

KANSAS FARMER

For the improvement of the Farm and Home

Volume 57, Number 11. TOPEKA, KANSAS, MARCH 15, 1919. Established 1863. \$1 a Year

Economics of Horse Production

Reducing Production Costs One Way to Increase Profits

REDUCING the cost of production is one of the ways in which profits can be increased. "The watchword in every factory is: Reduce the cost of production without lessening the quality of the article," said Wayne Dinsmore in discussing the future of the draft horse before the State Board of Agriculture convention. "In this we, as farmers and horsemen, have much to learn from manufacturers. A factory in which one-half the lathes stood idle would soon face bankruptcy, yet there are many farms where at least one-half the mares are barren each year, not because they will not breed, but because the owner was too careless or indolent to put them into good breeding condition and to make sure that they conceived. The first step in reducing the cost of production on an individual farm is, therefore, to see that every mare of breeding age brings forth a colt each year.

Save the Colts

"The next step in the factory is to bring the rough product first turned out from forge or foundry through to a marketable point without loss. A factory that broke half its engine castings while they were being machined and finished would soon be ruined; yet on thousands of farms from one-third to one-half the colts that are foaled are lost from navel ill or some other avoidable ailments before reaching maturity. Our second step in reducing the cost of production is therefore to take every human precaution against the loss of colts between birth and maturity. Some loss will inevitably be encountered, for disease sometimes comes in both man and beast that defies all precautions our knowledge can suggest, but the reduction of costs makes it imperative for us, as farmers and horsemen, to learn all we can about preventing these ailments which take such a toll at times from our colts.

Adopt Better Feeding Methods

"The third step in cutting costs is found in the feed problem. This may be likened to the labor problem of the factory. Inefficient labor, or labor improperly co-ordinated, increases factory costs; and poor feeds or a faulty combination of good feedstuffs increases the cost of production in our horses.

"First and foremost in reducing cost of production I would put good pastures. Prof. J. L. Edmonds of the Illinois Experiment Station has a group of pastures that have for the past two years carried an average of one horse per acre the year round. This has reduced the cost of production both by lessening the acreage needed and by reducing the labor required to feed and care for the growing colts. He has built these pastures within ten years from a rough corn field to a point where they cannot be excelled in America; and what he has done any farmer can do, for he has used only common sense, close attention, and fertilizers available to anyone.

"Second only to pasturage, I place the use of roughage in an intelligent way. Our experiment stations have many sins to answer for, but in no one thing have they been more guilty of sins of omission than in studies relating to the best use of economical roughages for growing or maintaining horses. This question, with that of grains, should receive ex-

haustive study from our experiment stations. Only one or two are now at work on these questions, and few have contributed anything of consequence on horse feeding. Horsemen must write to their experiment stations and insist on some worth-while work on these subjects.

"In the meantime we must go to the experience of some of our best horse raisers for light. These men are using a variety of roughage—such as corn fodder in the morning, oat straw at noon, and alfalfa or bright clover hay at night. All roughages used must be free from dust. So far as grains are concerned, there is nothing better than oats, but a combination of grains may often give cheaper production cost without impairing the rate of growth or quality of animal produced. It is here, however, that we need some comprehensive experimental work involving large groups of animals, carried through from birth to maturity, for the specific purpose of ascertaining what grain combinations can be used with cheap roughage without retarding normal growth. I urge you to impress upon your own experiment station the importance of this work, for several years' tests must be ended before any definite conclusions can be drawn. These tests should by all means involve combinations of grains which can be grown on every farm, so that, if possible, rations can be evolved independently of purchased products.

Foreign Demand for Horses

"The demand abroad for horses no man can as yet measure. It was anticipated that there would be an immediate and large demand for our horses in England and France, but letters which I have recently received from men in Great Britain who are especially well qualified to speak with authority indicate that there will be no immediate demand for our commercial horses there. In the first place they are so short on horse forage that ration cards have been issued, and the amount each horse can have is doled out with even greater care than sugar was to human beings. In the second place the British government is now selling 125,000 horses from the army in Great Britain, and will, it is estimated, sell half a million more within the next eight months. The London Times on December 11, 1918, quotes Sir William Birkbeck, director general of remounts, as having estimated in a speech made December 10, 1918, that the number of horses eventually to be

released from the British armies would be not less than three-quarters of a million. General Birkbeck also proved by the exact records of the army that the percentage of wastage among army horses, even allowing for war losses, was considerably less than that experienced by ordinary commercial firms in Great Britain before the war. Brood mares released from the army are to be sold to British farmers, but the government retains a lien on the progeny up to three and one-half years of age at \$250 per head.

"The number France will demobilize is estimated at nearly three-quarters of a million, and the United States government had at the time the armistice was signed 166,554 horses and mules in Europe, all of which will be sold there within the next two or three years. This means that there will be approximately one and a half million horses released from the allied armies for other uses in the next year or two; and such a demobilization will forestall any extensive exportations and rapidly reduce values from the higher levels prevailing in Europe to figures more nearly approximating prices here. There is, however, definite evidence in my possession which forecasts the inauguration of some shipments of heavy drafters from the United States to Europe as soon as cargo space is available at reasonable rates; and there is also certainty of some exportations of Percherons from the United States to Great Britain, as three separate British concerns are already at work on preliminary plans for Percheron purchases in this country. These will be very strictly safeguarded by the British Percheron interests, which have already given notice that they will not allow any shipments unless the animals are inspected and passed before leaving the United States by their own representatives. Knowing, as we do, the harm which came to American horse interests by the importation from France and sale here of many inferior Percheron stallions, we can but applaud the good judgment our British cousins are displaying in taking steps to check the activities of irresponsible speculators who might seek to engage in the trade. The demand for Percherons in England will grow, slowly but surely, as they acquaint themselves with the merits of the breed; and there is reason to believe that the trade will eventually be almost as important as our sales to Canada, which totaled 770 Percherons during our last fiscal year.

"Despite the conditions I have already discussed, which will delay the establishment of a large trade in the exportation of horses, there is bound to be a great volume of business in exporting horses within the next five years. Even New York financial journals have taken note of this. The Wall Street Journal recently said: 'Nothing on the American farm will be in greater demand abroad than the horse.' All this must favorably affect the future of the draft horse here.

Cost of Power Unit

"When all is said and done, horsemen must realize that the horse will survive as a power unit so long as equine power can be furnished more cheaply, more efficiently and more satisfactorily than in some other form. Horses today furnish the greatest proportion of the power needed in producing crops, and there is no reason to believe that the supremacy of good draft horses on farms ever will be threatened seriously; but inefficient horses, and their owners, will be slowly but surely eliminated.

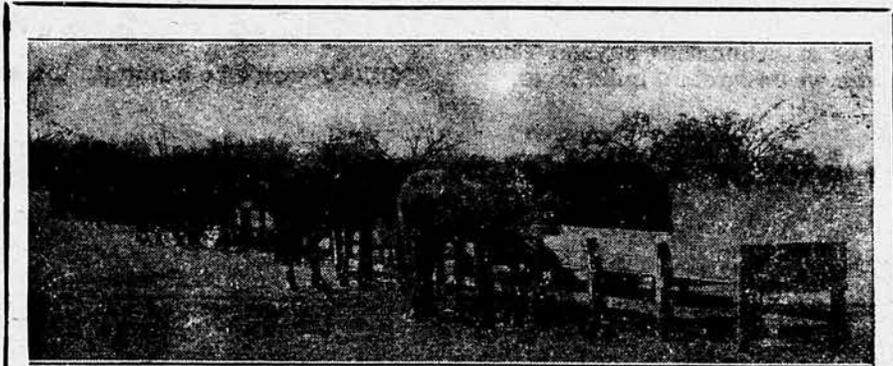
"The advantage to the farmer of producing his own power units is very great, for then he is independent. Tractor manufacture requires labor in the iron and coal mines, steel mills and tractor factories, and much of this is high-priced labor. Strikes or wage increases may within a very brief time double the cost of power to the farmer who is dependent on the factory, and he is subject to the arbitrary action of manufacturers in the prices he must pay for repairs and the time when he shall receive them. The cost of fuel is also beyond his control. The man who uses draft mares and rears his own power units is free from such problems. He knows that the cost of his power units cannot be suddenly and arbitrarily increased by the action of a manufacturer or labor union. He knows that he has no need to fret about repairs, for if one horse gives out another can be substituted in thirty minutes or less; and he is raising his own fuel in roughage and grains and can tell the Standard Oil Company where to go when the price of internal combustion oils is increased.

"We must not forget, also, that while the horse in ordinary work exerts a pull equal to one-tenth his weight, he can in an emergency pull a load five or six times as great, while mechanical power at best can pull only 100 per cent overload. This reserve of power available in horsepower units is invaluable on the farm or anywhere else when thoroughly dependable power that can work in soft footing is needed.

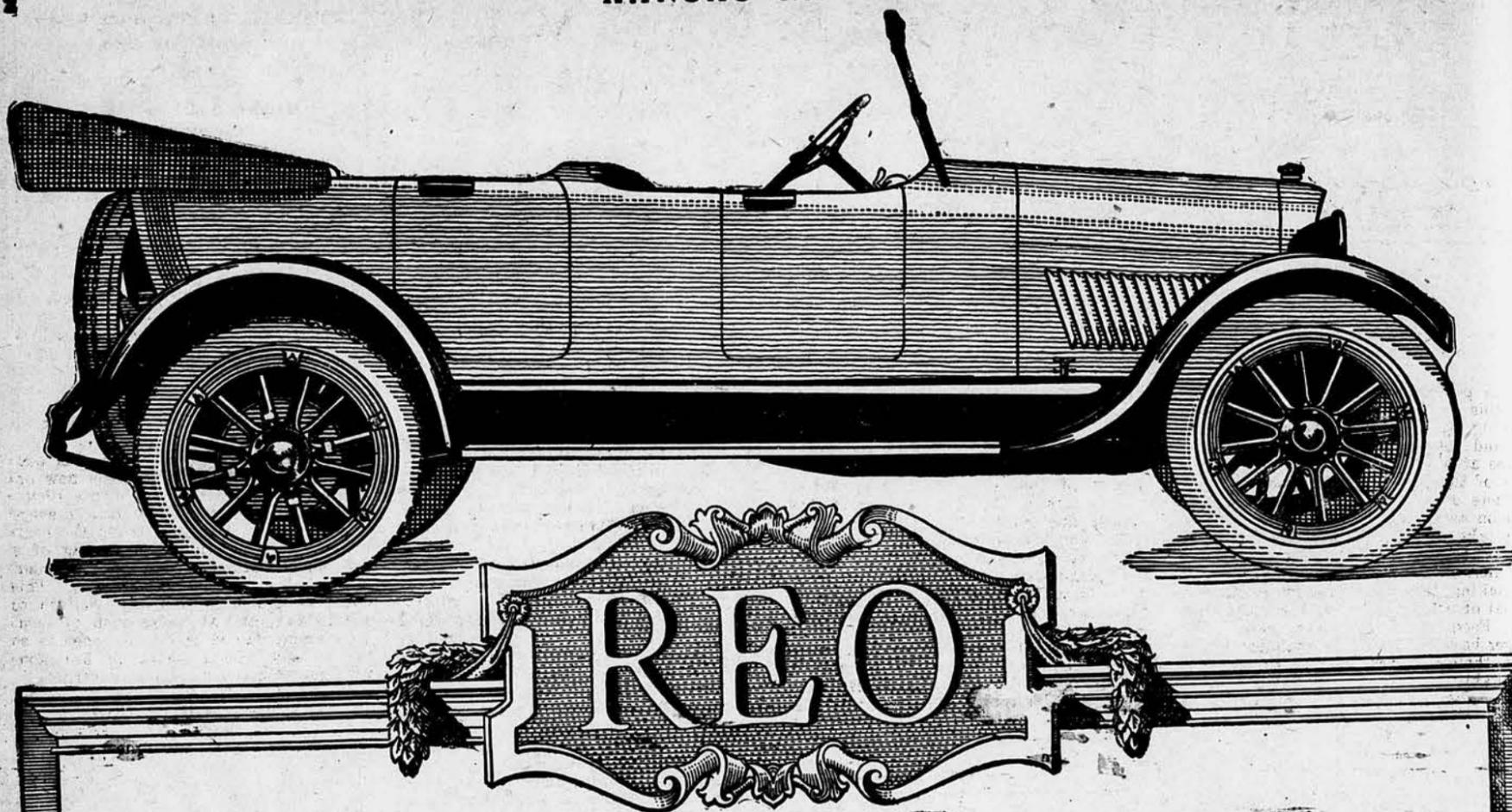
"Furthermore, the waste from his equine power units goes back to the farm as fertilizer instead of being sold to the old junkman at half a cent a pound; and last, but not least, his power units in horse flesh endure much longer than any other field power he can buy.

"The good draft horse still reigns supreme on farms, and will continue to do so; but the inefficient horse is doomed."

The reputation of a man is like his shadow: It sometimes follows and sometimes precedes him, it is sometimes longer and sometimes shorter than his natural size.—French Proverb.



FARM HORSES EATING SILAGE



This Is March!—And History Repeats Itself

SPRING IS ALREADY HERE! We are a little late with our regular annual hurry-up message.

ALWAYS AT THIS PERIOD we find it necessary to warn tardy or indecisive buyers that only those who place their orders early—which means at once—can hope to get Reos for Spring delivery.

REALLY, WE MIGHT save the trouble of writing a new advertisement each year—the same copy would fit just as well one year as another.

THE SAME STORY might be told in the same way—so consistent and so persistent is the year-after-year demand for Reos.

FOR, NEVER SINCE THE DAY the first Reo left the Lansing factory and went into the hands of its delighted owner—never since that time has it been possible to make enough automobiles to supply all who wanted Reos.

ORDINARILY—and to a normal degree—that is from the factory standpoint, an ideal condition.

BUT IN MARCH of each year the condition becomes aggravated by an excessive over-demand that is at times discouraging to say the least.

CERTAINLY WE COULD build twice or four times—or ten times—as many Reos per annum as we do.

BUT THE REO POLICY has never been to build the most automobiles—only the best.

WE MAKE ONLY AS MANY Reos as we can make and make every Reo as good as the best Reo that ever came out of the factory.

THAT'S THE REASON for the tremendous demand that always exists for Reos. Reo quality—Reo low upkeep—due to a strict adherence to that Reo policy.

REO IS FIRST CHOICE of discriminating buyers. That's the kind of folk for whom we design and build Reos.

THEY ARE THE KIND of buyers a manufacturer and a dealer appreciates and therefore most dislikes to disappoint or to offer substitutes.

AND WHILE OCCASIONALLY a dealer who also handles some other line will try to sell a customer his Second Choice, because he can't get enough Reos to supply his local demand, he never really likes to do so.

ALL DEALERS PREFER to sell Reos—because they stay sold. And every Reo sold sells several more.

THEN THERE ARE the repeat orders from present Reo owners.

ALWAYS THESE HAVE constituted a large percentage of the Reo demand. They are getting to be a larger percentage from year to year because of the larger number of Reos that have been many years in service. Longer than any other comparable car.

OF COURSE a Reo owner always wants another Reo—the percentage of re-sales to Reo owners is amazing and a matter of which we are most proud.

TO ALL SUCH, THEN, we issue the usual March warning—see your Reo dealer at once and place your order.

MAKE IT DEFINITE by paying him a deposit and specifying a date for delivery. Else he cannot, in fairness to other buyers, reserve a Reo for you.

THEN REST SECURE in the knowledge that you will be one of the "lucky ones" to get a Reo this season.

THERE WON'T BE—cannot be made—enough to go round. That is now as certain as the same thing always has been certain in all previous years since the inception of Reo.

SO DON'T DELAY. Decide now. Order at once.

TODAY won't be a minute too soon.

Reo Motor Car Company, Lansing, Michigan

THE GOLD STANDARD OF VALUES

Editorial, Advertising and Business
Offices, Topeka, Kansas

Entered at Topeka Post Office
as Second Class Matter

Published Weekly by The Kansas
Farmer Company, at Topeka

KANSAS FARMER

THE FARM PAPER OF KANSAS

G. C. WHEELER, EDITOR

REPRESENTATIVES: E. KATZ SPECIAL ADVERTISING AGENCY

New York: 15 Madison Square, North

Chicago: Harris Trust Building

Kansas City, Mo.: 1402 Waldheim Building

San Francisco: Monadnock Building

SUBSCRIPTION RATES: One Year, \$1.00; Three Years, \$2.00.

Established by First State Board
of Agriculture, 1863

Member Audit Bureau of
Circulations

Oldest Agricultural Publication in
Kansas

HOG MINIMUM OFF

With the action of the War Board in raising the embargo against pork shipments to Europe, the \$17.50 hog price minimum has been declared off. This has been continued since the first of March pending the action of the board on this point. It is announced that opening up these markets will create a demand strong enough to maintain prices at a profitable level for the balance of the pork marketing season.

There seems to be some difference of opinion as to just what turn hog prices may take. Omaha packers are quoted as expressing their belief that prices will fall instead of go up. The War Board in making the announcement of the removal of embargoes took the stand that the Food Administration should no longer have the power to stabilize prices, even though it had desired to continue its stabilizing efforts until the end of March, or until the 1918 spring farrow had all been marketed. The War Board points out that from 85 to 90 per cent of last spring's farrow has been marketed, and in view of that fact the supply of live hogs this spring will be greatly reduced just at a time when the European demand for hog products will be increasing. Some of the Chicago packer buyers are predicting prices as high as \$20 a hundred. Unless there are a good many more hogs in the country than the estimates would indicate, it would seem that prices cannot fall very materially. Results in the near future will be watched with the keenest interest by producers who still hold hogs of the 1918 farrow.

