RMFR ANSAS FA

For the improvement

of the Farm and Home

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WORLD SHORTAGE

Government Recognizes Importance of Live Stock Industry

WE HAVE heard so much lately of the need for more wheel many have overlooked the fact that fostering the live stock industry is fully as important as growing increased quantities of wheat. We are glad to note that our Department of Agriculture and the Federal Food Administration realizes the necessity for giving serious consideration to the live stock situation. The attention of stockstock situation. The attention of stock-men and farmers of the country is di-rected to the world situation in food animals and the provisions which are broadly necessary from a national point of view in the following statement, signed jointly by Secretary of Agricul-ture D. F. Houston and Food Administrator Herbert Hoover: One of the incidents of the European

War has been the slaughter of large numbers of animals, and it is estimated that already the herds of Europe have been diminished by 28,000,000 cattle, 54,000,000 sheep and 32,000,000 hogs. An accelerated increase in this diminution of meat animals must take place in Europe from month to month as long as the war lasts.

We have two problems in meat sup-plies: The first is the task of supply-ing our own soldiers and citizens and helping feed the soldiers and citizens of our allies during the war; and to do this we must furnish larger supplies and must find these supplies for the present largely by reduction in our own con-

sumption and waste.

The second problem is the one which we desire to bring particularly to the attention of the American producer, and that is: After the war, Europe, with diminished animals, and therefore diminished annual production of animal food will require larger imports of food, will require larger imports of meats during the years of recuperation, and will probably require the actual import of breeding animals. Therefore, in a broad way, the outlook to the American producer from now on and after the way will be a large development. the war will be a large demand for animal products and a continuing necessity for meat and dairy animals to convert forage and grains not needed for human consumption into meats and dairy products.

The herds and flocks of the country can only be increased over a period of years, and the foundation for such an increase should be laid at once. Such increase is a national interest, and it

must be made to the interest of the American producer.

Owing to the large measure of failure in roughage available in western ranges this year there must be either a reduction in western animals or their redis-tribution into the central and southern states where there is a larger amount of roughage and concentrates available than ever before. Therefore, if the roughage in the central and southern states is saved in an economical manner and if stocker steers, young cows, heifers and ewe lambs of good quality that will be marketed during the next ninety days from the western sections of the country are redistributed, these animals will have been saved and the foundation will have been laid for a material increase of our

Some sections of our country are stocked to capacity with ewes, from which lambs are marketed at from 70 to 80 pounds weight. This is the most economic method of producing mutton, just as "baby beef" is the most economic method of producing beef, and the quality of both these meats is of the best.

What we need is more cows and more What we need is more cows and more ewes producing the 700-pound calf and the 70-pound lamb. We wish to restore the confidence of the farmer in his industry by convincing him that he will get a fair share of a fair price paid by the consumer and extending to him credit on a reasonable basis so he may be able to equip his farm for handling sheep, hogs and cattle successfully. Only by adopting the foregoing methods and by adopting the foregoing methods and principles can production be stimulated and the consumer protected.

Many of these same cattle will be re-

quired to re-stock the ranges from which they are now being moved, when normal range conditions return the coming year. The nearer to these ranges the can be wintered, the more freights will be saved, both coming out and going back, and the less tax upon the rail-

It is essential for the future welfare of our nation that the supply of all meat animals be increased. This, not only from the standpoint of directly increasing the food supply of the country, but more live stock on the farm means more fertility in the farm; more fertility means larger grain crops produced at a less cost per bushel; more cheaply produced grain should mean cheaper bread to the consumer as well as more

net profit to the farmer. Especially should the energies of the farmer be directed to increasing the sheep stock of the country. Clothing comes next to food as a necessity. Not only does the sheep meet the demand from a food and fertility standpoint, but for its wool for clothing there is no substitute. Every interest that can make itself felt should advocate and encourage the establishing of flocks of sheep in proportion to size of farms in every section of our coun-try. Every farmer should carry to its yearling form every heifer calf of both dairy and beef breeds and every ewe lamb that promises to have an economic future.

Every effort should be made to bring to maturity every heifer calf or ewe lamb whose breeding will give some as-surance that it will convert its feed into either profitable meat or profitable dairy products.

State authorities should take immediate action to control the dogs whose depredations have made sheep raising on

the farm so difficult a task.

It is equally desirable to increase hog production in this country by every means possible. The increase in demand for pork products is no less than for cattle and sheep products. In this matter the expansion of existing herds is essential, and a redistribution of hogs from centers of less feed supplies to those of greater resources is necessary. Furthermore, the raising of pigs by suburban populations and the utilization of home garbage and perishables not other-wise useful is of double advantage to

The law that we are now operating under as to food control is conceived and administered in a desire to maintain remunerative and stimulative returns to the producer and to enable these products to reach the consumer with only a reasonable profit allowed for services rendered. Therefore, it is the object of the Administration to eliminate unnecessary cost between producer and con-

An intelligent use of the Department of Agriculture's daily reports of the meat situation and the Department's report of the loading of stock at all ship-ping points should enable the producer to distribute his shipments to better advantage, thereby assisting in lessening the wide fluctuations in market prices for live stock.

In order that a definite and nationwide campaign to secure these results may be at once undertaken, we have asked prominent stockmen of the country to serve upon a general committee to be known as the United States Live Stock Industry Committee.

We have appointed George M. Rommel and P. H. Rawl, of the Department of Agriculture, and E. C. Lasater and Gifford Pinchot, of the Food Administration, to serve on an executive committee to be added to form the general committee. The State Agencies, the Department of Agriculture, and the Food Administration, and, we trust, the state agricultural and food institutions, together with state councils of defense, will also be corrected. The county agents gether with state councils of defense, will also co-operate. The county agents of the Department of Agriculture will take orders for cattle, ewes, or ewe lambs, among the small farmers of communities in less than carload lots, and we have arranged with the live stock exchanges to contribute to this mobilization of the action has been accounted to the stock. tion of the nation by buying this stock and seeing to it that it is properly handled while in the yards, free of any charge to the buyer.

This campaign should not be considered to have terminated successfully until the great majority of our farms have their flocks of sheep and a sufficient stock of cattle to consume all roughage

now largely wasted.

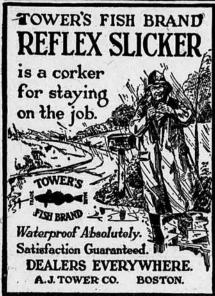
The Live Stock Industry Committee referred to above consists of almost a hundred of the leading live stock men of the country. Kansas is represented Mr. Hoover and Secretary Houston will Governor W. R. Stubbs, of Lawrence, and C. O. McClure, of Kansas City. From the personnel of the committee we feel sure that the advice and counsel given by Dan D. Casement, of Manhattan; exbe such as will favor the expansion of the live stock industry.

The preliminary classification for the 1917 International Live Stock Exposition is now ready for distribution. This tion is now ready for distribution. great live stock show is the culmination of live stock showing for many of the famous herds of the country. There has famous herds of the country. There has been an increase in the premium offerings in several departments. A copy of this preliminary classification will be mailed on application to B. H. Heide, Secretary International Live Stock Exposition, Union Stock Yards, Chicago.



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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

MECHANICAL power is performing an important function in increased production and in prosecuting the war. While the number of horses and mules in this country is continually increasing, the demand for power is increasing much more rapidly. Men are learning to do more and more work by animal or mechanical power. Population is also on the increase. Hence it is necessary not only to furnish more power to do the work which was at one power to do the work which was at one time done by hand, but it is necessary also to do the vast amount of work required to feed and clothe the increasing population.

