added. The flour is sifted once and then measured; the baking powder is added and it is sifted three times with the flour. The sifted flour is added alternately with the milk, a small amount at a time. The batter is beaten after each addition until smooth. The vanilla is added. The batter is baked in two greased pans 25 minutes in a moderate oven.

One-half cup sugar is folded into 4 stiffly beaten egg whites. The two layers of cake are placed on a baking sheet, or an inverted pan, and the meringue is piled lightly on them. The cakes are set in

By Nell B. Nichols

a moderate oven to brown the meringue. Luscious strawberries are crushed, sweetened and spread between the two layers of cake after the meringue is browned. The top is garnished with a few whole berries. If served at once, this cake is a delight.

But returning to the Dessert Contest, Glorified Rice ranks second. It was sent to us by Mrs. C. R. Main of Sumner county, and an Ice Box Dessert submitted by Mrs. H. J. Hammond, Wyandotte county, ranks third. Here are the recipes.

Glorified Rice

Dissolve 1 package lemon gelatine in $\frac{1}{2}$ pint boiling water; add $\frac{1}{2}$ pint canned pineapple juice. When cold whip to the consistency of whipped cream. Have 2 cups of cold boiled dry rice. Fold rice into gelatine. Add 1 cup of whipped cream, 4 tablespoons of sugar and salt to taste. Add 1 cup of nuts if desired. Let this harden.

Sumner County.

Mrs. C. R. Main.

Ice Box Dessert

1 lb. vanilla wafers
2 eggs
1 cup sugar
 $\frac{3}{4}$ cup butter

1 large can crushed pineapple
1 cup walnuts

Cream butter and sugar, beat eggs, and add. Drain pineapple then add to above mixture. Grind vanilla wafers, put a layer of wafers on bottom of a bowl or pan, then the mixture, and last the nuts. Continue until all is used, put a weight on top to press it well, put in ice box until cold. Serve with whipped cream. This makes 10 servings.

Mrs. H. J. Hammond.

Wyandotte County.

Nine other recipes were chosen to be used in a leaflet of Summer Desserts and each woman received \$1 for her recipe. Here are the names of the women whose recipes were selected:

Marshmallow Loaf, Mrs. F. J. Hamburg, Ellis county.
Grape Tapioca, Mrs. M. P. Gartrell, Miami county.
Peach Bubble, Mrs. Murry E. Rice, Pottawatomie county.
Jellied Prunes, Mrs. Frank Williams, Lyon county.
Caramel Ice Cream, Mrs. G. B. Gresham, Ford county.
Gelatine and Baked Apples, Mrs. F. C. Gish, Harper county.
Green Gage Ice Cream, Mrs. H. C. Roth, Ellsworth county.
Marshmallow Pudding, Mrs. Jack Carson, Sumner county.
Red Cherry Salad, Miss Ilma Johnson, Frontier Co., Neb.

This leaflet will be sent on receipt of your request and a 2-cent stamp. Send your letters to Contest Editor, Kansas Farmer, Topeka, Kan.

How I Get Wool Comforters

BY MRS. MYRTLE MULANAX

MANY a thrifty housewife will heave a sigh of regret when she sees the wool from the farm flock shipped to market and thinks how she would like to have it made into fluffy, warm comforters for winter.

Last spring I resolved to stop regretting and do something with that wool. Now getting it washed and ready for a comforter did not seem like very hard work but like so many things that we do for the first time I dreaded beginning.

One bright sunny day the wool was washed. The tubs were ready with lukewarm suds. The soap was all dissolved before putting the wool in it. Then I took just the amount of wool that I

could handle easily and washed it in the tub mostly by rubbing it between my hands and dipping up and down in the suds. This operation was repeated in two other tubs of suds and then rinsed in two clear waters. The water is easily squeezed out in rinsing. One should not wring or twist the wool and it will be more loose and fluffy when dry.

The wool after being washed was then placed on a sheet spread on a roof of a low building to dry. When dry and ready to take into the house the wool was beautiful; so white and fluffy it reminded me of fleecy white summer clouds.

Next came the pulling process. The wool was pulled in about the manner in which one pulls taffy. Take the amount which you can handle nicely to pull and when done form it into fluffy loose balls. Try to have them about uniform in size and shape. Place them in rows in a box or

Hope

BY ROSA ZAGNONI MARINONI

*Over the old rock wall the plum tree blooms,
Sending a challenge to the still wintry air.
Its ruddy branches bearing pale pink buds
Remind me of hope drifting in old men's eyes.*

other container until the pulling process is completed. Pulling the wool serves two purposes. It lets small particles of chaff and straw fall out and makes the wool fluffier.

A cheap grade of muslin was used for the inside covering of the comforter. This muslin was placed in the quilt frame. The wool was spread evenly over it then the top sheet of muslin placed over this. It was then quilted in rows about 5 inches apart. I used wrapping twine and took fairly large stitches. After removing from the frame the edges were turned together and stitched.

I then covered my comforter with a pretty silk-line cover which I knotted and fastened as I do any ordinary comforter.

When soiled, the outside cover can easily be removed, washed and replaced with very little trouble. The wool will last for years. It will outwear several covers and if it ever becomes matted it can be washed and pulled and will be as nice as new again.

If you make one you will want to add another to your bedding supply each year.

Short Cuts Around the House

BY OUR READERS

ALL of us are on the lookout for suggestions to make our housekeeping easier or our homes brighter. Perhaps you have discovered some short cut that your neighbor doesn't know about. If so, won't you tell us about it? For all suggestions we can use we will pay \$1. Address the Short Cut Editor, Kansas Farmer, Topeka, Kan. Include postage if you wish your manuscript returned.

A New Garden Combination

CUT UP onions "tops and all" and wilt with hot vinegar like lettuce. They cannot be excelled served in this way. Also radishes cut fine and combined with the onions are delicious.

Newton County.

Mrs. A. E. Ware.

For Summer Trappers

By Mary E. Stebbins

SWAT that fly" is a good slogan and good advice but who would select fly-swatting as their chief in-door sport? That flies must be exterminated goes without saying, their bad heritage and bad habits make that imperative as the most important means of protecting the baby's milk and all other foods from the bacteria with which they are covered inside and outside.

Probably the use of traps is the quickest and easiest way to reduce the fly population after the fly has emerged fully grown. When he does so emerge from his breeding place, the manure pile, he is hungry and starts immediately in search of food. A trap conveniently placed and temptingly baited will lure him right in. It is said if you kill a fly 10 will come to the funeral; truly if you trap a fly hundreds will come to join him and they are as good as dead before they have done any harm to anybody and before they have reached the breeding age, so cutting down immeasurably the number of future flies.

Traps placed near the kitchen door with its enticing smell of foods will furnish an effective snare for the investigating bands, and the house-

wife will no longer despairingly say, "They gather on the screen door and every time any one comes in, they come in too. I spend half my time swatting flies and it seems I can't keep them down."

Many types of fairly inexpensive traps can be purchased or can be still more inexpensively made at home. One woman who made five reported that the average time consumed in their construction was half an hour. She used them so satisfactorily that as she said she "just didn't have flies in her house any more and had so much time she hardly knew what to do with it."

Any attractive smelling food makes a good bait. Buttermilk seems to have been particularly satisfactory. The flies in the trap may be killed by plunging the trap into boiling water, by smoking or burning them. This last is possible only when the trap is entirely of wire.

Editor's Note—Miss Stebbins has prepared simple directions for making the fly trap mentioned above, and they are available from this office. Enclose a 2-cent stamp with your request and address your letters to Florence G. Wells, Farm Home Editor, Kansas Farmer, Topeka, Kan.

The Baby's Corner

By Mrs. Elizabeth R. Page

Mrs. Page will be glad to help you with any of the puzzling problems concerning care and training of your children. Her advice is seasoned with experience as a farm mother and years of study. Address her in care of Kansas Farmer, Topeka, Kan.

For Mild Weather

A FEW days ago Mrs. A. R. wrote to mother asking, "Now that the warm weather is coming on when can one take the band off the baby? They seem so warm."

Her baby is 5 months old so we suppose he is wearing the part wool knitted bands with straps over the shoulders. My mother thinks these bands should not be taken off until the baby is 2 or 2½ years old. These bands help keep an even temperature over the digestive organs during time for teething.

If baby perspires and seems too warm the part wool or heavy cotton shirt may be changed to an open mesh cotton shirt. If he has been wearing wool flannel undershirts these also may be changed to cotton ones.

For this mild spring weather I feel comfortably dressed in my knitted band, diaper, cotton shirt, muslin undershirt, dress, stockings and soft shoes. When the weather is real warm mother says she will take off my cotton shirt too, and on the hot afternoons in midsummer all I will need will be my band and diaper.

Baby Mary Louise.

The Baby's Corner Leaflet No. 2, giving information on planning clothing for the new baby, will be mailed for a 2 cent stamp.

I. R. P.

A Garden Contest

BY LOUIE E. BRANDOM

ANY number may take part in this race just so there are an equal number on each side. Have previously prepared, a table on the top of which have been pasted colored pictures of all the different kinds of vegetables. Several different representations of the

same vegetables may be used if desired and the pictures may be cut from any seed catalog.

When ready for the contest place this table at one end of the room and dividing the players into two equal groups, station them behind the starting line at the opposite end. Appoint a judge. At the word "go" the first contestant in each line races forward to the table, counts the number of pictures she thinks are on the table top and returning to the starting point she whispers to the judge the number. If the number is correct she then touches off the next runner in her line, who repeats the performance, and so on until all have run.

The group whose last player is first to give the judge the correct number, wins. Anyone making a mistake in the number of pictures on the table must go back and make a recount, which of course, holds back her group, but as several on both sides are almost sure to miscount, in their hurry, it will prove quite an exciting race.

Storing Winter Wardrobes

A RUBBER sponge, dampened slightly is especially effective for taking off lint. If mildew stains are found on any of the summer clothes, beddings or coverlets when they are taken out of their winter storage, apply cream of tartar to the spot and moisten with cold water. Let stand over night and rinse out with cold water. The stains, unless very old and deep, will come out easily.

Mrs. J. D. Long.

Yolo Co., California.

Club Enrollment Increases

FINAL figures on the number of farm boys and girls who carried on 4-H club work in 1927 are announced as totaling 619,712. "This total means that during the year over 619,000 young people of rural communities in every state voluntarily undertook to demonstrate an improved farming or homemaking method and co-operated in an effort to benefit their communities. Four-H club has for its aim four-fold development of head, hand, health and heart thru practical experience in the latest and best methods for agricultural and home economics activities under the direction of trained extension workers.

A new broom lasts much longer when soaked in strong hot salt water before using.



"Isn't she darling?"

SHE'S sound asleep. A perfect little cherub resting so peacefully in that tiny bed. No wonder she's comfortable, for a loving mother has provided everything for her wee baby.

What joy, what fun . . . to search the shops for precious baby things . . . so tiny, so dainty, so lovely. Comparing first, then choosing the finest for her baby.

In great events and everyday affairs, comparison is so helpful in buying the best. This is also true in buying coffee.

So fragrant! So rich! So refreshing! Folger's Coffee brings to you the supreme of the world's coffees. Serve Folger's . . . notice the new enthusiasm at the table. And just watch the cups come back for more. A royal treat is Folger's Coffee. Compare Folger's by making the famous Folger Coffee Test.

The Folger Coffee Test: Drink Folger's Coffee tomorrow morning; the next morning drink the coffee you have been using; the third morning drink Folger's again. You will decidedly favor one brand or the other. The Best Coffee Wins. That's fair, isn't it?

The first thought in the morning

FOLGER'S
Coffee
Established 1850



VACUUM PACKED

© 1928, J. A. Folger & Co.



3360



3332

3360—This spring features the printed crepes in patterns of both flowers and Indian characters. Any of these patterns would make up most effectively into this charming dress with circular skirt, for the young miss, just entering the realms of

style. The waist, with its dip to join the skirt is most becoming and tends to make the dress fit better too. Neck is finished most cleverly with ribbon inserted and tied in a bow to hang down in front. Sizes 8, 10, 12 and 14 years.

3332—This dress of the more matronly type is most becoming with the jacket effect sewed onto a shirred skirt of circular tendencies. The underblouse and turn-back collar are of contrasting material. The V-shape neckline with revers is finished with 4 buttons of contrasting color. Sizes 16, 18 years, 36, 38, 40, 42 and 44 inches bust measure.

Never was fashion more kind to all than this year, for she has provided gathers for the lithe and plaits for those of sturdier build, not to mention variable waist lines to suit all types and hemlines with a tendency to be lower for the sake of limbs that are not ideally trim.

Puzzles Every Boy and Girl Can Work



Did you ever hear of Jack Spratt? Do you know what he could eat and what his wife couldn't eat? If you don't know, here is where you can read about him. Take your lead pencil and fill in the missing part of each letter. Just one line will complete each letter. Send your answers to Leona Stahl, Kansas Farmer, Topeka, Kan. There will be a surprise gift each for the first 10 boys or girls sending correct answer.

My Donkey's Name is Jude

For pets I have a donkey named Jude. I am 10 years old and in the fifth grade. I go to Mt. Zion school. My teacher's name is Miss Keltner. I like the boys' and girls' page. I wish some of the boys my age would write to me. We live on an 80-acre farm. I have two sisters. One is a little sister whose name is Mary Lu and my big sister is going to high school. Her name is Alice Helen. She is 18 years old. My little sister will be 3 years old in June. Russell Yocum, Olathe, Kan.

Hazel Has Plenty of Pets

I am 9 years old and in the fifth grade. I go to Eureka school. I live 1 1/4 miles from school. For pets I have a cat that comes into the house when you will let her. Her name is Queen. I have a pet dog. His name is Dixie. He had his leg broken about two years ago and it still bothers him. We have two other cats but they do not stay around the house much. Their names are Tiger and Thomas Robert. We have two dogs besides Dixie. Their names are King and Joe. We have a pony but we do not ride her much.

Our school is out. I have a sister that goes to school. She is in my grade. Her name is Nancy Frances. My teacher's name is Mrs. Ebelmesser. I like her very much. I would like to hear from some of you boys and girls.

Hazel Pauline Talley, Centralia, Kan.

Goes to School in a Bus

I am 10 years old and have brown hair and brown eyes. I am in the sixth grade. My teacher's name is Mrs. Sawyer. I attend the Arapahoe Consolidated school. The school children are taken to school in eight busses. I ride in bus number 8. I have one pet—a little black pup named Trixie. Harriet Rinearson, Arapahoe, Colo.

Likes to Live on a Farm

I am 13 years old and in the eighth grade. I live 1/4 mile from school on a 260-acre farm. My teacher's name is Miss Porte. I like her very well. I have a cow named Victoria and three horses. I have eight brothers and two sisters. I like to live on the farm. I would like to hear from some of the boys and girls. Virginia Slack, Meeker, Colo.



Teacher's Pet

To Keep You Guessing

What is the chief difference between a butcher and one of his customers? The butcher chooses meat; the customer chews his meat.

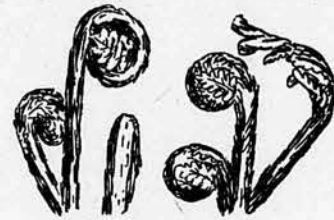
When a man is in a hurry to get out of the house why is he like a locksmith? He makes a bolt for the door.

In what way does a farmer resemble the mother of a careless boy? The farmer sows patches; the mother of a careless boy sews patches.

What is the difference between a fisherman and a stupid boy? One baits his hook; the other hates his book. Why is a rooster's neck so much like a doorbell? Because they are both (w)rung when company comes.

Which is likely to be the coldest house? An ice house.

Nature's Notebook



Uncurling Ferns

In all the woods that are now rejoicing in their emancipation from snow and frost, the fern leaves are uncurling. They may be the big, lusty stems of the cinnamon-fern or of the ostrich-fern or the slender and delicate little bladder-fern or maidenhair, but they always uncurl the same way: unwinding an in-rolled spiral like a wound watchspring, so that they come to present the appearance of an elfin bishop's crozier, or, in the homelier rustic phrase, "fiddle-heads."

This peculiar method of uncurling is practiced by every member of the fern tribe, with one or two obscure and unimportant exceptions, and it is apparently copyrighted by that family, for no other plants do it. One group only, the cycads, do curl in their leaflets in a manner somewhat like that of the ferns, but the curling of the whole leaf is not complete. It is interesting to note in passing that botanists reckon the cycads as about the nearest relatives the ferns have among the flowering plants, and that the lineage of these peculiar vegetables is very ancient, stretching back to the Coal Ages to connect up with the ancestors of the modern ferns.

Another thing that marks all ferns, and is practically unknown outside the family, is the equal two-pronged forking of the veins in the leaves. Ferns always have their veins thus forked, and the higher seed-plants never. One seed-plant only, the ginkgo, or maiden-

hair tree of Japan and China, has forked leaf-veins, and this tree again is rated as a fairly close relative of the ferns.

Diamond Puzzle

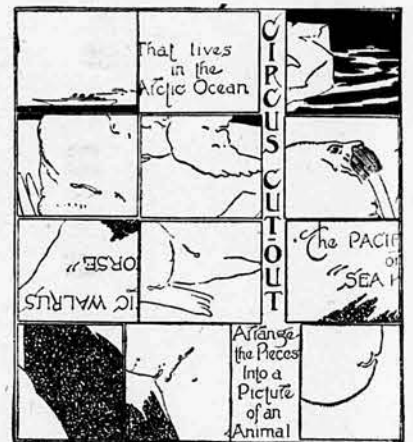
1. — — — —
2. — — — —
3. — — — —
4. — — — —
5. — — — —

1. A consonant; 2. A neckpiece; 3. Face paint; 4. Era; 5. A vowel.

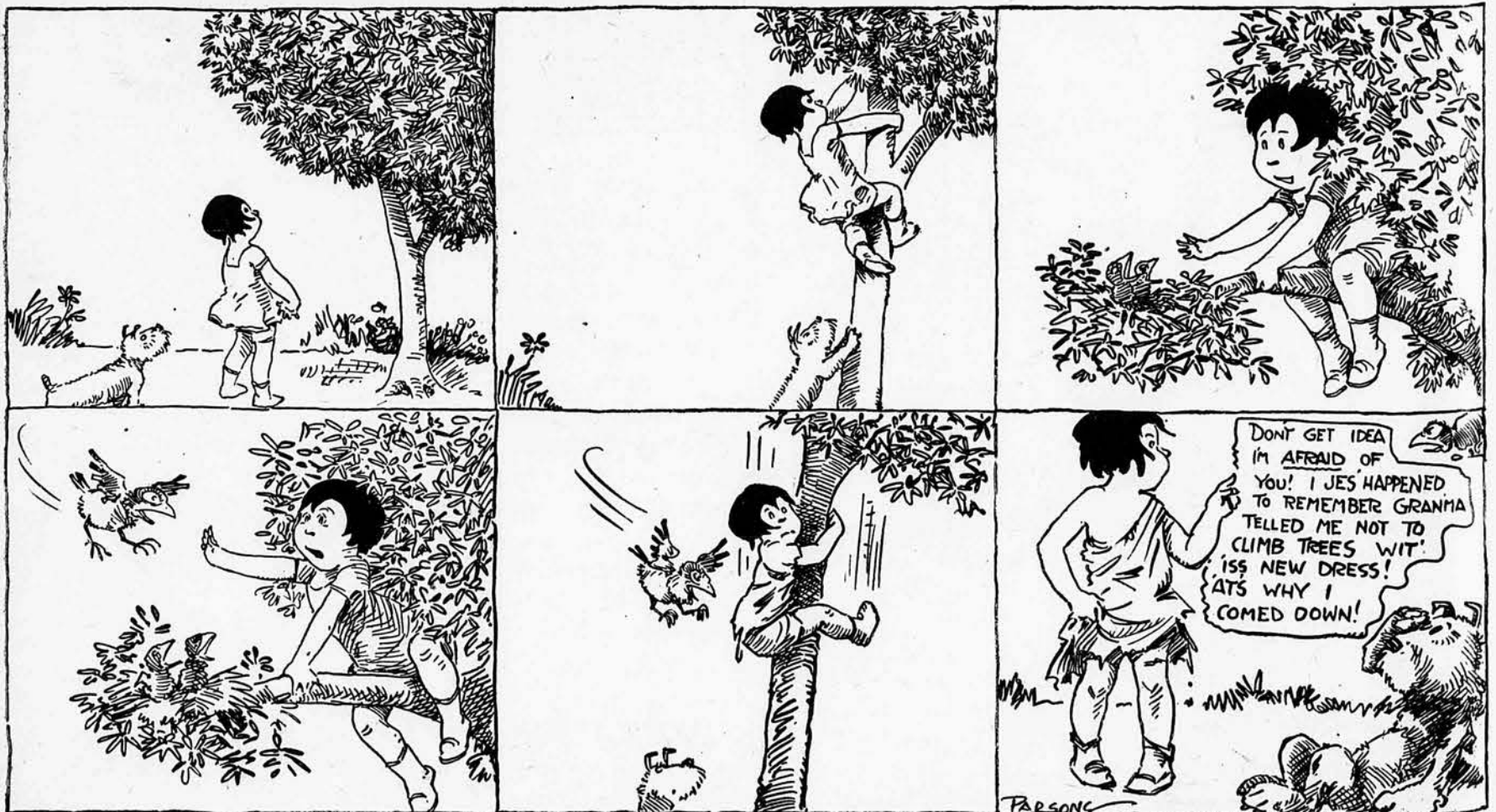
From the definitions given fill in the dashes so that the diamond reads the same across and up and down. Send your answers to Leona Stahl, Kansas Farmer, Topeka, Kan. There will be a surprise gift each for the first 10 boys or girls sending correct answers.

Lelia Has Eight Dolls

I have a pet dog named Victor. He is 14 years old. I am 8 years old and in the fourth grade. I have a brother named Edwin. I have eight dolls—six big ones and two little ones. I would like to hear from some of the boys and girls. Lelia May Bartley, Jennings, Kan.