OUR MERCHANT MARINE

According to the extensive propaganda being carried on by the United States Shipping Board, the farmers of the country are objects of great solicitude in the development of our merchant marine. It is pointed out that sending out shipping to the seven seas will open up a great world market for our farm products. We wonder if the Shipping Board expects the ships of our merchant fleet to return in ballast. International trade cannot be a one-sided affair. In so far as farm products are concerned, they are usually cheaper in other parts of the world than in the United States, due to the advantages of cheap land and cheap labor. When the embargo was removed on Argentine corn it was frankly admitted that the purpose was to "bear" the corn market in this country. If we build up a great ocean trade can we not expect cheap products from other countries to gravitate toward this country, thus competing with the products of our farms.

If the building up of a merchant marine increases and develops extensively our great manufacturing industries, it will mean the assembling of great bodies of consumers at industrial centers who will have the money to buy food products, and this may help farmers of this country. It does not seem to be sound logic, however, to argue that the development of a great export trade carried in American shipping subsidized by the government will be of benefit to the farmer in putting his products on the world market at a profit. Our markets for farm products after normal conditions have been restored must be largely at home.

LIVE STOCK CONFERENCE

According to daily press reports, Monday, March 10, which is the date of this writing, was set for the conference between the committee of the Kansas Live Stock Association and the big packers. While this conference was openly suggested first by a packer representative at the Hutchinson meeting, H. C. Stuart of Virginia, a member of the agricultural advisory committee to the Food Administration, who addressed the Kansas Live Stock Association at its annual meeting, pointed out that the advantages of some method of stabilizing markets and the distribution of food supplies had been learned in war time, and the lesson so

learned should be put to use in peace time. In brief, he seemed to advise that some substitutes for the government agencies employed during war time should be created to operate in the times of peace in the interests of producers and controlled by them. We are undoubtedly facing a period of receding prices and unless live stock men and producers generally are united and working shoulder to shoulder, the great industry of food production may suffer serious losses. The packers admit that violent fluctuations in prices are disastrous, and the farmer who is producing a few cattle and hogs each year knows from experience that because of these wide fluctuations the business is largely a gamble. The cattlemen who handle this pest and whose operations are distributed over a whole year, may break even when the man with only a carload of two was heavily because he is tied up in a single throw. With some assurance of stability in prices the small farmer could engage in meat production with a great deal more safety.

The packers have proposed an armistice to talk over peace terms. In fact they seem exceedingly anxious to come to some understanding with the organized live stock producers of the country. The proposal was made in such apparent good faith that the producers could not hold back and the committee to which we have already referred was appointed. In view of the personnel of this committee of the Kansas Live Stock Association, producers can be assured that their interests will be carefully guarded in so far as it is possible to do so. We will hope to be able to give something as to the results of this conference in our next issue.

HOME FOR ROYAL STOCK SHOW

At last Kansas City seems to have awakened to the fact that it cannot afford to let the American Royal Live Stock Show die or seek a new location for lack of an adequate home in Kansas City. This great live stock show is a most valuable asset to Kansas City. It has been banded from pillar to post for several years. The last show was held at the stock yards, but in very much cramped quarters. It was far from satisfactory to those who exhibited.

A plan has now been proposed to build in Kansas City a magnificent exposition building on Wyoming Street near Nineteenth, which is the site of the present horse and mule barns, running back across Genessee Street and including all the space necessary for the proper permanent housing of the American Royal Live Stock Show and such other exhibitions of national character as might use the building. It is the purpose to submit the building plans with estimated costs and then call for stock subscriptions from breed associations and other interested organizations. The directors of the Royal and representatives of the Stock Yards Company, it has been announced, will present the plan to the Kansas City Chamber of Commerce in the near future. These plans have been under consideration for some time, but owing to the stress of war and reconstruction conditions the big business interests of the city have been so fully occupied that their presentation has been necessarily delayed.

It is to be hoped that a movement will be started which will give the American Royal Live Stock Show a home which will enable it to develop into the greatest show of breeding cattle, horses, sheep and swine in the whole country. Practically all that stands in the way of such an outcome, is ample financial support and particularly the providing of the necessary building and other facilities for handling the show.

Soap and water, sunshine and fresh air, thoroughly applied, are the best disinfectants after disease, and the best preventatives before. — Bulletin, Kansas Board of Health.

NEW CORN PEST

One of the most destructive insects ever introduced into this country has gained such a foothold as to apparently make it impossible for it to ever be eradicated. This is the European corn borer. Prof. G. A. Dean of our agricultural college and entomologist of our experiment station makes the statement that this insect can easily cause a damage of a million dollars a day if it once gets established in the corn belt of the United States. It has already established itself in Massachusetts and New York and is being looked for in other regions. Secretary Houston of the Department of Agriculture is urging congress to pass an emergency appropriation of a half million dollars to fight this pest and if possible prevent its further spread. The larval form, which does the damage, is a dirty white caterpillar about an inch long and with a brown head. It passes the winter in a nearly full-grown condition on the inside of the cornstalk or other food plant. In the spring it bores its way to the surface, making a round hole less than an eighth of an inch in diameter for the exit of the mature moth. The second brood comes on during the summer and is the one doing the greatest damage to corn, since it attacks not only the stalk but also the tassel and the ear and continues to feed until cold weather.

Early spring is the best season of the year to locate infestations of this most destructive pest by carefully inspecting cornfields, and especially those which have been pastured. Watch for the holes in the stalks from which the moths emerged last season. They will be slightly discolored around the edges and will lead to extensive galleries within the stalk, which frequently have blackened walls. The insect is omnivorous in its appetite, attacking garden vegetables, kafir, cane and other of the sorghums. Every farmer and gardener should be on the lookout for signs of this pest and should report immediately to the state entomologist at the experiment station on finding such indications.

PROFESSOR KENT HONORED

Kansans will be pleased to learn of the honor that has come to H. L. Kent, director of vocational education for Kansas and professor of agricultural education at our agricultural college. Professor Kent has just been elected vice president of the National Society for Vocational Education which met recently in St. Louis, and president of the agricultural section of this society. Mr. Kent appeared twice on the program at the annual meeting, speaking at one of the general sessions on the subject, "Effect of the Smith-Hughes Act in an Agricultural State," and at a round table conference of the agricultural section on the subject, "How Should the National Society Function in Relation to the Agricultural Education Group?" The Smith-Hughes act has for its purpose the extension of agricultural education throughout the state and we are fortunate in having a man of such recognized ability in charge of the work of applying its provisions in Kansas.

KANSAS SHORTHORN ASSOCIATION

We heartily commend the organization of the Kansas Shorthorn Breeders' Association which took place in Wichita during the recent live stock show. Shorthorns as a breed have had an important part in the improvement of cattle within the state, particularly in the early days. The breeders of this breed should have had a state organization, it would seem, long before this. One of the things to be done at once by this new organization is to compile and print a history of Shorthorn cattle in Kansas. We understand this is to be a publication somewhat out of the ordinary, a sort of souvenir volume which every man who has any interest whatever in cattle improvement will be anxious to have and proud to distribute among his friends. G. A. Laude of Humboldt, secretary of the new organization, has been

instructed to assemble the material. He will be assisted by a committee consisting of Park E. Salter of Wichita, president of the Association; W. A. Cochel of Manhattan, who is connected with the American Shorthorn Record Association; J. R. Tomson of Dover, Howard M. Hill of Lafontaine, and Fremont Leidy of Leon.

In addition to getting out this souvenir history of the breed, the new organization will actively promote Shorthorn cattle throughout the state in every way possible. We understand the committee is considering the holding of a sale on the afternoon of commencement day at the agricultural college. This event brings a great many visitors to Manhattan, and the afternoon of commencement day is practically open in so far as any official events of the commencement ceremonies are concerned.

PEOPLE FOR LEAGUE

It is to be deplored that so much of the discussion of the League of Nations idea is in a partisan spirit. Instead of talking about the principles involved we are finding fault with the men who are officially responsible for representing us as a nation. It has always been so in this country, however.

The League constitution as published is simply the report of a commission or committee and is yet to be acted on by the peace conference. It is a proper subject for discussion and debate and is the biggest question before the whole world at the present time. It will likely be amended in some details before it is finally adopted. So far the discussion has been too largely a party affair. We have a few notable exceptions. Ex-President Taft has openly espoused the principle, even though the proposed constitution does not in all its details conform to the program outlined by the League to Enforce Peace of which he is president. Former Supreme Court Justice Charles E. Hughes, in addressing a lawyers' association of New York at a victory dinner a few days ago, deplored what he characterized as the "partisan discussion" of the League of Nations covenant. He said that whatever we do we should make no engagement which we do not understand, but strongly deprecated the imputation of unworthy motives by one side or the other in the discussion which has taken place.

We believe the people of the United States, the fathers and mothers who gave their sons freely to fight against oppression and wrong, will feel that those who died have died in vain and have been betrayed if the United States does not do its part to make future wars impossible. It was a war to end war, and the victory is not won until a plan which will as nearly as possible prevent future wars has been drawn up and agreed to by all the great nations of the world.

STICK TO THE STAND-BYS

Do not be misled by the highly colored and much advertised novelties, but stick to the standard, well known and proved varieties. Good seeds are scarce and none should be wasted, so figure carefully upon the amount required and place your order early before the best stocks are exhausted. Perhaps the seeds can be bought from local dealers. If not, orders should go to a seed house in some neighboring city, so the seeds may be received in ample time. When they are received, unpack and check them to see that no part of the order has been overlooked; then store the seeds in a mouse-proof ventilated container, such as a tin box or glass jar. They should be kept in a moderate temperature, and where they will not freeze or be exposed to moisture.

Cultivation of the earth is the most important labor of man. National strength lies very near the soil.

We pay for every convenience really needed for efficient work. We may not buy it, but we pay for it all the same.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

PAVED roads are fine for the automobile owner and would be for the farmer hauling with horses, especially when we have a wet winter like the present," says F. W. B., a Jewell County reader. "But," he continues, "taking the estimated cost of paving or hard surfacing, which is given as ranging from \$23,000 to \$55,000 a mile, when would we ever get out of the hole? Under ordinary soil conditions if we could only put \$15 to \$100 a mile in grading we would have roads that we could get over nicely. Most of our hauling is done in July and August when the dirt roads are hard enough to permit us to haul from seventy-five to a hundred bushels of wheat to the load.

"With paved roads the farmer would have to keep his horses shod all around and would have to care for them in the barn. He could not turn a bunch of sharp shod work horses out to pasture, and that would mean an additional expense besides the extra work. Let us first get all of our roads graded and properly drained. That would be a great benefit to everybody."

Draining Seepy Hillides

Every year we have with us, in Eastern Kansas at least, the problem of wet, seepy spots which cannot be farmed with the rest of the field. Often these spots, although perhaps the richest on the farm, produce nothing and become eyesores. It does not take very much tile to drain these hillside seeps and on a good many farms they have been brought into cultivation as a result of using a little money and labor in tiling. These wet areas always delay the plowing in the spring and during wet or even average seasons are troublesome for the greater part of the year. The yield of cultivated crops over the entire field may be very materially decreased because these wet areas prevent cultivation at the proper time.

Practically all this difficulty can be avoided by placing a four-inch tile around the slope just above the spot where the water comes to the surface. The wet place is usually caused by a heavy layer of clay at a depth of two to four feet below the surface on the high land, but which comes to the surface on the side of the hill. The water penetrating down to this heavy layer and not being able to penetrate it, passes sideways in the line of least resistance, coming out on the hill slope. A line of tile laid across the slope just down to the top of this heavy layer will cut off the water which is flowing sideways at this point and prevent its coming out on the hill. There are many such seepy hillides where a string of tile would be of very great benefit in this respect.

Exercise for Hog

The use of self feeders has greatly simplified hog feeding. They not only save labor, but save every grain of feed and makes the feed go farther. A self feeder used with good sense and judgment will accomplish all that is claimed for it. In a recent leaflet from the extension division of our agricultural college, C. F. Johnson points out that one problem that must be solved when using self feeders is that of exercise. A hog that has plenty to eat whenever it wants it will become lazy. He suggests pasture when it is in season as one means of encouraging exercise. A thrifty hog always relishes green alfalfa or other pasture if alfalfa is not available. Another way to encourage exercise is to locate the feeder some distance away from the water and sleeping quarters. During cold weather this method has been found quite successful. The farmer who uses a self feeder must use his own judgment in this connection, for no rules will apply to all cases. The successful hogman should be equal to the task and will figure out a way to use the self feeder to the best advantage, just as he is able to adapt himself to the use of up-to-date labor-saving farm machinery.

The self feeder method has no equal in saving every grain as a feed. Feeding floors help save feed, but some waste is inevitable where the hog has a chance to actually walk on his feed, as is the

case where he is fed on even the best feeding floor. In dry weather it is not so bad, but at the present prices of feeds it can hardly be tolerated in wet weather. By using a properly constructed self feeder on a good floor there is practically no loss of grain.

Figures on Horses

Horses are hardly maintaining their number on farms in this country, in consequence of the auto truck, the automobile, and the needs of the war, and yet there are nearly as many in the country now as a year ago, according to the Bureau of Crop Estimates of the United States Department of Agriculture. Furthermore, there are now one-third of a million more than at the beginning of the war. It was expected that the war would stampede the horse market in this country and would send prices high enough to rob the farms of a large number of much-needed work animals, but there was no such shock as was expected. From 1910 to 1915 horses on farms increased a little each year, usually over 1 per cent, and since 1915 the increase of four years has apparently been over 300,000. The present total, according to the estimate, is 21,534,000 horses. The exports of horses during the war to December 31, 1918, have been slightly more than 1,000,000; at the pre-war rate the normal exports would have been about 120,000. As far

as covered by domestic exports, the war made an extra demand on farmers for almost 900,000 horses. To this must be added the extra demand of the United States Government. By January 11, 1919, the War Department had shipped overseas nearly 39,000 horses, and on November 2, 1918, that department had in this country nearly 165,000 horses. The apparent figures of extra demand on the farmers of the United States by this country and the allies for horses on account of the war make a total of about 1,100,000 horses in exports and in the service of the War Department. The actual number is greater by the normal exports, and hence about 1,200,000 horses are indicated as the horse contribution of the farms to the war, not including private purchases and the United States Government outside of the War Department.

Save the Lambs

If you are having your first experience this year with a flock of ewes, you will have need of some of the helpful experience of men who have long since passed this stage in their development as sheepmen. At no season of the year do sheep require more careful supervision than at lambing time. If the lambs come early, warm quarters are necessary. Movable pens four feet square should be provided. These may be made of light hurdles hinged together. It is always best to keep a ewe and her newly born lamb in such a pen until the lamb is one or two days old. The ewe is more sure to own her lamb, especially if she has twins. It is very common for a ewe to refuse to own one of a pair of

twins unless this plan is followed. The ewe flock should have a shed large enough to provide twelve to fifteen square feet of floor space for each animal. The ewe that has just dropped a lamb should be fed very lightly on grain, about a half pound daily, until the lamb is three or four days old. When lambs are coming rapidly the ewes should be watched day and night to avoid unnecessary losses. Occasionally a ewe will have difficulty in giving birth to her lamb, but it is unwise to give her help until she has tried for some time and appears to be unable to effect a delivery. When help is given, care should be exercised not to excite her more than is necessary. The essentials of aid are to see that the unborn lamb is in normal position with legs in such shape as not to hinder the progress of birth. When it is possible to draw on the lamb, do so as gently as possible and pull only at the time the ewe strains. As soon as the birth is about complete and it is possible for the lamb to breathe, remove the birthing sack from the mouth and nostrils and blow into these parts to assist the new thing in getting its first breath. As soon as the danger of smothering is past, leave the pen and let the ewe clean and care for her lamb for a few minutes. If the lamb does not succeed in finding the teat in twenty or thirty minutes, give it some help by placing the mouth of the youngster to the teat of the mother.

ages less than one animal for each lot tested and is less than 5 per cent of the total number undergoing the test. The work of eradicating tuberculosis from domestic live stock is under the supervision of the Bureau of Animal Industry in co-operation with the various states.

The work is well under way in Kansas, and a number of Kansas cattle breeders have already taken advantage of the opportunity of placing their herds on the accredited list.

Alsike Instead of Red Clover

In Eastern Kansas it is the practice on many farms to sow some clover each spring. Quite often it is sown in the wheat. It has been suggested that because of the shortage of red clover seed this year, alsike should be substituted. On the basis of present market prices two acres can be seeded with alsike for what it would cost to seed one acre to red clover. Farmers who purchase clover seed should require the salesman to sell the seed under label, presenting the germination, purity, date of germination test, and, in some instances, the point of origin of the seed. A special agreement between the Secretary of Agriculture and the domestic seed trade provides that seedsmen distribute their seeds under label. Farmers should see that merchants live up to this agreement. The shortage of red clover seed, the department explains, results from more clover hay being made last year, decreased imports of seed, the unfavorable season last year, and the breaking of clover sods for wheat.

Association Affairs

The election of officers of the American Poultry Association is held by mail ballot early each year. At the same time the members vote on the place of holding the annual meeting. This association, which now has a membership of about 8,000 poultry breeders, is a guiding body for everything pertaining to the breeding of standard-bred fowls. The association is often referred to as the backbone of the poultry business. The organization is deserving of all the support that everyone engaged in anything connected with the poultry business can give it.

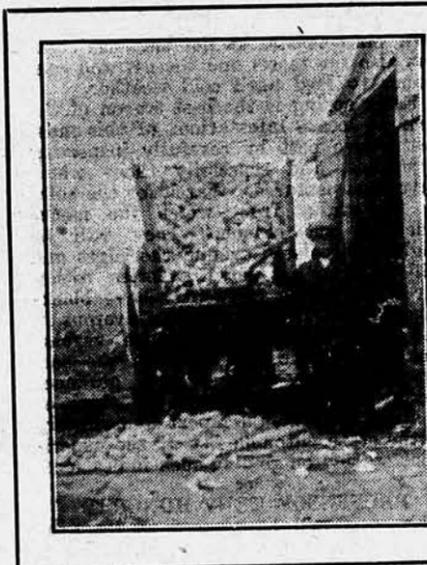
Des Moines, Iowa, through its Chamber of Commerce, is a candidate for the annual meeting to be held in August. This city is well located, and as many inducements in the way of entertainment and accommodations are being offered, it is quite likely that Des Moines will get a heavy vote. The American Incubator Manufacturers' Association always holds its annual meeting at the same time and place as the American Poultry Association.