Small gasoline engines are being made use of very largely, but a large portion of the power needed must be in the form of draft. Hence it is necessary to use the tractor. This very easily accounts for the sale of such a vast number of tractors and the ever increasing demand for this farm machine. It is hard to understand how anyone can say the tractor is a fad and back his belief by any

sound reasoning.

The tractor is not a fad, but a necessity without which, in the present crisis, this and every other warring nation would be in a sorry plight. It would be impossible to maintain the army at the front without tractors to convey food front without tractors to convey food and to help with the farming operations.

Not only is the tractor necessary from this standpoint, but it has been found more efficient for many kinds of work and is therefore greatly in demand for such operations. In the hot months the farm horse is almost disabled by the effect of heat. The tractor is then at its best .- E. R. GROSS, Ft. Collins, Colo.

Useless Hill Climbing

The high-gear hill-climber is first cousin to the scorcher, and both are bound to become wiser as time goes on, asserts R. O. Allen, writing in the current issue of American Motorist, on the folly of driving motor cars up steep hills in high gear solely for boasting purposes. Continuing, Mr. Allen says:

"I fully understand that the modern automobile is made to climb almost anything but trees. But I wish to demon-

thing but trees. But I wish to demonstrate that to climb a steep hill on the high gear imposes the hardest kind of work not only on the engine, but also on every other part of the car. The low on every other part of the car. The low gear ratios are provided for hill climbing and they should be used for it. "It may be well here to consider a

little more carefully the amount of work performed by an automobile climbing a gradient on, say, a gear ratio of three to one. A ratio of three to one means that one revolution of the rear wheels is produced by three revolutions of the engine shaft. With the larger gear ration, the intermediate and the low, the number of engine revolutions becomes still greater as compared to the number of road-wheel revolutions.

"It is not so difficult to compute with exactness the distance which a car is propelled by one explosion in the engine cylinder and the power consumed in hill cylinder and the power consumed in hill climbing. The circumference of a thirty-two-inch wheel is approximately 100 inches, and in covering one mile the wheels revolve 633 times. With the motor turning over three times as fast as the road wheels, it will require 1,899

revolutions of the gear shaft to propel the car one mile. Thus, if such a car should proceed at the rate of thirty miles per hour, approximately 950 engine revolutions per minute are required. With two power strokes at every revolution there are 1,900 revolutions per mile and each explosion propels the car one foot and four and a half inches.

"This estimate assumes that the car be propelled over level ground. To mount a hill simply means that grade resistance is added to the various fric-tional and other stresses. An automotional and other stresses. An automobile weighing 2,000 pounds climbing a hill 200 feet high (measured vertically) simply performs the task of overcoming the action of gravity or lifting, and the calculation of the power required to do this must involve the factors from which the horsepower unit is derived. To lift 2,000 pounds 200 feet high in one minute is the same thing as lifting $2,000 \times 200 = 400,000$ pounds one foothigh in one minute. Theoretically, then, the lifting of 2,000 pounds 200 feet high the lifting of 2,000 pounds 200 feet high requires 400,000 + 33,000 = 12.12 horsepower, and the losses through friction, air resistance, etc., consume the remainder of the theoretical horsepower output.

"From all of this it must become ap-parent that rushing up a steep hill on the high gear must subject any car to enormous stresses, which are likely to affect the life and service of the car to a considerable degree. Gear shifting is not a cumbersome task, and the mounting of gradients will not be attended by harm if the gears are put to the use for which they were intended by the automobile designer."

Keep Your Engine Clean A dirty engine is the cause of more engine troubles than practically any other one thing. This is especially true with the ignition system. It also cuts out bearings.

When you examine the bearings on the engine, be sure to clean off the top of the engine thoroughly, so that the dirt does not get into the crankcase and mix with the oil.

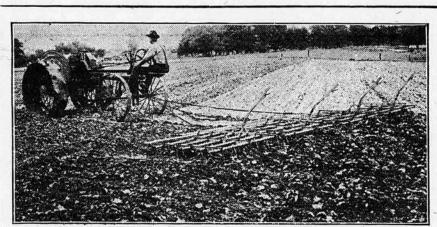
Dirty platinum points will cause the

magneto to give a poor spark.

Remove the spark plugs once in a while and clean them thoroughly. Don't expect to get a good spark with wet cables, or wet and dirty spark plugs.

A useful precaution in these days of low-grade gasoline is provided in a clean fuel to reach the carbureter. Gasoline enters a lower chamber, where all sediment is supposed to be deposited, and from which it may be drawn off through a drain cock. The gasoline then rises through the filtering element of layers of gauze and special material to an upper chamber, from which it flows into the carbureter.

It is a mistaken idea that tractor gears last longer without oiling. Gears which are not inclosed and running in oil require very frequent lubrication. Some operators use a good grade of machine oil in the gear oilers and whenever possible smear hard oil on the gears to supplement the oil. The oil for gears should drop between the teeth so that it will be carried directly to the wearing



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HOOVER SPEAKS TO FARMERS

N SPEAKING to the farmers of the country through the editors of farm papers, Herbert Hoover, food administrator, pointed out that even if this war had not come we were due in a faw years for an accommis revolution few years for an economic revolution. Our productive capacity in foodstuffs has fallen behind our productive capacity in industry. According to Hoover, the war has precipitated this question upon us, for with the reduced consuming power of the world's population due to the destruction of property and life, we shall have after the war less demand upon industry and industry will have become less profitable. But in spite of this, as a result of the destruction of animals and exhaustion of the soil in animals and exhaustion of the soil in Europe, there will be no diminution in the demand for food. "Therefore, if I interpret the signs correctly," said Mr. Hoover, "the farmer is coming into his day and it is the duty of all of us to support him."

Mr. Hoover met over a hundred farm paper editors in Chicago for the purpose of discussing the work of the Food Administration in its relation to the farmers of the nation. He stated that the Food Administration has for its purpose the obtaining of the intelligent coordination of all the forces in the counordination of all the forces in the country to solve specific difficulties and food problems which have come through the international situation. It is his idea that the solution of these national difficulties depends entirely upon the cooperation of all those concerned. With our people there can be no force used on production and no force used on consump-tion. There can, however, be intelligent leadership, and there can be a stimulation of patriotism to effect ends for the common good. As stated above, it is the belief of Mr. Hoover that the majority of the food problems which have arisen in the United States and which will oc-cur in the future would have occurred even if we had not gone into the war. They are based on underlying economic currents and disturbances of economic forces. In some ways the war has made it easier to hasten the solution of these problems.

While the law itself is called the "Food Control Law" by Congress, the Government insists that its function in carrying out the provisions of the law is that of administration and not control. It seems to be the idea of the Food Administration that the problem is almost entirely administrative and must be worked out through organiza-tion entirely in a co-operative manner. The Food Administration has summoned to its assistance from all over the country men who are prominent in their knowledge, experience, and skill in dealing with some of the phases of the problem. On another page of this issue we refer to the character of the Live Stock Industry Committee, consisting of almost a hundred of the leading live stock men of the country. Mr. Hoover told the editors that he resented the statement that the Food Administration is a dictatorship. He said, "I have seen the suffering of ten million people under the wrongs of a dictatorship. Food administration as much as any other function of a democracy must be founded on the good will and consent of the governed. It is for this reason that in our office in Washington and the state of the governed. Washington not a day goes by but from two to ten conferences, with the producers, distributers, and with specialists take place in order that with the combined wisdom of all we may find solution that the conference was the conference with the conference was th tions to the difficulties that confront us. The Food Administration must be the combined work of thousands. It is beyond any one man."