Carefully cut out the 12 pieces and fit them together. Then you will learn the name of this animal, and also the name that the navigators of old called him. Now for the scissors and make your little fingers get busy. Send your answers to Leona Stahl, Kansas Farmer, Topeka, Kan. There will be a surprise gift each for the first 10 boys or girls sending correct answers.



The Hoovers—Dotty Remembered at Last!



Rural Health

Dr. C.H. Lerrigo.

You Had Better See a Doctor Once a Year Anyhow and Get His Opinion

MRS. A. H. is 33 years old and has a blood pressure of 145. She wishes to know what is normal for that age, and if there is always hardening of arteries with high pressure. She says that sometimes her doctor makes light of her trouble, and at others refers to it as if it were a very serious matter, so she would like to know what the probable outcome really is.

There is no absolutely fixed blood pressure rate. It may vary with the individual, the conditions of living, the sex, emotions, time of day, hunger, heat, cold and many other factors, but the variation is not very great except for disease. It is safe to estimate normal blood pressure at 120 for the average person of 20, and add a half point for each increasing year of age, so that this patient of 33 should have a pressure of 127. As years increase there are many irregularities of life that will easily cause a variation of as much as 10 points without any radical departure from a state of health.

Hardening of the arteries always causes high blood pressure, but it is a mistake to suppose that the two things always go together, for many cases of high blood pressure have normal arteries.

As to the gravity of high blood pressure, I am bound to say that usually it is a serious matter. It depends on the systemic disturbance that is at the bottom of it. If this can be discovered and cured, all is well. But all too often the trouble is not discovered until the curable stage is a thing of the past, and no more can be done than to palliate. A good plan is that of having a thorough overhauling once a year so that irregularities may be detected while still at a curable stage.

If your doctor tells you that you have high blood pressure, tell him that you would like him to search out the cause and remove it. That is the only practical way of meeting the difficulty. Medicine given blindly for the purpose of "hammering down" the blood pressure is a mistake.

Consult a Good Doctor

I have a 15-year old girl who has a goiter. She is taking medicine for it but it seems to be getting larger. She is very thin and not at all well. Do you think there is any cure except an operation? I should like your opinion on this. Do you think young girls should wear corsets? If so, what kind? My 13-year old girl is quite fleshy, and I believe should have some sort of support.

Mrs. K.

The fleshiness and the goiter both may be due to a deficiency of thyroid action. Take both girls to a really good doctor for individual treatment. It may be that medicine can be given now to the younger girl that will not only keep her from the excess flesh but also will prevent her from having a goiter. If the older girl's trouble has the same origin, she will need much the same medicine.

Better Wait Awhile

I have a baby that has a red birth mark on his face that is very noticeable. Would you advise to have it removed or is it best to let it alone? How can they be taken off, if possible? He is 9 months old. MRS. A. D.

I do not advise any action at this time. By the time the child is old enough to be affected the mark may have faded so that it is not conspicuous. Electrolysis will remove many such marks. If it is distinct enough to be disfiguring its removal should be attempted before the little one begins school.

An Operation is Best?

Is there any cure for bladder trouble that attacks a man of 62 who is otherwise in very good health? The chief trouble is that he has to get up in the night several times to urinate.

J. F. S.

This trouble probably is due to hypertrophy of the prostate gland. It is very common in men who are getting past middle age, and is often called "the old man's weakness." The prostate impinges upon the bladder, and if there is any great degree of enlargement it crowds up into the bladder

wall and creates a pocket which cannot be emptied of urine. In a man as young as 62, if in good health, I strongly recommend an operation to remove a portion of the prostate. This is now a common operation, and is conducted very successfully by experienced surgeons. It cures the trouble; and a cure of a condition that is likely to disturb one's sleep for 15 or 20 years is worth all you can pay for it.

We'll Get Cheaper Nitrogen

(Continued from Page 10)

it at a disadvantage as compared with synthetic ammonia for the same purpose.

The most reliable figures obtainable indicate a gain in world production for cyanamide during 1927 of 30,000 tons of nitrogen fixed, whereas the gain for synthetic ammonia expressed in the

same terms was 74,500 tons, clearly indicating world trends. Not only have contracts been let for the erection in Europe of synthetic ammonia plants to operate on systems developed by American chemists and chemical engineers, but in Norway great arc plants are about to be converted into plants for the production of synthetic ammonia. Because of the very low price of power there, gas will be prepared by electrolysis, a method not economically applicable in our country, for reasons set forth.

This continual trend away from power-consuming methods to those that are more strictly chemical means a constant lowering in the cost of fixed nitrogen and a greater latitude in the choice of plant location, besides removing plants for the fixation of atmospheric nitrogen from competition with power-consuming industries uniformly able to pay a higher price for their power.

The net result to the farmer is certain to mean not only a greater diversification in concentrated fertilizers, thereby enabling him to choose those best suited to his individual needs, but also a decline in cost for the nitrate he requires, thereby contributing to a lowering cost of his farm products.

We must not expect such fundamental changes to take place overnight. An examination of the records will show a downward tendency in nitrogen costs. The rapidity with which

these costs continue to go downward depends on a large number of factors, but the important one of chemical research is receiving particular attention, and what has been accomplished in freeing the process from large power requirements constitutes an aid to agriculture not only of a magnitude difficult to estimate but also of lasting and growing value.

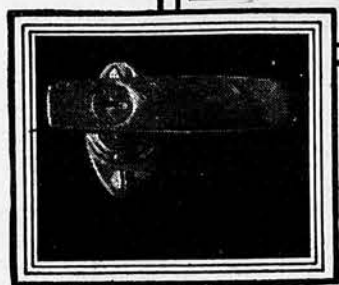
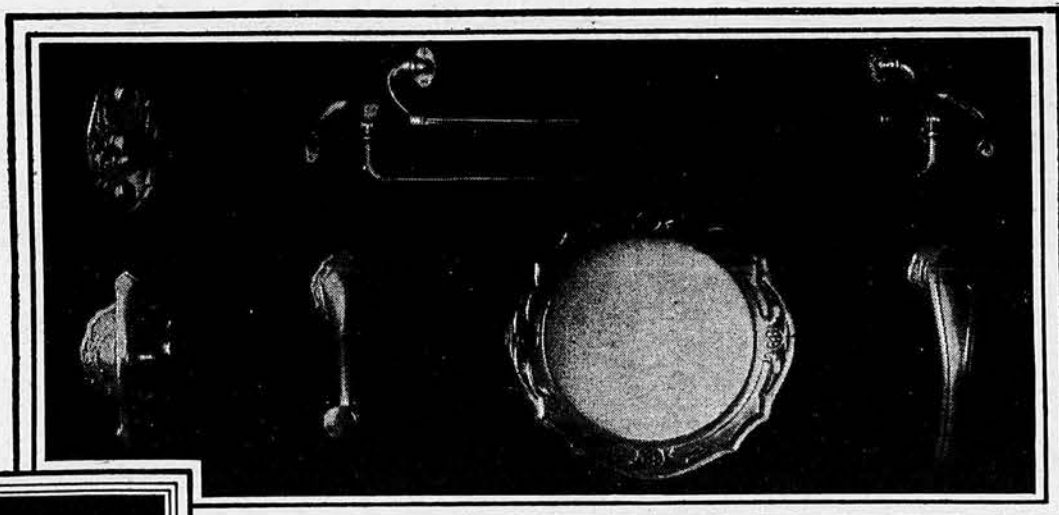
New Dairy Statistics

A revised edition of its "Handbook of Dairy Statistics" has just been published by the United States Department of Agriculture. This publication, compiled by T. R. Pirtle, contains statistics from 1850 to date on the production of butter, cheese, milk and other dairy products; trade movement; prices; consumption; numbers of dairy animals; and other data concerning the dairy industry in the United States and other countries. Copies may be obtained free on request to the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

For Combine Territory

Farmers' Bulletin No. 1565-F, "Shall I Buy a Combine?" just published, may be obtained free on application to the United States Department of Agriculture, Washington, D. C.

Fisher hardware by Artist Craftsmen



Door locks are another example of Fisher leadership and quality. Fisher door locks are built of the finest material obtainable and have attained that state of perfection where trouble with a lock has become almost unheard of. The safety lock used is a Fisher development which works on the same principle as the door lock of a house; in other words, tripping of the inside lever on the door securely locks the car so that it cannot be entered in any way without the use of a key.

Fisher initiated period hardware for use in motor car bodies. It went farther than that, and gathered into one organization a complete staff of engineers, designers, artists and modelers, prepared to carry out in every detail the modern demand for artistic harmony of design in all body hardware, internal fittings and similar appointments. This great organization of artist craftsmen is known as the Ternstedt Manufacturing Company, a unit of Fisher and the largest manufacturer of body hardware in the world. In this great hardware plant, Fisher obtains individualized fittings and appointments, radiator ornaments, door handles, trim hardware, robe rails, foot rests—all synchronized with the design motif of each individual car creation.



Body by FISHER

KC Baking Powder

for best results
in your baking

Same Price
for over 35 years
25 ounces for 25¢

Use less than of
higher priced brands

Guaranteed Pure

ALLIGATOR STEEL BELT LACING



Quick and easy to apply.
Makes a smooth, flexible,
separable joint. Protects belt
ends. Gives long dependable
service.

Recommended and used by
belt makers, agricultural col-
leges, thresher and implement
manufacturers, and by farmers
everywhere. Your dealer knows
and sells Alligator Steel Belt
Lacing. Ask for it.

Bale Hay Quick

With the
**IMPROVED
ADMIRAL**

Easy Terms. Horse-
power, tractor-power or
engine-driven. Construc-
tion simple, close coupled; low
feed opening; less help. Change
old Admirals into improved
models at low cost. Send now
for our FREE CATALOG.



Admiral Hay Press Co., 1225 W. 9th Kansas City, Mo.



**WORK that's
Profitable
RECREATION
that's
Healthful**

In CANADA

**Better Land
Bigger Yields
Lower Taxes**

For free literature on Farm Oppor-
tunities in Canada write nearest Can-
adian Government Information
Bureau.

Mail this coupon today to
M. J. Johnstone, Dept. B-41,
2025 Main St., Kansas City.

Name.....
Address.....

Co-operation Still Grows!

The Organized Wheat Producers of the World
Will Meet June 5 to 7 at Regina, Canada

ORGANIZED wheat growers of Kansas will shake hands with organized wheat farmers of Oklahoma, Nebraska, Texas, Minnesota, Indiana, the Dakotas, Canada, Australia, Russia, Italy and maybe one or two other countries at Regina, Saskatchewan, Canada, June 5, 6 and 7, when delegates meet there for the third International Pool Conference. Who, a decade ago, even dreamed that representatives of agriculture would be gathering from all quarters of the globe in a common cause? Despite every attempt to destroy it, co-operative marketing has spread to every civilized land, and has embraced practically every product of the soil. And its rapid spread has not been based on sentiment but on experience, which has taught even the peasant farmer of the old world that an organized community has more bargaining power than an individual; that farmers have too much in common to be competitors, and that the individual cannot meet on terms of equality the organized industries with which he is forced to do business. It may be hard for Western Kansas farmers to realize they are in partnership with wheat growers of Australia, but they are working together thru kindred organizations to regain the right to market their products. And what one thing would go farther toward permanent world peace than co-operation on the part of the people who have fought and paid for every war in history?

Should Pay for Quality

Had Kansas farmers, in the last quarter century, been paid for wheat according to its milling value, instead of by grade and weight, today there would be only two or three varieties produced. Until such time as the bulk of growers are paid on that basis for wheat there will be a number of varieties that are unsuited not only to soil and climate but also unsuited for making the better grades of flour. The true test for wheat is the quality and quantity of the gluten it contains. That represents its milling value, and should represent its commercial value. When a farmer produces wheat that is low in protein he should be penalized accordingly. When a grower raises wheat of high quality, judged by its protein analysis, he should, in all fairness, be rewarded with the premium such wheat usually brings, because the grower is not selling the wheat alone but he is selling at the same time a part of the fertility of his soil. The Kansas wheat pool, since its inception in 1922, has sold wheat of its members on that basis. The management believes it is the only fair plan—the only program that will induce growers to improve the quality of their product. Without such an incentive, say pool officials, campaigns to eliminate undesirable varieties and to improve the quality of Kansas wheat cannot enjoy the success they should if this state is to continue to grow "the best wheat in the world." For what inducement has there been for a grower to make quality instead of quantity his hobby when he didn't get a premium for high quality?

To "Bust" the Co-ops?

The proposed national meeting of co-operatives in Chicago June 1, to accept the challenge of the Federated Agricultural Trades of America, has been postponed until some time this fall. Official attention will be taken of the matter at the annual meeting of the American Institution of Co-operation in Berkeley, Calif., in July, however, and sentiment created for the fall meeting. In the meantime the middlemen and produce dealers who are attempting to break up the co-operative marketing movement have evidently raised the ante for their war-chest. When the "co-op busters" first got together in Chicago a few months ago, it was stated that 1 million dollars would be the immediate need to launch their campaign to oust the pools off the map. Since that time, however, the literature they have circulated

states that dues range from \$50 to \$100 a firm and that a membership of 50,000 is expected. That means at least 2½ million dollars a year to bury co-operation in a mass of propaganda dispensed by high-powered lobbyists. In the meantime, so much unfavorable publicity has descended upon the middlemen responsible for the plan that many private dealers are anxiously denying their connection with the undertaking. Nothing is apparently interfering with the setting up of the organization, however, and under the leadership of W. F. Jensen, of the Creamery Butter Manufacturers, the original program of the federation probably will be launched in full force. The three cardinal points of this program are: the striking of co-operative marketing laws from the statutes of the states and nation; restriction of the Department of Agriculture in its efforts to aid co-operatives, and the defeat of farm relief legislation.

But the Plans Were Sound

The farmer frequently is pictured as an out and out radical. That the picture is false may be best understood by recalling what happened less than 40 years ago at Ocala, Florida. American farmers met and framed a national program they believed would be of benefit not only to themselves but to all other classes. They returned to their homes to face a startled people. The press of the land "viewed with alarm," and even pulpits rang with pleas against the "raging menace" confronting the country. Here are some of the things sponsored by farmers in that Ocala program, now incorporated into the law of the land: the parcel post, rural free delivery, sub-treasury, direct election of United States Senators, pure food laws, railroad rate regulation, farm loan system, intermediate credit service, and other proposals equally as "vicious." Who now would be willing to discontinue rural free delivery or have our pure food laws repealed? When farmers gather around the council table to consider a national program they seldom miss the mark.

Eggs Are Exported Now

Eighteen million eggs—100 carloads worth more than ½ million dollars—were shipped this month by the Pacific Egg Producers' pool to Buenos Aires, Argentina, as the first step in expanding association sales in foreign markets. It is interesting to note that despite the large volume of eggs shipped in the Buenos Aires order, none of the eggs was more than a week old when stowed in the ship. This sale, representing less than one week's production of the Washington Co-operative Egg and Poultry Association and the Poultry Producers of Central California, is evidence of the central sales agency's policy of expanding markets to keep pace with increased production. Instead of allowing steadily growing volume to depress their markets, the egg poolers of the Pacific Coast are reaching out for new territory in which to profitably sell their product. For more than a decade the western egg pools have been marketing their surplus eggs on the New York markets. The Pacific Egg Producers Co-operative, Inc., which is the sales agency for both associations, marketed last year more than 1,250,000 cases of eggs valued at 14 million dollars. Sales were made in 30 states and 15 foreign countries.

Didn't Overload the Market

In California a round-grained type of rice is raised which is consumed chiefly by the Japanese, who are discriminating in their rice preferences. But a year ago, when the California rice crop was marketed, the co-operative association, which controls about three-fourths of the crop, found that a crop of 3,600,000 bags (a bag equals 100 pounds) had been raised, and there is an apparent market among Japanese and other domestic consumers in this country for only 2½ to 3 million bags.



Give them Bicycles

There is no one thing that you can buy for your youngsters that will bring more useful service or better exercise than a good, substantial bicycle. It becomes play for the youngsters to run errands when they have them. At our "Farm Service" Hardware Stores you will find good bicycles, carefully selected to give years of service and to withstand the abuse they are apt to get in rough and tumble play. We also have coaster wagons, velocipedes and other wheel toys for children of all ages.

Make your boys and girls happy this spring with a bright, shiny, new bicycle. You will get almost as much fun from their having it as they will themselves!

Your
**Farm Service
HARDWARE
STORES**



Did these rice growers turn the whole crop loose and take whatever prices might result? By no means. On the contrary, the marketing association set aside a special "export pool" of about 750,000 bags—holding this quantity entirely off the domestic market and shipping it to Japan. Furthermore, the rice growers' association went to independent rice dealers and asked them to join this "export pool" and contribute to it the same percentage of the crop received by them as the co-operative itself contributed. And knowing that this plan would help prices for "co-ops" and outsiders alike, the independent dealers agreed, and all growers prospered in consequence. The moment the co-operative began to ship its surplus abroad, the domestic price began to climb upward. Hence, the major portion of the crop sold in America probably brought growers much more profit than the whole 100 per cent would have done had it all been sold here.

Have Several Pay Days

Around December 15 each year used to be "resurrection day" in Canada. The notes came to life then. Consequently the bulk of wheat was sold during September, October and November to meet these obligations; literally dumped on the market. The Canadian wheat pools have stopped this practice and have given the farmer more than one pay day a year.

Why Not Study Farming?

Is this true of any Kansas county? A survey of one of the progressive counties of Southwestern Minnesota a year ago showed more than 1,500 rural young folk over 17 years old who were doing nothing in educational work during winter months. "We have been giving young people special training in every line except agriculture, and then wonder why agriculturists as a group are unable to hold their own with other groups," says Prof. J. O. Christianson of the University of Minnesota. "And what training beyond the grades we have been attempting to give them is of the type not applicable to rural conditions. We have been giving rural young folk a 'city pill' of education and then have wondered why it did not give results in better trained farmers and better and more permanent agricultural communities."

Hill Crest Farm Notes

BY CHARLES W. KELLOGG

While visiting at my sister's home last Sunday the folks gave us a few Jerusalem artichokes to plant. I have often heard it said that they make excellent swine feed. My brother-in-law took me out to see the artichoke patch he planted a few days before, and we found they were coming up in fine shape. He likes to turn the hogs in and let them root the tubers out after he has dug what he wants to keep.

My sister, being quite a hand to "fix up" new dishes, had a few of these artichokes prepared like mashed potatoes. They taste quite a bit like sugar beets, and we enjoyed eating them very much, as we relish sugar beets, and raise a few every year for table use. We think they are better than the red beets one sees in nearly every garden.

While finishing up the disking for corn in a small field near the sand bank and a grove of large cottonwood trees Monday, I found several small cottonwood trees that had come up from the seed last summer and lived thru the winter. Some of the larger ones were almost knee high. I dug up about 30 of them ahead of the disk, and "heeled them in" in a puddle of mud until I had time to set them out, which I did after the rain during the middle of the week. We have been wanting to get several of these trees to set out for quite awhile, but couldn't find any until this spring, as the seasons were too dry for the seed to grow until last year. Trees are a great help in beautifying any place, and as a windbreak, too.

On account of the prolonged cool and cloudy weather the pastures seem to be making a rather slow growth. What we need now is a few days of old-fashioned sunshine and warm weather to make all vegetation stretch up and grow.

We had our cattle all on the Sweet clover until the fore part of last week,

when we turned them in the west pasture for a few days, as they were getting the clover picked down pretty well. They are making their own way now, and have been for several days, and seem to be getting all they need. The milk cows are keeping up on their flow of milk, too. While in town Saturday I heard some farmers say that their cattle were failing on their milk since shutting them off of the wheat, they stating that the grass is a little too short as yet.

Corn planting on this farm seemed to move off rather slowly for awhile last week. We put a new pair of mouldboards and a new lay on the lister, and they did not scour very well at first, and we had to stop every little while to clean them off. Finally I drove the machine to the sand bank and put in some time there plowing in the dirty sand we scraped out in a big ditch, and that proved to be a big help. We have it all polished up now and doing good work, and are hoping to be able to make pretty good headway this week.

We have a little over a good week's work listing for corn, and will plant a few acres of kafir. Then we will

be ready to sow cane, and get ready to cut alfalfa. The first cutting is going to be a little short, I believe, unless we can get a lot of warm sunshine right away to help it along.

We are having to resow a few irregular patches in our young alfalfa this spring, as it didn't all come thru the winter alike. When burning dead grass on April 2 the fire got away from my brother and me and jumped across a 60-foot road and ran over the school ground, and into my young alfalfa field when it was beginning to show thru the ground. I thought for awhile that this burned over ground was "done for," but it came out of it in pretty good shape, and seems to be doing pretty well now. Being burned over set it back some, of course, but not nearly as much as I thought at first.

The market quotations at this point last week were:

Cream, 43c; eggs, 23c; heavy hens, 17c; light hens, 13c; old roosters, 7c; corn, 89c; wheat, \$1.50.

The breeding of sows for farrowing in the spring of 1929 is practically certain to pay well.

Feeding Beef Cattle

In "Feeding Cattle for Beef," which has just been published by the United States Department of Agriculture as Farmers' Bulletin 1549-F, W. H. Black of the Bureau of Animal Industry offers in 16 pages a condensed and simplified analysis of practices in feeding cattle which have been tested in the feed lots and pastures. It is intended primarily as an aid to farmers who have not had wide experience in finishing cattle for the market, but it is believed the bulletin will be no less valuable to experienced feeders in checking their established methods. It may be procured free by applying to the Department of Agriculture, Washington, D. C.

'Twill Center at Houston?

This summer, according to a French astrologer, the world will suffer from intense heat, followed by a terrific explosion, and will come to an end. In that case it might be wise to start now, and get as far away from Houston as possible.

If you smoke for pleasure



—here it is—taste, rich
fragrance and mellow
mildness. Camel is the
cigarette that intro-
duced the world to
"smoking for pleasure."