A. F. Cooper, of Pittsburg, Pa., is a candidate for president. He has been a member of the association since 1886—thirty-three years—and has been engaged in the breeding of standard-bred poultry for the past forty-two years. But Mr. Cooper is probably best known as a manufacturer of incubators and brooders, in which business he was engaged for twenty-four years. He was president of the Prairie State Incubator Company until two or three years ago. Mr. Cooper has given the best part of his life to the poultry business, in one way or another, and is now willing to give his time and business ability in guiding the affairs of the American Poultry Association along the highway to success, if the members see fit to place him in the office of president.

After nearly two years' earnest solicitation on the part of poultrymen in all parts of the United States, E. C. Branch, Lee's Summit, Mo., has finally consented to become a candidate for the office of secretary of the American Poultry Association. Mr. Branch is a thorough poultryman. He is one of America's most popular poultry judges. He is a successful business farmer and breeder. He has been active in the affairs of the association for many years and has served on several very important committees, including the standard revision committee. Mr. Branch's fitness for the office cannot be questioned. If he is elected it will mean a big stride forward in the affairs of the association.

Tuberculosis Control

The accredited herd plan of the Department of Agriculture as a means of controlling and eradicating tuberculosis is gaining ground. A summary of the work done during January, 1919, shows that 982 tuberculosis cattle were slaughtered in that month. The destruction of this number of diseased animals obviously reduces the menace of tuberculosis to the cattle industry of the United States. Altogether 1,321 lots of cattle, aggregating 27,461 head, were tested in January. Those reacting to the tuberculin test numbered 1,280, which aver-



CLAUSSEN FREEMAN, a fourteen-year-old boy of McLouth, Jefferson County, raised eighty-one bushels and forty-five pounds of Iowa Silvermine corn on his contest acre at a cost of \$12.82. This achievement, with the records kept, won him first place and a cash prize of eight dollars in the Eastern Kansas Boys' Corn Club contest. He exhibited ten ears at the agricultural college Farm and Home Week, where the award was made. Clausen is here shown with a load of his corn. He listed the crop, cultivated once with a monitor and three times with a cultivator. The corn was so tall that the lowest ears were almost out of his reach. He has already enrolled for the 1919 boys' corn club.

Starting a Strawberry Bed

WE SOMETIMES hear the argument advanced that strawberries and other small fruits can be purchased for less money than it costs to raise them, but too often where there is no strawberry bed or other small fruit the children of the family seldom get all they want. C. V. Holsinger, an authority on horticultural subjects, states that the urgent need for staple foods of all kinds resulted in reducing the amount of land devoted to commercial strawberry beds and the setting out of other small fruits. In his judgment the present indications point to a shortage of deciduous fruits in the mid-west during the next few years. This furnishes an argument for putting out a home strawberry bed.

"It is a comparatively easy matter," says Mr. Holsinger, "to put out and harvest all the strawberries the public will consume, for this particular fruit will grow on almost any land that will produce corn, and the maximum yield will come a year after planting."

"Because of the fact that it is comparatively easy to get into the strawberry game it is just as easy to get out of it. This fact, combined with the war situation, has resulted in a decided shortage of strawberries the past two years."

"The indications are that the shortage will continue at least through the present year, for comparatively few beds were put out last year and the old beds which are located in the great strawberry sections of the Middle West and eastward to the Atlantic Coast, have been badly injured by dry weather."

"The present indications are that strawberry plants will be somewhat scarce the coming spring and a little higher in price than in previous years. The varieties best adapted to the mid-west conditions, however, are good plant makers, and there will probably be enough plants to go around. Varieties like the Senator Dunlap put out numerous runners and do not need to be so closely planted as poor plant-making varieties. Senator Dunlap and other varieties of its habits may be spaced eighteen to twenty-four inches in the row. Varieties that are poor plant makers should be spaced somewhat closer in the row. The rows should be three and a half to four feet apart when planted commercially. In the home garden rows can be placed closer together, but, of course, cannot be allowed to spread quite so wide."

"The strawberry is perhaps as free from fungous diseases and insect pests as any crop that we grow, but at the same time in putting out plants it is well to secure plants that come from healthy beds."

"The new strawberry bed should be planted on land that grew some kind of a cultivated crop the preceding year. This is to avoid the ravages of the white grub which sometimes is very destructive to plants set in soil that had been in sod the previous year. Ideal soil for strawberry beds is one which is more or less sandy. Best results are frequently obtained where the beds have been planted in soil that had been fall plowed and allowed to freeze and thaw during the winter. Just before planting time the soil is worked with a disk followed by a float or drag that will leave the surface in a fine, friable condition not more than two or three inches deep. It is well to leave the subsoil well compacted."

"The best time to plant is just as soon as the soil can be worked satisfactorily in the spring of the year. Plants that are put out in a dormant condition will almost always give a perfect stand, while those that have started into growth may, or may not, give a perfect stand, depending on the climatic conditions which follow."

"Plants should be set in the soil just about as deep as they were in the field; in other words, the crowns should not be above the surface nor should they be placed too deeply, otherwise the crowns become covered with soil and plants are sometimes smothered in this way. Some of the best beds are set out by the use of a spade rather than the trowel, the spade being driven into the soil at an angle and pressed forward, leaving an opening but not withdrawn. The roots of the plant are then spread out in the opening and the spade withdrawn, allowing the moist soil to fall back on the roots. The plants are generally set just a little deeper than the level of the soil,

but after the spade is withdrawn the plant is drawn up so that the crown is at the proper level. The soil is compacted around the plants and so on through the fields. Two people working together can plant an acre in a comparatively short time, and be sure that a good stand will be obtained.

"There are two general systems for the planting of the strawberry; one commonly known as the hill system, the other the matted row or hedge row. The former is not very commonly used in the Middle West. It is much more expensive because more plants are required and considerable time is required in the removing of the runners. The yield is not so large per acre, although the quality of the fruit is somewhat better. The type of soil will determine which system should be used. On thin, sandy

soils, requiring a great deal of fertilizer, strawberries are planted in hills. In the Middle West, where the soils are usually in a good fertile condition, the matted row system is desirable.

"A few years ago the writer had occasion to try out one of the well known varieties and in order to determine the most effective method, planted one acre using the hill system, while the matted row was used in the rest of the field. Both systems were cultivated with the same machinery and usually the same day. The results were very good in both cases but the quantity of fruit was so much larger where the matted row system was used that the hill system was discontinued thereafter."

"Following the planting of the strawberry bed, weekly cultivations must be given. Any kind of a shallow cultivator will give good results. It is well to keep the soil in a very loose friable condition at all times and stimulate as much growth as possible, making it a

point to have the plants make large crowns. At the same time do not allow the plants to become too thick. Best results come from having the plants in the matted row properly spaced. Plants which are started from the new runners should be so spaced that they will be six inches apart, the row being eighteen to twenty-four inches wide. With some varieties, like Gandy, Aroma and a number of other sorts, very little work will be necessary on the part of the grower to get them properly spaced, for these varieties are poor plant makers. On the other hand, varieties like Beednerwood, Senator Dunlap, Warfield, and others of this type, will make a regular sod and will become so thick that about all the fruit that develops will be on the plants that grew on the outer edge of the row.

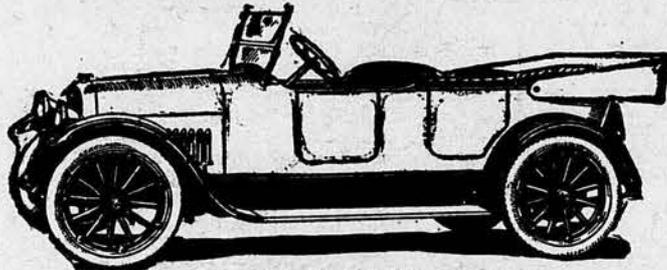
"The ideal bed is one in which the plants are large and stocky. These will push up large numbers of flower clusters and be in condition to produce the maximum amount of fruit."

Studebaker

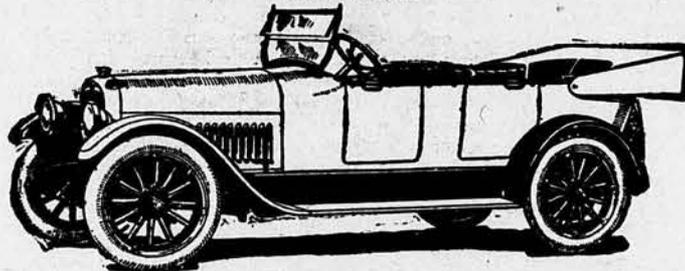
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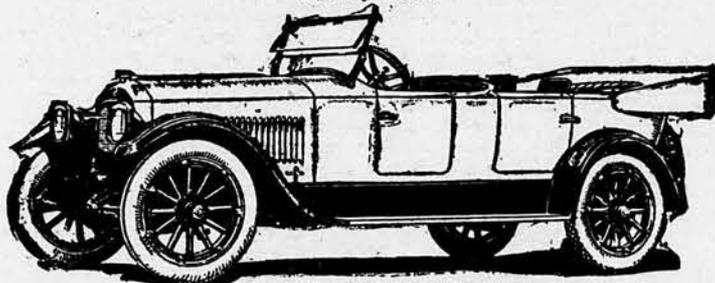
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A BEAUTIFUL picture was formed in my mind one Sunday evening this winter when I promised my two boys that I would do the chores for them. As I leaned up against the south side of the barn, out of the wind, the hired man scattered out a load of corn fodder across the meadow. That was the hay for sixty-odd head of Percherons that night. Then I took a sack of oats and went to feed the calves, all Herefords and all alike. A farmer friend visiting us said that he never saw such an impressive sight in the cattle lot before. As we went from lot to lot feeding the Herefords of different ages, I could see plainly why this man was so pleased. As the calves just weaned came running up over the hill bucking and shaking their wintry coats and tossing their saucy heads all as white as snow, my heart was moved and I gave them a little more oats than I ever did before, because I knew that even though feed was high and scarce, every bushel of oats these calves ate was going into money-making cattle. The cows, the young heifers, and the sire of these calves, all fared extra well that Sunday evening, for I like to see them eat, go away, and lie down contented as it were at the end of a perfect day.

No sooner had I finished the cattle part of my chores than I heard old Sidonia nickering at the barn door. There were all the Percheron mares with foals wanting in for a bite of grain. That told me that the boys had been in the habit of feeding these faithful matrons and their colts just as I like to feed the calves. I let them all in and gave them a washpan of oats in each box, mother and foal alike. When they had finished I turned them back to the pasture. This friend watching the mares and colts go off said: "Where is your tractor?" I said, "Let's go into the house and I'll tell you why I don't use a tractor. This is my reason. Twelve years ago I bought the old Percheron mare, Sidonia, in foal, her yearling filly and a weanling. She was then eleven years old. From that start I have produced thirty-nine head of living Percherons, fifteen head of which have been sold at a total of \$7,350. There are now on the farm twenty-four more descendants of this old mare that I value at a little over \$6,000 at present values for Percherons. I sold one stallion out of this old mare for \$1,300. I don't farm with a tractor because I can't afford it. More dollars worth of Percherons are sold off my farm every year now than my total feed bill and the mares do the work of tilling a section of land, besides last spring my attention was called to the fact that we were plowing for corn with three fourteen-inch bottom gang plows and that the power we were using was fifteen pure-bred mares and every one of them heavy in foal. We hitched three in the rear team and a pair in the lead. I have said to every tractor salesman who has talked to me: "Whenever you can put a tractor on my farm that will do my work as cheaply as my Percherons, I am ready to buy a tractor." I mean it, too, for I am in the business of farming as a money-making proposition, and whenever mechanical power can be so perfected that it can compete successfully with good Percheron mares in working my land and doing it cheaply, I am ready to buy a tractor and sell off some Percherons."

This friend who was visiting me has a tractor and 1,200-pound horses. These are usually found working together on Nebraska farms, but one seldom ever finds good draft horses and a tractor owned by the same man.

After my friend left that evening my wife was curious to know why it took me so long to do the chores. She said: "You think the boys waste a lot of time choring." Well, I had to admit that it took longer than I had anticipated because I like to stand and watch the calves and the colts eat. She said: "Our boys take after their father in some things, and I expect that is one of them." That set me to thinking and I wondered if the fact that we were breeding Percheron horses, Hereford cattle, and Duroc Jersey hogs was largely responsible for my boys staying on the farm instead of seeking the city. Young men are usually progressive and want to get ahead and there is no way that they can accomplish so much on the land as by breeding good pure-bred live stock. Then every bushel of grain

or ton of hay that is raised and fed into such animals, goes much farther and makes more money than if fed into common scrub stock. I have been a cattle feeder and breeder ever since I came to this farm in Nebraska, twenty-eight years ago, and although I have been in the Hereford business only a few years, I can see plainly that our farm will net five dollars now every year from our whitefaced cattle where it would make one dollar before when we raised and fed common stock cattle. Whenever a father can go to his son and present such encouraging figures it makes a splendid argument why the boys should stay on the farm and raise good live stock. Then the doing of the chores becomes a pleasure instead of a burden and more often than not successful farmers are made out of men who otherwise would be failures.—H. J. McLAUGHLIN, Doniphan, Neb.

Shorthorn Breeders Meet

The members of the Central Shorthorn Breeders' Association are looking forward to a most successful meeting following the annual show and sale. This meeting will be held the evening of April 2 at the Baltimore Hotel in Kansas City. Breeders of pure-bred cattle of all kinds are greatly encouraged over the increasing interest in better bred stock. The Central Shorthorn Association sales have always been noted for the quality of the offerings, and this year is no exception. A good program has been prepared for the annual meeting and the usual business session will be held. This is an important meeting and should not be overlooked by those interested in Shorthorn cattle.

Grow Your Own Strawberries

"The strawberry is a great democrat," said O. F. Whitney in addressing a class of high school boys and girls from the Highland Park High School. "The rich man pays a dollar and a quarter a box for strawberries and the poor man can raise his own and go out and pick berries that are just as good as the rich man can buy. If you want to have really good fresh strawberries, you should raise them yourself. Our commercial plantations are not increasing—I do not say they are decreasing, but they are not increasing—because it is difficult to get berries picked. Girls were sent out to some of the large plantations last summer to do the picking, and that may solve the problem in time to come, but it is so easy to raise the berries that I would rather raise them myself than to depend on buying them. Soon we will have strawberries on the market from Texas, but they have to be picked green to stand the shipping, and such fruit is not as wholesome as berries ripened on the vine.

"Plow up the ground for your strawberry bed twelve or fourteen inches deep, or spade it up a little deeper than it ever was spaded before. The soil must be fine. Then put in some well composted manure.

After you have your strawberries set you must cultivate the patch before you see any weeds and go over it again before you see any weeds, because the hardest and most useless work in the world is to wait until the weeds come and go along and pull them out. Don't let them start. Of course there will be an occasional weed in the row which you can pull out.

"You should not be in too big a hurry to take off the covering of straw which should always be placed over the bed during the winter. If the plants begin to show a little white or yellow you will know it is time to take the straw off. Part of the straw will fall to the ground and remain beneath the vines and this will protect the berries and keep them clean.

"The best variety that is commonly grown today is the Senator Dunlap. It is not a good shipping berry, but it is of good quality and a good producer. The Gandy comes a little later."

Growing Asparagus

Every farm garden should have a good asparagus bed. It requires some forethought and planning to establish a productive bed of asparagus. It must have, first of all, very rich soil. The bed can scarcely be made too rich. If merely for home use and not for marketing, a large bed is not necessary, for a couple

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of dozen hills or bunches will furnish the average family all needed. A corner of the garden in asparagus well repays the care needed to make it keep it productive.

Dig out for the hills and put in plenty of rich and well-rotted stable manure. Acid phosphate and cottonseed meal may be added to great advantage. Mix the manure and meal well with the soil and set the roots in the hills, low down, so that the dirt may be worked to them as they come up.

Plants may be grown from seed. But one can get much quicker returns by purchasing two-year plants from some nursery. It takes three years to get asparagus from the seed. Two-year plants, well taken care of and kept growing the first year, will make asparagus ready for eating the next year.

More manure should be applied each year or each two years, after the cutting season, for the plant is a gross feeder. It is important that the necessary plant foods be supplied liberally so that the growth of the tender shoots may be rapid and that they may be as large as possible.

The cutting season begins as soon as the shoots are big enough to eat, that is about five or six inches high, and lasts for about two months. The tops should then be allowed to grow, for they store up plant food for the coming season.

Children and Wild Animals

Since the time of the earliest settlers, children in the open country have been taught to look upon wild animals as their natural enemies.

Did a gray squirrel appear in the barnyard, it was stoned to death. Did a fox scamper through the wheatfield it was shot. Did a muskrat appear near an icy pool, it was the signal for healthy boys to stop skating and give their attention to its extinction.

There were numerous reasons for this. Parents handed down this theory to sons believing that all wild animals were enemies to their sparse crops. They also encouraged killing them off because animals meant food when food was scarce.

But the boy of today must be taught to look on animals of the open not only as friends but friends who will make money for him. He must be taught also to foster their growth in every way, to hunt them only when the law says he can hunt, to protect their young and to take an active interest in all methods that will multiply their numbers.

For, since the war, the United States has taken first place as a fur producer and marketer. How long the United States holds this eminence depends largely upon the present and future generation co-operating to conserve our fur-bearing animals.

The skunk, long held in ill repute for such deeds as wholesale chicken snatching (which he was not guilty of) has within the last few years proved a mighty aid to the farmer in destroying pests and its beautiful skin is one of the never-ending desires of the fur market.

Skunk, while plentiful, is not inexhaustible and must be encouraged and protected by man if man is to realize the high profits that accrue from trapping skunks. Boys should realize this.