One of the first problems confronting the Food Administration was that relat-

studying the problem from every angle, the Food Administration arrived at the conclusion that the world price deter-mination in wheat is entirely destroyed by disruption of the world's commerce; that while we face on one side shortage of supplies, such shortage might be ex-tinguished over night by the flood of supplies now dammed back in other quarters; that the number of buyers in quarters; that the number of buyers in our markets and the ordinary equaliza-tion of price with the supplies of the rest of the world have disappeared; that speculation in this particular commodity during the last year was one of the most terrible burdens our consumers had to bear. "I think you will agree with me," said Mr. Hoover in addressing the ed-"that no half-way measures are possible, and the only protection to the producer on one side from possible gluts by shortage in shipping, from possible flood of supplies due to ending the submarine, or to peace and protection to the consumers on every side from speculation, lies in the solution we have proposed, which is that the President should summon a commission composed of the best intelligence in this country, representing an actual majority of the producers themselves, and lay upon that commission the national duty of determining what would be a few price for mining what would be a fair price for this year's harvest with a just return to the farmer." This committee, which had not submitted its report at the time had not submitted its report at the time Mr. Hoover was speaking, has since recommended that the administration price for wheat of the 1917 crop be fixed at \$2.20 a bushel, Chicago. Mr. Hoover told his listeners that in order to be sure that no speculation enters into the situation, we should so order the dissituation, we should so order the dis-tribution of wheat and flour that the speculator has no door, not even a crack, through which he may enter. "We must see that farmers' prices reach the consumer with only the proper and nor-mal cost of distribution." In order to mal cost of distribution." In order to do this, a corporation has been formed, because the ordinary form of Government accounting and finance is ill adapted to the ordinary course and custom of trade. "We must eliminate all 'red tape,' said Mr. Hoover, "and take all the tate which we may to arrive at short cuts which we may to arrive at our ends." The corporation referred to is simply an accounting organ. It is an instrument of food administration created in order that there should be less disturbance in our trade custom. It is being operated by volunteers—by men who have entirely disassociated themselves from the business of grain trad-ing and have given their services to the Government for the war.

The Food Administrator called attention to the fact that the shortage in the world's food supply has knocked at every door in the United States, not be-cause of our lack of ample supplies but because of the drain upon us from Europe and the consequent increased level. One of the results of this condition has been the growth of a vast mushroom of speculation and an unnecessarily higher cost of living in our industrial centers. There have come demands for readjustment of wage levels and thousands of disturbances in our economic life. No one can deny the fact that farmers last year received on an average less than a dollar and a half a bushel for their wheat. The consuming population, however, bought their flour largely on the basis of two dollars and a half for wheat. These unnecessary margins have not been confined to wheat dustrial centers. There have come demargins have not been confined to wheat alone. The remedy for this situation is the big problem facing the Food Admin-istration. Now that our harvests are complete, it is possible to know with what supplies we have to face the com-ing year. It is evident that our supplies in the United States are far below the

combined necessities of ourselves and our allies. One means of helping out is to reduce consumption and eliminate all wastes possible. Because of the great shortage in ships, we must confine our shipping to the most concentrated foods. The supplies we send to our allies must be wheat, meat, and dairy products. We have an abundance of many other kinds of foodstuffs and without hardship on the American people these ought to be substituted for the concentrated foods which we can export. Mr. Hoover showed how the distant markets of the world are being eliminated one by one, simply because of the inability to transport their products. This has the same result upon the problem as would a complete crop failure. We are facing a growing shortage of commercial shipping. Eight million tons of commercial shipping are now in war service and five million tons have been destroyed.

According to Mr. Hoover, the basic facts of the food situation are as follows: (a) By diversion of millions of men (a) By diversion of millions of men from productive labor to war, the food production of our allies, and of Europe generally for that matter, has greatly diminished. The soil has been depleted on account of shortage of fertilizer and labor; and today we find the present harvest among our western allies is short of the normal by 525,000,000 bushels of grain.

els of grain.
(b) These countries always import a considerable amount of their foodstuffs and today their markets are dislocated and many of them entirely stifled. They are thus thrown upon North America for a larger proportion of their imports, and in fact, if we are to maintain them with food during the coming year, we must export from this country 200,000,000 bushels of wheat, as against our normal export of 80,000,000 bushels. And we must furnish them with 400,000,000 bushels of other cereals as 000,000 bushels of other cereals as against our normal pre-war export of

under 50,000,000 bushels. (c) The demand for more wheat, shortage in fodder production, and the necessity of confining shipping to the most concentrated of foods, all tend to the depletion of the herds of Europe; and they are now making large inroads into their capital in animals. From now on they will make even larger inroads. With every decrease in shipping it becomes more logical for them to kill and eat their animals and depend upon us to replace their animal foods, than it is to import fodder in hope of maintaining their animals.

(d) The allied countries have reduced the consumption of foodstuffs by every device of which individual loyalty is capable, and of law. Their populations are now drawing foodstuffs on tickets or other restraints in an endeavor to meet, so far as may be, by reduction of consumption and elimination of waste, the decreased food supplies of the world and the threatened still further shortage of shipping. This reduction of consumption, however, does not bear uniformly upon the entire population. The soldiers in the field, the men working from ten to twelve hours in daily, millions of women in physical labor, require a larger percentage of protein and fat. Therefore, restrictions in consumption fall almost wholly upon the aged and upon the women and chil-

In view of the conditions, Mr. Hoover asserts that it is our first duty to stimulate production and use equally strenuous endeavors in the reduction of consumption and waste in order that we may supply the foodstuffs required by our allies. "The fact is," said Mr. Hoover, "this is our war and much as their war, and unless we can keep the women and children of our allies fed,

the western line will surely be the western to our Atlantic seaboard and it may be thrown in an infinitely more dangerous quarter in the ransom of Canada as penalty for England's defeat. The others 17 premise is one equally strong in my mind and is one of simple duty to humanity; that we should out of our abundance and our waste do our pantain a world suffering with us to maintain an ideal and a faith which must be the foundation of the world's hope in civilization." In order to meet the physical situation which he had outlined, civilization." In order to meet the physical situation which he had outlined, the Food Administrator stated that it seemed that in production we should guide ourselves with as much fore-thought as we can summon. There is taking place in Europe a gradual de-struction of animal food supplies. This means that we must increase our sup-plies to meet the deficiency. As time goes on, Europe can turn her production toward food grains and thus enable a further concentration of our food sup-ply. The outstanding fact which Mr. Hoover seemed anxious to bring home to every American producer is that in his own interests, in the interests of the nation, and in the interests of the war, we should turn the face of our agriculture toward increased production of animal food and ultimately decrease our exports of bread and feed grains. * * *

In closing his remarks to the editors and through them to the farmers of the country, Mr. Hoover stated that he had spent the last two and a half years in the midst of this war. He had been in a position of intimate daily association with a programment with tion with armies, with governments, with the tyranny, misery, and the backwash of battle. He said: "I have witnessed the operation of the social system and the aspirations of the ruling classes of Germany in their daily results and their ultimate intention. It is no loose statement that we face a race of people under a government intent upon mastery of the world. The war seems far away to most of our people, but as surely as we were fighting for freedom in 1776 we are fighting for our national existence and our national faith this day and month, 1917." He pointed out that we are fighting a race of people given to efficiency and organization, disciplined for fifty years in development and preparation for an hour of world domination. If our loose democracy, if our ideals of individual liberty and action cannot be co-ordinated in such a manner that we co-ordinated in such a manner that we may defend ourselves, our independence will surely not survive for another twenty-five years. We do not desire such an organization in this country. It is against every instinct of our people and opposed to the instinct of democracy. "To adopt it," said Mr. Hoover, "would be to yield ourselves to autoc-"would be to yield ourselves to autocracy within our borders. There is another solution. Democracy can voluntarily organize itself from the bottom up; that by inspiration as to the problem with which it is confronted and as to the methods by which they may be solved by self-imposed discipline, by self-elected leadership and organization it can find solution and defend itself This is the ideal and intention of the Food Administration. If we fail on this line, we fail because democracy does not provide in itself the efficiency to defend itself." % % %

Stockmen feel much reassured as to the live stock situation following the positive announcement by Herbert Hoover that no attempt will be made to fix the price of live stock to the producer. Mr. Hoover is on the right track and with the advice and counsel of the committee now meeting in Washington we can hope for encouragement in the production of meat animals. Stockmen feel much reassured as to in the production of meat animals.