Camels

"I'd walk a mile for a Camel"

A political cartoon depicting a ship labeled "FLOOD RELIEF MEASURES" being pulled by a rope. The rope is held by several elephants, each labeled "PRIVATE INTEREST". One elephant is inside the ship, while others are outside. A man in a top hat, labeled "CONGRESS", is on the ship. A speech bubble from him says, "YOU DERN CRITTERS ARE GOING TO SINK THIS ARK!". Another speech bubble from an elephant says, "COME ON, FELLERS!". A third speech bubble from a man on the shore says, "HEY MISTER NOAH! WHERE DO WE GET ON AT?". A sign on the shore says, "LOOKS TO ME LIKE TOO MANY OF ONE KIND OF ANIMALE!". The ship is sinking, and the "REAL" victims are left behind.

Sunday School Lesson

By the Rev. N.A. McCune

ON THIS particular day Jesus told the officials how they and their ancestors had shamelessly abused the rights and privileges they enjoyed. He spoke the parable of the wicked tenant-farmers. They occupied the broad acres of a wealthy land owner. The first season, when the grapes were ripe, he sent a servant to get some of the crop. But the tenants were a rough lot, and they gave the slave a beating and sent him away. Another slave was dispatched, and he fared even worse. One after another followed; each was man handled and some were killed. Then the landowner sent his only son. But he fared no better, and was killed and thrown out of the vineyard. That was Christ's way of reminding his hearers how in the past good men had come to the Hebrew people, with messages from the Most High, only to be rejected, despised and in many instances to meet death while on their errand of love and mercy.

Now this can be applied in many ways to our own country. We, too, have been guilty. This is not booster talk, of course. Jesus did not belong to the boosters' club. He said many unpalatable things, things which no doubt sounded very unpatriotic to many "hundred per centers." If we must all talk only booster language, we may as well lay the Bible aside, and the speeches of Lincoln and Washington and Roosevelt and Wilson. If we are to be sincere, some truths must be uttered that are bitter to the taste, and may produce violent mental indigestion. It is one of the symptoms of the war hysteria, which still affects many persons, that they prepare black lists, and are affected with wrath when they hear some doctrine with which they are not in entire sympathy.

As citizens we are the inheritors of wealth placed here by the Almighty. There is the soil. It can be built up or broken down. It can be enriched or wasted. And how much of it is impoverished by greed and neglect! If it is wrong to steal a bag of wheat, it is wrong to steal the fertility that produces the wheat. Take the forests. If the timber used in careless methods of lumbering or lost in forest fires could be restored, it would last the nation for many a year. This is the abuse of privilege.

Citizenship owes much that it can never repay, but it does not always apparently want to pay. Papers in London, England, had as headlines the day of the recent election in Chicago, "Chicago Shoots Way to Polls." At the same time we are keeping Marines in Nicaragua to teach the Nicaraguans how to be good citizens. The old saying used to be that nations are judged in this world, individuals in the next. The judgment of nations has always come, sooner or later, and we have no reason to believe that the laws of cause and effect will change.

The Jews have a famous wailing place in Jerusalem, where, for centuries, the faithful have resorted, to bewail the departed glory of their people. We of this younger and mightier nation do not need a wailing place, but we might profitably do a bit of weeping now and then.

We are being chastened and disciplined by stern events. Not long in the past, the new day was expected from the mastery of science. Science and her daughter Invention, we said, would show us the short route to an ideal world. Labor-saving contrivances came on in a steady stream. With these came better roads, because the automobile demanded them. The farmer could dash off to town with a load and be back in an hour or two when it used to take all day. Education came tripping along, books under arm, and she somehow mesmerized ancient school board members into building beautiful new school houses. An inspiration seized Scotch Andy Carnegie, and he planted a neat library in every town that wanted one. The radio followed, and folks who were too thrifty to drop a quarter in the collection plate at church could hear a city preacher preach, for nothing, and did not have to dress up or crank the car. Electric milking machines and sermons brought free to your door promised a new agriculture, as free concerts and night

schools promised new life in the town. Now all these are good. They are bringing pleasure into thousands of lives. It is needless to say that. But blind men can see that they are not enough. Invention and culture are twin offspring of a wonderful civilization. But they will not save individual souls. What John Wesley called "the old coarse gospel" was never more needed than at this hour. We used to think that hungry men will commit crime. But we now know, as a noted educator has recently observed, that men will commit more crime when well fed. The black deeds that crowd the newspaper columns are not the acts of men driven to desperation by starving families, but of youth who are giving expression to the devil in them. Politics in some states is the trail of a slimy snake. All the musical concerts that can be broadcast by high class artists in a year will not mend such conditions. Libraries stand unused by vast portions of the population. Nothing but the creation of a desire to be good in individual hearts will bring about reformation. "What doth the Lord require of thee, but to do justly, to love mercy and walk humbly with thy God," needs to be proclaimed anew, in all the ways that science has made possible. The "old coarse gospel" is not out of date. It is more indispensable than any mechanical invention.

Lesson for May 27—The Misuse of National Privilege. Mark 12:1 to 12. Golden Text—Psa. 1:1.

Chick Cannibalism

BY D. C. KENNARD

Feather picking and cannibalism among chickens can be prevented by giving proper attention to feeding, lighting the brooder house and to the prevention of crowding.

The chief causes of these vices are too close confinement, crowding, insufficient mash feeders and permitting the feeders to become empty, too much light in the brooder house, and any condition that gives discomfort to chicks.

In the event of an outbreak of feather picking and cannibalism the brooder house is darkened to produce a twilight effect. The drinking and feeding equipment is placed where there is more light so the chicks can eat and drink without interruption. If necessary the brooder may be made still darker and light admitted only at feeding periods.

The wounds of any chicks that have been picked should have an application of pine tar, which is healing, and usually repels further attacks. After a few days with proper care the chicks usually forget the habit and no further trouble is experienced.

Green feed or chopped legume hay fed in suitable wire netting feeders help to prevent feather picking and cannibalism. The chicks eat a surprisingly large amount of this material, which seems to satisfy their craving for roughage such as they get under natural conditions on outdoor range.

Chopped alfalfa or clover hay of good quality or green feed, if available, is not only a preventive of these vices but also a real part of the ration.

Now is the time to prevent feather picking in the fall after the pullets go into the laying house. The habit, which sometimes proves so serious among pullets in the laying house, usually is formed while they were chicks in the brooder house.

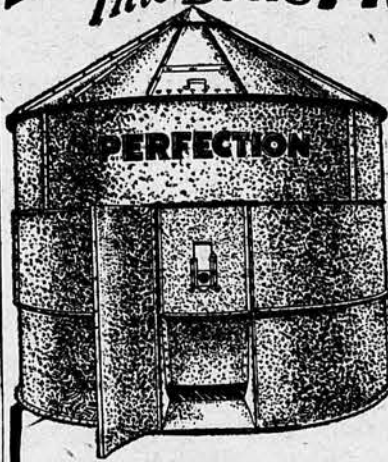
Our Best Three Offers

One old subscriber and one new subscriber, if sent together, can get The Kansas Farmer and Mail and Breeze one year for \$1.50. A club of three yearly subscriptions, if sent together, all for \$2; or one three-year subscription, \$2.—Advertisement.

A railroad tie contains approximately 44 board feet of lumber. With 2,850 ties a mile, that means around 12,500 board feet. For the 250,000 miles in the United States, over 3 billion board feet are required. The life of a tie is around 10 years.

Make More Money on Wheat!

This Book FREE



A New and Better Grain Bin

Built with Bridge Truss roof. Won't collapse when empty. Heavy flange construction prevents bulging when full. Made of heavier steel. Built to last a life time.

Notice to Dealers

We are looking for a few more good dealers who can sell the highest quality bin ever built. Write for exclusive territory proposition.



HERE'S a book worth reading. It's for every farmer who grows wheat. And we'll be glad to send you a copy free.

"How to Get More Money for Your Wheat" is full of information of interest to you. It gives valuable pointers on the best methods of growing, harvesting and storing grain. Tells how to get larger yields and higher grading, how to prevent waste; how to get more dollars in return for the hard work you put in on your farm.

Send for your copy today!

Black, Sivalls & Bryson Mfg. Co.,
7502 E. 12th St., Kansas City, Mo.

BLACK, SIVALLS & BRYSON MFG. CO.,
7502 East 12th St., Kansas City, Mo.

Please send me a copy of your new book, "How to Get Higher Prices for Wheat."

Name.....

Town.....

R.F.D..... State.....

I have.....acres in wheat.....

Read The Topeka Daily Capital During the Presidential Campaign

At This Reduced Subscription Price
Eight Months (Daily and Sunday) For Only \$3.50

Every day for eight full months you can get the Topeka Daily Capital delivered to your home for less than a cent-and-a-half a day, if you subscribe within the next 15 days. Eight full months, Daily and Sunday if you order now.

This is Election Year and you need a daily newspaper. The Topeka Capital is the Official State Paper—gives you the best Market Page—prints the most Kansas News—and is packed from cover to cover with interesting features—including comics and a big Sunday paper. Subscribe today, while this Special Offer lasts.

Order Your Topeka Daily Capital Today!!

Eight Months For Only \$3.50 If Ordered Within 15 Days. This Rate Does Not Apply Outside the State of Kansas or in the City of Topeka. Address

The Topeka Daily Capital, Topeka, Kansas

Trustworthy

THE advertisements in this publication are trustworthy for two main reasons. First, no advertiser can afford to make any statement that is not strictly truthful, in letter and in spirit. Even if he were not naturally honest, the risk would be too great to be otherwise. He might fool you once—but it is upon your continued patronage that he depends.

Second, the publishers scrutinize carefully every line of advertising that appears in these columns. We must know beforehand that the goods are as represented. It is something like the policy of stopping all incoming ships at Quarantine. The advertisements must show a clean bill-of-health before they can come in.

Therefore, read the advertisements with assurance of the sincerity of their purpose, the genuineness of their claims. Make it a habit to read all the advertisements of every issue—the little ones as well as the big ones. That is the way to buy goods intelligently and profitably.

Advertisements are sign-posts along the Road to Value. Heed them!

Farm Crops and Markets

Heavy Rains Over Kansas Recently Have Been of Great Help to the Crops

HEAVY rains over the state in the last 12 days have added a considerable amount of moisture to the soil. This season has made an excellent start; it ought to bring in a larger supply of the great American dollars to Kansas agriculture than the folks have seen for many a year. Spring crops are generally growing fine, corn fields are clean, and livestock is doing well on the pastures. A peculiar situation has developed with reference to the soft wheat crop in Eastern Kansas, which is generally in good condition. A big acreage, about half, of the soft winter wheat of the United States has been plowed up—losses have been specially heavy east of the Mississippi River. Many of the flour mills in the East depend on soft wheat exclusively, or practically so, and have built up a trade based on it. It is evident that the production in 1928, except in Kansas, will be subnormal. This ought to send the prices for Kansas soft wheat sky high before the crop of 1929 is harvested.

General business conditions over Kansas in May have been quite satisfactory. Retail trade is good in most towns; farmers have been especially active in the purchase of wheat harvesting machinery. And taking the country as a whole business also has been on the upgrade. The steel, automobile, and building industries have continued to make the best showing, and the expectation has been that gains in these basic lines would eventually find reflection in a better level of business all around. Thus far, it must be admitted, business does not show a very pronounced tendency, the volume of freight moving on the railways still falling below the corresponding weeks of last year.

Among constructive developments of the month we give particular weight to the recent strong advances in prices of agricultural products to levels well above those of a year ago. Wheat and corn are both bringing good prices at around \$1.60 and \$1.08 a bushel in the Chicago market, up 33 cents and 24 cents from the year's low point, and 26 cents to 38 cents above a year ago. Oats have gone from 52 cents a bushel to 71 cents since January, and are now 24 cents above last year. Dairy products are likewise bringing remunerative prices to producers. Cattle and hides are selling at scarcity values, wool prices are firm, and cotton at 21.85 cents is quoted 6½ cents above a year ago. In fact, with the recent sharp recovery in hog prices to around \$10, practically all of the major agricultural commodities might now be said to be on a paying basis. Coming at a time when the general list of non-agricultural commodities has advanced but little, these recoveries have gone far toward eliminating the disparity in prices heretofore existing to the disadvantage of the farmer. With last year's improved financial returns from the crops as a starter, the present prices, if maintained and accompanied by a fair yield, should accomplish a great deal toward restoring prosperity to the agricultural sections and extending an impetus all down the line of general trade.

A further favorable factor is the continued abundance of funds for commercial purposes. It is true that rates in the short time markets have recently hardened somewhat, due to the combination of an active spring demand for commercial loans, exceptional activity in the security markets, and gold exports. Nevertheless, while it is possible that gradually firming rates may exert a restraining influence on the security markets, we do not foresee any tightening sufficient to seriously hamper business. Meantime, we point to the substantial rise in commercial borrowings at the banks since February as proof that funds are being put to business uses in increasing volume.

First Quarter Business Profits

Corporation earnings statements now being made public for the first quarter show a good deal of variation, in keeping with the mixed character of business, but on the whole are encouraging considering the unpromising way in which the quarter began. Outstanding of the reports was that of the General Motors Corporation showing net earnings available for dividends amounting to \$69,468,576, the largest excepting only the second quarter of 1927 in the history of the corporation, and an increase of 32 per cent, as compared with \$52,551,408 earned in the first quarter of last year. The United States Steel Corporation earned \$21,331,871 after all charges during the first quarter, as against \$13,794,833 in the final quarter of last year, \$26,327,362 in the first quarter of 1927, and \$26,074,957 in the corresponding quarter of 1926. Thus Steel did not do quite so well as Motors, notwithstanding that steel output for the quarter was slightly larger than last year. The trouble, of course, lay in prices, most of the shipments during the quarter being made on orders taken before the recent advances in prices became effective.

Excluding General Motors and United States Steel a tabulation of earnings of 113 industrial companies thus far reported reveals 73 increases and 40 decreases as compared with the first quarter of last year, with the total showing an increase of 14.7 per cent. While final conclusions as to the quarter's showing are unwarranted until more reports are available, the results thus far have been better than seemed probable. Prospects, moreover, point to a still better showing for the second quarter. One of the chief factors which has held down profits in the last three quarters has been the losses sustained in the oil group, and these companies henceforward will have last year's poor figures to compare with, besides having the advantage of the recent improvement in the gasoline situation. Steel companies likewise promise to do better in the

second quarter, while earnings of most automobile companies should show up favorably, the chief element of uncertainty in this industry being the effect of Ford competition.

Declaring that the prices received by American farmers for 90 per cent of their products are influenced by foreign competition and demand, Lloyd S. Tenny, chief of the Bureau of Agricultural Economics, stressed the need for a constant flow of reliable information on the development of competition in our foreign and domestic agricultural markets and on the capacity and preferences of foreign markets. In an address recently before the agricultural group meeting of the Chamber of Commerce of the United States at its annual meeting in Washington.

"In actual volume," Mr. Tenny said, "our agricultural exports are larger than before the World War, although it is true that the proportion of our total agricultural production available for export is declining. This diminishing proportion of exported products may be largely accounted for by the increasing demand of our growing population, but it also is due in part to a gradual change in the character of American agriculture away from the extensive production of a few great staples toward a more intensive and specialized system of farming. Increased world production of many products, together with improved transportation facilities, have made world competition keener than ever before, and there probably has been no time in our history when it was more important to keep informed concerning the changes in foreign production and consumption of agricultural products."

Farmers Need More Information

Discussing the world situation with regard to various agricultural commodities, Mr. Tenny pointed out that "although the United States produces more than 60 per cent of the world's cotton and the size of the American crop is the principal factor influencing cotton prices, we are not without competition, and it seems probable that in the long run this competition will increase. The development of this competition, however, will depend largely on the cotton price level."

"The present wheat situation," he said, "is more favorable than was expected earlier in the season when the increase in United States and world production, as compared with last year, became known. The poor quality of Canadian and European crops has done much to offset the increase in the world production, and short European rye and feed crops also have reacted to increase the demand for wheat. The exportable surplus of our three important competitors is now well below the surplus at this time last year."

Discussing hogs, Mr. Tenny said "a decline in holdings of sows in important European countries is taking place, with a probable decrease in pig production this year. The smaller European supplies should result in a more favorable European demand for our cured pork, probably beginning late in 1928. The decline in holdings of sows is the result of the unfavorable relation between feed prices and hog prices."

"Fruit, also, is playing an increasingly important part in our export trade. In 1926-27 the exports of fresh, canned, and dried fruit were valued at 128 million dollars, the highest figure on record, and the volume of the trade was almost three times as large as in pre-war years. The significance of these exports is indicated by the fact that about 15 per cent of our commercial apple crop, 10 per cent of our oranges and grapefruit, 40 per cent of our prunes, and 15 per cent of our raisins are exported."

"The outlook for wool in the immediate future appears favorable. Stocks abroad are light, and present conditions do not point to any considerable increase over last year in the world production of wool during the present year. The drought which has prevailed in Australia for the last two years has been somewhat alleviated, but it will take some time for that country to recover from the effect of the unfavorable grazing conditions."

"Although flaxseed production in the principal countries during 1927-28 was 17 per cent above the production of the preceding year, it appears now that when our 1928 crop goes to market world supplies will not be materially larger than they were last year. Stocks of flax in the United States are rapidly moving into consumption, and are but little above last year in size, despite the 38 per cent increase in our production."

"It appears that in the United States our dairymen have now the best market in the world, but it is just this situation that invites and stimulates foreign competition on conditions."

"There is a new swindle in Kansas, masquerading under the high-sounding name Herbae-Mira, which means miracle grass. There is no miracle about this grass what-

our home markets. Our customary concern, at least since the Civil War, has been with the market abroad for an exportable surplus, but in recent years it has become increasingly clear that we can no longer think in those terms. So gradually and steadily as to indicate an unmistakable trend, production of dairy products in this country is falling behind consumption, and our exports of dairy products have given place to imports."

Concluding his address, Mr. Tenny declared that "prosperity in American agriculture will call for close adjustments in our production and marketing programs to meet the changing world situation. A sound basis for such programs would require a constant flow of reliable information on the development of competition in our foreign and domestic markets and on the capacity and preferences of foreign markets. The United States Department of Agriculture, thru its own offices abroad, and with the co-operation of the Departments of State and Commerce, has made a beginning in fulfilling this need, but increased facilities will be required if an adequate service is to be rendered to American farmers."

Condition of Early Lambs

Weather and feed conditions during April were generally unfavorable to a normal development of the early lamb crop and the condition of the early lambs at the beginning of May was below average in most of the important early lambing areas. April weather was too cold in nearly all areas for a seasonal growth of pastures; in some sections this cold was accompanied by excess moisture, and in others by cold, drying winds and lack of moisture. The lack of sufficient green feed checked the growth of the lambs, and severe storms, accompanied by low temperatures, resulted in heavier than usual losses of early lambs in some areas. While favorable weather and feed conditions during May and June may improve the situation considerably, present prospects are that the supply of spring lambs during May and June will be of light weight and of relatively poor quality.

The eastern movement of California lambs was somewhat late in starting, but the combined shipments of live and dressed lambs to the first of May were equal to last year and car orders for the first half of May pointed to a near record movement for that period. The quality of the lambs shipped to date has been only fair, but some improvement is expected in later shipments as they come from areas where feed conditions are now reported as excellent. The total eastern movement of slaughter lambs may equal last year. The prevailing high lamb prices may also result in heavy eastern shipments of lighter lambs that will bring the total eastern movement to July 1 above last year.

The movement of lambs from Arizona was heavier in April than in April, 1927, and larger than indicated a month ago. The high level of lamb prices resulted in sales of tops from any bands which usually would not have been made. The movement during May and June is expected to be much below last year.

In the southeastern states early lambs made a slower growth than usual during April, due to backward pastures and cool weather. The movement from these states will be late in starting, and the quality of the earlier lambs will be below last year. Conditions in Virginia were better than in Kentucky or Tennessee. While the movement from this area will be heavy in June, the proportion of lambs marketed after July 1 may be larger than usual.

April weather in the Corn Belt states was unfavorable for the growth of pastures, and unseasonably cold storms resulted in considerable losses to both early and late lambs. Warm weather and good spring rains are badly needed over large areas.

In the far northwestern states April weather, in contrast to that in February and March, was decidedly unfavorable. The weather was generally cold, accompanied by frequent rains in some areas, particularly in sections of Oregon, and by high winds and lack of rain in others. The growth of range feed was generally backward, and this tended to check the growth of the early lambs and to increase losses somewhat. The market movement in volume from some sections may be delayed several weeks from earlier indications.

A Longer "Poultry Season"

Continued lack of moisture and low temperature further reduced feed conditions in the principal sheep areas of Texas. The marketing of grass sheep and yearlings in April was much below April, 1927. The May marketings also will be relatively small unless forced by lack of feed. If feed conditions improve in May, heavy June shipments are likely.

Radical changes in poultry management practices the last few years are having a marked effect in lengthening the production season, according to Rob R. Slocum of the Bureau of Agricultural Economics, United States Department of Agriculture, addressing the American Institute of Refrigeration at Washington, D. C. recently.

Increasing egg production at an earlier date in the winter than usual and the production of out-of-season broilers have caused apprehension in the cold storage industry over the possibility of a decrease in the amount of cold storage space required for poultry and eggs, but Mr. Slocum assured the Institute that the volume of these products produced and stored during the normal season will continue to be as great as at present, or even increase with the normal increase in population.

"It is probable," he said, "that both increased production of eggs during the fall and early winter and increased production of broilers out of the normal season will continue to expand. On the other hand, it must be remembered that the great bulk of the annual egg and poultry crop of the United States is the product of general farms of the Middle West, and only a relatively small part the product of specialized poultry farms. While specialized farms are increasing in number and importance, there is no reason to anticipate that the farm flocks will not continue for years to come to produce the greater part of our poultry and egg supplies. Moreover, the eggs from these flocks will be produced largely in the spring months, and the poultry raised will be marketed during the normal spring months and marketed during the fall and early winter. This being true, it follows that a large surplus of eggs will be available in the spring and a correspondingly large surplus of poultry in the fall and early winter which must continue to be stored for use at later periods."