Musk rats, too, once held as an irrepressible pest, have proved their worth and as fur bearers are the heaviest demand of fur buyers. They can be protected. Boys must learn to let them live, to make their living better and to trap only in right season. By such measures alone can the diminishing supply be conserved.

What Won the War?

They said that might made right. This—it was a part of their faith—was the law of the universe. Of course God was on the side of the strongest battalions. He had to be. If a million trained soldiers hurl themselves in solid mass against a quarter of that number unprepared, the issue is as clear as when an ocean liner strikes a fishing smack. Yet, strange to say, several times in human history one has chased a thousand and two have put ten thousand to flight. Perhaps even the poet saw the truth when he wrote of that knight whose strength was as the strength of ten because his heart was pure.

There were days during the last war when nothing but faith in the ultimate might of right kept many of us from despair. Not a few, when victory for the foe seemed inevitable, still affirmed it could not be that wrong would triumph. Multitudes said: "Where is now

your God?" This is worth remembering now that we know He neither slumbered nor slept, nor had gone on a journey. It was not the army with the greatest number, or with the heaviest guns, or with the most submarines that won the war. That army was defeated at the start. The men who triumphed had that behind their guns and inside their breasts which was mightier than their guns and which doubled their daring. What won the war? We believe the verdict of history will be: "Right and not Might—Moral Ideals born of man's faith in the reality of the Eternal Justice at the heart of things." "They are short-lived who contend with the Immortals."—Our Dumb Animals.

Mechanical Food Wastes

Of the mechanical ways in which food is wasted, we may list, first, poorly constructed stoves and ranges, giving ovens that burn and dry food, that cook unevenly, rendering some parts of the food unpalatable and consequently lessening its nutritive value; other items in this list are poorly designed and constructed saucepans and other utensils, cooking vessels with seams that cause food to stick; very thin aluminum vessels that dent easily, leaving an uneven surface that catches much food. The use of chipped enamel vessels is another way of waste.

Now, some of these defects are due to careless handling; for example, the cook stirs the contents of an enameled saucepan and strikes the edge sharply with the spoon; if the kettle were of glass she would not do this. Enamelware needs just as careful treatment as glass. Pots and pans in which some sticky food

has been cooked are left to dry and are then violently scraped. They should be filled with water immediately upon being emptied. The modern glass cooking vessels promise much in the way of food economy, although their comparatively high price restricts their use.

The poor quality of the housekeeper's tools, particularly in the kitchen, is one of the weak places in housekeeping efficiency. The manufacturer meets the demand for cheapness with a cheap product, and the vicious round continues, with the ultimate consumer paying the price in wasted food and a constant replenishing of kitchen equipment. The average aluminum muffin pan illustrates this point most effectively. It is thin, easily dented, hard to clean and by no possible art can the housewife prevent its contents from sticking, but it continues to be sold by the thousands, and is consigned to the junk pile in the same ratio. A first class aluminum muffin pan, from which one may turn out perfectly smooth, evenly browned muffins in ease and comfort, costs three times as much as the thin one and lasts a lifetime, but it remains on the merchant's shelves.

Look over your kitchen and see how many food leaks are due to your equipment. There are very few kitchens that are perfect in this respect.—The Southland Farmer.

Pruning Apple Trees

In pruning apple trees one should aim to secure a low, broad spreading head with open center to admit filtered sunlight from above. Three to five main lower limbs should be secured as an outward spreading framework for the tree.

Most of the pruning, however, should be done toward the top, rather than cutting off essential lower limbs beneath. High growing branches toward the center may be cut back to outward growing side limbs. This tends to secure a broad, low spread of limbs rather than allowing the trees to get too high in the center. It also admits sunlight from above. This will enable fruiting spurs and fruit to develop throughout the body of the tree. If the tree is allowed to make too much tall central twig growth it will shade out fruiting branches in the body of the tree so they cannot bear.

Allen County, which was one of the first Kansas counties to organize a farm bureau and hire an agricultural agent as its executive, dropped the work after two or three years. There were those who opposed the bureau on the ground of needless taxation and this opposition became sufficiently strong to prevent the work being continued. The progressive men who backed the movement in the beginning, however, have never forgotten the advantages of having the organization in working order with a good agent on the job, and it is interesting to note that the county has just reorganized its farm bureau and the county commissioners will appropriate a sum between \$800 and \$1,600 to be put with the state and federal money and be used in financing the work of the bureau.

One of the very first essentials in farming is to get into sympathy with the ranch and harmonize with it. The musician can not become a master who is not in love and in partnership with his instrument.—Field and Farm.

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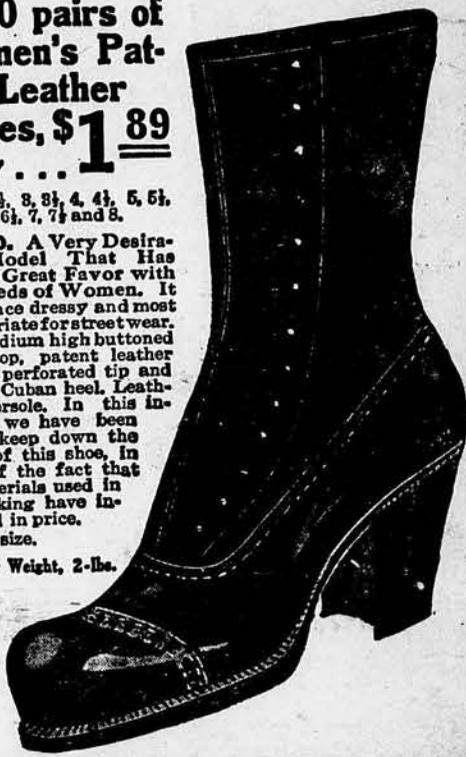
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Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

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CHICAGO FLEXIBLE SHAFT COMPANY
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SORGHUMS are deserving of a much wider use on Kansas farms. Their place in our farming system was discussed at the annual meeting of the Crop Improvement Association by Charles R. Weeks, superintendent of the Fort Hays Branch Experiment Station. He pointed out that a one-crop system of farming has always resulted in uncertain farm returns, and over a period of years does not yield a satisfactory farm return. The gamble on getting an abnormally good crop year is a thing that promotes this unprofitable system. "My ten years of managing farms in three widely separated states," said Mr. Weeks, "has driven me to the three following conclusions:

"First—That farm profits increase with the number of farm projects or activities on the farm.

"Second—That farm profits increase with the increase in land until the acreage is sufficient to handle the number of projects that the manager is capable of organizing. Intensified, specialized farms, like truck farms, are excepted. The overhead charges do not increase in proportion with the increase in area of the farm in general farming.

"Third—Farm profits are increased by dividing the projects handled about equally between crops and live stock. Any crop that will encourage diversification of crops and raising of live stock will, therefore, increase the profits on a farm. The sorghums serve this purpose in Kansas. Before live stock can be safely added to a farm, feed for this stock, even in an unexpected winter, must be provided. Any farm in West Central Kansas, even in the extreme west end, can always be sure of feed by planting a sufficient acreage of sorghums. Hundreds of head of cattle have died during the month of January within a radius of fifty miles of Oakley, Kansas, on account of lack of feed during the unexpected snow storms and cold weather. We have not yet found anyone out there who provided sufficient sorghum fodder, or had a silo, that has lost any cattle. Another reason why sorghum helps toward diversification is the possibility of raising grain as well as forage where the climate is too dry for corn. The seven-year average of all varieties of grain sorghums at the Fort Hays Experiment Station yielded fifteen bushels, while corn during the same period yielded less than seven.

"Every state has its crop-limiting factors; in Kansas this is an occasional drouth and hot winds. Mr. Miller's investigations at the Garden City Experiment Station showed that sorghums have from 50 to 100 per cent less leaf surface for evaporation of moisture, and on the other hand have a root system from 50 to 100 per cent greater than corn. Grasshoppers will eat other crops before eating sorghums. Hot winds that at the time of pollenization will reduce our yield of corn or other cereals below the profit point, will merely delay the growth of the sorghums until more favorable weather comes. The sorghums will then continue to grow until stopped by frost long after other crops have dried up. The fact that sorghums remain green for a longer period gives the farmer more time to put up his silage and thereby cause him less embarrassment when short of labor. The higher yield of sorghum also helps to reduce the cost of silage.

"During recent years a cash market at our grain centers has developed for grain sorghums and no farmer now has the excuse that he cannot market them profitably.

"Careful experiments have been conducted at the Fort Hays Experiment Station on the feeding value of sorghum for grain, forage, and silage. In all cases the results have been little different from those secured in feeding corn, corn silage, or corn fodder, and in most cases the cost of wintering stock has been less with the sorghums. A series of experiments were conducted at Hays comparing kafir chop, feterita chop, milo chop and corn chop as a feed for hogs. This gave costs per hundred pounds of pork ranging from \$6.17 for milo chop to \$7.13 for corn chop. These tests were made when grains were lower in price than they have been during the last year or two, but the comparisons stand.

"Diversified farming and live stock must come to save the one-crop farmer from the constantly increasing cost of production and crop risk. The grain and forage sorghums will not only re-

duce the total farm costs but will give protection from the element of crop chance and insure feed for live stock at all times."

Does Milk Cow Return Profit?

Most of the dairy products of the United States are produced by small herds of cows kept by farmers whose main source of income is from some other enterprise, and it is to be expected that more of the beef supply in the near future will come from this source. The difference in viewpoint as regards the milk business on dairy farms and on these general farms might be expressed by saying that the milk products come from using feed to make milk, and making milk to use as feed. At least, there are these two aspects of the milk business on the farm. Methods commonly employed in the latter case prove very unprofitable when applied to a strictly dairy farm enterprise, yet on general farms they may contribute materially toward reducing expenses that would otherwise reduce profits from main enterprises.

With this aspect in mind, O. R. Johnson and R. M. Green of the Missouri College of Agriculture made a study to determine from farmers' experience the costs and certain related factors pertaining to the milk business as a subsidiary enterprise on farms organized to do a general farming business. The results are published as Missouri Bulletin 159. The data cover a total of 158 head of common milk cows and 128 head of calves. The general conclusion reached is that keeping common cows such as were found on the farms studied is out of the question so far as profits are concerned unless from 40 to 50 per cent of the cost of their feed can be in pasture and unmarketable roughage. The margin of profit is then small and is mainly in growing the calf.

Ayrshire Breeders' Meeting

James W. Linn, secretary-treasurer of the Kansas Ayrshire Breeders' Association, reports that the third annual meeting held in Manhattan during Farm and Home week was most successful. In his annual address L. E. Johnson, the president, stated that the past year had been a bumper year for Ayrshires in Kansas, with Canary Bell's new state record of 19,863 pounds of milk and 744.51 pounds of fat, which is not only the state record for all breeds but is the highest record for any Ayrshire in 1918. This record is all the more wonderful in that Canary Bell qualified for the Roll of Honor class with the highest record to date.

Bangora's Melrose is second only to Canary Bell with her record in 1917 that placed her in the high ten as a junior two-year-old. She came back in 1918 as senior three-year-old and produced the record which not only puts her in the high ten in this class but is the leading record for the class in 1918. Record, 14,515 pounds of milk with 568.05 pounds of fat. Bangora's Melrose also qualified in the Roll of Honor class and has started another big year's work.

Mr. Johnson mentioned the fact that two sons of world record cows had been brought to Kansas to be used as herd bulls, and also that a part of the Gosard Breeding Estate's Ayrshires had been brought to the state, thus establishing another large herd. He closed by saying that with several inquiries coming to every member of the Kansas Association every week we cannot but predict a greater year for 1919.

John Linn of Manhattan gave a short review of ten large Ayrshire breeding establishments he visited last summer. This talk gave us a glimpse of what we may aspire to.

F. W. Atkeson of the college gave a review of his experiences buying the herd of Ayrshires for the Hutchinson reformatory. Mr. Atkeson purchased

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Separators are guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes all sold on 30 Days' FREE TRIAL, and on a plan whereby they earn their own cost and more by what they save. Postal brings Free Catalog Folder. Buy from the manufacturer and save money.
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two carloads of Ayrshires in Vermont and brought them to Kansas. His experiences were very interesting as well as instructive and full of good suggestions to men who wish to buy.

Professor Fitch suggested that the college Ayrshires will go on making records as the herd is full of more promise than ever before. It now contains some twenty daughters of Melrose Good Gift. Mr. Fitch also suggested a Kansas consignment sale of good cows and heifers for next fall. He also promised the help of a good man to any man or group of men who wish to buy Ayrshires.

The report of the secretary-treasurer showed that there are twenty-two members in the association and some 150 men in the state that own one or more registered Ayrshires. A summer or fall meeting was suggested and will probably be held in connection with the sale.

The following officers were elected for the year 1919: President, H. H. Hoffman, Abilene; vice president, G. N. Taylor, Onaga; secretary-treasurer, James W. Linn, Manhattan; fourth member of executive committee, E. O. Graper, El Dorado; fifth member of executive committee, L. E. Johnson, Waldron.

College Sells High-Priced Bull

A Texas Shorthorn breeder recently paid the Agricultural College of Kansas \$1,500 for the two-year-old bull, Gloster Dale, which he will use to head his herd. This bull and his dam were both bred by the college. This sale is evidence of the quality of the animals being bred by the animal husbandry department of this institution.

New Cow Test Association

The Oswego Cow Testing Association just recently organized claims the distinction of having its full membership included in a smaller territory than any other association in the state. It is a decided advantage to have all the members of a cow testing association in a restricted area. It economizes the time of the tester and enables him to be of greater service to the members. Some of the associations in Kansas have even been compelled to extend over two counties in order to get enough cows listed to make it possible to have a tester. H. E. Woerner has been employed as tester for this new association. The officers are F. E. Proctor, president; Charles F. Perkins, vice president, and W. J. Barnes, secretary-treasurer.

This association has the opportunity to become a strong rival for the leading place in the state. One of its first official acts brought unlooked-for results. A committee was appointed to interview the grocers of the town regarding the sale of oleomargarine. The committee did not ask the grocers to cease handling the substitute, their only request being that they refrain from recommending it in preference to butter. They also took some pains to enlighten the grocers upon the relative merits of butter and oleomargarine. As a result of this conference with the grocers every dealer in town had a placard printed and posted in his store windows to the effect that he had ceased handling oleomargarine entirely. Another committee was appointed to take a census of the total amount of milk produced by the members of the association for the purpose of entering into a contract with the condensery at Fort Scott or some

other market for the disposal of the entire output of the association.

Examination for Cholera

Hog cholera is the cause of probably 90 per cent of our hog losses. When a hog dies, a careful post-mortem should be made at once. The following procedure is given by Dr. O. S. Crisler of the Missouri College of Agriculture:

Lay the dead pig on its back; examine skin for purple splotches resembling a birthmark. Make an incision through the skin along the midline of throat, chest and belly; turn back the skin and adherent fat and examine for bloodshot spots and patches. Next open the belly and chest cavities, and examine the several organs.

In acute cholera the surface of the lungs frequently shows small red spots varying in size from a pinhead to a small pea. Occasionally larger bloodshot spots are found. These hemorrhages are beneath the thin, transparent covering of the lung and cannot be washed off. They are regarded as a good sign of acute cholera. Pneumonia frequently develops from these conditions; and in such cases portion of the lung, sometimes almost the entire lung, become solid or liver-like.

In acute cases of hog cholera the spleen or "melt" is usually somewhat larger, darker and softer than normal; while in chronic cases it may be smaller than normal and grayish in color.

Remove the kidneys and peel off the thin fibrous covering or capsule. Do this carefully so as not to injure the substance of the kidney. Examine the exposed surface of the kidney for dark red spots, varying in size from mere points to the size of a pinhead or larger. These spots may be few or the surface of the kidney may be speckled as a turkey's egg. These blood spots on the kidney, when well marked, are regarded as good evidence of hog cholera.

In health the inner surface of the bladder is white or a faint pinkish white color; but in the cholera-infected animal small red spots similar to those occurring in the kidney are often found. Occasionally extensive hemorrhages may be found within the bladder.

In acute cases of cholera the mucus membrane of the large intestines may be inflamed and show patches of hemorrhage. If the disease runs into the chronic stage the large bowel often becomes ulcerated from concurrent infection with dirt germs.

Lymphatic glands or kernels are found in various parts of the body. If in a healthy state they are of a pearly white color, while in the acute form of hog cholera some of these glands become dark red from congestion or hemorrhage. The cut surface also shows dark red spots. The lymph glands in the neck at angle of jaw, in the groins, and in the intestinal fat are easily found and should be examined.

Cows do much to change an unproductive farm into a prosperous farm. Where there are dairy cows there is usually a large barn, a silo, a neat and comfortable home. In the home there is apt to be at least some of the conveniences that refined people require. The houses are usually painted, there are trees, shrubs and flowers, and the land products large crops as a result of barnyard manure. These are a few reasons for keeping dairy cows.

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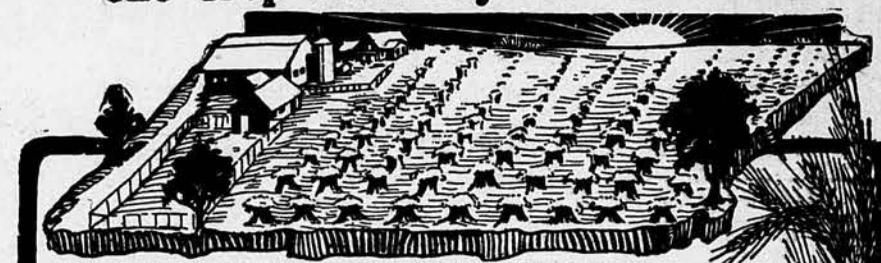
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land similar to that which through many years has averaged from 20 to 45 bushels of wheat to the acre. Hundreds of cases are on record where in Western Canada a single crop has paid the cost of land and production. The Governments of the Dominion and Provinces of Manitoba, Saskatchewan and Alberta want the farmer to prosper, and extend every possible encouragement and help to **Grain Growing and Stock Raising.**

Though Western Canada offers land at such low figures, the high prices of grain, cattle, sheep and hogs will remain.