FEED AND CARE OF DAIRY CALF

Ability to Successfully Rear Calves is One Test of Good Dairyman

O IMPROVE the dairy herd from year to year it is necessary to learn how to feed and care for the calves. It is almost impossible to depend upon buying cows to keep up and improve the herd. In feeding the dairy calf it is not enough to merely keep it alive. The miserable, stunted, pot-belalive. The miserable, stunted, pot-bellied calves found on some dairy farms are a disgrace to the dairy business. It is not to be wondered at that good stockmen have derisively spoken of such calves as "buttermilk calves." This is a condition that need not exist. Just as good calves can be raised on skim milk

good calves can be raised on skim milk as in the natural way.

In order to become valuable as an addition to the dairy herd, the calf must be well grown and properly developed. No matter how well bred it may be, the stunted, poorly fed calf can never become a valuable cow. Proper feeding and caring for dairy-bred calves thus becomes one of the important lessons becomes one of the important lessons for the beginner in dairying to learn. The person who actually feeds and cares for the calf must know what consti-tutes good care and in addition must be able and willing to apply a considerable amount of observation and good judg-ment to the work if he is to be suc-

A most instructive circular on the rearing of the dairy calf has recently been prepared by R. S. Hulse and W. B. Nevens, of the Illinois Experiment Station. It gives methods of feeding and care which have been found by experiment care which have been found by experience to give good results. In what follows we have drawn on this pamphlet in giving the important points of successful calf feeding.

It is important that a dry well-ventilated box stall be provided for receiving the calf at birth. This is especially important the calvactory in the follows:

portant when calves are born in the fall or winter. A great many of the physical troubles to which calves are subject are caused by cold drafts and damp-ness. Even if the quarters are warm, if they are ill ventilated or moist, the animal's vitality is lowered and its re-sistance to cold and disease lessened. An abundance of dry bedding helps to keep the calf dry and warm.

SEPARATING CALF FROM COW

It is well to allow the calf to remain It is well to allow the calf to remain with the dam for a day or two in order that it may receive the colostrum, or first milk. Colostrum milk has a purgative effect which aids in clearing out the calf's digestive system. If the mother's milk is very rich, it may be necessary to feed milk with a lower persentage of butterfat centage of butterfat.

It is somewhat easier to teach young calves to drink than it is to teach older ones, but in either case it is necessary for the calf to become hungry by the

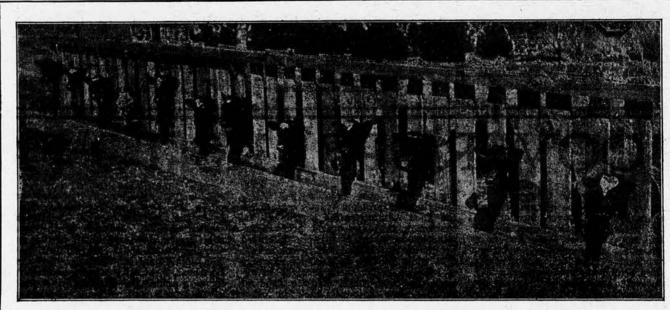
omission of one or more feeds before it will drink milk from a pail.

One method of teaching the calf to drink is to get it to suck the attendant's finger as its mouth comes in contact with the milk in the pail. The finger can be withdrawn gradually and the calf will usually continue to take in the milk. Patience rather than force is a prerequisite on the part of the feeder.

IMPORTANT TO MEASURE MILK

Guesswork in apportioning milk to the dairy calf is expensive both from the fact that irregular amounts often cause digestive troubles and because more milk than necessary is frequently fed. The milk can be measured into the bucket by the use of a container of known volume, it being understood that a gallon of whole milk weighs about eight and one-half pounds; or the milk may be apportioned by the use of a spring balance scale. The latter method has been used for several years in apportioning milk to calves at the dairy portioning milk to calves at the dairy barns at Purdue University.

The importance of feeding the calf regularly cannot be overemphasized. The digestive capacity of the young calf is not suited to receive large quantities of milk at a time, but is better adapted for receiving small amounts often. A young calf fed milk three times daily will thrive better than if fed the same total amount in two feeds, providing the



CALVES IN STANCHIONS READY FOR THEIR SKIM MILK .- GREAT CONVENIENCE TO CONFINE CALVES IN THIS WAY .-- EACH CALF GETS PROPER ALLOWANCE AND CANNOT SUCK EARS OF OTHER CALVES AFTER DRINKING MILK

milk is always fed in a uniform con-

AMOUNT OF MILK TO FEED

A general guide for using whole milk is to feed it at the rate of one pound daily to each pounds of live weight, rarely feeding more than twelve pounds per day. The length of the time whole milk should be fed will depend quite largely on whether skim milk is avail-

Raising the dairy calf on whole milk alone is too expensive. There are a number of supplements which may be combined with whole milk in order to lower the cost of the ration. The feeds most commonly used as whole-milk supplements are skim milk, home-mixed meals, commercial calf meals, and hay and

COMBINING WHOLE AND SKIM MILK On farms where skim milk is available, it may be substituted for whole milk in the ration of a healthy calf when the animal is three or four weeks of age, a few days being necessary to complete the change. If the skim milk is fed in a warm, sweet condition, ordi-narily no difficulties will be experienced. The amount of skim milk fed may be increased as the calf increases in size, but it is rarely necessary to feed more than fifteen pounds daily provided grain and a good quality of legume hay is being used. Where the supply of skim milk will permit, it is advisable to con-tinue its use until the animal is five or six months of age in the case of grades, and for a longer period in the case of pure-breds. Skim milk is one of the most economical feeds known for producing growth in calves.

ing growth in calves.

In the feeding schedule outlined by the authors of this circular it is suggested that the day following removing the calf from the cow it should be given about four pounds of whole milk if of the Jersey breed and six pounds if of the Holstein. From three days of age to twenty-eight, feed six to eight pounds daily to the Jersey bred calf and ten to twelve pounds to the Holstein. At this age the change to skim milk can be gradually begun, feeding during the week in ually begun, feeding during the week in which the change is being made three to four pounds of skim milk to Jersey calves and five to six pounds of whole calves and five to six pounds of whole milk and an equal amount of skim milk to Holsteins. During the next three weeks feed the Jersey bred calves from eight to ten pounds of skim milk and the Holsteins ten to twelve. From that time on feed the Jersey bred calves ten to twelve pounds of skim milk and the Holsteins twelve. If plenty of skim milk is available, it can be fed to good advantage at the rate of about fifteen pounds daily, instead of twelve, to calves of the larger breeds.