"There is a new swindle in Kansas, masquerading under the high-sounding name Herbae-Mira, which means miracle grass. There is no miracle about this grass what-

NEW Low Model MELOTTE

30 days FREE TRIAL

NOW—for the first time, the farmers of America have a chance—if they act quick—to see and USE on 30 Days FREE TRIAL the NEW Low Model Belgian Melotte Cream Separator. In the NEW Melotte you NOW have a greater convenience and all-round satisfaction than was ever known before.

Don't Pay for 4 Months

Yes, you need not pay one cent for 4 Months after you receive the NEW Melotte. Special introductory Low Price RIGHT NOW! 30 Days' FREE TRIAL. Write for FREE Book and Special Offer.

The MELOTTE SEPARATOR, E. B. Babson, U.S. Mgr. 2843 West 19th Street, Dept. 29-88 Chicago, Ill. 2445 Prince Street, Berkeley, Cal.

CHAMPION GRAIN BINS

CHEAPEST GRAIN BINS ON MARKET

Quality considered. Keeps grain better than metal or tile. No mousing or sweating. Weather proof. Biggest bargain ever offered. Made in 4 sizes or capacities from 400 to 1,000 bushels. Get prices, terms, catalog. Address:

WESTERN SILO CO.
130 Eleventh St.
Des Moines, Iowa

Ribstone SILOS

Staves are steel reinforced. Made by the precast vibrated method. The most modern and efficient cement and steel silo made. Guaranteed, priced reasonably. Write for descriptive literature.

The Hutchinson Concrete Co.
Hutchinson, Kan.

MOWER HAY PRESS

FEED TABLE or SELF-FEEDING

Catalog Free

Also the nationally sold special "Fordson" Baler. Distributors everywhere.

Swayze, Robinson & Co., 258 Main St., Richmond, Ind.

CHICKS 7¢ UP

From Inspected, Well Cooled Flocks

S. C. White, Brown and Buff Leg-	100	300	500
horns, Ascarons	\$ 8.25	\$24.00	\$40.00
Barred & White Rocks, R. C. & S. C.			
Rods, Buff Orpingtons	9.25	27.00	45.00
White & Silver Laced Wyandottes			
Black Minorcas, R. C. R. I. White	10.25	30.00	49.00
Light Brahmas	13.00	38.00	60.00
Assorted Heavy Chicks	8.25	24.00	40.00
Assorted Chicks	7.00	21.00	35.00
Nettle May Farms, Box 906, Kirksville, Mo.			

Kill All Flies! THEY SPREAD DISEASE

Placed anywhere, DAISY FLY KILLER attracts and kills all flies. Neat, clean, ornamental, convenient and cheap. Lasts all season. Made of material can't spill or injure anything. Guaranteed.

Insist upon DAISY FLY KILLER from your dealer.

HAROLD SOMERS Brooklyn N. Y.

LIGHTNING HAY BALERS

HORSE POWER BELT POWER

Combined Press and Engine

Write us

KANSAS CITY HAY PRESS CO.
KANSAS CITY, MO.

Iceless Refrigerator

Keeps food fresh and sweet without ice. Costs nothing to operate—lasts in lifetime. Lowers into well, basement or special excavation. Easily and quickly installed. Costs less than a season's ice bill. Every home needs it. Two types—windlass and evaporation. Write for free folder. Agents Wanted.

EMPIRE MFG. COMPANY
601 N. 7th St., Washington, Iowa

Grain Bin Agents Wanted

In every rural community to sell our Well Known Mid-West Heavy Duty Steel Grain Bins, full or part time. Write for details.

MID-WEST STEEL PRODUCTS CO.
401 Am. Bank Bldg., Kansas City, Mo.

SPECIALISTS in Attractive Farm Letterheads

Write for Samples

Capper Engraving Co.

Artists Engravers
Dept. M
TOPEKA WICHITA



and the people of Kansas should be aware of it," according to a statement issued by J. W. Zahnley, director of the seed laboratory of the State Board of Agriculture, and endorsed by J. C. Mohler, secretary of the board.

Herbae-Mira is simply a mixture of some of our most common grasses. A number of samples of this grass have been analyzed at the seed laboratory and they are all very similar in composition, although not exactly the same. The last sample analyzed was made up approximately as follows: English bluegrass 20 per cent, timothy 15 per cent, rye grass 20 per cent and approximately 5 per cent of weed seed and dirt. Such a mixture can be made for 15 to 25 cents a pound. Its proprietors give it the name Herbae-Mira, and sell it for \$1.50 a pound, or from six to 10 times as much as it is worth.

"The price alone is robbery, but that is not the only fraud. It is sold for planting on lawns. It is not in any sense a lawn grass. There is not a single lawn grass in the mixture. The grasses contained are those which start quickly and look well at first, but they will not make a fine turf or stand up well under close mowing, as is usually expected of lawn grasses.

"Herbae-Mira is not a lawn grass, as it is represented to be. Besides, no one wants to pay \$150 a pound for a mixture of grasses which he can make up himself for 20 cents a pound and then use it for the wrong purpose. For mixed pasture it might be all right, but the price is exorbitant. The advice of the Kansas State Board of Agriculture, Seed Laboratory and of the agronomy department of the Kansas State Agricultural College is don't buy Herbae-Mira!"

Protein and Buyers

BY E. A. STOKDYK AND A. C. HOFFMAN

High protein premiums make it difficult for a country elevator operator to buy wheat on a basis that is equitable to the individual farmer and to the management. That the practice of buying on the average protein of the wheat shipped from a particular loading point is not entirely satisfactory is evidenced by the fact that wheat is hauled long distances to otherwise non-competitive points to secure the advantage of a better price at the station where the protein average is higher. Furthermore, farmers are securing protein tests and are demanding premiums for high protein wheat in accordance with terminal market premiums. At present protein premiums are extremely high, and it is impossible to estimate the market value of wheat within 10 cents a bushel without a protein test. It is not uncommon, therefore, to find a variation in price of 10 cents a bushel at a given station, for the estimates placed on the value of the grain by elevator operators varies considerably.

How to arrive at a fair basis of dealing is the big problem. The farmer asks, "How can I sell my wheat and get the protein premium that is due me?" The elevator operator asks, "If I buy on a protein basis, how shall I determine the protein and how close can I buy?" Many farmers are interested in producing high protein wheat and have increased the protein content of their wheat in many cases by methods demonstrated at the Kansas State Agricultural College, but the majority of farmers will not make the effort unless they are paid individually for it. Before going into a discussion of a method for dealing in wheat on a protein basis it will perhaps be best to consider some of the fundamentals of protein testing so that a clear understanding of the problem may be had.

In the first place, the so-called protein test is a chemical determination of the nitrogen content of wheat. Since it is a delicate chemical test it is subject to error both in sampling and method. The test as conducted on wheat is made on an extremely small sample (1 gram) and this in itself explains the cause of variation between samples drawn from an identical lot. In an average carload there are nearly 50 million grains of wheat. When this is realized it is apparent that samples drawn from a carload can vary to a considerable extent particularly if the car is not loaded uniformly. Even in a farmer's bin the protein content of the wheat may vary because the wheat in one part of the bin may have been raised in a different type of soil than that of another part of the bin. Furthermore, it has been found that the protein content of the wheat from various parts of an individual field may vary considerably in accordance with the variation in soil type and fertility of the field.

In the second place, the protein determination as made commercially is not made on an even dry basis. That is, the moisture is not driven out of the wheat before the test is made. Consequently, a sample of wheat with 14 per cent of moisture will show a lower per cent of protein than the identical sample of wheat would show if the moisture content were 12 per cent. Chemists state that one per cent variation in moisture content causes a variation of 15 per cent in the protein test. This no doubt explains the cause of the general experience that a small sample drawn from a bin or carload and mailed to a protein laboratory will show a higher per cent of protein than the test of the carload when it reaches market. The small sample loses moisture on the way to the laboratory, so that although the absolute amount of the protein of the wheat is unchanged, the drier sample will show a higher per cent of protein than the sample taken from the carload when it reaches market, since this has not had an opportunity to lose moisture before it is tested.

An Enlarged Error

Third, in the calculation of the protein test, it must be kept in mind that the test is not in reality a protein determination but a nitrogen determination. To calculate the protein in terms of protein it is necessary to multiply the nitrogen determination by the factor 5.7. Thus an error that may have been made during the process of determination will be magnified nearly six times. But that is not all. When protein is expressed in terms of per cent it is necessary to multiply by 100. This will magnify the error 100 times. In the end, then, an error in testing will be enlarged 570 times.

There are 10 important laboratory operations in making a protein test. These cannot be absolutely uniform because the human hand is not sufficiently accurate. Therefore, a difference of 0.20 points are allowed in commercial tests. That is if one test on a sample of wheat shows 12 per cent of protein and the second test shows 12.20 per cent of protein the tests are considered as within the range of experimental error.

The limitations of the test that have been considered are perhaps not so great a cause

of variation as errors in sampling. One would suppose that samples taken from a small lot of wheat would show protein tests that check closely. This is not the case, however. A typical experience in this connection is that of a farmer in Ford county, who drew four samples of wheat from a small sack and sent the samples to various protein laboratories for analysis. The results were as follows:

Sample No. 1.....10.77 per cent protein
Sample No. 2.....11.56 per cent protein
Sample No. 3.....11.78 per cent protein
Sample No. 4.....12.60 per cent protein

The experience of Charles Stark of Iuka, shows a similar variation. He drew samples from a gallon of wheat and sent them to various protein laboratories. He reports:

Sample No. 1.....10.76 No. 2.....10.84
No. 3.....11.00 No. 4.....11.00
No. 5.....11.03 No. 6.....11.12
No. 7.....11.13 No. 8.....11.35
No. 9.....11.35 No. 10.....11.40
No. 11.....11.70

To a chemist these records, considering the small lot from which the samples were drawn, are fairly close.

The difficulty encountered in drawing samples from a small lot, such as a gallon of wheat, is that the chances for error in sampling are greater than if the samples were drawn from a large lot. This is a common experience in sampling. For instance, if one were to try to determine the average height of the people residing in Topeka, it would be more accurate to measure 100 persons than 10 persons. Grain inspectors have equipment which minimizes the error in sampling, such as probes and mixers. This aids them in securing a more representative sample than one can secure by taking a handful from several parts of a load or bin.

What has been said about the causes for variation in the protein test will no doubt explain some of the experiences that the farmer and grain buyer have encountered.

The problem of arriving at a fair basis of dealing on a protein basis at a country station is indeed a difficult one. The experiences show are quite general, and the fallacy of dealing on a protein test from a small lot of wheat is clearly demonstrated. In the data collected by Mr. Stark there is

a variation between the high and low protein determination of almost 1 per cent. On the present market (May, 1928) that would mean 10 cents or more a bushel.

However, the grain buyer does not buy gallons of wheat but truck and wagon loads. The question then resolves itself into one of properly sampling the loads if the wheat is to be bought on a protein basis. The elevator operator is interested in knowing how closely the samples drawn from the truck and wagon loads that he buys will check with the carloads he sells. To determine this, several elevator operators have cooperated with county farm agents and the writers in making tests on several carloads. Samples were taken from each load as it was delivered to the elevator and placed in a container. When a bin holding a carload was filled a composite of the samples drawn was mailed to the Kansas State Grain Inspection Department and the protein test of the composite sample compared with the protein test of the carload which was composed of the truck and wagon loads from which the samples were taken. The results were as follows:

Station	County	Manager	Protein on carload	Protein on samples
Larned	Pawnee	Robin I. Brown	12.00	11.80
"	"	"	10.84	11.32
"	"	"	11.80	11.52
"	"	"	11.88	11.88
"	"	"	12.72	13.00
"	"	"	11.80	11.82
Garfield	"	W. S. Prather	10.36	10.44
"	"	"	10.30	10.80
"	"	"	12.12	12.44
Castleton	Reno	John McCaffery	10.68	10.84
Haven	"	Walter Schlickau	11.70	12.52
Pawnee Rock	Barton	A. S. Gross	10.84	11.08
"	"	"	10.95	10.97
"	"	"	10.76	11.00
Bellefont	Ford	J. H. Showers	14.60	14.60
"	"	J. L. Hippie	13.16	13.32
Average			11.69	11.83

The average of the 16 tests shows the samples testing .14 per cent higher than the carloads. In 11 of the 16 trials this was the case. In three cases the carloads were the higher and in two cases the tests

checked exactly. It appears, therefore, that sampling each truck or wagon load is a more exact basis for determining the protein content than taking a handful from a bin if one buys or sells on a protein basis.

The fact, however, that the samples tend to show a higher protein test than the carload must be taken into consideration. It is evident that a grain buyer cannot afford to pay on the basis of the protein shown in the samples. If he did he would be the loser. In determining how closely the grain buyer can afford to bid on a protein basis another factor must be taken into consideration and that is the method of sale. When sales are made on a "truck basis" the contract usually is made for a certain grade and protein test with a premium of a few cents for each .25 per cent above the specified protein test and a discount of a few cents for each .25 per cent below the specified protein test. To understand this better, let us take the illustration where an elevator operator sells a carload of grain f. o. b. his station at \$1.50 a bushel for No. 2 wheat testing 12 per cent protein. If, when the car arrives on the market, it tests 12.25 the country elevator operator receives a premium of 2 cents a bushel. If, on the other hand, it tests 11.75, his grain is discounted 2 cents a bushel. The premiums and discounts vary from time to time. However, if the grain tests 12.20 in protein the elevator operator does not receive the premium, and if the grain tests 11.90 his grain is discounted. This does not apply on consigned shipments. In view of the data presented and the rules of contract on truck sales, the elevator operator must, then, to protect himself against loss, bid on a basis of at least .25 per cent below the protein tests of the samples if he buys on a protein basis. The carload tests recorded were made during the winter and spring. It is likely that the difference between sample tests and carload tests would be greater at harvest time when the grain has a higher moisture content. W. J. Kuhrt reports that tests on 88 cars in the spring wheat belt show samples averaging .74 per cent protein above the carloads. It is possible, too, that this may vary from season to season.

The question of buying on a protein basis is not of the same importance at all stations. The average of the station is a factor

Here's Help for Fun or Help for Work

In the 18 little books listed below you will find every minute planned for your gay party and club days, several books on farming, housework and family care, the stories of Truthful James, and a book of World War tales

Special Price—5 cents each; six books 25 cents

The "Fun" Books

1—"Fun-Making Games" has in it 83 games to be played at adult parties and 39 games for little tots' parties.

2—"Red-Letter Day Parties" contains party plans for the principal holidays, such as April Fool, May Parties, Fourth of July, etc. The total number of games in this book is 109.

3—"Club-Day Activities" will help those who are interested in starting a club. It tells how to organize and how to handle committee work, and will help in planning programs. Forty-one recipes for refreshments are included in this book.

4—"Today's Etiquette" tells how to give pretty showers for brides-to-be, how to celebrate anniversaries, and includes many details, such as how to make introductions, forms for invitations, acceptances and declinations.

5—"Puzzle Fun" is a book of puzzles that will delight the heart of any child.

The Work-a-Day Books

1—"The Elusive Egg" is a book for all poultry raisers. Discusses housing, care of the flock, feeds, culling, and diseases. Illustrated with many photographs.

2—"Farm and Home Mechanics" is a book of handy devices and in addition discusses water systems for farms, farm electricity, farm gas plants, sewer systems, and many things that can be done in the farm shop. Illustrated with many useful drawings.

3—"Trap Line Ways to Profit" is a book for beginners in the trapping business and older trappers as well. Full of many useful hints, including how to choose locations for sets, how to make sets, skinning, preparing pelts, and marketing.

4—"How to Can Fruits, Vegetables and Meats" is the handiest kind of a canning book. The many kinds of canning methods all are described.

5—"How to Save Your Savings" is a book describing the many kinds of investments. Special attention is given to warning readers against "wildcat" and fraudulent investments. This is a very valuable book.

6—"Things You May Wish to Know About Law" is written by T. A. McNeal. This is a book written in simple language that is easy to understand. It should be in every home. Includes many legal forms, such as how to draw up a will, etc.

Home Hints and Decoration

1—"The Baby and Its Needs" is written by the mother of five babies, Mrs. Velma West Sykes. She is an authority on babies, and in this booklet she is relating her own experiences and researches. Feeding, clothing, bathing, the common sicknesses, as well as prenatal care of the mother, the layette and needs of the mother at the time of the birth make up the book.

2—"Health in the Family" is a book that is sure to improve living conditions in almost any home where it is read. Talks on sanitation, fresh air, clean clothing and clean bodies, and simple diseases and home remedies make the book a practical and unique home doctor book.

3—"Quilting, an Old and New Art." This is a complete book on how to quilt. The plans and descriptions are easily understood.

4—"Tales of World War Days" is a group of short stories by a man who was on the front line for a long period when the fighting was at its worst. His reminiscences are not the blood and thunder kind but little glimpses of the life, friendships and thoughts that were closest to men's hearts in those dark days. You'll enjoy every one of them.

5—"Stories By Truthful James" is a book you'll want. For 20 years readers of Kansas Farmer and Mail & Breeze have read and laughed at Truthful James. In these stories you will find Tom McNeal's best humor—clean, irresistibly funny. In book form these anecdotes offer wholesome entertainment for the entire family.

6—"Everywoman's Beauty" is written by Reta Rigney, an authority on beauty culture. Contains many beauty hints and secrets that are not generally known.

7—"Making Money for a Church." In many communities raising money for special church needs is a serious problem. This book was written especially to solve this problem, and contains many tried and proved ways to raise money for churches.

These books are bound in attractive paper covers. Send your order to

THE BOOK EDITOR, THE CAPPER PUBLICATIONS, TOPEKA, KAN.

Next to Being Born and Getting Married

the most important thing in life is the securing of a home where you and those dependent upon you may enjoy

Health, Contentment and Prosperity

If the reader is a city man, wedded to city life, he is not interested in the subject of this article. But if you are farm minded, if you believe in country life with all it implies, then this advertisement is of vital importance to you. The Gateway of Agricultural Opportunity is Now Open into Eastern Oklahoma—

A word of history: Over one hundred years ago the Federal government designated this as the "Indian Territory" and set it aside for occupancy by the five civilized tribes of American Indians, the Cherokee, the Chickasaw, the Choctaw, the Creek, and the Seminole. Oklahoma Territory adjoining on the west was opened to homestead settlement about 39 years ago, and in November 1907 these two former territories were combined as the state of Oklahoma. The old Indian Territory was never opened to homestead settlement. For a long time the lands were held in common by the Indians but under a bill introduced by U. S. Senator Curtis of Kansas, himself of Indian ancestry, known as the "Curtis Act of 1898" the members of the several tribes selected their individual farms. The law to protect the Indian owner placed restrictions upon the sale of these farms, but as time has passed these restrictions have expired or been removed until now conveyances of the allotted lands are made with complete legality. The government has also held sales of the surplus lands which have thus come under private ownership with good and merchantable title. Just as the fertile soil of California was overlooked in the mad rush for gold, so the discovery of oil, coal, lead and zinc in Eastern Oklahoma has overshadowed the wonderful agricultural advantages here. Almost in the geographical center of the nation, with easy and quick access by rail or hard surfaced road to such market centers as Kansas City, St. Louis and Chicago; only a few hours' run by rail or motor car to gulf export harbors; with the teeming urban population of Tulsa, Muskogee and other fast growing cities, we have an unsurpassed market for all the products of the field, garden, orchard and dairy.

Alluvial valleys of unfathomed fertility—undulating prairies of black limestone soil—wooded hills and ridges specially adapted for growing peaches, grapes and other fruits—limpid streams stocked with many kinds of fish—the home of the quail, the winter feeding ground of countless wild fowl—this is a panoramic view of Eastern Oklahoma.

Based on production values official records show that farm lands can be purchased here, now, at a lower price than in any of the surrounding states. Located far enough south to escape the long, dreary winters of the North Central States, not so far south as to encounter the dampness of the lower Mississippi Valley, we have here an all-year climate that makes life worth living.

The National Colonization Company is an express Trust organized, existing and operating under the statutes of Oklahoma. Our sole business is to acquaint high-class farmer folks of surrounding states with the opportunities and advantages offered here in this new best Southland. We have a large number of improved farms for sale in the best agricultural counties. They range in size from 40 to 640 acres. We also have two larger tracts suitable for subdivision into farms to suit the purchaser. Our prices are very reasonable, our terms most liberal. We invite correspondence and shall take pleasure in showing those interested over our country.

Our plan has the endorsement of the Chamber of Commerce of the State of Oklahoma. This may be verified by addressing the secretary at Petroleum Building, Oklahoma City or Tulsa Building, Tulsa. We also refer to The Exchange National Bank of Tulsa, the largest financial institution in the state, to the Exchange Trust Company, of Tulsa, or to any bank, Chamber of Commerce or county agricultural agent in any county in Eastern Oklahoma.

By filling out and mailing us the coupon you will receive free literature and price list of farms.

NATIONAL COLONIZATION COMPANY
14 East 3rd St., Tulsa, Oklahoma

COUPON

NATIONAL COLONIZATION CO., 14 E. 3rd St., Tulsa, Okla.

Gentlemen: Please send me at once, free literature and price list of your Eastern Oklahoma Farm Bargains.

Name.....R. F. D.....