Loans for the purchase of stock may be had at low interest; there are good shipping facilities; best of markets; free schools; churches; splendid climate; low taxation (none on improvements).

For particulars as to location of lands for sale, maps, illustrated literature, reduced railway rates, etc., apply to Supt. of Immigration, Ottawa, Can., or

F. H. HEWITT, 2012 Main St., Kansas City, Mo.

Canadian Government Agent.



Prizes Offered for Best Barn Picture

ARE you proud of your barn? Do you think you have as good a barn as any in the State of Kansas? If so, secure a photograph of it and enter the picture contest which is being conducted by the Kansas State Board of Agriculture. For the best photograph of the best barn in Kansas, Secretary J. C. Mohler will give a first prize of \$5 cash; second prize, \$3 cash; third prize, \$2.50; fourth prize, \$1.50; fifth prize, \$1. These photographs are to be used in illustrating the publications of the State Board of Agriculture, and all photographs entered become the property of the Board. Competition is open to everyone alike, and photographs will be judged on their merits alone. Any size of photograph will be eligible. Photographs should be clear and distinct, and it is preferred that they be printed on glossy paper, ferrotyped or squeegeed if possible. However, any kind of photograph will be considered. To prevent breakage, wrap the photograph carefully, with cardboard.

The contest closes April 1, and all photographs must be in by that time. Come now, let's show the other states of the Union that Kansas has some of the best barns in the country. Mail all photographs to J. C. Mohler, secretary State Board of Agriculture, Topeka, Kansas.

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SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

AGENTS WANTED

AGENTS—MASON SOLD 18 SPRAYERS and Autowashers one Saturday; profits \$2.50 each; square deal; particulars free. Rusler Company, Johnstown, Ohio.

SEEDS

WHITE SWEET CLOVER—FINE QUALITY, low price. John Lewis, Madison, Kan.

CHOICE BLACK AMBER CANE SEED, re-cleaned 1918 crop, \$1.65; sacks extra. J. L. Herrick, Beverly, Nebraska.

EXTRA GOOD RECLEANED SHROCK kafir seed, \$3.50 per bushel. Sample on request. J. P. Nachtigal, Buhler, Kansas.

YELLOW DENT GRADED SEED CORN, \$2.75 per bushel. Send sacks with order. Nick H. Muller, Howells, Neb.

SELECT SEED CORN, HIGH GERMINATION; Reid's Yellow Dent and Snowflake, \$3 per bushel. W. T. Smiley, Silver Lake, Kan.

FOR SALE—PEARL WHITE POP CORN, shelled, 10c per pound; not prepaid. Mr. A. C. Mouser, Route C, Hooker, Oklahoma.

ONE CARLOAD OF SELECTED BOONE County and Reid's Yellow Dent seed corn for sale. Prices right. C. P. Butler, Farmington, Kansas.

FOR SALE—WHITE SILVER SKIN bottom onion sets, run 10,000 to the bushel, \$4.75 bushel f.o.b. G. C. Curtis, Reference Citizens Bank, Hutchinson, Kansas.

PURE GOLD MINE AND BOONE COUNTY White seed corn, selected, shelled, graded, \$4 per bushel. Samples free. J. F. Feigley, Enterprise, Kansas.

GENUINE PINTO BEANS, CHOICE, RE-cleaned. Put up in new bags. Satisfaction guaranteed or money back. \$6.75 cwt. Hugo H. Loewenstern, Nara Visa, N. M.

FOR SALE—SEED CORN, TOOK FIRST premium, adapted for dry season, heavy yield under favorable conditions. Roy Lampert, Wahoo, Neb.

GENUINE FROST PROOF CABBAGE plants. Well rooted, winter grown in open field. Early Jersey and Charleston Wakefield. Succession and Flat Dutch. Postpaid, 250 for \$1; 500, \$1.50; 1,000, \$2.50. By express, \$2 the thousand. Prompt shipment and satisfaction guaranteed. Union Plant Company, Texarkana, Texas.

DWARF AND STANDARD BROOM CORN seed, \$7.00; Red Top and Early Golden cane, feterita, Schrock kafir, Darso, Hegari, common millet, \$6.00; Amber, Orange and Surless cane, cream and red dwarf and standard maize, dwarf and standard kafir, \$5.50; alfalfa, \$18.00; unhulled sweet clover, \$21.50; hulled, \$26.50; Sudan, \$15.00; all per 100 pounds, freight prepaid; prepaid express, \$1.00 more. Claycomb Seed Co., Guymon, Oklahoma.

HOGS.

FOR SALE—REGISTERED CHESTER White boar, 22 months old. August boars and gilts. Ralph Stephens, Denton, Neb.

CATTLE.

HIGH GRADE HOLSTEIN BULL, TWO years old; splendid individual. Will sell cheap. L. J. Brown, Mulvane, Kansas.

HOLSTEINS—ELEVEN COWS GIVING milk; thirteen one and two-year-old heifers; one pure-bred but unregistered bull. W. S. Davison, Michigan Valley, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. \$25, crated and delivered to any station, express charges paid here. Send orders or write, Lake View Holstein Place, Whitewater, Wisconsin.

THE STRAY LIST.

TAKEN UP—BY S. S. MORRIS, OF Clements, Homestead Township, Chase County, Kansas, on November 1, 1918, one red bull calf ten months old. C. A. Coe, County Clerk.

TAKEN UP—FEBRUARY 12, 1919, BY Martin Langan, Middle Creek Township, Miami County, Kansas, one red steer two years old, valued at \$40, weighing about 550 pounds; no marks or brands. C. M. McKoon, County Clerk.

TAKEN UP—BY IRA TAYLOR, OF Goodland, Logan Township, Sherman County, Kansas, on the 30th day of November, 1918, one small two-year-old gelding, color bay, anchor brand, valued at \$25; one small yearling filly, color gray, no marks or brands, valued at \$25; one aged sorrel horse, no value; three two-year-old horses, color black, no marks or brands, appraised value \$25 each. Doris E. Soden, County Clerk.

DOGS.

—AREDALES, COLLIES AND OLD ENG-lish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

FARMS WANTED.

WANTED—TO HEAR FROM OWNER of good farm for sale. State cash price, full particulars. D. F. Bush, Minneapolis, Minn.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

HONEY.

DELICIOUS EXTRACTED HONEY ON approval quality guaranteed. Thirty pounds, \$7.85; sixty pounds, \$14.90; 120 pounds, \$29.75. Sample, 15c. Wesley Foster, Producer, Boulder, Colorado.

DELICIOUS, LIGHT-COLORED, EX-tracted honey gathered by our own bees from alfalfa and sweet clover. Guaranteed pure. Write for prices. Will accept Liberty Bonds at par in payment for honey. Frank H. Drexel, Crawford, Colorado.

HORSES AND MULES.

FOR SALE—THE SURPLUS STALLIONS from small herd of registered Percherons. Lanyon Stock Farm, Gresham, Neb. Branch barn, Harrah, Okla.

MARES FOR SALE—A TEAM OF black well-matched Percheron mares, full sisters, about 2,700 pounds; sound and well broke, three and four years old. J. E. Re-gier, Whitewater, Kansas.

REAL ESTATE.

LISTEN—EIGHTY-ACRE FARM NEAR town, \$2,600; timber 40, \$385. McGrath, Mountain View, Mo.

EXCHANGE BOOK—1,000 FARMS, ETC. Trades everywhere. Graham Bros., El Do-rado, Kansas.

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FOR SALE—BIG BULL TRACTOR AND plow. Stephenson Bros., Cawker City, Kan.

FOR SALE—BATES TRACTOR, THREE 14-inch plows, \$900; \$500 cash, balance six months. Write Fred Kramer, 627 Linden-wood Avenue, Topeka, Kansas.

WANTED

WANTED—100 WHITE ESKIMO-SPITZ puppies about six weeks old. Brockway's Kennels, Baldwin, Kansas.

WANTED—A GIRL FOR HOUSEWORK. Must know something about house work. Address J. E. Regier, Whitewater, Kansas.

WANTED—THE NAMES OF RELIABLE ladies who will sell three dollars' worth of our jewelry and perfume in return for beautiful premiums. Address, Beauty Shop, Box 153, Nashville, Tenn.

WANTED—AN EXPERIENCED MAR-ried man to work on and manage a well equipped dairy and grain farm. Salary, perquisites and share of dairy product to competent man. H. W. Grass, La Crosse, Kansas.

In his talk at the banquet in honor of President Wilson, King George said that the American people "speak the tongue of Shakespeare and Milton." In the main we do, but we have added a few words and phrases that would make Shakespeare and Milton scratch their heads and look around with a nobody-home expression on their faces.—Arkansas Gazette.

Training is everything. The peach was once a bitter almond; cauliflower is nothing but cabbage with a high school education.

George Hoyes of Topeka, a "Y" man with the 35th Division in France, tells of two American soldiers, who happened to be cousins, that were in a shell hole together when an explosive took off the right leg of one and the left leg of the other. The men tore up their under-shirts and bandaged each other's wounds. "I wonder if we can get out of here," said one.

"I don't know," replied the other, "but we can try."

They succeeded in crawling out and, each supporting the other, with one good pair of legs between them, they hopped out into the road. An ambulance came along and stopped to take them in. "We're all right," the brave lads insisted. "Go up there on the hill and pick up somebody who needs help." And they actually made their way to the hospital a quarter of a mile distant, first one and then the other hopping while his comrade supported him.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Daily Food for the Family

These rules to follow in selecting food for the family when high prices prevail are given by Miss Irene Taylor, home demonstration agent for Shawnee County, in the Shawnee County Farm Bureau Monthly News for January:

Milk

Set aside one quart of milk a day for each child and one-third quart of milk daily for each grown person.

Cheese will do for grown people in place of milk—scant two ounces of cheese for one-third quart.

Skim milk has nourishment for grown people; not so good for children; half the child's daily quart may be skim milk if necessary.

If anyone has to go without milk, it must not be the children.

Fat

Use two to three ounces of some fat for each grown person.

Children who are getting a quart of whole milk daily do not need as much other fat.

Butter is the best fat, especially for little children.

Sugar

Buy only sugar enough to make the meals palatable; it is not needed for food.

One and a half ounces, or about three level tablespoonfuls daily of sugar, honey, molasses, or syrup, for each person is enough. Not more than one ounce of this should be in the form of sugar.

Spending more than necessary for sugar when the purse is low cuts off the family from other food more nourishing.

Fresh Vegetables

Buy each day potatoes and one other vegetable—cabbage, onions, carrots, turnips, beets, or the like.

Children may have daily two or three medium-sized potatoes and one-fourth pound or more of some other vegetable.

Grown persons can eat daily six to eight medium potatoes and one-half pound or more of other vegetables.

Cereals

For cereals use rolled oats, pinhead oatmeal, corn meal, hominy, barley, rice, and buckwheat.

Flours, meals and breakfast foods made from the entire grain are more desirable than the others. These include freshly ground corn meal, rolled oats or oatmeal, and cracked wheat.

Dried peas and beans and plenty of potatoes make less bread necessary.

Fruits

Give every member of the family a little fruit every day.

Apples, fresh or dried, dried prunes, and raisins are among the cheapest fruits.

Varied Diet

All that is necessary to keep the family alive and well is told in the above list of foods; if more is spent, it may give variety and better flavor to the meals.

If the family purse allows, meat may be added for the grown people; eggs may be added for all the family; more may be spent for milk, cream, butter, cheese, fruits, vegetables, fats, and sweets.

The first six rules provide a plain but safe diet for the family. Additions may be pleasing, but are no more wholesome.

Make a Scrap Book

The making of scrap books is not confined to children by any means. A careful compilation of dependable recipes or helpful suggestions for the household which might otherwise be forgotten becomes a working manual of increasing value to the busy housewife or a valuable addition to the "hope box" of the prospective bride. Convenient blank books for this purpose may be purchased with pages filled with little dots of adhesive material which need only to be moistened to hold clippings in place.

Many other things beside recipes are worth preserving. One book might well be devoted to the best of the war poetry which has been so extensively published. This has grown out of the lives of our people as touched by the war and reflects the spirit of the times as it will probably not be caught by any future his-

torian. Inspiring articles on many subjects worthy of more than passing notice may well be kept for future reference in this handy form. If you make your selections carefully, your scrap book will come to be an expression of your own individuality and to have a personal value above that of any book which could be purchased.

The Secret of Success

"What is the secret of success?" asked the Sphinx.

"Push," said the Button.

"Take pains," said the Window.

"Always keep cool," said the Ice.

"Be up to date," said the Calendar.

"Never lose your head," said the Barrel.

"Make light of everything," said the Fire.

"Do a driving business," said the Hammer.

"Aspire to greater things," said the Nutmeg.

"Find a good thing and stick to it," said the Glue.—Selected.

Green Pea Loaf

1 cupful dried green peas
4 cupfuls cold water
2 quarts boiling water
1 1/2 cupfuls soft stale bread crumbs
1 1/2 cupfuls milk
1 teaspoonful salt
1/2 teaspoonful pepper
1/2 teaspoonful paprika
1/2 teaspoonful grated onion
1 egg
3 tablespoonfuls fat

Soak peas in cold water over night. Cook in boiling water until soft. Rub through a sieve. To one cupful of this pea pulp add bread crumbs, milk, seasoning, egg (slightly beaten), and melted fat. Turn mixture in a small oiled bread pan. Set pan into a second pan, containing water. Bake mixture forty minutes or until firm. Remove loaf from pan. Serve with white sauce. One-half cupful of cheese may be added to one and one-half cupfuls of the sauce.—New York City Food Aid Committee.

Mock Chicken Stew

3 medium sized onions
3 tablespoonfuls fat
2 cupfuls diced raw potatoes
2 cupfuls kidney beans
2 cupfuls water
1 cupful canned Tuna or white-fleshed fish

Melt fat, add sliced onion and cook until slightly brown. Add beans which have been previously boiled, potatoes and water. Cover and cook slowly until potatoes are tender. Season with salt and pepper, add fish and let stand over fire until thoroughly heated.—Home Economics Department, University of Wisconsin.

Baked Bean Soup

3 cupfuls cold baked beans
3 pints water
2 slices onion
2 stalks celery
1 1/2 cupfuls stewed or strained tomatoes
2 tablespoonfuls fat
2 tablespoonfuls flour or 1 table-spoonful corn starch
1 tablespoonful Chili sauce
Salt
Pepper

Put the first four ingredients in a saucepan and simmer thirty minutes. Rub through a sieve, add tomato and Chili sauce, season to taste with salt and pepper and bind with the fat and flour or cornstarch. Cook until thickened. Serve hot.—Home Economics Division, University of Wisconsin.

What Counts

It isn't what you mean to do a week ahead!
It isn't what you know you'll gain
When all annoyances have fled;
It isn't what you've dreamed and planned—
Such hopes are but a phantom band—
The day's work counts.

The day's work counts—
It isn't much.
The gain of those few painful hours:
But be content if there is shown
Some product of those sacred powers
Which guide each mind, uphold each hand.
Strive with the best at your command—
The day's work counts.

—Selected.

The difference between cruelty to men and cruelty to animals is one of degree only, not of kind. If we include animals in the law of duty and compassion, as we are commanded to, we work at the same time for the uplifting of our fellowmen.—LAMARTINE.

How to Win Rest of the War

By HERBERT QUICK

WE THINK we have won a great victory over Germany—and we have. Germany is so weak that an army of 30,000 Poles, as I write, are threatening Berlin. It looks now as if anyone might kick Germany around—the once all-powerful Germany.

Why is Germany weak? Because the Germans have lost control of themselves.

Unless we retain control of ourselves—of our own souls—we have not won a complete victory over Germany. If we retain or acquire complete control over ourselves we can win the rest of the war. Unless we do win the rest of the war we have not only defeated Germany, but we have defeated and disgraced ourselves!

The saddest nation, the nation most completely crushed, is the nation defeated by itself; and the deepest disgrace is that which is self-inflicted. Germany can emerge from her defeat and humiliation and disgrace, after a while, by getting a new grip on her own soul. The only hope for victory for her is the hope of victory over herself.

What do I mean by suggesting that we must win "the rest of the war"?

I mean that the heaviest, if not the bloodiest, part of the task is still before us. We have that great army of which we are so proud—it seems to us the bravest, finest, most splendid army the world ever saw—still under arms, and encamped on the soil of Europe. They said in Germany that we could never get that army across the ocean—but we did. They are across, clothed, fed and made as comfortable and happy as boys so far from home can be made, until they can be brought back.

And they must be brought back. When they are through with their wonderful, their epic task, they must be brought back.

And it will cost as much to bring them back as it did to take them over. It will be in some ways a harder task; for all the world on our side wanted them to go over and was willing to help, while nobody but the little old United States is especially interested in getting them back.

Therefore, we must go on with the war so far as expense is concerned. We must go on with nearly every expensive phase of the war except the fighting phase.

Suppose that the people of the United States should quit furnishing the government with money now, and our wonderful boys in khaki were deserted, left to suffer, left to feel themselves deserted, left to shift for themselves and become vagrants and beggars—would it not be the deepest disgrace possible to this nation? And yet, it is to prevent that most impossible thing that the government asks the people to give in taxes and to provide for in the purchase of war savings stamps and other securities.

Uncle Sam, in order that the rest of the war may be won, asks every man, every woman, every boy and every girl to get himself or herself under control, to put self under foot, to stifle appetite for the unnecessary thing, to save and conserve, and to work and earn and produce, and to buy, buy, buy, the promises-to-pay of the government, so that the government may win the rest of the war—may bring our boys home, their tasks done.

And this brings me to Benjamin Franklin—you will see how, in a moment—to Franklin, one of the greatest Americans that ever lived—one of the greatest men who ever lived, the man whose likeness is on the 1919 war savings stamps.

I want to ask you to win the rest of the war as Benjamin Franklin would have you win it. But first, what sort of man was he whose advice I am asking you to take?