HOME-MIXED MILK SUPPLEMENTS The calf meals sold on the market are useful as supplements to whole milk, but as they have not been so compounded that they will successfully replace whole milk before the calf is several weeks old. Calf meals alone, or calf meals, grain, and hay, do not form a complete ration for the young calf, since they do not supply the necessary nutrients in a form

readily digested and assimilated. To produce satisfactory growth of the young calf when fed a calf meal, it is best to use the meal as a supplement to milk rather than as a complete substitute for rather than as a complete substitute for it. It is doubtful if, under average conditions, good gains will be made unless some milk is fed until the calf is about sixty days of age. In most cases the manufacturers of calf meals claim more than is warranted for their products as substitutes for milk.

substitutes for milk.

FEEDING GRAIN

The calf may be encouraged to eat grain at an early age if a small amount is sifted into the pail after the milk has been drunk, or if a fresh supply is kept in a box which is readily accessible. There is often a tendency not to feed grain at as early an age as the calf will eat it. Most calves will begin to nibble it when they are two or three to nibble it when they are two or three weeks old, and it has been observed that the young calf having access to several different kinds of grain at first prefers such soft feeds as wheat bran and oil meal, but as it becomes older it will eat some of the coarser feeds such as oats and cracked corn in addition and in some

instances in preference to the soft feeds.

A mixture of ground corn ten parts, by weight, oats fifty parts, wheat bran thirty parts, and oil meal ten parts, is suitable for the young calf; or these same feeds may be mixed in equal parts, by weight

A good growing calf at three months of age will consume two to three pounds of grain daily when fed twice a day, and usually more if allowed grain at will.

The calf will often nibble hay when a few days old, but will not consume it to any appreciable extent until about four weeks old. A good grade of clover makes an excellent hay for calves. Observation suggests that, in the case of young calves, it does not have the overservation suggests that, in the case of young calves, it does not have the over-laxative tendency that alfalfa sometimes has, although alfalfa seldom causes any difficulties provided other suitable feeds are being used. Legume hays make excellent roughages because they are palatable and contain a large amount of protein and calcium.

A fine grade of legume hay such as

A fine grade of legume hay, such as clover or alfalfa, should be kept in a manger or rack so that the calf has access to it at all times. When the leaves have been nibbled off, the coarser portions may be fed to the mature animals.

tions may be fed to the mature animals.

Corn silage may be introduced into the ration as soon as the calf Silage will not be consumed to any extent until the calf is two months old. It is important that the silage be of good

Water should be supplied daily to calves over a month of age. In winter it is well to warm the water.

Salt should be furnished to the calf after it reaches the age of two to three months. It may be sprinkled in small amounts into the empty manger or may be placed in a box provided for that

The problem of caring for the dairy calf is by no means solved by the end of the milk-feeding period. The animal

should be kept gaining constantly from birth to maturity if good growth is to be expected. Calves are frequently well cared for up to four or five months of age and then given little attention. If good growth is to be secured, heifers under a year of age require grain in addition to hay or pasture.

Since the condition of the heifer at pasture is not so closely observed as when in the stall, the heifer beyond the milk-feeding period is more likely to be neglected during the summer when on pasture than during the winter months.

CALF QUARTERS

The calf should have dry, well-lighted

The calf should have dry, well-lighted quarters, preferably with a southern exposure. The fewer doors a calf barn has, the more effectively can cold be excluded in winter. A rack or manger from which hay may be eaten at will should be provided. Stanchions for fastening the animals at feeding time are desirable. If the calves are stanchioned while they are being fed milk and are given grain before being turned loose, there is not so much tendency for them to suck one another. to suck one another.

The ideal arrangement is to have small stabling pens for each calf. When calves are handled in numbers, it is desirable to group them according to size and to keep the groups small.

TREATMENT FOR SCOURS Scours is the most common calf ail-Scours is the most common calf ailment. It results from various causes, indigestion and exposure being the most common. Indigestion may be caused by a too liberal supply of milk, too rich milk, a sudden change in the character of the milk, or too large an amount of commercial calf meals.

The cause should be determined at once and removed. In all cases it is well to reduce the feed. If the cause is indigestion, it is recommended that one to two ounces of castor oil be adminis-

to two ounces of castor oil be adminis-tered. The oil effects the removal of irritating materials and later acts as an

astringent. Milk that has been scalded, raw eggs, and flour, are home remedies which are more or less useful regulators. Half a tablespoonful of a mixture of two parts subnitrate of bismuth and one part salol may be given in the milk at feeding time or as a drench. The dose may be repeated at six-hour intervals until the

scours are checked.

Effective remedies for scours and other calf ailments may be obtained from a veterinarian.

form of diarrhea which attacks the new-born calf. The disease results from infection by a specific germ. The most noticeable symptom that accompanies the disease is that of a profuse yellow-ish-white liquid bowel discharge. The calf becomes dull and weakened, and as a rule dies within a day or two. Very little can be done in the way of treat-ment, but preventive measures should be taken. If the barn is infected with white scours, special care should be taken in disinfecting the box stall in which the cows calve, and in providing dry, clean bedding.

(Continued on Page Nine)

Bread Needs of the Nation

Important That There be Greatly Increased Production of Wheat

THEAT production was the chief topic of discussion at the series of agricultural conferences that have just been held in various parts of the United States under the auspices of the United States Department of Agriculture. The fourth of these conferences was held in Kansas City last week and the fifth of the series is being held in Spokane, Washington, this week. in Spokane, Washington, this week. Secretary Houston is endeavoring in every way possible to bring the Department of Agriculture closely in touch with the actual producers of human food all over the nation. We feel that the people of Kansas will welcome the opportunity of learning direct from the Secretary, who was present at the first conference, the plans and purposes he had in mind. He addressed this conference as follows: ence as follows:

"This is the first of five conferences we have arranged to hold in the country in connection with the wheat problem. Conferences of this sort seem to be in this emergency especially essential. Last April we had a general conference in St. Louis. The impression I then formed has deepened as time has passed, that this nation is exceptionally fortunate in having laid, generations ago, the foundations for scientific and practical agriculture not only for the whole nation in the Federal Department of Agriculture have also for scientific and practical agriculture. riculture, but also for each state, in the land-grant college, in the state department of agriculture, and in the great farmers' organizations. Representatives of these agencies in St. Louis in two days came to conclusions the wisdom of which has not been generally or successfully questioned, the substantial part of which has now been enacted into law. Not only was there evolved then a program involving legislation, but a program involving organization and co-ordination of agencies for more effective assistance in this crisis. Such organization was quickly developed, and I imag-ine that in this direction, as in others, the nation has given demonstrations of efficiency that no other nation has

equaled. The response of all the agri-cultural agencies has been tremendously gratifying. The farmers have done their part with enthusiasm and patriotism and, for the most part, they were favored by Nature. The result is, as you know, that in a number of important crops the nation will have this year enormous

yields.
"But singularly enough, from a military standpoint we were unfortunate in respect to the very crop of which we have the most immediate and pressing need. Wheat bread seems to be peculiarly the war bread, due to its own spe-cial characteristics as well as to the habits of European nations with whom we are associated in this war. It was not the farmer's fault that we did not have a large wheat crop. A large acreage was planted, but there was a tremendous winter killing; and so we have the very short crop of last year fol-lowed by a short crop this year.