Town.....State.....

that the elevator operator must consider. Even if a buyer were inclined to buy on a protein basis he could not do so on truck or wagon loads unless his station average were 11.25 per cent or better. The reason for this is that protein premiums are not paid on the terminal market unless the grain tests above 11.25 per cent. Consequently, if the station were situated in territory where the average protein was only 10 per cent the purchase of a few loads of wheat with 12 or 13 per cent protein would not raise the protein average of the carload above 11.25 per cent. Where such a situation exists the buyer cannot afford to buy on a protein basis unless he can purchase an entire carload and load it separately. In higher protein territory where the station average is above 11.25 per cent each load that goes to make up the carload is important in determining the protein premium of the carload. It must be remembered that protein premiums are reflected to the farmer by territories. Local grain prices to farmers are as a consequence considerably higher in high protein territory than in low protein territory. However, this situation is not entirely satisfactory to individual farmers and grain is hauled great distances to a higher price zone. It is generally conceded that it would be desirable to pay the individual farmer on a protein basis. A practical method is wanted. It is hoped that this discussion will throw some light on the problem. It is realized that the sampling of each load would entail considerable effort during the period of heavy movement in harvest season. One man would be kept busy with a probe to do the sampling. Settlement on delivery would have to be made on the basis of low protein wheat and the premium paid for high protein wheat after delivery and testing were completed. That is each farmer would receive payment for his wheat at the time he delivered it to the elevator on the basis of low protein wheat.

Allen—Good progress is being made with farm work. Most corn fields have a fairly good stand, although there was a little replanting. The county will produce an excellent crop of strawberries and some peaches and apples. Corn, 90c; eggs, 25c.—T. E. Whitlow.

Atchison—The recent rains have been of great help to the wheat and oats; these crops were not doing very well, but now with warmer weather and plenty of moisture they should come along all right. The stand of corn is fairly good on most fields, but some replanting will be necessary. There is a good pig crop, but not many fat hogs. Gardens are late; the stand of potatoes is good. Corn, \$1; oats, 60c; cream, 42c; eggs, 25c.—Mrs. A. Lange.

Barton—The wheat outlook is good. Corn planting is finished. These May showers have been welcomed by the farmers even if they were not received with enthusiasm by the automobile drivers. Pastures are greening up and livestock and chickens are thriving. Corn, 95c; eggs, 22c; cream, 41c.—Fannie Sharp.

Brown—Most of the corn is planted, but it is very slow in coming up, as the weather is cool, and we have had considerable moisture. The hay crop will be late. Nearly all the second-year cover winter killed, and the land will be planted to corn. Oats and wheat are making a growth which is about 75 per cent of normal. Pastures are making an excellent growth. Corn is scarce, and is worth \$1 a bushel. Cream, 42c; eggs, 26c.—A. C. Dannenberg.

Butler—The soil contains plenty of moisture; wheat is making a fine growth. The first cutting of alfalfa was delayed in its growth somewhat by the cool April, but it has been making a fine growth recently. Farmers report rather poor success this year with the spring pig crop. There are not many colts in the county. Wheat, \$1.45; oats, 60c; eggs, 24c; cream, 40c; hens, 20c.—Aaron Thomas.

Cheyenne—The county had nearly 4 inches of rain in May, and the soil is thoroughly soaked; the moisture came slowly and practically all of it went into the fields. Farmers are optimistic over the prospects for crops this year. The first crop of alfalfa is making a satisfactory growth, and pastures are doing well. More interest is being taken here in dairying and poultry raising, which is a mighty hopeful item in the development of the agriculture of the county. Nearly all farm products are selling at satisfactory prices.—F. M. Hurlock.

Crawford—Most of the corn land was in good condition this year when it was planted. Wheat, oats and pastures are making a fine growth. Gardens also are doing well. Roads are in good condition. Livestock is doing well on pasture. Butterfat, 39c; eggs, 23c.—Mrs. H. F. Painter.

Ellis—We have had several heavy rains recently, which have put the soil in splendid condition, and crops are making an excellent growth. Corn planting is finished; the acreage is somewhat smaller than that of a year ago. Wheat is doing unusually well. A few public sales are being held; everything moves at high prices. Wheat, \$1.60; corn, 80c; kafir, \$1.50 a cwt.; bran, 82c; eggs, 22c; butterfat, 39c.—C. F. Erbert.

Gove and Sheridan—The recent rains have put new life into the small grain crops. But still there will be some weedy wheat fields. The corn acreage is larger than that of a year ago. Pastures are making a good start now, with the coming of warmer weather.—John I. Aldrich.

Harvey—The weather has been cool, with considerable rain, and the wheat and alfalfa are making an excellent growth. Corn planting is finished. Livestock is doing fine on pasture. Wheat, \$1.43; corn, 90c; oats, 60c; butter, 40c; eggs, 21c; potatoes, 30c a peck; bakers' monopoly trust bread, 13c a loaf.—H. W. Prouty.

Jefferson—Corn ground is in fine condition, but some replanting has been necessary. Young cattle and hogs are scarce. There are some reports of poor hatches with little chicks. Corn, 90c; eggs, 25c.—W. H. Smurr.

Jewell—Cold, cloudy weather has delayed the growth of crops somewhat. A few showers have fallen recently, but a soaking rain would be of great value. The first crop of alfalfa will be rather short. Wheat is doing well, but the straw will be short. Corn listing is practically finished; the acreage is larger than that of last year.—Vernon Collier.

Johnson—We have had considerable rain here recently, and vegetation is now making a fine growth. Mice and gophers are doing some damage in corn fields, and reports indicate poor germination in some cases—anyhow considerable replanting has been necessary. Green bugs have done some damage in alfalfa fields.—Mrs. Bertha Bell Whitlaw.

Labette—A considerable acreage of corn has been replanted. The county has been rather dry, but we are hoping that rain will come soon. Potatoes, oats and wheat are making a good growth. Roses are

blooming. The crop of strawberries will be cut short unless we get additional moisture soon.—J. N. McLane.

Lane—Soaking rains here recently have put the soil in excellent condition—the best in years. Corn is coming up fine; there is a large acreage. Grass is making a fine growth.—A. R. Bentley.

Lincoln—The weather could not be any more favorable for wheat than the brand we have been receiving. The soil contains plenty of moisture. Corn planting is finished and many of the fields are up; the acreage is small. Farmers are planting kafir and cane. Potatoes have a good stand and are growing fine. Wheat, \$1.35; corn, 85c.—Edward J. G. Wacker.

Lyon—The weather has been very favorable for wheat, oats and grass. Corn has been rather backward, because of the cool weather, although most fields have good stands. Potatoes are doing well. Pastures are in fine condition. More sheep than usual are on the farms this year, and fewer hogs.—E. R. Griffith.

Marshall—Corn has a good stand and is doing well. We had a fine rain a few days ago. Alfalfa will soon be ready to cut. Oats and pastures are making an excellent growth. Some pastures are idle, because of a lack of cattle in this country. Wheat, \$1.30; corn, 80c; cream, 41c.—J. D. Stosz.

Ness—The county has received a great deal of rain recently. Warmer weather is needed for the spring crops, and the pastures. Roads are in fairly good condition. A few public sales are being held, with high prices. Wheat, \$1.50; corn, \$1; barley, 75c; eggs, 23c; cream, 39c.—James McHijl.

Osborne—We have had considerable rain recently, and the soil is in excellent condition. Corn planting is almost finished; it was a little later than usual this year. Wheat is making an excellent growth. Spring crops are doing well. There is plenty of grass in the pastures, and livestock is in fine condition. Hogs are getting on more attractive price levels, with the top prices around \$9 a hundred. Corn, 85c; butterfat, 42c; eggs, 23c.—Albert Robinson.

Pawnee—Crops are making a fine growth. Wheat is doing unusually well, although some fields have a rather thin stand. Oats and barley are making a splendid growth. Excellent prices are being paid for beef cattle and milk cows. The local cheese factory is doing a good business. Wheat, \$1.50; corn, \$1; kafir, 80c; cane, 75c.—E. H. Gore.

Philips—We have been having plenty of rain, and the ground is thoroughly soaked. Farmers are busy planting corn. The county has some fine fields of wheat, the best we have had in years. Some fields were abandoned, however, because the wheat failed to come up last fall—the ground has been planted to barley and corn. Prospects are good for all crops. It appears as if the farmers will have a profitable year here. There is enough farm labor.—J. B. Hicks.

Republic—Wheat and oats are in excellent condition. Practically all the corn is planted. Warmer weather now should bring the crops along rapidly. Eggs, 22c; butterfat, 43c.—Mrs. Chester Woodka.

Riley—The weather has been unsettled recently, with a little rain, and it has been somewhat cooler. The moisture was of great help to the wheat and oats. Alfalfa will produce a big first cutting. The early planted corn fields, which are up, have good stands. Wheat, \$1.15; oats, 85c; corn, 90c; eggs, 21c to 24c; butterfat, 43c; hogs, 32.—Ernest H. Richner.

Rooks—We have received considerable moisture recently, and this has improved the crop outlook greatly. Quite a large acreage of corn is being planted. Oil companies are leasing farms here, paying \$1 an acre as the rent for the first year. Eggs, 23c; wheat, \$1.50.—C. O. Thomas.

Rush—We have had an abundance of rain. Wheat is making an excellent growth; there is a tendency, in fact, for some of the fields to get too rank. Wheat heads are showing on the boot on most fields. Corn planting is finished and much of the kafir is in the soil. Pastures are in splendid condition and livestock is doing well. Wheat, \$1.45; eggs, 23c; butterfat, 39c.—William Crotinger.

Sedgwick—Practically all the corn is planted; the early fields are up, with rather poor stands. Wheat is heading; there is enough moisture in the soil to make the crop, but the straw will be light. The first crop of alfalfa is ready to cut; it will not be very heavy. Potatoes are doing fine; gardens, however, have made only a slow growth, due to the cool weather. Grain sorghums are being planted. Wheat, \$1.40; corn, \$1; eggs, 25c; hens, 20c.—W. J. Roel.

Sherman—The county has received more than 2 inches of rain recently; the soil is soaked down for 2 feet. Wheat and barley are making an excellent growth; a considerable part of the wheat acreage had been plowed up previously, however, because of winter injury. Farmers will plant the largest acreage of corn in many years. Good prices are being paid at public sales. Grass is making a fine start, although it is late, and livestock is doing well. There is an excellent demand for milk cows. Wheat, \$1.49; corn, 86c; barley, 65c; cream, 40c; chickens, 18c; eggs, 18c.—Harry Andrews.

Stanton—The county has received a great deal of rain recently and the soil is in excellent condition. There is a fine outlook for the row crops, and wheat is doing unusually well. A considerable acreage of alfalfa is being plowed for wheat. There is a good demand for milk cows and also for hogs. Corn, 75c; milo, \$1.50 a cwt.; kafir, \$1.40 a cwt.; eggs, 21c; cream, 39c; seed corn, \$1.25 to \$2 a bushel.—R. L. Creamer.

Thomas—This section has received excellent rains recently, and this has improved the crop outlook greatly. The wheat planted on the well-prepared fields is in fine condition. The outlook for barley and wheat also is good. The corn acreage is about normal, with the soil in excellent condition. Local farm prices are very satisfactory.—L. J. Cowperthwaite.

Wabunsee—Farmers have finished planting corn; some replanting will be necessary, however. Grass is doing well. Potatoes are making a good growth. Eggs, 23c; corn, 85c; hens, 18c.—G. W. Hartner.

Wallace—Good progress has been made recently with farm work. Grass is making a fine growth. About the usual number of chicks were hatched here this year, and most of these are doing very well. Eggs, 23c; cream, 40c.—Everett Hughes.

Washington—Corn planting is completed, with about an average acreage. Wheat is making a fine growth. Alfalfa is doing well. The growth of the pastures has not been up to normal. Wheat, \$1.40; corn, 84c; butterfat, 40c; eggs, 24c.—Ralph B. Cole.

Wilson—Corn is growing rapidly and is being cultivated. Wheat and oats are doing well. Alfalfa will soon be ready to cut. Gardens are doing nicely. Lots of little chickens are being hatched.—Mrs. A. E. Burgess.

More Than 50,000 Kansas Farmer Subscribers Protect Their Property With

This Sign



Can You Afford to be Without Its Protection?

Every Kansas Farmer subscriber is entitled to post free this sign hated by thieves

Paid Rewards Total \$1,350

To date, 27 rewards of \$50 each have been paid for the capture and conviction of thieves who stole from farms where the Protective Service sign is posted. When the Kansas Farmer Protective Service was organized, \$2,500 was provided with which to pay rewards. From this fund, \$1,350 has been paid. More reward money will be available when the \$2,500 is used. Rewards have been paid in Sedgwick, Miami, Atchison, Johnson, Douglas, Harvey, Labette, Lyon, Butler, Crawford, Wilson, Doniphan, Marshall, Pottawatomie, Saline and Reno counties. Two rewards each have been paid in Nemaha and Shawnee counties and three each in Leavenworth and Montgomery counties. Most rewards have been paid for chicken thieves. Other rewards have been paid for thieves who stole horses, grain, jewelry, gasoline, cattle, honey, hides and personal property. Sentences received by the thieves range from 30 days in jail to 10 years in the penitentiary. Is a Protective sign posted near the entrance to your farm so that a \$50 reward can be paid for the capture and conviction of any thief who steals from your farm? Mail the coupon today. Be a good neighbor.

How to Get Your Sign

Paid-in-Advance subscribers to Kansas Farmer are entitled to Protective Service protection. More than 50,000 subscribers in Kansas have this protection. They would not be without the Protective Service sign posted near the entrance to their farm. Thieves pass up farms where this sign is posted to steal from farms where the sign is not posted. Fill out and mail today the coupon below to the Kansas Farmer Protective Service, Topeka, Kan. Get this free booklet explaining the Protective Service and learn how to get a Protective Service sign that protects everything on your farm premises from thieves. Write your name on the coupon now.



Date....., 1928
Protective Service Dept.
Kansas Farmer, Topeka, Kan.

Herewith is a stamped, addressed envelope in which please mail me free the booklet explaining the Kansas Farmer Protective Service and how to become a Protective Service member so a \$50 reward will be paid for the conviction of any thief who steals from my farm premises.

Name.....

Address.....

KANSAS FARMER
MAIL & BREEZE

8th and Jackson

Topeka, Kansas

This is the booklet that will be sent to you free. It tells you how to become a Kansas Farmer Protective Service member and explains your membership. Fill in and mail the coupon today.



Our FARMERS MARKET Place

RATES 8 cents a word each insertion if ordered for four or more consecutive issues; 10 cents a word each insertion on shorter orders or if copy does not appear in consecutive issues. Display type headings, \$1.50 extra each insertion. Illustrations not permitted. Minimum charge is for 10 words. White space, 50 cents an agate line each insertion. Count abbreviations, initials as words and your name and address as part of advertisement. Copy must reach us by Saturday preceding publication. **REMITTANCE MUST ACCOMPANY YOUR ORDER.**

Sell thru our Farmers' Market and turn your surplus into profits.

Buy thru our Farmers' Market and save money on your farm products purchases.

TABLE OF RATES					
Words	One time	Four times	Words	One time	Four times
10.....	\$1.00	\$3.20	26.....	\$2.60	\$8.32
11.....	1.10	3.52	27.....	2.70	8.64
12.....	1.20	3.84	28.....	2.80	8.96
13.....	1.30	4.16	29.....	2.90	9.28
14.....	1.40	4.48	30.....	3.00	9.60
15.....	1.50	4.80	31.....	3.10	9.92
16.....	1.60	5.12	32.....	3.20	10.24
17.....	1.70	5.44	33.....	3.30	10.56
18.....	1.80	5.76	34.....	3.40	10.88
19.....	1.90	6.08	35.....	3.50	11.20
20.....	2.00	6.40	36.....	3.60	11.52
21.....	2.10	6.72	37.....	3.70	11.84
22.....	2.20	7.04	38.....	3.80	12.16
23.....	2.30	7.36	39.....	3.90	12.48
24.....	2.40	7.68	40.....	4.00	12.80
25.....	2.50	8.00	41.....	4.10	13.12

DISPLAY Headings

Display headings are set only in the size and style of type above. If set entirely in capital letters, count 15 letters as a line. With capitals and small letters, count 22 letters as a line. The rate is \$1.50 each insertion for the display heading. One line headings only. Figure the remainder of your advertisement on regular word basis and add the cost of the heading.

RELIABLE ADVERTISING

We believe that all classified livestock and real estate advertisements in this paper are reliable and we exercise the utmost care in accepting this class of advertising. However, as practically everything advertised has no fixed market value and opinions as to worth vary, we cannot guarantee satisfaction. In cases of honest dispute we will endeavor to bring about a satisfactory adjustment between buyer and seller, but we will not attempt to settle disputes where the parties have vilified each other before appealing to us.

POULTRY

Poultry Advertisers: Be sure to state on your order the heading under which you want your advertisement run. We cannot be responsible for correct classification of ads containing more than one product unless the classification is stated on order.

BABY CHICKS

BABY CHICKS FIVE CENTS EACH AND UP. Free Circular. Glenn Davison, Grand River, Iowa.

FURKY ASSORTED CHICKS, 9c. 100% satisfaction. How many? Fredonia, Kansas Hatchery.

WHITE ROCK BABY CHICKS FROM FINE strain of heavy layers, purebred, farm raised. Flora Larson, Petrolia, Kan.

ROSS CHICKS—8c UP. ALL BREEDS. From 300 egg blood. Free Catalog. Ross Hatchery, Box 405, Junction City, Kan.

ACCREDITED CHICKS, LEGHORNS, 9c; Reds, Rocks, Wyandottes, Anconas, \$10; Orpingtons, Minorcas, \$12. Jenkins Poultry Farm, Jewell, Kan.

STEINHOFF CHICKS. WE ARE NOW taking off regular hatches, fifteen breeds, 8c up. Catalog and prices free. Steinhoff Hatchery, Osage City, Kan.

MATHIS QUALITY CHICKS HEAVY layers. Leading breeds, \$6.25 hundred up. 100% alive. Catalog free. Chicks guaranteed. Mathis Farms, Box 103, Parsons, Kan.

BABY CHICKS: WELL BRED WHITE Langshans 10c. Rocks, Reds, Orpingtons, Wyandottes 9c. Leghorns 7½c. Assorted 6½c. Live delivery, postpaid. Ivy Vine Hatchery, Eskridge, Kan.

REDUCED PRICES—QUALITY CHICKS. State Accredited. Per 100: Leghorns \$7; Anconas, Rocks, Reds, Orpingtons, Wyandottes, \$8; Assorted \$6.50. From heavy layers. 100% live delivery prepaid. Catalog free. Missouri Poultry Farms, Box 2, Columbia, Mo.

BABY CHICKS

BEST QUALITY CHICKS: LEGHORNS \$8.50; Rocks, Reds, Orpingtons, White, Buff Wyandottes \$10. Langshans, Rhode Island Whites, Brahmas \$11. Postpaid, ¼c less for June. Ideal Hatchery, Eskridge, Kan.

THREE MORE HATCHES, GUARANTEED quality and prompt shipment. Reds, White and Barred Rocks, White Wyandottes, Buff Orpingtons, Black Minorcas \$10.00 per 100. White Minorcas, \$12.00 per 100. Bowell Hatchery, Abilene, Kan.

BABY CHICKS, WHITE LEGHORNS, FROM trapnested flock laying from 285 to 318 eggs per year. English or Hollywood strains, \$12.00 per 100. Same strains not trapnested, \$8.00-10.00; delivered prepaid, 100% alive. Tischhauser Hatchery, Wichita, Kan.

\$10.00 FOR BUFF ORPINGTONS, WHITE and Barred Rocks, Single and Rose Comb Reds, \$9.00 for English White Leghorns. Culler for quality and production. Guaranteed alive. Satisfaction. Belleville Hatchery, Belleville, Kan.

State Accredited

Baby Chicks, Rose or Single Comb Reds, White Rocks, Barred Rocks, \$10 per 100. \$48-500. Buff Orpingtons, White Wyandottes Silver Laced Wyandottes, Rose Comb Whites and White Langshans \$12-100. Buff, White or Brown Leghorns, \$9.00 per 100. Heavy Assorted \$8 per 100. Delivered prepaid 100% live. Tischhauser Hatchery, 2126 S. Santa Fe, Wichita, Kan.

Diarrhea Tested

Or Accredited day-old or 2 and 3 weeks old Rocks, Reds, Leghorns, Minorcas, Wyandottes, Orpingtons, broiler chicks, 7½c up. C. O. D. if you like. We raise them by the thousand—so can you. Younk's Hatchery, Box 152 Wakefield, Kan.

BOOTH CHICKS 6c UP

Trapnested Pedigreed Male and State Accredited Matings. Bred direct from our 200-318 egg official record layers. 12 varieties. Free catalog. Booth Farms, Box 523, Clinton, Mo.

Tudor's Superior Chicks

Baby Chicks, all large breed \$12.00 per hundred, 25-35.50; 50-56.50; Buff and White Leghorns and Anconas \$11.00. State Certified White Leghorns \$12.00. Tudor's Pioneer Hatcheries, 1277 Van Buren, Topeka, Kan., also Osage City, Kan.

Standardized Chicks

for immediate delivery. White Rocks, Barred Rocks, Reds, White Wyandottes, Buff and White Orpingtons, 10c. Light Brahmas, White Minorcas, 13c. Buff, Brown, White Leghorns, Mixed Heavies, 8c; Leftovers 7c. We ship C. O. D. and pay postage. B. & C. Hatchery, Neodesha, Kan.

ROSS CHICKS 8c UP

\$1.00 deposit, balance after you get the chicks. Bred from the best heavy egg producing flocks in Kansas. All flocks rigidly selected and mated by registered inspector. Egg blood as high as 312 eggs yearly. S. C. White, Buff, Brown Leghorns and Anconas, \$10.00 per 100; \$50.00 per 500. Barred, Buff Rocks, and S. C. and B. C. Reds, \$12.00 per 100; \$60.00 per 500. White Rocks, White, Buff Wyandottes, \$13.00 per 100; \$65.00 per 500. White Minorcas and Light Brahmas, \$14.00 per 100; \$70.00 per 500. Heavy assorted \$10.00 per 100; \$50.00 per 500. Light assorted \$8.00 per 100; \$40.00 per 500. For less than 100 add ¼c chick. For 1,000 or more deduct ¼c chick. Just send \$1 deposit with your order and pay the postman the balance due and the postage when he delivers the chicks safe and sound in your hands. 100% live delivery guaranteed. Free instructive catalog on request. Ross Hatchery, Box 404, Junction City, Kan.