He was a wonderful man! He was a favorite with the courtiers of the court of France, with the philosophers, the savants, the jeweled ladies, the ruffled and sworded gentlemen—of the most luxurious and the jolliest court in the world. He won their admiration by his wit, his courtesy and his manners, and he commanded their respect for his great ability. He was their equal on their own ground, and their superior on every other ground, so he was the first

link in the chain of friendship which binds the United States to France—the last link of which was welded in the awful fires of Chateau Thierry, of Belleau Wood, of St. Mihiel, of the Argonne Forest last summer and autumn—by those boys in khaki who must be fed and clothed, and made happy—and brought back.

And yet this man Franklin was the same person who as a raw youth walked up the streets of Philadelphia gnawing a loaf of bread because he could not afford to sit down to a better meal.

He gave to the French Revolution its million-times-sung refrain, its "Ca ira!"—and (note the contrast!) he practiced saving and thrift so successfully that, beginning as a journeyman printer in a strange city, even as early as the French and Indian War, he was rich enough so that the Pennsylvania farmers were willing to sell to Benjamin Franklin the horses and wagons for Braddock's expedition, even though they would not trust the British government! He had that grip on himself which every American must have now. He knew a century and a half before the medical profession knew it, that a cold is an infectious disease; and he not only said "Liberty is still the birthright of all men," but also "The way to wealth is as plain as the way to market." And again he said, "The noblest question in the world is, 'What good may I do in it?'"—the very question the answer of which was sought by our soldier boys on the bloody battle fields of France! And then, said Franklin, "A penny saved is two-pence clear. A pin a day is a groat a year. Save and have."

And that last bit of philosophy today must be the common, ordinary American answer to Franklin's great question, "What good may I do in the world?" "A penny saved is two pence clear. Save and have."

He proved the identity of electricity and lightning—before he drew the lightning out of the cloud by means of a kite. People thought they were different things. He spoke, and the philosophers listened. And he invented the Franklin stove so as to economize fuel. He is the great apostle of war savings stamps. "He that spends a groat a day idly," says Franklin, "spends idly above six pounds a year, which is the price of using a hundred pounds."

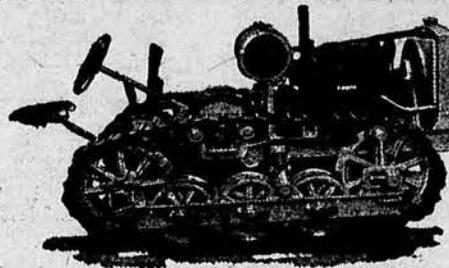
Franklin is in a large degree the founder of the American army. The troops of which George Washington took command in 1775 had no supplies, were almost naked, and were starving. Franklin was a leader in devising plans for feeding, sheltering and clothing the army, just as, if he were with us now, he would lead in the great national thrift movement which will not only win the rest of the war but will pay our war debt. The times for the easy-going spending of money should be over in this country. The world needs everything we can save. Everywhere is nakedness, hunger, and lack of shelter. "Silks and satins," said Franklin, "put out the kitchen fire." They stand for the things which make it hard to win the rest of the war. "A fat kitchen, a lean will," said Franklin, and we may say, "A fat kitchen, a lean treasury."

I wish we had Franklin for a leader now—but why can't we make him our leader? He is as real to us as if he lived in Washington today. Follow his teaching. Save and have. The government must have your savings. If you save and buy interest-bearing securities of the government, you will still have the government, you will be prouder of your government, you will feel more interest in your government—and your government will pay you interest every year.

"Save and have"—and win the rest of the war!

The more I am acquainted with agricultural affairs, the better I am pleased with them; in so much that I can nowhere find so great satisfaction as in those harmless and useful pursuits. In indulging these feelings I am led to reflect how much more delightful to an undebauched mind is the task of making improvements on the earth, than all the vain glory which can be acquired from ravaging it, by the most (un)interrupted career of conquest.—GEORGE WASHINGTON.

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SEE MY AD IN FEBRUARY 1, PAGE 3. Farnsworth.

BUFF ROCK EGGS, \$1.00 SETTING; \$5.00 hundred. Mrs. B. F. Peirce, Braymer, Mo.

WHITE ROCK EGGS, \$5 PER HUNDRED. Nora Lamaster, Hallowell, Kansas.

FOR SALE—PURE-BRED WHITE IVORY strain White Rock cockerels, \$3 each. E. R. Wilcox, Lucerne, Kansas.

WHITE ROCKS—LAYERS, WINNERS. Eggs, fifteen, \$2; 45, \$5; 100, \$8. Mrs. J. M. Cravens, Butler, Okla.

PURE BUFF ROCK EGGS—FIFTEEN, \$1.50; fifty, \$3.50; hundred, \$6.50. Mrs. Geo. Mortimer, Route 4, Manhattan, Kansas.

FOR SALE—PLYMOUTH ROCK COCKERELS. Price, \$2.50. E. F. Houghton, Chanute, Kansas.

CHOICE BARRED ROCK COCKERELS, Parks 200-egg strain. Eggs for hatching. Gem Poultry Farm, Haven, Kansas.

SIMS' BARRED ROCKS—KANSAS CITY winners. Pens mated. Write for mating list. George Sims, LeRoy, Kansas.

PURE-BRED BARRED ROCK COCKERELS, \$3; eggs, fifteen for \$5; winter laying strain. E. Plessinger, Cheyenne Wells, Colo.

BEAUTIFULLY MARKED "RINGLET" Barred Rocks. Eggs, fifteen, \$1.75; hundred, \$8. S. R. Blackwelder, Isabel, Kan.

BARRED PLYMOUTH ROCKS—PURE-BRED selected, farm raised stock. Eggs for hatching, 50 each. Mrs. W. C. Bocker, Solomon, Kansas.

BARRED PLYMOUTH ROCKS—THOMPSON Ringlet strain. Pen and utility flock eggs for hatching at live and let live prices. A. F. Siefker, Defiance, Missouri.

SUNNY SIDE BARRED ROCK COCKERELS, pen matings. Bradley and Thompson strains, \$5 to \$10 each. Satisfaction guaranteed. Almeda Siler, Wells, Kansas.

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BRED-TO-LAY BARRED ROCKS—FINE, large, hardy hen-hatched, free range, heavy-laid winter layers. Eggs, setting, \$1.25; hundred, \$6. Guaranteed. Belmont Farm, Topeka, Kansas.

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WHITE PLYMOUTH ROCKS, NO BETTER anywhere. Have bred them exclusively for 26 years and are extra good layers. Eggs, \$3 per fifteen, from five pens; \$5 per fifteen from first pen. Expressage or parcels post prepaid. Thomas Owen, Route 7, Topeka, Kansas.

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EGGS FROM PURE-BRED LIGHT Brahmas. Setting of fifteen, \$1.25; 100 for \$7. Albert Reetz, Tobias, Nebraska.

HIGH GRADE LIGHT BRAHMA COCKERELS, \$3. Eggs, \$1.75 per fifteen, \$3 per thirty, prepaid. Frank Krey, Enid, Okla.

LIGHT BRAHMA EGGS, \$2.50 AND \$3.50 per fifteen eggs; \$4 and \$6 per thirty eggs. Geo. W. Craig, 2031 Wellington Place, Wichita, Kansas.

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S. C. BLACK MINORCAS—EXTRA FINE winter layers. Eggs, \$1.75 and \$2.50 per fifteen, \$4, fifty; \$7.50 hundred. Mrs. H. M. Tilton, Anadarko, Oklahoma.

LEGHORNS.

L. B. RICKETS, BREEDER OF EXHIBITION and utility Single Comb White Leghorns, Greensburg, Kansas.

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SINGLE COMB BROWN LEGHORNS—Winners at the big shows. Eggs, \$6.50 per hundred. Wm. Roof, Maize, Kansas.

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ROSE COMB BROWN LEGHORNS—State winners. Roosters, 95c; eggs, 5 1/2c. Rufus Standifer, Reading, Kansas.

AMERICAN QUALITY SINGLE COMB Buff Leghorn eggs, \$5 per hundred. Gertrude Maize, Hunnewell, Kansas.

S. C. BROWN LEGHORNS—EGGS, FIFTEEN, \$1.25; hundred, \$7. Mrs. E. L. Zelnor, Ramona, Kansas.

SINGLE COMB WHITE LEGHORNS! Quality! Layers! Eggs! Cockerels! Mrs. Albert Ray, Delavan, Kansas.

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ROSE COMB BROWN LEGHORNS—Roosters won five state prizes. One, two dollars; two, three dollars; six, eight dollars. Prize eggs, thirty, \$2.90. Rufus Standifer, Reading, Kansas.

PURE SINGLE COMB BROWN LEGHORNS, Tormohlen strain. Winter layers. No better farm flock. Eggs, range, 100, \$7; pen, fifteen, \$3; postpaid. Mrs. D. A. Wohler, Hillsboro, Kansas.

SUNNYSIDE EGG FARM—BARRON Single Comb White Leghorn eggs, \$1.50 fifteen, \$8 hundred. Fertile eggs guaranteed. Choice cockerels. Sunnyside Egg Farm, Box F, Hallowell, Kansas.

SINGLE COMB BROWN AND ROSE Comb White Leghorn eggs, 100, \$5. Barred Plymouth Rock eggs, 100, \$6. Heavy winter-laying strains. Satisfaction guaranteed. White Pekin Ducks, eggs \$1.25 per dozen. Oakgrove Poultry Farm, Dannebrog, Neb.

S. C. BROWN LEGHORNS—BEAUTY and utility. Fourteen first prizes and two sweepstakes in state fairs in two years. Baby chicks, \$15 per hundred. Exhibition birds, \$5 per set. Order now. Mrs. C. Boudoux, Carona, Kansas, Paradise Poultry Farm.

EGGS FROM HEAVY WINTER LAYING S. C. W. Leghorns, bred for winter laying for years. Won third and fourth pen for monthly record, second pen for monthly record, and fourth pen for yearly record, at American egg-laying contest at Leavenworth, Kansas. Write for prices. H. M. Blaine, Sylvia, Kansas.

SINGLE COMB WHITE LEGHORNS from the famous Yesterday strain of laying Leghorns mated with Ferris 260-egg trapnested stock. Selected eggs, parcels post, \$7 hundred. Ten extra with each hundred order. Shady Pine Leghorn Farm, Morris Bond, Prop., Rossville, Kansas.

SINGLE COMB WHITE LEGHORN eggs, \$2 per fifteen, \$5 per fifty, \$9 per hundred; 85 per cent fertility and arrival guaranteed. Nine years a breeder from hens with record from 242 to 288 eggs per year. Range raised, housed in open front houses, for winter layers; true Leghorn type and real producers. They are unexcelled. Try them and be convinced. No crop failure here. Frank Shunk, Shawnee, Okla.

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GAME BIRDS, ETC.—BEAUTIFUL Ring-neck pheasants, pair, \$7. Wild strain mallards, pair, \$3.75. Silkies, Buff Cochins bantam cockerels, \$1.50. Book, "Pheasant Breeding," 130 pages, 50c. "Ringlet" Barred Rock eggs, forty, \$4. "Ringlet" cockerels, \$5. Mrs. Iver Christenson, Kt, Jamestown, Kansas.

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LEADING VARIETIES, 20c DELIVERED. Request folder. McCune Hatchery, Ottawa, Kansas.

S. C. WHITE LEGHORN BABY CHICKS from heavy laying strain, 15 cents. Order now. Satisfaction guaranteed. C. G. Cook, Lyons, Kansas.

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ROSE COMB WHITE WYANDOTTE cockerels, Martin strain, \$4 to \$6. Mrs. Elvin E. Joss, Wakarusa, Kansas.

FIFTEEN EGGS FROM BROWN'S White Wyandotte winners, \$2. A. V. Brown, Atlanta, Nebraska.

SILVER WYANDOTTE EGGS—FIFTEEN, \$1.75; fifty, \$4; hundred, \$7. Mrs. Edwin Shuff, Plevna, Kansas.

WHITE WYANDOTTES—BREEDING for eggs. Eggs, \$7 hundred, \$1.50 fifteen, prepaid. Dwight Osborn, Delphos, Kansas.

PURE-BRED WHITE WYANDOTTE eggs, fifteen, \$1.25; hundred, \$6. Effie Acheson, Palco, Kansas.

SILVER LACED WYANDOTTE HATCHING eggs, selected stock, per setting \$1.50; 100 eggs, \$6. Peter Hoffman, Route 1, Pretty Prairie, Kansas.

FOR SALE—A FEW FINE WHITE Wyandotte cockerels from the best strains in the country, the egg strains. A. V. Brown, Atlanta, Nebraska.

WHITE WYANDOTTE EGGS FROM MY famous show and laying strain, \$3.50 for forty-eight, prepaid; \$7 hundred. S. Peltier, Concordia, Kansas.

EGGS—WHITE WYANDOTTES, KEELER strain. Utility, \$1.50 fifteen, \$4 fifty, \$7 hundred. Pen extra good, \$3 fifteen. Mrs. M. M. Weaver, Newton, Kansas.

BUFF WYANDOTTE COCKERELS, \$3 and \$5; pullets, \$2; eggs, \$1.50 and \$3. Won at Kansas City and Chicago. H. D. Bartlett, Box K, Abilene, Kansas.

QUALITY ROSE COMB WHITE WYANDOTTES, great winter laying strain. Eggs, fifteen, \$1.75; thirty, \$3; fifty, \$4.50; hundred, \$8. Satisfaction, safe arrival guaranteed. Garland Johnson, Mound City, Kan.

RHODE ISLAND REDS.

DISPERSION SALE, ROSE COMB REDS. Cause, death of Mrs. Huston. Mated pen, hens, cockerels, cocks, sired by roosters costing \$50 to \$75. Sacrifice prices. W. R. Huston, Americus, Kansas.

MACK'S SINGLE COMB REDS WILL lay and win for you. Extra fine in size, type and color. Get my 1919 mating list. We pay all express charges on egg shipments. H. H. McLellan, Route 6, Kearney, Nebraska.

EGGS AND STOCK FROM SINGLE COMB Reds. Cruthers of Ohio and Alhartz of Texas strains. Extra fine, well colored and fine formed birds. Taken premiums wherever shown. Eggs, fifteen, \$3; thirty, \$5. D. H. Welch, Macksville, Kansas.

R. C. RED EGGS FROM FLOCK MATED to males sired by \$50 and \$75 cockerels, \$7 per hundred; \$4 per fifty; \$1.50 per fifteen. Write for circular. Mrs. E. F. Lant, Dennis, Kansas.

RHODE ISLAND REDS.

S. C. REDS—EGGS, \$2.50. MRS. JOHN Linn, Manhattan, Kansas.

SINGLE COMB RED COCKERELS, GOOD color and shape, \$3 to \$5 each. E. J. Manderscheid, Seward, Kansas.

PURE-BRED RHODE ISLAND RED eggs, \$1 per fifteen, \$5 per hundred. Winnie Larkin, Lake City, Kansas.

PURE-BRED R. C. R. I. RED EGGS FOR hatching, \$1 per fifteen, \$5 per hundred. L. F. Hinson, Stockdale, Kansas.

SINGLE COMB RED COCKERELS, \$5 TO \$10. Eggs. Maple Hill Poultry Farm, Lawrence, Kansas.

FINE BRED TO LAY SINGLE COMB White Leghorns, eggs, chicks, postpaid. Armstrong Bros., Arthur, Mo.

CHOICE ROSE COMB RED COCKERELS, \$2. Order soon. Chicks, 15c. Lily Robb, Neal, Kansas.

ROSE COMB REDS—I AM SATISFYING others, why not give me a chance to please you? S. W. Wheeland, Holton, Kansas.

HIGH GRADE RHODE ISLAND RED hens, \$1.50. Chas. McFadden, Morland, Kansas.

SINGLE COMB RED COCKERELS, LAYING strain, two to five dollars. Guaranteed. Eggs, one-fifty fifteen, seven dollars hundred. Mrs. Geo. Long, St. John, Kansas.

ORPINGTONS.

PURE-BRED BUFF ORPINGTON COCKERELS and hens. Cockerels, \$2 to \$3 each; hens, \$1.50. N. F. House, Maxwell, Neb.

EGGS FOR HATCHING FROM PEN OF pure-bred S. C. Buff Orpingtons, \$2.50 per fifteen. W. Knop, Preston, Kansas.

PURE-BRED CRYSTAL WHITE SINGLE Comb White Orpington eggs for sale. Mrs. T. A. Buckles, Clyde, Kansas.

SINGLE COMB BUFF ORPINGTON eggs, \$6 per hundred. Mrs. Henry M. Schumaker, Clifton, Kansas.

FINE S. C. BUFF ORPINGTON COCKERELS, \$2 to \$6. Mrs. Frank Neel, Beverly, Kansas.

FOR SALE—SOME GOOD WHITE ORPINGTON cockerels, \$3 each. D. H. Hoyt, Attica, Kansas.

SINGLE COMB BUFF ORPINGTONS, Marts strain. Eggs, \$1.50 fifteen, \$5 sixty, \$7 hundred. Mrs. Olive Carter, Mankato, Kansas.

SINGLE COMB BUFF ORPINGTONS, exclusively. Cockerels scoring 93-94 points, standard bred. Eggs from pen, \$3 per fifteen; range, \$5 per hundred. Warner strains. Mrs. Charles Brown, Parkerville, Kansas.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Boys' and Girls' Poultry Clubs

SOME splendid work was done last year in the state boys' and girls' poultry clubs. These are organized and directed by Ernest R. Wiegand, poultry club agent of the extension division of our agricultural college. Mr. Wiegand is a thorough poultryman and has been able to impart much of his enthusiasm to the boys and girls and to the local leaders. He is looking forward to even greater accomplishments in the club work this year. As an example of what can be done readily by boys and girls in the poultry club work, the following reports are given, which are typical of the many records that have poured in from the poultry clubs of the state:

Marjorie Smith, a fourteen-year-old girl of Lyons, Rice County, reported splendid results. She chose Rhode Island Reds, reasoning that these birds were fine table fowls as well as good layers. For her setting hens she used "setters," or brood coops with an enclosed yard in front. The hen, thus confined, could not drag the little chicks about and get them wet and chilled. In this way a large number were saved which otherwise would have been lost or killed. Out of 769 chicks hatched she weaned 739, losing approximately 3 per cent. She made \$537.69 above expenses. This is undoubtedly a good record.