INCREASED PRODUCTION ESSENTIAL "It is highly essential that we omit no step to secure a production of wheat during the next year which will be greatly in excess of the normal needs of this nation. My own conviction is that, whether we have peace or war, this na-tion is going to be called upon for some time to come to feed a considerable part of the population of Europe and to furwith agricultural supplies and equipment. A continent going through what Europe has gone through for the last three years, and is continuing to go through, does not quickly get on its feet. The waste of men, the loss of human life, the impairment of many of those who survive, the destruction of work animals, the waste of farm equipment, the impairment of labor, the disorgan-ization of labor, the disruption of the ization of labor, the disruption of the normal processes of agriculture—all these things entail heavy burdens and handicaps; and it is going to take Europe a considerable period to get where she was before this war came on. There are doubtless some of you who know the condition of the South after

the Civil War and recall that in agriculture even the South did not get on a normal basis until well in the eighties.
PRICE-FIXING LEGISLATION

"I speak of this because there may be doubts in the minds of farmers as to whether they will take too great risk in planting a large wheat acreage next year. I am no prophet. None of you perhaps would be willing to dogmatize, but I think we might agree that the economic conditions will be such as to as sure wheat producers a normal and profitable return. We should bear in mind also that in the Food Control Bill this compensation matter has been dealt with by the Congress.

CONSIDERATION OF OTHER CROPS "It is important, as I said, that we have an abundant supply of wheat to satisfy our own needs and a large part of the need of Europe from this time at least to the end of the next wheat season. But it is also very important that the suggestions made shall be wise, that we shall not interrupt our large agricultural enterprises in other direc-tions, unduly unbalance our agriculture or undertake to do things which are not desirable from a physical point of view, which are foreign to the habits of the people, and for which they do not possess the requisite facilities. So that our problem is not merely one of wheat production. It is of necessity in no very small sense a problem of the entire agriculture of the nation. Doubtless this will be revealed fully as you proceed with the discussion.

OTHER CONFERENCES CONTEMPLATED

"It has been our thought that, after holding the wheat conferences we should call conferences to consider live-stock problems and those of general farming for which we shall have more time for reflection.

"It is very gratifying to those of us who are trying to render service here to witness on every hand the most pat-riotic and fine spirit of service on the part of the people throughout the nation. This is not a task that any one group of men, any set of Government officers can do. Wars are no longer fought by a comparatively few groups of individuals. They are fought by entire nations and won by those nations with the largest resources most effect-

ively organized and directed. I think this Nation is giving a demonstration, and will continue to give a superb de-monstration in the field of organization, in the direction of great resources and is going to teach the peoples of the world that Democracy is really what we claim it to be—the best form of government.

THE OPPORTUNITY TO SERVE "Leadership is as wide as the Nation. No man can say today from what quarter the suggestion may come that may most adequately solve a particular problem, whether it be a civic or a military problem. It is one of the tremendous problem. It is one of the tremendous advantages of Democracy, that any person, no matter how humble, may have the oppertunity to serve the Nation. It is stimulating to know that this is so and it is encouraging to realize the prevalence of the spirit of service. It have that you have some here in this know that you have come here in this spirit of service, in the spirit in which hundreds of thousands of men are coming for different purposes from every corner of the Union. It would be presumptious, almost impertinent, for me to thank you for coming here because you are simply gladly doing your duty."

Leading Fairs and Expositions

Leading Fairs and Expositions

Kansas Free Fair: Phil Eastman, secretary, Topeka; September 10-15.

Kansas State Fair: A. L. Sponsler, secretary, Hutchinson; September 15-22.

International Live Stock Exposition, Chicago, December 1-8.

National Dairy Show, Columbus, Ohio, October 18-27.

Dairy Cattle Congress, Waterloo, Jowa, October 1-7.

International Soils Products Exposition, Peoria, Illinois, September 18-28.

American Royal Live Stock Show, Kansas City, Missouri, October 1-6.

Illinois State Fair, Springfield, Illinois, September 7-15.

Indiana State Fair, Indianapolis, Indiana, September 7-15.

Kentucky State Fair, Louisville, Kentucky, September 10-15.

Minsouri State Fair, Bedalia, Missouri, September 10-15.

Missouri State Fair, Sedalia, Missouri, September 2-29.

National Western Stock Show, Denver, Colorado, January 20-27, 1918.

Nebraska State Fair, Lincoln, Nebraska, September 2-7.

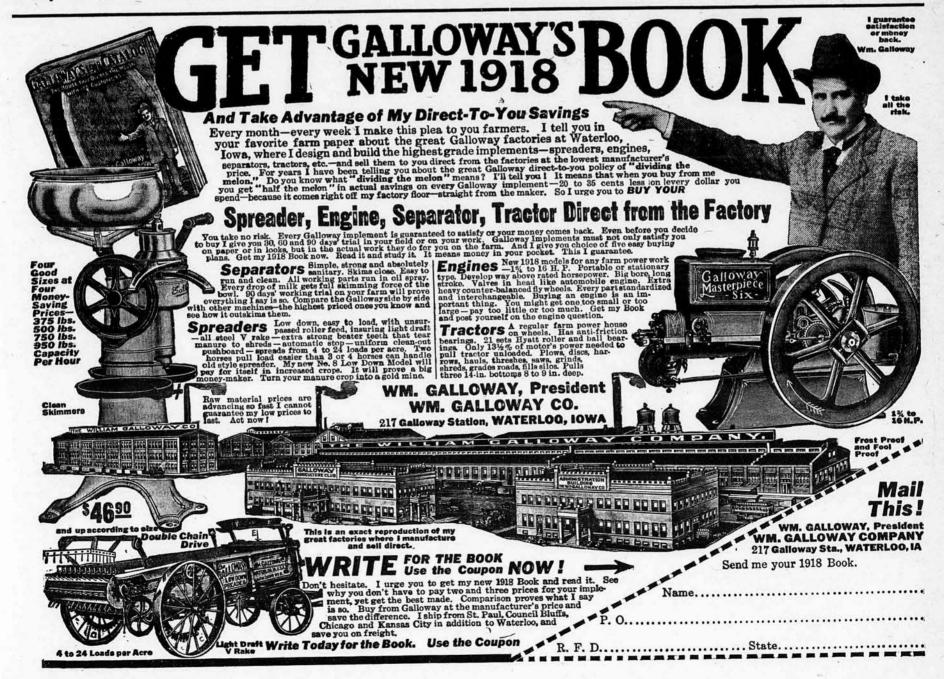
Oklahoma State Fair and Exposition, Oklahoma City, Oklahoma, September 22-29.

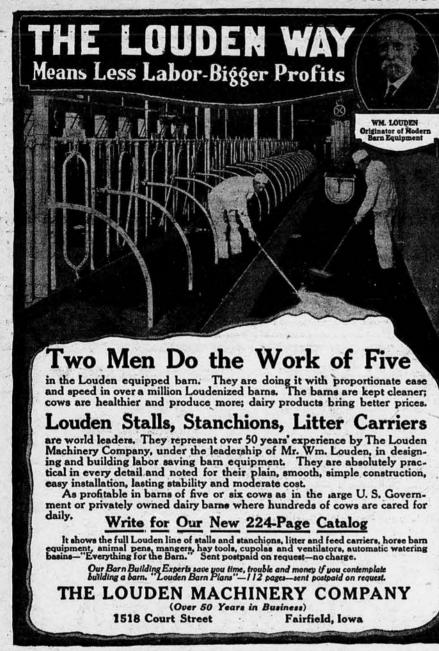
Oklahoma Free State Fair, Muskogee, Oklahoma, October 8-13.