BABY CHICKS

Lund's Triple "S" Chix

at new low prices. You'll be surprised the way our Smith hatched chicks "get up" and grow. Try them—satisfaction guaranteed. Buff and White Leghorns, H. Asstd., \$9.00; Barred Rocks, S. C. and R. C. Reds, \$10; Buff Orpingtons, Silver Laced and White Wyandottes, \$11; W. Minorcas, \$12. June prices 1c less. The Lund Hatchery, Protection, Kan.

Johnson's Peerless Chix

Produced by Kansas' largest and best equipped hatchery. Hatched from pure bred, rigidly culled, heavy producing, free range flocks. Take advantage of our new low prices. English White Leghorns, Single and Rose Comb Brown Leghorns, Buff Leghorns and Anconas, 25-\$3.00; 50-\$5.50; 100-\$10.00; 500-\$47.50. Barred Rocks, Rose and Single Reds, 25-\$3.50; 50-\$6.75; 100-\$12.50; 500-\$60.00. White and Buff Rocks, Single and Rose Comb Rhode Island Whites, White and Silver Wyandottes, Buff and White Orpingtons, 25-\$3.75; 50-\$7.00; 100-\$13.00; 500-\$62.50. White and Buff Minorcas and White Langshans, 25-\$4.00; 50-\$7.50; 100-\$14.00; 500-\$67.50. Assorted Heavies, \$10.00 per hundred. Assorted Lights, \$8.00 per hundred. Jersey Black Giants, \$18.00 per hundred. St. John White Leghorns, \$16.00 per hundred. Tanager White Leghorns, \$11.50 per hundred. Shipped by parcel post 100% live delivery guaranteed. Instructive catalog free. Johnson's Hatchery, 213C, West First Street, Topeka, Kan.

BRAHMAS

CHOICE LIGHT BRAHMAS, EGGS 5c; Chicks 15c. Cora Chaffain, Severy, Kan.

CORNISH—EGGS

DARK CORNISH EGGS, \$1.50 SETTING, \$6.00 per 100. Prepaid. H. L. Heath, Bucklin, Kan.

GUINEAS

AFRICAN WHITE GUINEA EGGS, \$1.50 for twenty. Arthur Cook, Oak Grove, Mo. **WHITE AFRICAN GUINEA EGGS \$1.50** per 17. Mrs. Will Skaer, Augusta, Kan. Rt. 2.

JERSEY BLACK GIANTS

BEST QUALITY GIANTS, CHICKS 100-\$16. Select Mating \$22. Prepaid. Hatch every Monday. Thomas Farms, Pleasanton, Kan.

LEGHORNS—WHITE

MAMMOTH ENG. LEGHORNS, 5 AND 6 lb. hens. Eggs, pullets. Choice cockerels, early hatched. Abels Poultry Farm, Clay Center, Kan.

COCKERELS FROM STATE CERTIFIED flock Tom Barron Leghorns. Extra fine, \$1.00 each. Mrs. Martin Hansen, Rt. 4, Peabody, Kan.

IMPORTED ENGLISH BARRON HIGHEST pedigree blood lines S. C. W. Leghorns. Trapnested record 303 eggs. Chicks, eggs. Reduced price. Geo. Patterson, Richland, Kan.

LEGHORN—BUFF

CHICKS—PURE BRED FROM VACCIN- ated two year old hens, \$10 hundred postpaid. Ava Corke, Quinter, Kan.

LANGSHANS—WHITE

WHITE LANGSHAN CHICKS \$10-100. Express half paid. Sarah Greisel, Altoona, Kan.

MINORCAS—WHITE

SINGLE COMB WHITE MINORCA EGGS \$5 hundred, prepaid. Mrs. Chas. Seal, Wakefield, Kan.

GAMBLE'S MAMMOTH SINGLE COMB White Minorcas, Eggs, Chicks, Baby cockerels. Mrs. C. F. Gamble, Earleton, Kan.

MINORCAS—BUFF

BUFF MINORCA EGGS, 100-\$5. GEORGE G. Dixon, Pleasanton, Kan.

REDUCED PRICES AFTER MAY 15 ON hens, cockerels, chicks, eggs. J. W. Epps, Pleasanton, Kan.

PRIZE WINNING, MAMMOTH BUFF AND White Minorcas, Eggs \$5.00, Chicks \$12-100. Prepaid. Guaranteed. Baby cockerels \$1.00 each. Order from this ad. Freeman's Hatchery, Fort Scott, Kan.

NEWEST, BEST MINORCAS, GOLDEN Buffs. Summer prices. Chicks, flock, 100-\$15; 300-\$42; 500-\$65. Select, 100-\$18; 200-\$35. Prepaid. Hatch every Tuesday. Catalogue. Thomas Farms, Box 35, Pleasanton, Kan.

ORPINGTON—EGGS

BUFF ORPINGTON EGGS, OWEN STRAIN, 45-\$3.00. White Pekin Ducks 12-\$1.00. Donald Lockhart, Elk Falls, Kan.

PLYMOUTH ROCKS WHITE—EGGS

WHITE PLYMOUTH ROCK EGGS, STATE accredited Grade "A" Certified pens. Blood tested, trapnested records 170 to 264 (some official) mated to pedigreed males, with dam records to 245. \$5.00 per 100. Mrs. Fred Dubach Jr., Wathena, Kan.

RHODE ISLAND REDS—EGGS

SINGLE COMB REDS, TRAP NEST, PEDIG- reed 281 to 320 egg lines; pen 1, eggs \$2-15, \$10-100. Pen 2, \$1.50-15, \$7.50-100. Gorsuch, Route 3, Olathe, Kan.

TOMPKINS STRAIN ROSE COMB PEDS, vigorous range flock. Deep coloring. Heavy layers. Eggs \$5.50-100 prepaid. Nelson Smith Rt. 5, Hutchinson, Kan.

TURKEYS—EGGS

TURKEY EGGS MAMMOTH BRONZE 40c, safe delivery guaranteed. Salomea Gabelmann, Natoma, Kan.

PURE BRED BRONZE TURKEY EGGS 40c. Headed by prize winning stock. Pearl Maxedon, Cunningham, Kan.

MAMMOTH GOLDBANK BRONZE EXHIB- ition turkeys. Eggs \$40.00 hundred delivered. Bivins Farms, Eldorado, Okla.

PURE GIANT BRONZE, JOHNSON-GOLD- bank strains, 40 to 45 lb. toms, 18 to 22 lb. hens; Eggs \$5.00 dozen. Postpaid. Safe delivery guaranteed. Byron Engle, Taloga, Okla.

WYANDOTTES—WHITE

PURE BRED, MARTIN STRAIN, WHITE Wyandotte chicks, 100% satisfaction, 10c, postpaid. Fredonia, Kansas Hatchery.

THE SAME HIGH QUALITY BLOOD tested White Wyandotte chicks at reduced prices. Shipped prepaid each Wednesday. Heavy laying stock. Chicks \$11.50-100; \$23-200. Eggs \$5-108. Stover & Stover, Fredonia, Kan.

POULTRY REMEDIES

STERLING TOBACCO POWDER DUSTED over ground saves chicks. Latest method. 100 pounds \$7.50. Sterling Remedy Co., 2014 Virginia, Louisville, Ky.



The Activities of Al Acres—Slim Has a Little Trouble With the Muse

POULTRY PRODUCTS WANTED

SHIP POULTRY AND EGGS DIRECT FOR best results. "The Copes," Topeka, Kan. **PREMIUM PRICES PAID FOR SELECT** market eggs and poultry. Get our quotations now. Premium Poultry Products Company, Topeka.

REPROLERS WANTED: ALSO ALL OTHER kind of poultry and eggs. Write for shipping tags. Trimble Compton Produce Co., since 1896 at 112-114 East Missouri Ave., Kansas City, Mo.

MALE HELP WANTED

BLACKSMITH WANTED FOR COUNTRY shop, one who can do general blacksmithing and acetylene welding and take charge of shop. Ref. required. Chas. W. Webber, Junction City, Kan.

OF INTEREST TO WOMEN

NEW PATENTED SHUTTLE HOOK FOR fancy rug making. 50c each. See page 22 Kansas Farmer, May 12th. Rose A. Mathews, 700 Jefferson Street, Topeka, Kan. (Patent obtained through U. G. Charles, Patent Attorney, Topeka, Kan.)

PAINT

ECONOMY HOUSE PAINT \$1.65, STAN- dard House Paint \$2.00, Barn Red \$1.30; Varnish \$2.15; four inch brush 95c; wall paper 34c roll. Write for price list or color cards. Manufacturers Paint Company, Wichita.

SAVEALL PAINT, ANY COLOR \$1.75 A gal. Red Barn Paint \$1.35. Cash with order or C. O. D. Freight paid on 10 gal. or more. Good 4 in. brush \$1.00. Varnish \$2.50 gal. H. T. Wilkie & Co., 104 Kan. Ave., Topeka, Kan.

LUMBER

LUMBER - CAR LOTS, WHOLESALE prices, direct mill to consumer. Prompt shipment, honest grades and square deal. McKee-Fleming Lbr. & M. Co., Emporia, Kansas.

TOBACCO

TOBACCO POSTPAID GUARANTEED best red leaf chewing 5 lbs. \$1.50; 10-12.75. Best smoking 20c lb. Mark Hamlin, Sharon, Tenn.

GUARANTEED HOMESPUN TOBACCO—Chewing 5 pounds, \$1.25, 10, \$2.00. Smoking 10, \$1.50. Pipe Free; Pay Postman. United Farmers, Bardwell, Kentucky.

SPECIAL SALE, TOBACCO, THREE YEARS old sale closes August 1st, 1928. Smoking 10 pounds \$1.50; Mild Clean Smoking 10 pounds \$1.00; Best Select Smoking 10 pounds \$1.50; Hand Picked Chewing 10 pounds \$3.00. Pay for Tobacco and Postage on arrival. Fuqua Bros., Rockvale, Ky.

DOGS

ENGLISH COACH PUPS AND DOGS, CARL Richardson, Ottawa, Kan.

FOR SALE - YOUNG WOLF HOUNDS, none better. Bill Petrie, Sylvia, Kan.

FOX TERRIERS, COLLIES, ENGLISH Shepherds, Police. Ed. Barnes, Fairfield, Neb.

WHITE COLLIES, REGISTERABLE. Eight dollars up. Western Kennels, Garfield, N. M.

FEMALE COLLIE GUARANTEED, SHEP- herds Police Collie Pups. Clover Leaf Farm, Kincaid, Kan.

TRADE POLICE DOG FOR REGISTERED heifer calf. Jersey, Guernsey, Shorthorn. Fleming Shepherd Kennels, Fleming, Colo.

PATENT ATTORNEYS

PATENTS, BOOKLET AND ADVICE FREE Watson E. Coleman, Patent Lawyer, 724 9th St., Washington, D. C.

MACHINERY—FOR SALE OR TRADE

JOHN DEERE TRACTOR, LATEST MODEL, Box 134, Onaga, Kan.

FOR SALE—SOME REAL BARGAINS IN used combines and tractors. Humble Case Agency, Pratt, Kan.

FORDSON TRACTOR AND GLEANER, just cheap on account of quitting farm. Write Jacob Schreotlin, Arriba, Colo.

REEVES STEAMER, 25 H.P., CROSS COM- pound, Deering push binder. Both ready to go. D. R. Peters, Valley Center, Kan.

TWO 20-35 OIL PULLS, 30-60 OIL PULL, 30-60 Russell Separator, all in good condition. Stratmann Bros., Lorraine, Kan.

SEPARATORS—32 RUMELY, \$250; 32 RUM- ely Steel, \$1,200, nearly new. 36 Case, \$800, ready to thresh. Wm. Roetter, Linn, Kan.

WANTED—1927 BALDWIN 10 FT. COM- bine. For Sale—Twin City separator and ten foot tractor binder, excellent condition. Clyde Smith, Clay Center, Kan.

RUMLEY STEAM OUTFIT THRESHER. 20-horsepower engine. 36-60 separator with wing feeders. Both in running order. A. A. Gustafson, McPherson, Kan.

FOR SALE, 50 USED AND REBUILT Tractors. Thresher and Combine Harvesters. Write for price list. Abilene Tractor & Thresher Co., Abilene, Kan.

TRACTOR BARGAINS: WHEEL TYPE tractors, all kinds, some brand new. Clemons and Monarchs, at almost your own price. H. W. Cardwell Company, "Caterpillar" tractor dealers, Wichita, Kan.

USED TRACTORS FOR SALE. REBUILT and used "Caterpillar" tractors—used wheel type tractors of different makes. Prices that will interest you. Martin Tractor Company, "Caterpillar" Dealers, Ottawa, Kan.

FOR SALE—THREE NEW FACTORY guaranteed Fordson crawler attachments which will convert your Fordson into a powerful crawler tractor at a remarkable saving in price. Belle City Manufacturing Co., Racine, Wisconsin.

NOTICE—REPAIR PARTS FROM 28 TRAC- tors, separators and steam engines, also have boilers, gas engines, saw mills, steam engines, separators, tractors, hay balers, tanks, plows, etc. Write for list. Will Hey, Baldwin, Kan.

Mid-West Limestone

Pulverizers made in five sizes, attractively priced. For information write Green Brothers, Lawrence, Kan., agents for Kansas, Missouri and Nebraska.

MOTORCYCLES

USED MOTORCYCLES BARGAINS. ALL makes. Lowest prices. Shipped on approval. New easy payment plan. Motorcycle parts—supplies Catalog free. Floyd Clymer, "Largest Motorcycle Dealer in the West," Denver, Colo.

CORN HARVESTER

RICH MAN'S CORN HARVESTER. POOR man's price—only \$25.00 with bundle tying attachment. Free catalog showing pictures of harvester. Process Company, Salina, Kan.

KODAK FINISHING

ROLL DEVELOPED, SIX GLOSSO PRINTS, 25c. Gloss Studio, Cherryvale, Kan.

TRIAL ROLL, SIX GLOSSO PRINTS, 25c, fast service. Day Night Studio, Sedalia, Mo.

ROLL DEVELOPED, 6 PRINTS, 25c. FREE painted enlargement on orders. Decabin Studio, Denison, Texas.

TRIAL OFFER, FIRST FILM DEVELOPED, 6 prints, free enlargement, 25c silver. Superior Photo Finishers, Dept. P., Waterloo, Iowa.

30c FOR ANY 6 EXPOSURE ROLL DE- veloped and printed, 60c pack or 12 exposures rolls. Wolcott Studio, 710 Kansas Ave., Topeka, Kan.

CLEAR, SHARP, GLOSSY PRINTS ON Velox paper last a lifetime; send trial roll and get 6 prints, any size, 25c. Runner Film Co., Northeast Station, Kansas City, Mo.

RUG WEAVING

BEAUTIFUL RUGS CREATED FROM OLD carpet. Write for circular. Kansas City Rug Co., 1518 Virginia, Kansas City, Mo.

CREAMERIES

ATTENTION FARMERS

For the highest market price on cream send your next can to Brookings Dairy Creamery, 124 Ida, Wichita, Kansas. Full test, prompt remittance.

CHEESE

FINE CREAM CHEESE, FIVE POUND size \$1.50 in Kansas. Other states \$1.65 postage paid. Send check to F. W. Edmunds, Hope, Kan.

SEEDS PLANTS AND NURSERY STOCK

GOOD RECLEANED SUDAN SEED, \$4.50 cwt, John Linke, Geneseo, Kan.

FOR SALE—AFRICAN MILLET, \$1.00 BU. John Robinson, Harveyville, Kan.

CERTIFIED PRIDE OF SALINE SEED Corn. Harold Staadt, Ottawa, Kan.

CERTIFIED PINK KAFIR, GERMINA- tion 97%, \$3.00 per 100. D. O. Amstutz, Ransom, Kan.

KANSAS ORANGE CANE SEED, RE- cleaned, good quality, \$2.00 hundred. J. F. True, Perry, Kan.

SWEET POTATO PLANTS, 22 VARIETIES, from treated seed. Write for prices. Johnson Bros., Wamego, Kan.

CERTIFIED SUDAN SEED PURITY 99.17%. Germination 92.5%. \$6.00 per 100. E. H. Lohmeyer, Greenleaf, Kan.

SUDAN, PURE PINK KAFIR, GOLDEN Popcorn, \$4.50 per 100. Alfalfa seed. Wm. Tipton, McPherson, Kan.

PURE CERTIFIED DWARF YELLOW Milo Maize 3c per pound. Cotton bags at 40c.—A. H. Burg, Lakin, Kan.

TOMATO, SWEET POTATO PLANTS, Nancy Hall, Jersey. 50c-100, \$3.50-1,000, postpaid. Howard Jackson, North Topeka, Kan.

POTATO AND TOMATO PLANTS LEAD- ing varieties. \$3.00 per 1000. Peppers 50c per 100. All prepaid. R. W. Fullerton, Sterling, Kan.

KAFIR—PINK AND DWARF BLACKHULL K. S. A. C. tested. Smart treated \$1.50 bu. here sacks free. McAllister and Stephens, Russell, Kan.

CERTIFIED PRIDE OF SALINE AND Freed White Dent seed corn; \$2.75 and \$3.00. Blackhull kafir, 2 1/2 c. Bruce Wilson, Keats, Kan.

FETERITA FROM CERTIFIED SEED. Purity 98.81%. Germination 92.5%. Recleaned. Double sacked. \$1.25 bu. W. H. Shattuck, Ashland, Kan.

TOMATO PLANTS, EARLIANA TREE, Bonnybest, Sweet Potatoes, Red Bermuda, Yellow Jersey, 100-40c, 1000-\$3.50. Postpaid. Ernest Dorland, Codell, Kan.

SWEET POTATO PLANTS, NANCY HALLS, Porto Ricos, Key West. Guaranteed. Shipping daily. 100-50c; 500-\$1.50; 1000-\$2.50. Postpaid. L. G. Herron, Idabel, Okla.

NANCY HALL, RED BEREMUDA YELLOW Jersey, Porto Rico, 50-100; \$4.00-1000. Bonnie Best tomato \$1.00-100. Cabbage 50-100. All postpaid. T. Marion Crawford, Salina, Kan.

KNOW WHAT YOU SOW BY PLANTING certified seeds of corn, Sweet clover, kafir, cane, Sudan and soybeans. Send for list of growers. Address Kansas Crop Improvement Association, Manhattan, Kan.

"PLANTS THAT GROW" OTHERS SAY so—why not you? Tomato, Pepper, Eggplant, 100-50c; Marguerite, Carnation, Zinnia, Verbena, Aster, Pansy, Phlox, Petunia 25c per dozen. Postpaid. M. E. Richardson, Ellinwood, Kan.

TOMATOES, FROST PROOF CABBAGE, Bermuda Onions. Good hardy plants from grower; 200-50c; 500-\$1.00; 1,000-\$1.75; 5,000-\$7.50. Eggplant, peppers, 100-50c; 500-\$1.50; 1,000-\$2.50; 5,000-\$11.00. prepaid. Southern Plant Co., Ponta, Texas.

NANCY HALL, PORTO RICAN, PUMPKIN Yams, Red Bermuda slips, Field's Early June, Beebe's Prolific, Marglobe, Bonnie Best Tomato plants, 100-40c; 500-\$1.40; 1,000-\$2.50; 5,000-\$12.00 prepaid. Kunhille Plant Ranch, Wagoner, Okla.

SWEET POTATO PLANTS, FROM treated seed, Nancy Hall, Porto Rico, Red Bermuda, Yellow Jersey, Big Stem Jersey and Triumph. 50c-100; \$3.25-1,000; \$2.50-5,000 lots; from certified seed, \$3.50-1,000. Postpaid. Rollie Clemence, Abilene, Kan.

RECLEANED, SOURLESS, YELLOW AND Coleman's Orange, also Red Top (Sumac) cane seed 2 1/2 c. Black Hull White Kafir, yellow Milo, Shrook and Darso 2 1/2 c. German Millet 2 1/2 and 3c. White Sweet Clover 5c, scarified 8c per pound. Jute bags 20c. Seamless bags 40c. The L. C. Adam Merc. Co., Cedar Vale, Kan.

SEEDS, PLANTS AND NURSERY STOCK

SWEET POTATO PLANTS, RED BER- muda, Southern Queen, Nancy Hall, Porto Rico, Golden Glow, Big Stem Jersey, Yellow Jersey, seed treated for diseases. 100-50c; 1000-\$3.25; 5000-\$12.50, postpaid. Hardy Garten Truck Farm, Rt. 4, Abilene, Kan.

PLANTS, HARDY FIELD GROWN, packed moss to roots, live delivery guaranteed. Cabbage and tomatoes, all varieties, 100-40c; 300-75c; 1,000-\$1.75. Peppers and Egg Plants, 100-50c; 300-90c; 1,000-\$2.75. Dozen peppers free with each order. All postpaid. Randle Riddle, Mt. Pleasant, Tex.

BEST PLANTS THAT GROW. MILLIONS of plants, Sweet Potatoes, Tomatoes, Cabbage, Cauliflower, Peppers, Eggplants, Celery, Tobacco, and many free novelties. Varieties too numerous to mention here. Write for wholesale and retail price list. Satisfied customers everywhere. C. R. Goerke, Sterling, Kan.

TOMATO AND CABBAGE PLANTS 50 day, Earliana, Chaulk Early Jewel, Bonny Best, John Bear, Red Head, New Stone, Ponderosa tree Tomatoes. Cabbage—Early Jersey, Copenhagen Market, 100-75c; 300-\$1.50; 1,000-\$4.00. Postpaid. Hardy Garten Truck Farm, Rt. 4, Abilene, Kan.