Sixteen-year-old Mary Griffith, of Emporia, had 108 chicks hatch out of 120 eggs. Her loss in raising was about 4 per cent. She estimated her profits at \$74.06 for her season's membership in the boys' and girls' poultry club.

The girls have not made all the successes by any means. Kenneth Axtell, age 14, of Blue Rapids, Marshall County,

reports a profit of a dollar a chick. Oliver Watkins, of Wells, Ottawa County, sent a trio of Barred Plymouth Rocks 140 miles to the Topeka Free Fair in September, 1918, and won first prize in this class from eleven other contestants. Oliver was president of the Wells Poultry Club, which won club honors for the best and most complete exhibit of poultry at the above fair. He intends to do more and better work next year, and urges every boy and girl to become a member of the Kansas state poultry clubs.

Membership in a Kansas state boys' and girls' poultry club is free to any boy or girl between the ages of ten and eighteen years, inclusive. Beginning with 1919, any senior member of the family may enroll with the junior member. The senior supervises and otherwise assists the junior member with all work and reports connected with the home-flock project.

All junior members must agree, when enrolling, to complete the required work, to make reports, and to write a story as a summary of the year's experiences.

Good Handling Saves Eggs

Not long ago four men worked half a day grading "current receipts" of eggs as they were received at a city market. They candled out one hundred dollars' worth of rots, spots, and incubated eggs. This loss could so easily have been prevented if only the producer and the country merchant had handled the eggs promptly.

The hen lays a fresh egg; the consumer demands a fresh egg. Eggs are

a highly perishable product, and gradually deteriorate with age. Heat is their enemy; cold is their friend. The shorter the time, the more direct their route from nest to packing house, the smaller the opportunity for loss.

The proper handling of eggs is not a one-man job. Many people are concerned in it. Their interests are common, and mutual understanding and co-operation between them benefit all alike.

The farmer's part in the general scheme of good marketing is to bring good eggs to market. To accomplish this, he should market his eggs frequently, not let them accumulate.

The dealer's job is to keep the eggs good. His slogan should be "ship promptly and properly." The sooner an egg is put under refrigeration and started for the market, the better its quality when it reaches its final destination, and the higher its value.

Vigorous Males Important

Six strong, vigorous males in a farm flock of a hundred hens on the range are sufficient. They will give higher fertility than ten males where six are strong and four are weak. The weak birds are a nuisance, for the stronger birds spend part of their energy chasing the weaker ones. Emphasis should be laid on the selection of the stock males. Constitutional vigor should be a prerequisite. Too many immature cockerels are allowed to reproduce themselves. The masculinity of the male can be determined by:

Good size and substance, eliminating narrow-bodied, long-legged birds.

Strong head and large face. Wealth and burnish of feather, typical of the mature, virile male.

Leg Weakness

Getting baby chicks out of doors as early as possible and onto the ground is a big factor in the prevention of leg weakness. Close confinement, too high brooder temperature, insufficient exercise and too early feeding of concentrated protein feeds are the principal contributing causes of this difficulty. In the case of early hatched chicks which are grown wholly or for the most part indoors, considerable care must be exercised in the feeding of milk. Too early feeding of large quantities of milk is apt to literally grow the chicks off their feet. Lack of exercise and too much heat, both of which may occur in artificial brooding, are conducive not only to leg weakness but also to crooked breastbones and a general debilitated condition of the growing youngsters.

Results of Neglect

Carelessness and neglect are the worst enemies of any enterprise. They will wreck any undertaking, however favorable the conditions may be for the success of that undertaking. Carelessness in the poultry yard leads to all kinds of troubles. Neglect of the fowls brings in the lice, and often lets in the night prowlers. It frequently leaves a broken window till a cold storm comes and the birds are down with cold that make it possible for roup to develop. More flocks have become unproductive from neglect than from any other cause. Unless a man can give his poultry the care they should have, he will get little satisfaction and less profit out of them. Look after the fowls and they will pay well for their keeping, but neglect them and they are a nuisance and an eyesore on any place.

Group Chicks by Age

Chickens of different ages should not be put together in small runs or coops. This is frequently done in order to operate brooders at full capacity. It is a poor practice to combine chicks of different hatches, even though they may not differ more than a week or ten days in age. The younger chickens in such a combination never make as rapid or uniform growth as they would in a brooder by themselves.

Cold rains are prevalent in early spring and often cause sickness among a flock of fowls. To avoid the dampness, the floors should be heavily covered with straw or leaves.

Many people who are reasonably intelligent have a wrong impression about hatching eggs. When they find a rotten egg among those they have bought for hatching they feel quite sure that the eggs were not fertile, and complain

about it. The fact that the eggs spoil is evidence that they were once fertile, and every rotten egg at the close of three weeks' incubation indicates a fertile egg. The infertile egg, on the contrary, at the end of the hatching period shows but little signs of being stale, and is only aged by the process of incubation. It would not be very good to eat, since it has passed the eating stage, yet it would be as edible as an egg exposed for the same length of time to the ordinary heat of a kitchen. Poultry raisers usually boil these infertile eggs and feed them to the chickens.

It is always desirable to have as many chicks as possible hatched at one time. With a large bunch of the same age there will be only one standard or basis for comparison throughout the season. Undersized chickens will immediately be classed as runts or weanlings and will not be carried along, on the assumption that they belong to a younger brood. There will always be a few of these inferior, runty chickens, and they seldom amount to anything. It is also a decided advantage in selecting the pullets in the fall to have them all the same age. With pullets of different ages the problems of housing and developing them are more complicated.

First keep thyself in peace and then thou shalt be able to keep peace among others.

An attractive home lot will do more to increase the valuation of the farm than the best ten-acre field on it.

The White Diarrhea Germ

White diarrhea is caused by a germ transmitted through the yolk, which multiplies rapidly after the chick is hatched. There is scarcely a hatch without some infected chicks, and before you learn which ones are affected, they have infected the whole brood. The germs can be killed by the use of preventives and they should be given as soon as chicks are out of the shell. The only practical, common-sense method is prevention.

How to Prevent White Diarrhea

Dear Sir: I have raised poultry for years and have lost my share of little chicks from white diarrhea. Finally I learned of Walker's Walko Remedy for this disease, so sent for two 50c packages to the Walker Remedy Co., Dept. 276, Waterloo, Iowa. I raised over 500 chicks and never lost a single one from white diarrhea. Walko not only prevents white diarrhea, but it gives the chicks strength and vigor - they develop quicker and feather earlier. I have found this company thoroughly reliable and always get the remedy by return mail. - MRS. L. L. TAM, Burnett's Creek, Indiana.

Don't Wait

Don't wait until white diarrhea gets half or two-thirds your chicks. Don't let it get started. Be prepared. Write today. Let us prove to you that Walko will prevent white diarrhea. Send for 50c box on our guarantee - your money back if not satisfied. Walker Remedy Co., Dept. 276, Waterloo, Iowa.

FROM CHICK TO CHICKEN IN SIX WEEKS. A healthy chick will weigh a pound at the age of six weeks if fed on Otto Weiss Chick Feed. Its healthy food for the healthy brood. It saves the little ones - starts them right and keeps them right. Like this!

Save the Baby Chicks

Our book, "CARE OF BABY CHICKS," and a package of GERMOZONE are the best insurance against chick losses. Those formerly losing more than half their hatched now raise better than 80 per cent. To you who have never tried GERMOZONE, we will send postpaid, book and package as above. You pay, if satisfied, 75c; 60 days' trial. We trust you. Druggists and seed dealers sell GERMOZONE, the best poultry remedy and preventive. For old and young - bowel trouble, colds, roup, musty or spoiled food, limber neck, chicken pox, sour crop, skin disease, etc. Sick chicks can't wait. Do it now. GEO. H. LEE CO., Dept. 415, Omaha, Neb. When writing advertisers, please mention Kansas Farmer.

Mulks-Moore Holstein Sale Totals Over \$100,000

The dispersion sale of C. S. Mulks and G. E. Moore, held at the Dairy Cattle Congress grounds at Waterloo, Iowa, February 25, 26 and 27, was a wonderful success. Never has the privilege been given to Central Western Holstein breeders to view so wonderful a collection of cattle as were put through the ring on these days. There was scarcely a poor individual in the lot and the breeders present proved their appreciation by an excellent support on every animal brought into the ring.

Mr. C. S. Mulks sold eighty-seven head at an average of \$868. His senior herd sire, King Korndyke Pontiac Lass, and his splendid list of daughters were the outstanding features of the sale. This wonderful sale out of the first 44-pound cow with already a 37-pound three-year-old daughter to his credit was sold for \$8,100 to Senator Hackney of St. Paul, Minn. Following his sale the demand for his daughters was very keen. Thirty-seven of them averaged \$701, the majority going into the herds of Senator Hackney, Gaulke & Walker of Austin, Minnesota, and Pester Bros., of Whitewater, Wisconsin. Mr. Mulks' junior herd sire, S. F. Tweede Pontiac Cornucopia, by a full brother to the senior herd sire and out of

the 37-pound cow Tweede White Lady, went to Pester Bros. of Whitewater, Wisconsin, for \$6,500. This calf is a wonderful individual and these young men have shown great judgment in the selection of their herd sire.

The daughters of Col. Beets Segis, a son of King Segis and out of a 30-pound daughter of Paul Beets De Kol, possessed the qualities of real Holstein cows and were certainly appreciated by the buyers. Sixteen head averaged \$1,075.

Mr. Moore's senior herd sire, King Fan of Rock, out of a 26.6-pound two-year-old, went well worth the money to W. L. Houlton of New Orleans, Louisiana, at \$500. This bull was a wonderful individual, having had a successful career in the show ring in Bob Hester's herd during 1917. Mr. Moore's top cow was sold for \$1,010 to Senator J. M. Hackney. This herd showed no testing and in consequence the average was not so high, but possessed a fine number of individuals throughout. One hundred and seven head averaged \$350 per head, which included a large number of calves under three months of age.

Those selling above \$300 were as follows:

Table with columns: NAME, PRICE, PURCHASER. Lists various Holstein cattle and their sale prices and buyers.

(Advertisement.)

FARM AND HERD.

The Poland China bred sow sale of Jones Bros., Hiawatha, Kansas, was held as advertised on March 5, and resulted in the disposal of thirty-two head of bred sows and bred gilts at an average of \$123.65. The top price of \$425 was paid for No. 1 in the catalog, Miss Maid, by Smooth Big Bone, the Iowa grand champion. This sow is probably one of the largest and best sows of the breed in Kansas. She went to the good hand of H. B. Walter & Son, Effingham, Kansas. The offering was presented in splendid breeding condition and sold at very even prices. The sale was quick and snappy and the total results were very satisfactory to Jones Bros., this being their first annual bred sow sale.

The Kansas Shorthorn breeders consigning cattle to the Central Shorthorn show and sale at Kansas City, Missouri, on April 1, 2 and 3, are A. L. Harris, Osage City; T. J. Dawe, Troy; H. I. Gaddis, McCune; Gerlach Bros., Alma; H. H. Holmes, Topeka; A. M. Markley, Mound City; Kansas Agricultural College, Manhattan; George F. Kellerman, Mound City; Claud Lovett, Eureka; O. A. McKenzie, Wayne; J. A. Pringle, Eskridge; J. P. Sands, Robison, and A. L. Wethers, Leavenworth. The above mentioned breeders are consigning some of their very best cattle with a view to making this a very high class sale. All the cattle have been passed on by a committee that made selections of choice breeding cattle.

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
President Missouri Auction School
818 Walnut St. Kansas City, Missouri

LIVE STOCK AUCTIONEER—Fifteen years' experience. Wire for date.
JOHN D. SNYDER, HUTCHINSON, KAN.

SHORTHORN CATTLE.

WHY NOT TRY IT?



Any farmer who raises grades would realize larger profits if he raised pure-bred Shorthorns. They don't require any more food, nor any more care than the grades should have. They sell for more money. A Kansas farmer produced 94 head from one registered Shorthorn cow in 12 years. Two brothers in Wisconsin produced 119 head from one in 14 years. The value counts up when you're breeding pure-breds.

AMERICAN SHORTHORN BREEDERS' ASS'N.
15 Dexter Park Avenue Chicago, Illinois

SHORTHORNS With Quality

For Sale—Three Scotch herd bulls, royally bred and individually extra good, representing the Brawith Bud, Emerald and Orange Blossom families. Also ten head of Scotch topped females bred and regular producers. All good colors, weight from 1,250 to 1,600 pounds. Come and see me.

H. H. Holmes, Topeka, Kansas
Route 28

SHORTHORN BULLS

For Sale—Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Bra with Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

Shorthorn Bulls & Duroc Gilts

Service bulls at \$125 and up to \$200. Come and see them or write me your wants.

KLONDYKE VALLEY FARM
F. C. Houghton Duntap, Kansas

MARK'S LODGE RED SHORTHORNS

For Sale—25 well bred cows and heifers bred, priced reasonable. A few young bulls by Double Diamond by Diamond Goods. Price, \$150. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

POLAND CHINAS

Deming Ranch Poland Chinas. Big-Type Poland China Hogs

For Sale—Fifty spring boars, real farmer boars and herd boar prospects; 100 bred sows and gilts. Write or come and see our herd.

Deming Ranch, Oswego, Kan.
(H. O. Sheldon, Herd Manager)

OLD ORIGINAL SPOTTED POLAND CHINAS

Eighty head tried sows and gilts, bred and proved. Satisfaction guaranteed. Write your wants to The Cedar Row Live Stock Farm, A. S. Alexander, Burlington, Kansas.

JOHNSON'S BIG-TYPE POLAND CHINAS

Herd boar Over There No. 95555, the greatest son of Caldwell's Big Bob. A few bred sow and gilts for sale. Bred sow sale March 8.

V. O. JOHNSON - AULNE, KANSAS

Oak Grove Stock Farm Polands

The blue ribbon herd of Spotted Polands. Fall pigs sired by O and O 25th, are immuned, recorded and the very best of breeding. Also choice Barred Rock cockerels, \$3 and \$5 each.

E. W. SONNENMOSE - WESTON, MO.

LONE CEDAR POLAND CHINAS

A splendid lot of bred gilts by Big Chimes, a great son of Big Hadley Jr. and out of high class mature sows; also a few tried sows and fall pigs. All immuned. A. A. Meyer, McLouth, Kas.

LANGFORD'S SPOTTED POLANDS

Bred gilts, tried sows, herd boar prospects. T. T. Langford & Sons, Jamesport, Missouri

ERHART'S POLAND CHINAS

Have a few bred sows and bred gilts priced reasonable. All immuned. Several fall boars ready for service. Write your wants.

A. J. ERHART & SONS
NESS CITY, KANSAS

CHOICE LOT OF POLAND CHINA BRED SOWS AND GILTS FOR SALE.

A Few Fall Pigs.
CHAS. E. GREENE
Townview Farm Peabody, Kansas

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Orders now booked for February litters. Catalog and prices on request.
S. M. KNOX - HUMBOLDT, KANSAS

HAMPSHIRE HOGS

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. Geo. W. Ela, Valley Falls, Kansas

JERSEYS

THE dollar mark is part of a Jersey because she is a real money maker. Costs less to keep than any other cow and her milk is worth more. She gives the prosperous touch to your farm. Compare Jersey betterfat records with any other breed and you will not be satisfied with anything but Jerseys—the profit breed.

Ask Breeders for prices and pedigrees and let us send you valuable facts, free.

THE AMERICAN JERSEY CATTLE CLUB
375 West 23rd Street New York City

SLOPE SLOPE JERSEYS

For Sale—Young bulls and bull calves sired by our Toronto and Raleigh bred bull; also two sired by a double line-bred Spirmfield's Owl and Interested. Prince bull out of high producing R. of M. dams milking as high as 47 pounds daily, milked twice a day only.

J. A. COMP & SON
Rural Route 4 White City, Kansas
Please mention this paper.

ALLEN CENTER STOCK FARM
Registered Jerseys from choice Jersey cows. Sire's dam is the highest producing cow in Kansas. Prices reasonable.
TREDWAY & SON, LA HARPE, KANS.

BROOKSIDE JERSEYS
REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KAN.

LONGVIEW JERSEYS
(Register of Merit Herd)
Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.
Longview Farm
LEE'S SUMMIT - MISSOURI

GUERNSEY CATTLE.

GUERNSEY BULLS
Good individuals of serviceable age of May Royal, May Rose, Masheer Sequel, Raymond of the Free breeding. Write or come and see them. They are priced to move.
ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

SHROPSHIRE SHEEP

FOR SALE
A bunch of big heavy-wooled young registered Shropshire ewes, not high in price. Bred to fine rams.
Howard Chandler, Chariton, Ia.

HORSES AND MULES.

JACKS AND JENNETS
15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Twenty good jennets for sale. Two Percheron stallions. Come and see me.
PHIL WALKER
Moline, Elk County, Kansas

PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.
D. A. HARRIS - GREAT BEND, KANSAS

PERCHERON-BELGIAN SHIRES
Registered mares heavy in foal; weanling and yearling fillies. Tom mature stallions, also colts. Grown outpicks the ancestors for five generations on dam side; sire imported. Fred Chandler, Rt. 7, Chariton, Iowa

JACKS AND JENNETS

Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.
GEO. S. APP, ARCHIE, MISSOURI

DUROC JERSEYS.

FOR SALE

20 Duroc Jersey Bred Gilts

Bred for last of March and April farrow. Priced, \$60. First check gets choice. Satisfaction guaranteed or money back.