Pacific International Live Stock Exposition, North Portland, Oregon, November 19-24.

Wichita Exposition, Wichita, Kansas, October 1-13.

tion, North Portland, Oregon, November 19-24.
Wichita Exposition, Wichita, Kansas, October 1-13.







READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS

Kansas Farmer Dairy Club

What to Feed

ARLITO GRISWOLD, a new Dairy Club member at Chanute, writes to ask what amount of feed of each kind he is supposed to give his cow at each feeding. From the form of this question, we assume that Carlito is without much experience in feeding animals. Perhaps many of the club members, even though living on farms, have given little thought heretofore to the proper feeding

thought heretofore to the proper feeding of milk cows.

In feeding for milk, the first consideration is that plenty of rough feed of a kind the cow likes be given. The feed eaten by the cow must have in it the materials of which milk is made. A good many kinds of rough feed lack protein, which is very essential to milk production. Corn or kafir fodder, prairie hay, millet, and cane hay, all are lacking in protein and for that reason this class of rough feed does not make a very class of rough feed does not make a very good milk ration. To feed milk cows economically it is almost necessary to give plenty of hay of a kind containing more protein than prairie hay or corn fodder. Alfalfa, clover, cowpeas, and soy beans all contain larger amounts of protein than other kinds of fodder or protein than other kinds of fodder or hay, and for that reason plenty of altalfa or other hay of the kinds mentioned should be fed to the milk cow. Alfalfa is very high in price now, but it is worth more as a milk cow feed than any other hay on the market.

Silage and alfalfa hay make an ideal combination for a milk cow. By feeding

Silage and alfalfa hay make an ideal combination for a milk cow. By feeding all of these two feeds the cow will eat, very little if any grain will be necessary for the ordinary cow. In figuring how to feed your cow, the first point to consider is the hay and other roughage. If you have to buy all your rough feed, alfalfa will probably be the most economical. These who can feed silage alfalfa will probably be the most economical. Those who can feed silage should of course always give as much silage as the cow will eat. Silage is especially valuable because it contains some of the natural juices of the plant. It is called a succulent feed, and might be compared with grass or other green feed. Almost any kind of feed containing its natural juices is a great help in feed. Almost any kind of feed containing its natural juices is a great help in feeding for milk. Pumpkins, sugar beets, or stock beets are good to feed milk cows. Even turnips can be fed, although they may flavor the milk unless they are always fed just after milking and never before.

With feeds of all kinds as high in price as they are now, it will save expense to have some kind of pasture that can be grazed late in the fall. A patch of rye will be a big help in feeding the

can be grazed late in the fall. A patch of rye will be a big help in feeding the milk cow cheaply and now that we have had plenty of rain the ground is in fine condition for seeding rye. If there is any vacant ground in the garden or where the potatoes have been dug, it can be seeded to rye. Of the rough feeds always be sure that the cow has all she will eat.

will eat.

It is not possible to get the highest production from a heavy milker with-out feeding grain, and in most dairies where high producing cows are kept some grain is fed. When grain is as high as it is at the present time it is probable that, in many cases at least, it will be more profitable to limit the amount fed, depending on good roughage. Just at the present time oats are about as cheap a grain as can be fed. Oats compare in milk-producing qualities very favorably with bran. Usually they are too high in price as compared with other grains and mill feeds to be fed. A standard grain mixture fed by many dairymen is made of four parts corn chop, two parts bran, and one part oil meal or cottonseed meal, by weight. If chop gets a little lower than it is now, this combina-tion will probably be as good as any that can be fed.

In feeding grain to a cow it is always important to know whether she is paying for it or not. Since all Dairy Club members are keeping accurate records of the milk given as well as a strict ac-count of the feed, they can know whether the grain they are giving the cow is increasing her milk enough to pay for what it costs. For a cow capable of giving over thirty or thirty-five pounds of ing over thirty or thirty-live pounds of milk a day, a good rule for feeding grain is to give the cow each day one pound of the grain mixture to every four pounds of milk she gives. If she is having plenty of good pasture, one pound of grain to every six pounds of milk would be about right. It is always important to watch the milk record very closely for a few days after making any closely for a few days after making any

change in the grain ration so as to learn just what effect it is having on the quantity of milk the cow gives. In neighborhoods where there are men who have made some success in feeding dairy cows, it is a good plan for Dairy Club members to get acquainted with them and talk with them about their work. The experience of such men will be valuable to the beginner.

Cow on Pasture Only

Cow on Pasture Only

John R. Moellman, of Olpe, whose cow recently freshened, writes that she is giving more milk since the cooler weather came. He says he is not giving her any feed except pasture because feed is very scarce and quite expensive. The crops are all doing well since the rain and they will have plenty of rough feed and another good cutting of alfalfa for winter feeding.

Now that the pastures are in such fine condition, John is probably right in making his cow depend entirely upon the green feed she gets. A cow never produces milk so cheaply as when she has plenty of good pasture and now that

plenty of good pasture and now that the weather is cooler and the flies not so troublesome, a cow can make the best

use of the grass.

Feeding Sheaf Oats

Theresa O'Mara, of Colony, wrote us the first of August that she had fed sheaf oats during July and did not know what price to charge for them on her records. We suggested that this would depend almost entirely on the amount of grain in the oats, and asked if she could not estimate in some way how much grain each sheaf contained and then figure out from this how much to charge for grain and how much for the straw. In sending in her records for straw. In sending in her records for the month, she says: "In figuring the amount of oats in a bundle, I stripped the grain from one bundle and found that it weighed four and one-half pounds and the straw three pounds. On this basis I charged Delphi with straw at the old schedule price of fifty cents a ton and oats at seventy cents a bushel less three and one-half cents a bushel, the

three and one-half cents a bushel, the cost of threshing.

"Delphi did not gain in milk flow while I fed the sheaf oats, but I believe it kept her from falling off, as the pasture was very dry during July. The rains have helped the grass and I am not feeding the sheaf oats now. She is giving about ten pounds of milk a day now. I have been milking her since the fourth of last Sentember and my year's now. I have been milking her since the fourth of last September and my year's work will close the last day of August.
"I enclose herewith an article taken from the Garnett Review which shows

the difference between selling cream and whole milk. The new condensery at Garnett is now in operation and some of the farmers from here are shipping while milk. It promises to be a success, and they have already planned to build an addition an addition.

"We now have a new county agent "We now have a new county agent and I have found his plans and suggestions valuable in searching for a cow for my second year's work. I have not purchased one yet, but hope to do so soon."

The article in the Garnett paper referred to told of a dairy farmer who sold his cream during the month of July for \$105.53 or an average of \$2.40 a day.

for \$105.53, or an average of \$3.40 a day. During the ten days in August in which he had sold whole milk to the condens-ery, his milk sales had averaged \$6.72 a day, or figuring on a thirty-one-day month, a gain of \$102.92 on the same number of pounds of milk over selling

We are glad to learn that the condensery is resulting in increasing the in-terest in dairying in that locality. Those who sell whole milk to the condensery should not be too hasty, however, in drawing conclusions as to the relative advantages of selling cream and whole Where the milk is sold there is no skim milk for feeding the calves and pigs. Properly raising the heifer calves is a very important part of the dairy business, since this is the surest and most economical means of improving the herds. We would not discourage the condensery business, but would urge that due consideration be given to the necessity for having some skim milk to properly raise the heifer calves. We would suggest that Dairy Club members refer KANSAS FARMER of August 11 and read the article on page seven.



the past few months about the unnecessary sacrifice of milk cows. The facts are that it has been a good time to cash in a lot of cows that should have gone long ago. Under ordinary conditions dairying has been so certain of bringing in some profit that a man might worry along profit that a man might worry along with scrub cows and not realize that it was an expensive piece of business to feed cows of that class. It is now necessary to cull out these poor cows or go out of business. We have not heard as yet of very many really good cows being sacrificed owing to the high prices of feeds or insufficient prices for the product. The conditions are simply enforcing the practice of better business methods.