ALFALFA, \$6.50; RED CLOVER, \$12; White Scarified Sweet Clover, \$3.90; Timothy, \$2; Cane Seed, \$1.25; Soy Beans, \$2.50; Seed Corn, \$2.50; Sudan Grass, \$2.25; all per bushel. Bags free. Tests about 96% pure. Send for samples and Special Price List. Standard Seed Company, 19 East Fifth Street, Kansas City, Mo.

NANCY HALL AND PORTO RICAN POTA- to plants from federal, state inspected seed; tough, hardy, field grown; begin shipping about May 1; 500-\$1.30; 1000-\$2.25; 5000-\$10; 10,000-\$19; larger lots, \$1.75 per 1000; postpaid; mail check, if most convenient; cabbage and tomato plants same price. A. I. Stiles, Rush Springs, Okla.

PLANTS, EARLY WAKEFIELD, GOLDEN Acre, Copenhagen, Danish Ballhead and Premium Late Flat Dutch Cabbage; Baltimore early large red heavy bearing tomato, White Bermuda onion. 500, 75c; 1,000, \$1.25; 5,000, \$5.00. Assorted as wanted. Large high quality plants. Carefully crated. Prompt shipment. Good condition arrival guaranteed. A. E. Reinhardt, Ashburn, Georgia.

TOMATO, CABBAGE, PEPPER, POTATO plants. Millions ready. Field grown. Roots mossed. Tomato or Cabbage, all varieties, 300-75c; 500, \$1.00; 1,000-\$1.75. 25 peppers free with each order for \$1.00 or more. Pepper plants, 100-50c; 500-\$1.50; 1,000-\$2.50. Certified Porto Rico Potato plants, 500-\$1.50; 1,000-\$2.50. All postpaid. Culver Plant Co., Mt. Pleasant, Tex.

SWEET POTATO, CABBAGE, TOMATO plants. Open field grown. Carefully packed in damp moss. Guaranteed to arrive in good condition. Sweet potato—Nancy Hall, Porto Rican, Early Triumph, Southern Queen, Cabbage—Wakefield, Copenhagen, Succession, Late Flat Dutch, Tomato—Earliana, Early Jewel, Greater, Baltimore, Stone. Prices all plants or assorted parcel post prepaid. 200-75c; 500-\$1.50; 1000-\$2.75; 5000-\$12.50; 10,000-\$22.50. Ideal Fruit Farm, Stillwell, Okla.

Frost Proof Cabbage

Plants Northern Grown Matures Earliest. 100, 40c; 300, \$1.00; 500, \$1.50; 1,000, \$2.75; 400 onion and 100 cabbage \$1.00; tomatoes, 100-50c; 500-\$2.25; 1000-\$4.00. All prepaid. Tomatoes, celery, cauliflower, flower plants. Free Catalog. Dugmore Bros., Harper, Kan.

MISCELLANEOUS

LIBERAL RELIGIOUS LITERATURE Free. Address 914 Topeka Blvd., Topeka, Kan.

200 LETTERSHEETS, 100 ENVELOPES, \$1.00 postpaid. Graham Printing Co., 388, Colorado Springs, Colo.

LIVESTOCK

HORSES AND JACKS

FISTULA HORSES CURED \$5. PAY WHEN well. Chemist, Barnes, Kan.

TWENTY REGISTERED BLACK PERCH- eron stallions, \$200.00 to \$750.00. Fred Chandler, Chariton, Iowa.

CATTLE

FOR GUERNSEY DAIRY HEIFER CALVES, write L. Terwilliger, Wauwatosa, Wis.

FOR GUERNSEY OR HOLSTEIN CALVES, write Edgewood Farms, Whitewater, Wis.

REGISTERED JERSEY COW FOUR YEARS old, has Testing Association record. Priced hundred sixty dollars. Shadow Lawn Farm, Clay Center, Kan.

HOGS

CHESTER WHITE FALL BOARS, SPRING pigs, bred sows, Arthur Hammond, Vinland, Kan.

LENGTHY, HEAVY BONED CHESTER White fall boars immune. Henry Murr, Tonganoxie, Kan.

O. I. C. AND CHESTER WHITE PED- gree pigs, \$20 per pair, no kin. Write for circular. Raymond Ruebush, Sciota, Ill.

FOR SALE—REGISTERED CHESTER White boar, eighteen months old. Booking orders for April pigs. Delmer Boss, Grinnell, Kan.

SHEEP AND GOATS

MILK GOAT NANNY KIDS, PRICE \$15.00. Floyd Taylor, Peabody, Kan.

Those Livestock Remedies!

BY A. E. LANGWORTHY
State Board of Agriculture

About 625 remedies for livestock are registered in Kansas. It would seem that from this number of remedies every animal in the state should be well taken care of, not merely the horses, cattle, hogs and poultry, but the dogs and cats as well, for there are registered in the control division of the State Board of Agriculture remedies for dogs and cats, as well as those for the other domestic animals. It is surprising to see how many different ingredients are used in the

manufacture of these remedies. Many of the manufacturers in applying for the registrations of their remedies are particular to give the plain English name of the various ingredients, evidently feeling that they are using such good material in their remedies that they would like to have their customers know just what they are using.

On the other hand, some manufacturers apparently want to use names that are not in common use. Many of them appear to think that they have hit on a combination of drugs that will do things that have never been done before, and that they must keep the names of these drugs a profound secret, presumably to prevent some competitor from making as much money out of it as they are making, but it seems to us sometimes as if they were afraid to let their customers know what common, everyday stuff they do actually use in their remedies.

The livestock remedy law provides that the English name of each ingredient used in the manufacture of a livestock remedy must be given on the label on the package of each livestock remedy sold in this state, but does not require that the proportion or percentage of each ingredient be given, only that when certain very active medicines are used, the actual percentage of each must be shown in the label on the package, and that when such substances as charcoal, common salt, cornmeal, screenings, shorts, sulfur and water are used in a livestock remedy for increasing the bulk or weight, the maximum percentage of such substances must be stated in the label on each package. It is this provision of the law that many manufacturers try so hard to avoid complying with. As the purpose of the law is, in part, to inform the purchaser of a livestock remedy as to what the remedy he is buying is composed of, the control division of the State Board of Agriculture is ever on the watch to prevent the evasion of the law in this particular.

When an application for the registration of a livestock remedy is presented to the control division in due form, it must be accepted; therefore, the fact that any given remedy is registered should not be taken as evidence that it has the endorsement of the state. The state does not endorse any livestock remedy. If someone should apply, in due form, for the registration of a mixture of salt and water as a livestock remedy, the application would have to be accepted, therefore, those who buy livestock remedies should read the list of ingredients shown in the label very carefully, and absolutely refuse to buy any livestock remedy that does not have the list of ingredients on the outside of the package in plain sight. When the list of ingredients of a remedy shows that it is composed of a large amount of any of the materials classed as fillers, such as salt, charcoal, cornmeal, screenings, shorts, sulfur or water, particular attention should be given to the amount or percentage of this material. For instance, if a remedy has, we will say 30 per cent of common salt, 40 per cent of shorts and 25 per cent of cornmeal, it is evident that there is only 5 per cent of real medicine in the mixture. Then the question is, do you want to pay the price charged for that amount of medicine?

Many of the agents selling livestock remedies are such smooth talkers that they will talk you into saying "All right," and before you realize it you have signed a contract to purchase a large amount of stuff that you may not really need.

One good thing about these livestock remedies is the directions which practically all of them give for the care of your stock, and, after all, it is the care you give your stock that really counts. No matter what remedy you use, or how good it is, your stock will not do well if it does not have proper care, plenty of clean, wholesome food and pure water.

There is a definite correlation between scholarship and success later in life. Careful surveys show that the good student, the one who has learned to apply his mental powers to a job at school or college, has a far greater chance for the prizes of the world later on.

Iron was discovered by the Hittites along the shores of the Black Sea, and a new age was born—the age of iron. We are still in that age.

The Real Estate Market Place

RATES—50c an Agate Line
(undisplayed ads also accepted
at 10c a word)

There are five other Copper Publications which
reach 1,446,847 Families. All widely used for
Real Estate Advertising
Write For Rates and Information

ARKANSAS

STOCK RANCH for sale. 100 head cattle, 100 head hogs. \$5000. L. Ward, Gillham, Ark.
SPECIAL: 80 acre farm, 40 acres cult., house, spring. Price \$1250. Terms. Have other farms, big list free. Ward, the land man, Mountain Home, Arkansas.
NICE 160. Priced only \$800. Easy terms. Partly improved. Highway location. Fruit. Spring. Abundance timber. Healthy climate. Other bargains. Wilks, Mtn. Home, Ark.
90 ACRES, 2 miles Springdale, 40 commercial bearing apples, 17 grapes, 8 room residence, barn and packing sheds, \$14,000. Half cash. Fayetteville Realty Co., Fayetteville, Arkansas.

COLORADO

\$720 CASH, \$1,200 mortgage buys 640 acres improved foreclosed ranch, Pueblo, Colo. S. Brown, Florence, Colo.
CAN NOW quote some very low prices on Colorado land. Crops good, demand increasing and prices bound to advance after harvest. Gust Westman, Flagler, Colo.
KIOWA COUNTY, Colorado; Square section near Eads, county seat; choice, no buildings, 200 cult. Real corn, wheat land; \$20,000; mortgage, \$3,500; trade equity for merchandise, Missouri land or income. O. E. Brown & Sons, Liberal, Kansas.

KANSAS

SPLENDID small stock farm, 320 acres, smooth, level, wheat and corn land. T. V. Lowe, Goodland, Kansas.
80 A. 4 mi. town. 90% tillable. Neat improvements. \$6000. \$1500 cash. Bal. 5%. Rosford Inv. Co., Lawrence, Kan.
BUY good wheat and corn land while cheap. Cannot stay cheap much longer. Bailey Land & Investments, Syracuse, Kan.
ALFALFA and potato land. Reliable farmers furnished entire purchase price. Also farms near K. U. O. H. Cooper, Lawrence, Kan.
154 ACRES, adjoining town. One half bottom. Modern improvements. Special price, easy terms. Write for description. Mansfield Land Co., Ottawa, Kan.
1400 ACRES, 12 miles Spearville, 900 A. cultivated, 550 acres in wheat, living water, fenced and cross fenced, two sets good improvements, 25% cash balance to suit. \$56 per acre. Box 277, Spearville, Kan.
WHEAT AND ROW CROP FARMS—in the rapidly developing Southwest. Abundant moisture growing wheat, prices advancing. Buy now. Write for booklet. B. & B. Realty Co., Copeland, Kan.
HARDWARE and Bldgs., E. Kansas, \$20,000. Want farm, E. Kansas or E. Colo. 230 A. E. Kan., well imp., 4 mi. good town, \$20,000; want clear Kan. or Colo. for equity; mtg. \$6,500. James Wilkins, Walnut, Kansas.
240 ACRES pasture, new fence, 4 live springs 10 miles northwest of Topeka. 60 acres good corn ground, 11 miles northwest of Topeka. 15 acres adjoining North Topeka, Kansas. Ideal layout for chickens, hogs or for raising plants and garden truck. D. V. Elmore, 845 N. Kansas Ave., Topeka, Kan.

Grain and Stock Farm

431 A., one of the best to be found anywhere. 221 A. Wheat, Corn and Alfalfa Soil, never failed us. 210 A. Bottom Grass; Ideal Cedar Windbreaks for Cattle. Water in all pastures; 10 A. Timber and Posts. 1 mi. of Town; High School; Churches; Elevators and Depot. 6 mi. to paved road; 27 mi. to Hutchinson. Big improvements; easily financed, \$100 per A. \$10,000 will handle. Would consider trade near Pratt farm. J. C. Banbury, Pratt, Kan.

MONTANA

SWITZERLAND OF AMERICA. Beautiful, immensely fertile valley near Glacier Park. Ideal climate, plenty sunshine, just enough moisture. Crop and bank failures unknown. Soil, climate, markets force success upon dairy farmers. Abundance alfalfa, clovers, peas, grain, corn, potatoes, apples, berries, pears, cherries, of premium quality. Information free. Mountain Valley Land Co., Kallispell, Mont.

MISSOURI

80 ACRES \$1,250. House, barn, other improvements. Free list. A. A. Adams, Ava, Mo.
HEART OF THE OZARKS. Ideal dairy, fruit, poultry farms. Big list. Galloway & Baker, Cassville, Mo.

SOUTH MISSOURI OZARKS Ranches and Farms any size. Tell us what you want. Thayer Real Estate Co., Thayer, Mo.
LAND SALE. \$5 down \$5 monthly buys 40 acres. Southern Missouri. Price \$200. Send for list. Box 22-A, Kirkwood, Mo.

POOR MAN'S CHANCE—\$5 down, \$5 monthly buys forty acres grain, fruit, poultry land, some timber, near town, price \$200. Other bargains. Box 425-O, Carthage Mo.

OKLAHOMA

TEXAS CO. leads, wheat, corn and milo maize. Improved and raw land, \$15 per A. up. Wm. Davis, Goodwell, Okla.

COME to Eastern Oklahoma. We have bargains in improved farms of all sizes, adapted for grain, stock and poultry raising, dairying and fruit growing. Excellent markets, good school and church facilities in an all year climate that makes life worth living. Write today for free literature and price list. National Colonization Co., Room 123, 14 E. 3rd St., Tulsa, Okla.

OKLAHOMA

OKLAHOMA

I have four choice farms for sale in Craig County, North Eastern Oklahoma.
70 acres, 3 miles from town. 40 cultivated, balance meadow. Fenced with woven wire, 3 barb wires above. No buildings. School house across road. A fine fertile tract. Special terms to responsible man who will build on and occupy this land.

180 acres 8 miles from Vinita. 1/4 mile to good school, 1 mile to hard surface highway. Good new 4 room frame house, new barn. Well fenced and cross fenced. 100 acres cultivated. 60 acres choice hay meadow, balance pasture with never failing stream and some fine timber. Good neighborhood.

250 acres, a high class valley farm 3 1/2 miles from town. One of the most consistent corn and small grain farms in the county. 200 acres in cultivation, balance in meadow and pasture with never failing stream, some timber, all well fenced, good one story frame house, good out buildings. This farm will appeal to a tractor farmer who wishes also to run cattle and hogs.

40 acres 3 miles from town, 1 mile to school; 39 acres in cultivation, all good, level, well drained land, small improvements, good neighbors.

All the above farms are bargains and will be sold on easy terms to industrious families who will locate on them. No traders or speculators need apply. If interested write me for further details.

HOWARD WARNER,
General Delivery, Vinita, Oklahoma.

TEXAS

PRICED RIGHT—Orange groves and farms. Trades. B. R. Guess, Weslaco, Texas.

LOWER RIO GRANDE VALLEY Lands and Groves for sale or trade. Write Davis Realty Co., Donna, Texas.

RIO GRANDE VALLEY land at actual value. Owners price direct to you. Roberts Realty Co., Realtors, Weslaco, Texas.

TEXAS PANHANDLE most productive corn and wheat land, \$15 to \$25 per A. Small cash pmt. J. N. Cole, Box 212, Dalhart, Tex.

20 ACRES Rio Grande Valley in grape fruit. On main highway. Will sell all or part. C. B. Borah, Owner, Edinburg, Texas.
JAMES RANCH, containing 65,000 acres corn and wheat land, for sale. Any sized tracts. 1/4 cash; balance 2 to 9 years, 6%. Write for information and booklet. W. H. Latham, Realtor, Dalhart, Texas.

WASHINGTON

DAIRYMEN'S PARADISE, 50,000 acres out-over land in Stevens County, Wash. Colville valley district, 40 miles north of Spokane, 3 to 4 tons of alfalfa per acre, 2 or 3 cuttings. Abundance of free range for dry stock. Deep sub-irrigated soil. Rural milk routes on macadamized highways. Creameries and buying agencies in all towns. Average price \$15 per acre. 12 years to pay. Interest at 10% down. Loans made for buildings, fencing, etc. Stevens County Investment Co., 311 Symons Bldg, Spokane, Wash.

FARMS FOR SALE

OWN A FARM in Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature; mention state. H. W. Byerly, 81 Northern Pacific Bldg., St. Paul, Minnesota.

SALE OR EXCHANGE

FARM EQUITIES for clear property or sale. Bersie Agency, El Dorado, Kan.

GOOD equity in 165 A. farm, Marion County, Mo. Address Geo. H. Glason, Palmyra, Mo.

BARGAINS—East Kan., West Mo. Farms—Sale or exchg. Sewell Land Co., Garnett, Kan.

ANYBODY wanting to **BUY, SELL, TRADE**, no matter where located write for DeBey's Real Estate Adv. Bulletin, Logan, Kansas.

MISCELLANEOUS LAND

ATTENTION, Farm Buyers, anywhere. Deal direct with owners. List of farm bargains free. E. Gross, North Topeka, Kan.

FREE CATALOG farm bargains, good Ozark sections; at page 9 see 160 acres on fishing stream, \$450. King Realty Sales Co., Ozark Bldg., Fayetteville, Ark.

LAND OPENING

New 75 mile branch to be built this year in Montana, opens 1,500,000 acres good farm land. Profitable for wheat, cattle, sheep, hogs. Send for free new line book, also free books on Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low Homeseekers Excursion Rates.

E. C. LEEDY
Dept. 600. St. Paul, Minn.

REAL ESTATE WANTED

FARM OWNERS compelled to sell anywhere write Farmers Co-operative Land Exchange, Wichita, Kan., for our Co-op. Plan.

SELL YOUR PROPERTY QUICKLY for cash, no matter where located. Particulars free. Real Estate Salesman Co., 515 Brownell, Lincoln, Nebraska.

squashes. In many instances the yield was from one-and-a-half to three times as great as from unmulched crops. The results of the experimental work are presented in Technical Bulletin 75-T, "Crop-Plant Stimulation with Paper Mulch," just published. It may be obtained free by writing to the United States Department of Agriculture, Washington, D. C.

Profit in Pig Life Assurance

(Continued from Page 3)

what he did save, induced E. A. Elliott, also of Washington county, to adopt worm-free methods. He is the first man to build and use the Washington County Utility Farrowing House, which features the straw-loft in both the shed and "A" type movable houses. Very likely you read about the straw-loft feature in the February 25 issue of Kansas Farmer. Mr. Elliott has, this spring, an average of 7 1/4 pigs from five sows which he is raising under the new system as against three to the litter under the old system. Since Mr. Elliott built the first straw-loft house, 20 others have been built in the county and put into use. The Washington county program, by the way, is stressing brood sow management before farrowing, and balanced rations self-fed with the pigs for economical production. "One of the most important sanitary and feed-saving measures," Mr. Elliott remarks, "is my 32 by 50-foot concrete feeding floor. I have used it for 12 years."

Save Two Months' Feeding

What is the situation in Atchison county? "Some wonderful results," County Agent J. M. Goodwin assures. "Men in this county who are practicing the McLean County system usually average more than eight pigs to the litter saved. It takes two months less time to put the pigs on the market at 250 pounds. That will give some idea about the feed saved, as well as the amount of time. This change also has improved the rotation on the farm. Most of the farmers figure that two years is all the longer they can have a legume and run hogs on it and they are rotating after that manner."

Mr. Goodwin mentioned that Rolly Freeland, in his county, had discovered some difference between wormy and worm-free litters. "In 1923," he recalled, "Mr. Freeland's hogs had everything that might be visited on a bunch of swine except good health. In the spring of 1924 he started the McLean County system, and in 1926 he sold the highest-priced boar pig for the year in the state."

But let us talk to Mr. Freeland, as Goodwin suggested. "I have been using the McLean County system of sanitation with my purebred Duroc Jersey hogs for the last five years," Freeland explains, "and I consider it the only way I can successfully raise hogs. In fact, it has changed failure to success for me."

"My sows farrow in March when the weather is cold and bad, as a rule. I put them in the central farrowing house, which I thoroughly scrubbed and cleaned with boiling lye water. Before putting a sow in the clean house I thoroughly wash her with warm soapsuds water, so she will not carry any worm eggs or germs with her."

Gives Pigs a Ride

"When the pigs are about 2 weeks old, weather being favorable, I load the sow and pigs on a sled and haul them out to new ground, where each sow is provided with an individual house and pasture. These houses, troughs and even the gates are carefully disinfected after each litter has used them and before they are moved to new ground."

"After the pigs are 4 months old it isn't necessary to be quite so particular, as worms will not do them so much harm after that. Using this system naturally necessitates considerable crop rotation, which, of course, is beneficial. I use alfalfa mostly for my hog pastures."

Earl Means, Atchison county, once envied the farmers who had tight, warm farrowing houses. That was while he was trying to get on with two central farrowing houses that had been used for 20 years—dirt floors, leaky roofs and freezing cold. Means knew he couldn't get along that way. He attempted to remedy matters by putting in board floors and patching the holes. It didn't work.

"I now have a system that does work, tho," he assured. "I have 10 'A' houses, which I line up in a row side by side, with an individual pen 7 by 10 feet, made of gates, in front of each house. During the winter and for spring farrowing, posts and gates are put up about 2 feet back of the row of houses, and 2 feet out from each end of the row of houses, and straw is filled in and covered over the top of the houses. Pigs then can be farrowed in zero weather. Floors are made to fit in each house and a lantern hung inside on real cold nights will raise the temperature as much as 20 degrees. I think my system is good from the standpoint of warmth, ease of feeding and watering and economy of equipment. It does make it necessary to change ground more often than ordinary, for when a crop is pastured by hogs for a year it almost is necessary to plow it up."

Coffey, Osage, Jewell, Allen, Pawnee, Lyon, Shawnee, Reno, Sherman and Harper counties all have reaped genuine benefit from cleaning up for the pigs. The county agents find their co-operators have saved feed, raised more pigs to the litter, sold hogs on the market earlier and improved their farms because they have fortified their swine herds against worms and disease.