WOODDELL & DANNER
Winfield - - - - Kansas

Duroc Sow Bargains

Twenty-five head bred sows and gilts at \$50 and \$60. Send check for choice. Satisfaction guaranteed.

W. W. OTEY & SONS
Winfield - - - - - Kansas

Duroc Bred Sows and Gilts

For Sale—Several well bred sows and bred gilts bred for early March and April litters, priced to sell. Also a few spring boars. First check or draft gets choice. Sold on an absolute guarantee or money back.
JOHN A. REED & SONS, LYONS, KANSAS

DUROC JERSEY SWINE

For Sale—Bred gilts and a few young boars. Popular blood lines and good individuals. Also booking orders for spring pigs at weaning time. Priced reasonable and satisfaction guaranteed.
C. W. McCLASKEY - GIRARD, KANSAS

HIGHVIEW DUROCS

Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.
F. J. MOSEB - SABETHA, KANSAS

R. H. DIX & SON'S DUROCS

For Sale—One choice spring boar, a real herd header. Twelve spring gilts bred to Giant Crimmon by G. M.'s Crimmon Wonder, a prize winning boar. Priced reasonable for quick sale. Write today.
R. H. DIX & SON, HERINGTON, KANSAS

RED POLLED CATTLE.

RED POLLED BULLS

Twelve head coming two-year-olds and twenty head of coming yearling bulls. This is an extra nice and well colored bunch of bulls sired by ton sires. Inspection invited.
E. E. FRIZELL & SONS, FRIZELL, KAN.

RED POLLED CATTLE FOR SALE

Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.
I. W. FOULTON, MEDORA, KANSAS

RED POLLS, BOTH SEXES, BEST OF BREEDING.

Charles Morrison & Son, Phillipsburg, Kan.

If on the market for pure-bred stock, read KANSAS FARMER live stock advertisements. You will find what you want.

FARM AND HERD.

C. W. McClaskey, of Girard, Kansas, the owner of Rosedale herd of Duroc Jersey swine, reports his herd doing well. Mr. McClaskey has built up one of the high class Duroc herds in Kansas. He has all the popular blood lines and the big, quick-maturing type. A feature of his herd at this time is the very fine lot of bred gilts and outstanding young boars.

HOLSTEIN CATTLE.



Holstein Veal

No Kind or Quality of Veal is so much in demand as that of the Holstein-Friesian breed. It is an important source of revenue to Holstein dairymen, adding an important item to the credit side of the dairy farmer's account. Holstein calves weigh 100 to 135 pounds at birth.

If interested in **HOLSTEIN CATTLE** Send for our booklets—they contain much valuable information.
HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 114, Brattleboro, Vt.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks old, 15-16ths pure, \$25 each, crated and shipped to your station. Express and all charges paid here. Highland View Place, Whitewater, Wis.

BRAEBURN HOLSTEINS

Looking for a bull? I can generally offer you choice of half a dozen, by two different sires. That saves time and travel.
H. B. COWLES
608 Kansas Avenue Topeka, Kansas

BUTTER-BRED HOLSTEINS

Three choice registered Holstein bulls, ready for light service, and some bred heifers to a 32-pound sire.
J. F. MAST - SCRANTON, KANSAS

Holstein Calves

Choice, beautifully marked calves from heavy milking dams, either sex. Also cows and heifers. Write
W. C. Kenyon & Sons
Holstein Stock Farms, Box 33, Elgin, Illinois

JOIN THE BUY-A-CALF MOVEMENT

We are offering high grade Holstein heifer calves, 15-16ths bred, nicely marked, by pure-bred sires and from dams that are giving from 50 to 70 pounds milk daily. We ship them at three weeks old. We are selling them at \$20.00 each crated. Safe arrival and satisfaction guaranteed. We are calf dealers and can handle any sized order. Order from this ad.
YOHNS STOCK FARM
Watertown - Wisconsin

\$20.00—HOLSTEINS—\$20.00

Practically pure-bred Holstein heifer calves four to six weeks old, the kind that are bred for production, out of 60-lb. cows and sire carrying large percentage of world's champion blood. Write for further particulars.
Harris Holstein & Duroc Farm, Sextonville, Wisconsin

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

HOLSTEINS!

We are offering a choice selection of both registered and high grade springer cows and heifers. Also pure-bred bulls and young females. All reasonably priced. Come and see them or write.

T. R. Maurer & Co.
EMPORIA - - - - - KANSAS

CHOICE HOLSTEIN CALVES

12 Heifers and 2 Bulls, highly bred, beautifully marked, and from heavy producing dams, at \$25 each, crated for shipment anywhere. Safe delivery guaranteed. Write
FEENWOOD FARM, WAUWATOSA, WIS.

SECRET & STEPHENSON, WOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

AYRSHIRE CATTLE.

Linndale Farm Ayrshires

MARGINALIA'S BEST NO. 25780
Record 11,260 pounds milk, 411.14 pounds fat. Get this cow's last son for your next herd bull. He is nearly all white and will be ready for fall service. He is sired by Elizabeth's Good Gift. Price, \$250.
We also have two younger bulls at \$100 each.
JOHN LINN & SON
Manhattan - - - - - Kansas

BREEDERS' DIRECTORY

DORSET HORN SHEEP
H. C. LaTourrette, Route 2, Oberlin, Kan.
HEREFORD CATTLE
F. S. Jackson, Topeka, Kan.
RED POLLED CATTLE
Mahlon Groenmiller, Pomona, Kansas.
POLLED DURHAMS
C. M. Albright, Overbrook, Kan.

Kentucky Jacks at Private Sale



SAUNDERS & MAGGARD, Newton, Kansas

E. P. Maggard, with the firm of Saunders & Maggard, Flemingsburg, Ky., has shipped 21 head of jacks to Newton, Kansas, and they will be for sale privately at Johnson's Barn. This is a well bred load of jacks, and they range in age



from coming three to matured aged jacks; height from 14 to 16 hands. We will make prices reasonable. Anyone wanting a good jack will do well to call and see them. Barn two blocks from Santa Fe depot, one block from Interurban. Come and see me.

Central Shorthorn Breeders' Association Show and Sale

**Kansas City, Stock Yards Sale Pavilion
April 1, 2, 3, 1919.**

200 Head High Class Scotch and Scotch Topped Cattle



AT KANSAS CITY STOCK YARDS SALE PAVILION
The Show will be held April 1 and the Sale will begin April 2 at 1 p. m.

Twenty cows and heifers with calves at foot.
Fifty cows and heifers bred to drop calves early in spring.
Thirty head long yearling heifers.

One hundred bulls, including high class herd bulls and bulls in car lots for the range trade and single bulls for farmers. Consigned by leading breeders of Missouri and Kansas.

The annual meeting of the Central Shorthorn Association will be held at the Baltimore Hotel the evening of April 2.

For catalog apply to

John A. Forsythe, Box K. Pleasant Hill, Mo.
Auctioneer, Col. P. M. Gross, Kansas City, Mo.

Kansas Holstein-Friesian Association Annual Sale

Tuesday, March 25, Fair Grounds Sale Pavilion, Topeka, Kansas

80 Strictly Choice Representatives of the Breed

Every animal in this sale has been passed upon by an expert judge from the Dairy Department of our Agricultural College at Manhattan, Kansas, and only cattle that meet his requirements are entered in the sale.

The outstanding offerings of this sale consist of over thirty cows and heifers with A. R. O. records, twenty daughters of 30-pound bulls, thirty cows and heifers bred to 30-pound bulls, a

Smith & Hughes, Topeka, Kansas
Sam Carpenter, Jr., Oswego, Kansas
Holston & Son, Topeka, Kansas
W. R. Stubbs Farm, Mulvane, Kansas
M. W. Crow & Sons, Hutchinson, Kansas
G. Regier, Whitewater, Kansas

THE FOLLOWING BREEDERS ARE THE CONSIGNORS:

Harry Mollhagen, Bushton, Kansas
C. W. Dingman, Clay Center, Kansas
R. E. Steuwe, Alma, Kansas
Mott Bros., Herington, Kansas
Frank J. Searle, Lawrence, Kansas

Louis Rohlfing, Lawrence, Kansas
Girod & Robinson, Towanda, Kansas
Segrist & Stephenson, Holton, Kansas
Coleman & Son, Denison, Kansas
A. S. Neale, Manhattan, Kansas

J. T. Axtell, Newton, Kansas
W. J. O'Brien, Tonganoxie, Kansas
Geo. E. Schroeder, Frederick, Kansas
H. D. Burger, Seneca, Kansas
Lee Bros., Harveyville, Kansas

NOTE.—The annual meeting of the Kansas Holstein-Friesian Association will be held at the Commercial Club Rooms at Topeka, Kansas, on the afternoon of March 24. The Commercial Club of Topeka will give a banquet to all members of the association and visitors on the evening of the 24th, and an unusual program has been provided for your entertainment.

bull from a 34-pound cow, one from a 27-pound cow, and five other bulls from dams whose records run from 23 to 26 pounds. Every bull an excellent individual and the most attractive lot of young herd sires ever offered in any sale ring in this state.

In addition to these attractions will be daughters of Lakeside King Segis Albin De Kol, daughters of King Walker and of Canary Butter Boy King and grand daughters of King of the Pontiacs, King Korndyke Sadie Vale, Pontiac Korndyke, Sir Rag Apple Korndyke, Rag Apple Korndyke the Eighth, and Colantha Johanna Lad.

For catalog of this great sale, write today to W. H. MOTT, Sales Manager, Herington, Kansas.

On March 26, A. B. WILCOX & SONS will sell 75 head of Pure-bred Holsteins at the same place. Arrange to attend both sales.

The management wishes to know the source of all inquiries, so kindly mention Kansas Farmer when writing.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

J. A. Comp & Son, White City, Kansas, owners of one of the very high class herds of pure-bred Jersey cattle in Kansas, report their herd making a fine record. This is one of the record bred herds and is noted for its heavy producers. Sultan Princess, one of the herd cows, began her Register of Merit record at the age of one year and nine months and made a record of 7,067 pounds milk and 440.11 pounds fat. Her second record was made as a senior two-year-old and was as follows: Milk, 8,267.9 pounds; butter fat, 507.33 pounds. She is now on her third test with a good prospect for a record far beyond her former tests. Her dam is now on test and is milking forty-seven pounds per day. Another cow in this herd produced a total of 2,392.24 pounds of milk and 140.691 pounds butter fat in January and February, 1919. A feature of the herd at this time is the fine lot of young stock, including young bulls out of the heavy producing dams of the herd.

Harry W. Mollhagen, of Bushton, Kansas, owner of one of the good herds of Holsteins in this state, will have one of the good consignments in the Holstein sale to be held in Topeka March 25. This consignment will consist of sons and daughters of such sires as Canary Butter Boy King, eight A. R. O. daughters with an average of 23.50 pounds butter, five with records above 23.70; Sunflower King Walker with five A. R. O. daughters, one with a 22-pound record at twenty-seven months old and an average of nineteen pounds butter in seven days for all of them at twenty-seven months old.

The Poland China bred sow sale of Schmitz Brothers, Seneca, Kansas, on March 4, resulted in the disposal of thirty-four head, mostly gilts, at an average of \$136.16. The top price of \$265 was paid for a spring yearling gilt sired by Ferguson's Big Orphan and bred and raised by the well known Kansas breeders, Ross & Vincent, of Sterling. This gilt was purchased by Plus Haug, Seneca, Kansas. The offering was presented in splendid sale condition and would have sold for more money had the weather been favorable for travel. No sensational prices were recorded, yet the average was very fair. The sale was one of the good ones of the season and the total was very satisfactory to Schmitz Brothers, who own one of the good Poland China herds of the state.

Attend the Great Holstein Sale At Topeka, Kansas, March 25

I will consign sons and daughters of the following sires:
Canary Butter Boy King—Eight A. R. O. daughters, five with records above 23.70, average for all 23.50 pounds butter.

Sunflower King Walker, whose five-months-old daughter attracted so much attention at the last sale and sold for \$350, now has five A. R. O. daughters, one with 22 lbs. at 27 months of age (state record) and the average for all of them 19 lbs. butter in seven days at 27 months of age. Here is a sample of my consignment: A 12-months-old daughter of Sunflower King Walker from a 24-lb. daughter of Canary Butter Boy King, also two other heifers of similar breeding; a 16-months-old son of Sunflower King Walker from a (state record) junior three-year-old daughter of Canary Butter Boy King.

Also a son of my junior herd sire, King Houwtje Maid Canary. This calf is one of the finest individuals I ever saw. He is a line-bred grandson of Canary Butter Boy King by a son of Sunflower King Walker (nuff sed).

HARRY W. MOLLHAGEN - - BUSHTON, KANSAS

The Central Shorthorn Association, Kansas City, Missouri, has announced April 1, 2 and 3 for their annual show and sale dates. On April 1 there will be shown ten classes of cattle competing for the cash prizes offered by the association. There will be six moneys offered in each group, ranging from \$5 to \$16. The association is very liberal this year in offering cash premiums. It affords an opportunity seldom given by associations of this kind. Two hundred head of Scotch and Scotch topped cattle have been consigned to this sale by the best breeders of Missouri and Kansas; twenty breeding cows, all with calves at foot; fifty cows and heifers bred for early spring calves; thirty head of choice yearling heifers, and a hundred head of bulls, consisting of tried herd bulls, range bulls in car lots and single lots for farmers. The offering promises to be the best lot of high class cattle ever sold by the Central Shorthorn Association and probably the best lot of cattle that will be sold in any sale this year.

ANGUS CATTLE

Dietrich's Aberdeen-Angus
Aged bulls, fifteen choice spring bulls. Females, all ages.

GEO. A. DIETRICH, CARBONDALE, KAN.

Cherryvale Angus Farm

Is offering six choice Angus bulls ranging in age from 9 to 11 months. All sired by Roland L. No. 187220.

Route 8 J. W. TAYLOR
Clay Center, Kansas

ANGUS BULLS

For Sale—Seven head bulls from 7 months to 3-year-old herd bulls. Priced to sell. Write your wants or come and see my herd. I mean business.
FRANK OLIVIER, JR., Danville, Kansas

CLAIM SALE DATES.

Jacks and Jennets.
March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Shorthorns.
April 1, 2 and 3—Central Shorthorn Association Show and Sale, Kansas City, Mo. For catalog apply to J. A. Forsythe, Box K, Pleasant Hill, Mo.
April 2—Southeast Kansas Shorthorn Show and Sale, Coffeyville, Kan. G. A. Laude, Humboldt, Kansas.
April 4—Southeastern Kansas Show and Sale at Coffeyville, Kansas.

Holsteins.
March 25, 1919—Kansas Holstein Breeders' Association sale, Topeka. W. H. Mott, sales manager.
March 26—A. B. Wilcox & Son, Topeka, Kan. W. H. Mott, Herington, Kan., sale manager.
April 12—A. S. Neale, Manhattan, Kan.

Hereford Cattle.
April 12—Kansas Hereford Breeders' Draft Sale at K. S. A. C., Manhattan, Kan.

KANSAS FARMER COLLECTOR MAR 15 1919



"How many miles to the gallon?"

How American farmers are finding the answer:

Correct TRACTOR Lubrication

How to read the Chart
The four grades of Gargoyle Mobiloils for tractor lubrication, purified to remove free carbon, are:

- Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "BB"
Gargoyle Mobiloil Arctic

In the Chart below, the letter opposite the tractor indicates the grade of Gargoyle Mobiloil that should be used.

Table with columns for 1918 Models, 1917 Models, 1916 Models, 1915 Models and rows for various tractor models like Allis-Chalmers, Case, Ford, etc.

THIS is getting to be one of the most frequently asked questions in America.

Every farmer who operates an automobile or tractor is interested in fuel consumption.

He wants to know, because mileage per gallon, or acreage per gallon, indicates closely what his automobile or tractor is returning on his investment.

When the engine is apparently in good mechanical condition, and still delivers less power per gallon of fuel than some other engine of the same type, size and equipment, look to these points for your answer:

- 1. Are you using the spark correctly?
2. Do you use an engine lubricating oil that forms and maintains a perfect piston-ring seal?
3. Do you, at regular intervals of operation of your car or tractor, drain the used crank-case oil (which invariably is diluted by the fuel) and replenish with new oil of the correct body and character?
4. Are you expecting more of the engine than it was ever designed to do?
5. Doesn't the other engine that gives better service use

the correct grade of Gargoyle Mobiloils, as specified in the Chart of Recommendations? (Charts for both automobiles and tractors are shown on this page.)

Often the answer lies in Point Five. The importance of correct lubrication cannot be emphasized too much.

The correct oil for your automobile or tractor engine must meet the lubricating requirements of your engine with scientific exactness. It must be of the correct body and character to withstand the heat of operation, furnish maximum lubrication to all friction surfaces, and maintain at all times a perfect piston-ring seal. It must be distributed readily and freely by the system of lubrication.

There is a grade of Gargoyle Mobiloils that is correct for your engine. This correct grade prevents carbon deposit. It withstands high temperatures, and furnishes maximum lubrication to all friction surfaces. It conserves power by keeping the piston rings tightly sealed—these are the big reasons for "more miles or more acres to the gallon."

Gargoyle Mobiloils are put up in 1- and 5-gallon sealed cans, in 15-, 30- and 55-gallon steel drums, and in wood half-barrels and barrels.



Mobiloils
A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safer to purchase in original packages. Look for the red Gargoyle on the container.

VACUUM OIL COMPANY, New York, U. S. A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

- Domestic Branches: New York, Philadelphia, Detroit, Minneapolis, Kansas City, Kan., Boston, Pittsburgh, Chicago, Indianapolis, Des Moines

Correct AUTOMOBILE Lubrication

How to read the Chart
The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

- Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil Arctic

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloil that should be used. For example, "A" means Gargoyle Mobiloil "A", "Arc" means Gargoyle Mobiloil Arctic, etc. The recommendations cover all models of both passenger and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

Large table with columns for 1918 Models, 1917 Models, 1916 Models, 1915 Models and rows for various car models like Abbott, Alford, Alton, etc.