Labor Well Worth While

O. L. Myers, Jewell county, saves 25 per cent more pigs and cuts the feed bill to three-fourths of what he had been using. The extra amount of labor is well worth while, he asserts. And Charles Kiser, of the same county has had similar results. "I haven't lost a single pig after two weeks' since I cleaned up. I save one-fourth of the feed bill, get hogs on the market earlier and follow a better system of crop rotation."

W. H. Ling, Allen county, wouldn't try hogs under unsanitary conditions. He uses a central farrowing house with concrete floor, having individual pens outside for each sow. Scalding lye water and disinfectants are used liberally. Pens are cleaned out every two or three days while the pigs are shut up. At 2 weeks old they go on clean ground and on pasture as soon as it will do. He uses oats, rye, Sudan grass and alfalfa for pasture.

Near Bronson, B. F. Low has adopted the habit of cleaning up things for his hogs. Spraying, cement feeding floors, and self-feeders have made a big hit with him. He has used this care with hogs he has been fattening and expects to treat his stockers after the same manner. He has stationary and individual farrowing houses, but prefers the latter by far. "Fewer worms and a thrifter herd result since we made the extra effort," he says.

Hogs respond to sanitation regardless of location. Out at Larned, where County Agent A. C. Hoffman assures that hogs are a side-line to wheat farming, hogs pay extra if they can start off without a handicap. "There is no doubt that the men using the McLean system have been able to save more pigs to the litter, and especially to save feed after the pigs are weaned," Hoffman said. "Hogs go on the market sooner, too."

R. H. Rexroad, Reno county, started using individual houses and clean ground, and saved more pigs worm-free. Grover Wickham, also Reno county, had two sows farrow in the old way in the barn, while two other sows farrowed in individual houses on new alfalfa ground. Just ordinary hogs came out of the barn-farrowed litters. Mr. Wickham picked gilts from the clean-ground litters which he showed at the Topeka and Hutchinson state fairs and took first and second at both places in the Spotted Poland China classes.

More Pork in Less Time

Sherman county also is Western Kansas. "I know that worms in hogs are the biggest obstacle to successful hog production in Sherman county," said Milton Parish, recently. He grows out a good number of hogs every year. He has a large concrete floor farrowing house and uses Sweet clover pasture. "Last year I had one more sow than I had room for," he said, "so I placed her in a small new lot in an individual house. This lot never had been used before. When I sold the hogs, those from the single litter on new ground averaged 300 pounds and those from the other litters averaged 225 pounds. Another difference in these

Tells of Paper Mulch

Paper of the type used as a mulch in pineapple production in Hawaii has been found to be applicable also to a wide variety of crop plants in the United States, according to Dr. L. H. Flint, physiologist of the United States

Department of Agriculture, who has recently completed four years' study of the possibilities of paper mulch and its effect on plant growth. Increased yield and growth have been secured by the use of impervious paper mulch with such common garden crops as corn, beets, carrots, green beans and

hogs was that the pigs grown on absolutely new ground were 30 days younger than the pigs that used the old hog lots. Seventy-five pounds more pork in 30 days' less time certainly is a big argument in favor of worm control in hogs."

Fred Dusenbury, Harper county, kept two separate litters of pigs; one under the McLean system and the other as he always had run them. Due to lack of feed he was obliged to sell them at 4 months old. The worm-free litter of 11 head at 4 months and 3 days weighed 1,320 pounds. The 15 other pigs raised on the old ground, weighed 1,430 at 4 months old. That is a difference of 84 pounds to the pig in favor of the McLean County system.

Another instance in which cleanliness paid a cash return occurred in the same county. "I sold my hogs at Wichita," U. H. Hostetler said. "They weighed 1,760 pounds, or an average of 151½ pounds. There were seven pigs in the litter, age 180 days. One pig less than a ton. They brought packer top of \$13.80. Expenses, including feed between breeding and farrowing, dam's feed while suckling the pigs, feed for the pigs, breeding fee and marketing, totaled \$139.73. The hogs brought \$240.08, leaving a profit of \$100.35. The average daily gain was 1.4 pounds, but I believe I can beat that," Mr. Hostetler concluded.

How Do You Wean Pigs?

BY PHILIP ACKERMAN

Pigs can't live on milk all their lives. Besides you want your pigs to outgrow their baby stage. Most Kansas hog raisers wean the pigs at 8 weeks, and raise two litters a year. These big fellows that have depended on the sow for their dinners, must learn to get out and rustle for themselves. That is what every pig must do, if ever it is to grow into a respected porker.

However, if the pigs sleep with the mother and one makes a stir in the night, they all awake and want to eat. So, why not fix a separate bed for the pigs in another pen just outside the sow's pen? Provide a better bed for the pigs than you do for the sow, and the pigs will take the best bed. The sow's nest may be made so small that the pigs do not have room with her. The pigs go to their bed thru a creep in the door. Of course, they wake up in the night just the same, but the sow is not so handy so they do not go to her to nurse. This gives her a longer stretch of time without their nursing, and that dries her up quickly.

At the same time feeds that produce milk, such as grain, shorts and skim-milk are fed to the sow sparingly, to decrease the flow of milk. She is given all the alfalfa she will take so she will not feel hungry. After four or five days the pigs voluntarily stop nursing. When the milk is all gone, it is all gone, that's all. You can't fool a pig.

It is good for the sow to use this method of weaning pigs. A heavy milk-er particularly has some fever and is thrown into more or less discomfort, if not real sickness, by sudden pig weaning. By this plan the pigs dry up the sow gradually, save her discomfort and learn to depend on trough feeding. It is the natural way and it works well.

The hot, summer months are favorable for mite infestations. Unless the few that may be on hand now are destroyed, their broods will be "thicker than the hair on a dog's back," in June. The damage done by mites is considerable. Chicks do not make best gains when they are pestered by hundreds of creepy, crawly things in their feathers. If you have been in a coop where mites were plentiful, and experienced the discomfort of having them crawl on you, the aggravation to chickens can well be imagined. Besides mites suck blood. They drive sitting hens from their nests.

But you do not have to put up with their annoyance. Crude oil painted on the roosts will get those present. Nesting material can be burned, walls whitewashed, and dropping boards and floors cleaned and sprayed. Stock dips, worn crank-case oil mixed with kerosene, and other petroleum and coal tar products can be used to control mites. Do not depend on one cleaning and spraying to do the work. Eggs of mites will hatch. Two or three sprayings are necessary, these to be made a week apart.

The successful club member will not let mites take their toll from his flock this year. He will guard against a summer pestilence of these red mischief makers by control measures.

Victory in T. B. Work?

Returns and rewards of the campaign for tuberculosis eradication in the beef and dairy herds of the country are now being received in visible form, Dr. A. E. Wight, who is in charge of the work for the United States Department of Agriculture, told the members of the Fourth Annual Midwestern States Tuberculosis Conference meeting in Sioux City recently. One of the most tangible benefits is evident, the speaker said, in the premiums paid by the packers to producers of hogs in modified accredited areas.

Retentions of cattle and hogs for tuberculosis at the packing centers is showing a decided reduction, an encouraging indication, Doctor Wight said, that the disease is being reduced.

A fourth survey of the country, recently completed, indicates that bovine tuberculosis now affects only about 2 per cent of the animals, as against 4 per cent at the time of the first survey in 1922. "A study of the map prepared to show the degree of infection in the various counties," Doctor Wight pointed out, "indicates that this disease does not exist to any great extent except in comparatively few counties. There are 69 counties in the United States in which the degree of infection is estimated to be more than 15 per cent. In these 69 counties there are approximately 1,690,000 cattle, and it will readily be seen that this is a small part of the total cattle population. In the section of the country where the disease is estimated to exist to a degree of more than 7 per cent, but not more than 15 per cent, there are 70 counties having a total cattle population of approximately 1,771,000. It is in these localities where the disease exists to more than 7 per cent that the losses and expenses incidental to carrying on the campaign are great."

For the seven states whose tuberculosis eradication have assembled in Sioux City the record is more cheerful. Only 43 counties out of 620 have infections of more than 3 per cent, and only a single county is more than 7 per cent infected with bovine tuberculosis. "These facts," Doctor Wight emphasized, "should serve as incentives to complete the work in this territory at the earliest possible date." The seven states are Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas and Nebraska.

For the success of the tuberculosis eradication campaign, Doctor Wight gave great credit to the press, daily and agricultural. "To the best of my knowledge," he said, "practically every periodical devoted to the interest of the farmer and livestock owner fully endorses the methods and importance of the work. The radio also has been helpful."

Other agencies working for non-tuberculous livestock are the packers, with their 10 cents a hundredweight premium for hogs from clean areas, the health officials of many cities, who have forced the testing of dairy cattle in their "milk sheds" by refusing to allow the sale of milk from untested cows, the co-operative effort of the states and the Federal Government in providing funds for testing and compensation for owners of infected animals, and the field forces and veterinarians engaged in the work.

Until 1919, Doctor Wight recalled to his audience, there was no federal prohibition of interstate shipments of tuberculous cattle. In the last six months of 1927 about 262,000 cattle, mostly dairy cattle, were moved interstate after passing a successful tuberculin test. The test, however, detected 1,600 reactors, and these were prevented from moving interstate to mingle with healthy cattle.

Last year state appropriations for tuberculosis eradication, including county funds, amounted to 14 million dollars, and for the next fiscal year the Federal Government has appropriated about 6 million dollars.

"There is now a feeling of assured success among those who are identified with the campaign, altho opposition is still prevalent in some localities," the speaker said. "This opposition," he warned his audience, "is better organized than in previous years, and, therefore, more effective. How-

ever, it has not curtailed the work to any great extent, but has, nevertheless, been a source of much annoyance, and has considerably delayed the progress of the work in a few sections. I am sure you will agree with me when I say that the results thus far and the prospects of future accomplishments make the effort worth while."

In explaining opposition, Dr. Wight said, "Anyone familiar with the control and eradication of diseases of livestock knows that any unfavorable result, even tho of a small nature, sometimes attracts much more attention than a much greater amount of successful accomplishment. We must keep in mind the all important question of conducting this work in the best manner possible."

Dr. Wight also discussed briefly the work of tuberculosis eradication among poultry flocks, which is in itself a frequent cause of tuberculosis of hogs. A plan is being worked out for a limited testing of flocks, probably thru testing a few old hens which should serve to give a good indication of the probable infection or freedom from disease of the flocks. In the Midwestern states, Dr. Wight said, poultry owners have co-operated with the tuberculosis experts, and many flocks have been managed according to the advice of the veterinarians who tested the herds of cattle. The annual poultry and egg crop of the seven Midwestern states represents a value of more than 260 million dollars, he told his hearers, and "this could be materially increased if avian tuberculosis were eradicated."

And Then the Lunch

"Now, Miss Blogg," boomed Jasper M. Whurtle, president of the Whurtle Whirlwind Laundry Co., to his new stenographer, "I want you to understand that when I dictate a letter I want it written as dictated, and not the way you think it should be. Understand?"

"Yes, sir," said Miss Blogg meekly. "I fired three stenogs for revising my letters, see?"

"Yes, sir."

"All right—take a letter."

The next morning Mr. O. J. Squizz, of the Squizz Flexible Soap Company, received the following:

"Mr. O. K. or A. or J. something, look it up, Squizz,

"President of the Squizz what a name Flexible Soap Co., the gyps, "Detroit, that's in Michigan, isn't it? "Dear Mr. Squizz, hmmm:

"You're a h— of a business man. No, start over. He's a crook, but I can't insult him or the bum'll sue me. The last shipment of soap you sent us was of inferior quality and I want you to understand, no scratch out I want you to understand. Ah, unless you can ship, furnish, ship, no furnish us with your regular soap you needn't ship us no more period or whatever the grammar is and please pull down your skirt. This d— cigar is out again pardon me and furthermore where was I?"

"Paragraph. The soap you sent us wasn't fit to wash the dishes no make that dog with comma let alone the laundry comma and we're sending it back period. Yours truly. Read that over, no never mind, I won't waste any more time on that egg. I'll look at the carbon tomorrow. Sign my name. We must go out to lunch soon, eh?"

Baffled Ambition

Janet—"I went to the doctor again today and he said they wouldn't have to operate after all."

Jeanette—"What a pity, my dear. I'm so sorry."

Public Sales of Livestock

Jersey Cattle

June 18, Lester H. Glover, Liberty, Mo.

LIVESTOCK NEWS

By Jesse R. Johnson
463 West 9th St., Wichita, Kan.

I have just received a very interesting letter from A. H. Knoepfel, the Jersey specialist, of Colony. Among other statements in the letter is the following. "The advertising recently run in Kansas Farmer brought splendid inquiry. I sold seven head; still have a few under a year for sale."

The Otto B. Wenrich Shorthorn dispersion sale held at Oxford was the best Shorthorn sale that has been held in the Southwest since the high price period just before and during the World war. Good healthy values prevailed all thru the sale. The buying, however, was conservative and careful. But the demand for good Short-

horns was very apparent. The good cows sold readily at from \$200 to \$250 and young females as high as \$150. According to their relative value, the following are the winners of the sale: A. H. Knoepfel, of Winfield bought a Jersey cow Nonpareils, roan Lady with a bull calf at foot by Collynie Augusta and rebred for \$252.50. Ben Stewart of Talmadge was a good buyer. C. P. Hanegan of Wellington, Ed Stunkel, Reck, J. A. Ramsey, South Haven, J. Marland and John Boyd both of Arkansas City, were good buyers of females. Cloverdale Collynie the yearling herd bull, went to Lester Crum of Anthony for \$200, and Mr. Lotebaum of Mayfield paid the same price for Crowned Victor, the mature herd bull. Boyd Newcom did the selling, assisted by Charles Cole of Wellington.

LIVESTOCK NEWS

By J. W. Johnson
Capper Farm Press, Topeka, Kan.

The cash premiums for dairy and beef cattle at the Iowa state fair this season will be more than \$35,000 and the officers of the state fair association are expecting that this year's fair will be one of the best in a number of years.

North central and Northwest Kansas have been having plenty of rain this spring and there never was a better prospect for wheat except a few places in the extreme west end and there they are planting it to corn. There are a number of counties in Northwest Kansas where more hogs are raised than in eastern counties and dairying is becoming quite an industry in Northwest Kansas.

Holstein affairs are on the up-grade in Kansas right now and several sectional or county Holstein organizations have already been organized this spring and the state association is co-operating with the new Holstein fieldman and every breeder in the state should be a member. At the annual meeting at Manhattan last winter the dues for the state association were fixed at \$5 for members with less than 20 pure bred and \$10 for members with more than 20 pure bred.

DUBOC HOGS

THIRTY CHOICE BOARS

ready for service closely related to World's Champion litters for four years. Champion bred over 25 years. For farmers, breeders, commercial pork raisers. Also bred sows and gilts. Shipped on approval. Registered, immuned, photos. W. R. HUSTON, Americus, Kansas.

Duroc Jersey Pigs

February and March pigs. Most up-to-date breeding, at reasonable prices.

G. D. WILLEMS, INMAN, KANSAS

FIFTEEN BIG, HUSKY, tall and yearling boars, best individually and blood at any price. Immune. Reg. Will ship on approval. Write for prices and photos. Quick sale price. G. M. Shepherd, Lyons, Kansas

POLAND CHINA HOGS

Henry's Big Type Polands

Fall gilts, open or bred to order; also boars. Weaned pigs, tricos, not related. JOHN D. HENRY, LECOMPTON, KANSAS

CHESTER WHITE HOGS

A Few Choice Fall Gilts

bred for Sept. farrow and 4 fall boars. Priced to sell. EARL LUGENBEEL, Padonia, Kan.

GUERNSEY CATTLE

Fresh and Springer Cows

Registered and high grade. Heifers to fresher in September. Bulls and heifer calves. Farm four miles east of Topeka on Highway 40. Woodlawn Farm, R. F. D. 27, Topeka, Kan.

JERSEY CATTLE

JERSEY BULLS AND CALVES

Just a few real ones left. Also baby calves. Blood that will improve type and production. Reasonable prices. For better Jerseys see or write A. H. Knoepfel, Colony, Kansas

HOLSTEIN CATTLE

BETTER DAIRY COWS

heifers and baby calves. Un-reg. Holsteins. T. B. tested. 300 to pick from. ED. BROOKINGS, Rt. 6, Wichita, Kansas.

A. R. O. HOLSTEINS

Bulls from cows with official records of 20 to 30 lbs. butter in 7 days. Sired by Dean Colantha Homestead Ormsby, with 10 of his 15 nearest dams averaging over 1,000 lbs. butter in one year. H. A. Dressler, Lebo, Kansas

POLLED HEREFORD CATTLE

Polled Hereford Bulls

From a line of prize winning ancestry. Yearlings and twos. Several outstanding herd bull prospects among them. Visit the herd and see size, bone and quality. GOERNANDT BROS., AURORA, KANSAS

Rate for Display Livestock Advertising in Kansas Farmer

\$7.00 per single column inch each insertion.

Minimum charge per insertion in Livestock Display Advertising columns \$2.50.

Change of copy as desired.

LIVESTOCK DEPARTMENT

Kansas Farmer, Topeka, Kansas

Oil facts for farmers

(No. 2)

Aviators' experience proves more about oil economy in
2 minutes than most salesmen can in 2 hours

Mobiloil was used by:

Col. Lindbergh—New York to Paris; Washington, D. C. to Mexico City and beyond.

Commander Byrd—To the North Pole.

U. S. Army Fliers—Around the World.

Lieut. Maughan—Dawn-to-Dusk across the U. S. A.

Duggan, Olivero & Campanelli—New York to Buenos Aires.

Capt. Stanovsky—From Capital to Capital around Europe.

Lieut. Doolittle—Over the Andes.

Major Dagnaux—Paris to Madagascar.

Major Miller—Around the Union of South Africa.

Kingsford-Smith & Ulm—Around Australia.

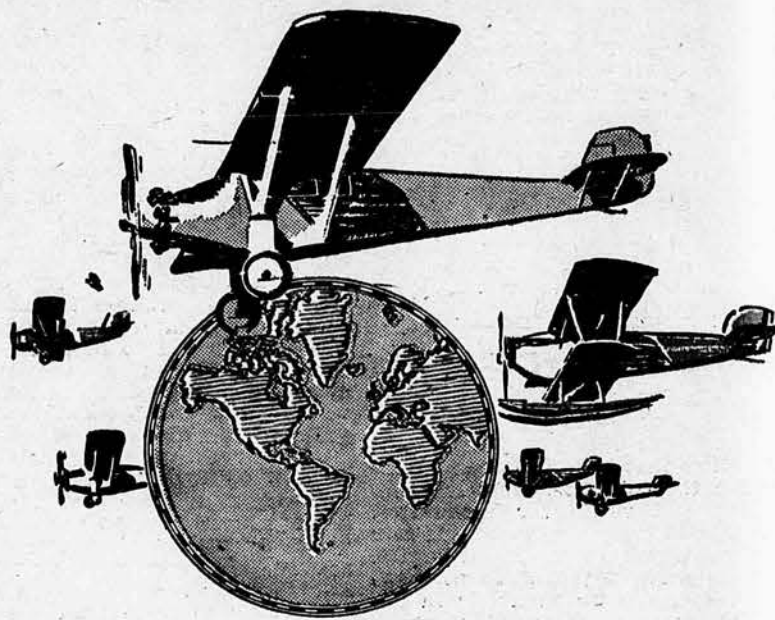
U. S. Army Fliers—San Francisco to Honolulu.

Japanese Fliers—Around Japan.

Col. Skala—Prague to Tokio.

Art Goebel—San Francisco to Honolulu. (Dole Prize winner)

Practically all aircraft manufacturers of importance use Mobiloil in their test and development work.



How Mobiloil quality saves money

Aviators insist on Mobiloil because they can't risk engine failure. Their lives are at stake.

Engine failures in your car, truck or tractor do not threaten you with injuries. But they certainly cost money.

Perhaps Mobiloil costs a few cents more per gallon than you now pay for oil. But one small repair caused by your cheap oil may cost *more* than a whole year's supply of Mobiloil.

In addition, Mobiloil usually shows a reduction of oil consumption of from 15% to 50% in tractor engines, thus saving its *extra* cost in lower consumption alone. The extra protection against repairs and breakdowns *costs you nothing*.

How to buy

Most farmers buy a season's supply of oil at one time. We recommend the 55-gallon or 30-gallon steel drums with faucets. Any nearby Mobiloil dealer will give you a *substantial discount* when you buy one of these.

Other Mobiloil containers are:—10-gallon steel drum with self-contained faucet, 5-gallon cans packed in easy-tipping rack. Also 1-gallon and 1-quart cans.

Your dealer has the complete Mobiloil Chart. It will tell you the correct grade of Mobiloil for your tractor, your truck and your car.

Make this chart your guide

If your car is not listed below see the complete Mobiloil Chart at your dealer's. It recommends the correct grades for all cars, trucks and tractors, etc.

NAMES OF PASSENGER CARS	1928		1927		1926		1925	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick.....	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Cadillac.....	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Chandler Spec. 6-cyl.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" other models	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Chevrolet.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Chrysler 4-cyl.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" Imp. 80.....	BB	Arc.	A	Arc.	A	Arc.	A	Arc.
" other models	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Dodge Bros.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Durant.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Essex.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Ford, Model A.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" Model T.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Franklin.....	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Hudson.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hupmobile.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Nash.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Oakland.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Oldsmobile.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Overland, all models	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Packard.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Paige, all models	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Pontiac.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Reo, all models	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Star.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Studebaker.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Vellie.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Willys-Knight 4-cyl.	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
" 6-cyl.	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.

The correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars are specified above.

GARGOYLE

Mobiloil
The World's Quality Oil

VACUUM OIL COMPANY

Other branches and distributing warehouses throughout the country

New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, St. Louis,
Pittsburgh, Cleveland, Cincinnati, Minneapolis, Kansas City, Dallas