In a pamphlet on dairy farming re-cently published by the International Harvester Company, C. E. Brown, a dairy farmer of Minnesota, gives some valuable advice. He says: "The great dairy farmer of Minnesota, gives some valuable advice. He says: "The great cry of the dairyman is for better cows, and generally the cheapest and most efficient means of bringing about improvements are along the lines of breeding and selection. We hear a great deal about the dual-purpose cow, and when good ones can be obtained they are all right. However, the great menace to the dairy industry is the no-purpose cow. "In common farm herds we are very apt to find three classes of cows in the same herd. We find those which use their feed for the production of beef, and still others which produce neither milk nor beef at a profit. These unprofitable cows should be eliminated from the dairy herd if the dairy is to be a paying in-

herd if the dairy is to be a paying investment because poor cows cut down the profits returned by the good cows. Only by careful selection and culling out and by breeding along dairy lines can a herd be built up cheaply."

It has been our observation that on the farms of Kansas the mistake of poor feeding is perhaps as common as the mistake of using poor cows. It has been demonstrated over and over again that the feeding of even ordinary cows for milk production has resulted in their returning good profit. It takes feed to make milk, and learning how to feed cows for milk production is one of the first lessons in profitable dairy farming. Mr. Brown seems to have made similar observations. He says: "There are a observations. He says: "There are at great many cows throughout the country that are not making as large returns as they should simply because they are not given a chance. This is due to the fact that so many do not understand the fundamental principles of feeding. of feeding.

"Many farmers feed the same amount of grain to each cow, regardless of her size and record of production. By keeping a milk record and having the milk tested from time to time and then feedings a helenged retion in proportion to ing a balanced ration in proportion to the capacity for production, the profits can be greatly increased.

"A large cow generally uses more feed for maintenance than a small cow and this should be taken into consideration. I have known of instances where the cows were fed beyond their requirements, but more often it is the other way, and the best cows are not given a chance to do their best. I knew a farmer who bought a cow from a neighbor who was selling her because she was such a big eater. He said that she would eat her own feed and then rob the cows on either side. She was a large cow, weighing three or four hundred cow, weighing three or four hundred pounds more than any other cow in the herd, but she was capable of producing ten thousand pounds of milk a year. He did not take this into consideration, but fed them all the same amount. This cow proved to be a hundred-point cow. She paid a big profit on her feed and care. care.

"Some balance the grain ration very well, but provide poor and unsuitable roughage. Too many farmers think that if they feed a suitable grain ration they can neglect the roughage and give the cows anything to fill them up. Roughage should not only contain nutriment but should be religibled by the cows. ment, but should be relished by the cows. While roughage is ordinarily cheap feed,

it is possible for it to become expensive if the cows refuse to eat it and in this way unbalance their rations.

"Another common mistake is to neg-

"Another common mistake is to neglect to feed and care for the cow properly before freshening, especially cows that freshen in the spring. A cow that is wintered poorly with nothing but roughage will be thin in flesh in the spring and when turned out on pasture will begin to put on flesh instead of yielding a good flow of milk. By the time the cow has built up her body and is ready to give milk, it is fly season, and this is followed by short fall feed and the cow has been under a handicap the whole season. the whole season.

"The cow that freshens in the fall has a great many advantages over the cow freshening in the spring because she has been on pasture all summer and is in better condition. However, after she has dried up she should not be neglected. It is easy to neglect the dry cows and let them run down. The fall is the time when they are changing from pasture grass to hay and they should receive good care and attention."

Use Tested Sires

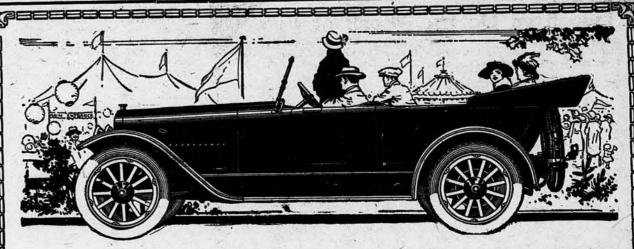
The value of the tested sire has recently been illustrated at the Missouri Experiment Station. Sultana's Virginia Lad was selected as the herd sire at the age of five years on account of the excellent milking qualities of his daughters, although none of them had ever been tested for Register of Merit at the time he was purchased. The first five been tested for Register of Merit at the time he was purchased. The first five daughters of this bull to freshen in the college herd have an average production of 9,000.3 pounds of milk and 511.03 pounds of fat as two-year-olds. This is an average per cent increase of 76.6 in milk and 86.3 in fat over the average

production of the first lactation of their dams.

Two of these daughters have dropped the second calf and have started their the second calf and have started their lactation period by producing 1,416 pounds of milk containing 87.28 pounds of fat and 1,284 pounds of milk containing 82.32 pounds of fat respectively during the first month. The production of 87.28 pounds of fat in one month is the record of the herd for that length of time. These figures show that the sire may be even more than thalf the herd.

The use of the tested sire has been emphasized all the more by diesem had feed prices. The offspring of the tested sire will usually use feed more economically and produce more than those of the scrub sire.

The boycott on veal and lamb proposed by misguided food conservationists with the view to increasing meat production, cannot be taken seriously by anyone who understands live stock production. Why not boycott eggs because every egg eaten might become a laying hen or a broiler?



What Double Strength

Has Done for Mitchell Sixes—Both Sizes

Three years ago we decided to double our margins of safety. That is, to give all vital parts 100 per cent over-strength. Up to that time most engineers considered 50 per cent extreme. But our 11 years' experience on American roads proved that cars could not be too strong.

Since then, the Mitchell demand has multiplied. The more men see of their endurance the more these cars are wanted. In the first six months of this fiscal year our sales increased 160 per cent.

Mitchell Over-Strength

Not one rear spring built under this standard has ever yet been broken.

Two Mitchell cars that we know of have already run over 200,000 miles each. That is 40 years of ordinary

Our export demand has enormously increased to countries with difficult roads.

And a long list of engineers of nation-wide fame have chosen the Mitchell for their personal car.

Still An Under-Price

Note how the Mitchell, with all this overstrength, undersells like-class cars.

You find in addition 31 features which nearly all cars omit. You find vast added luxury, excelling most cars by 25 per cent. Our latest models combine all the attrac-

tions we found in 257 show

TWO SIZES

Mitchell —a roomy 7-passenger Six, with 127-inch wheelbase and a highly developed 48-horse-

\$1525

Four-Passenger Roadster, \$1560. Sedan, \$2240. Cab-riolet, \$1960. Coupe, \$2060. Also Town Car and Limousine

Mitchell Junior -a5 sender Six on similar lines, with 120-inch wheelbase and a 40-horsepower motor. 14-inch

\$1250

smaller bore.

All Prices f. o. b. Racine

Factory **Efficiency**

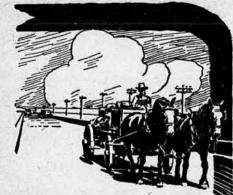
How does the Mitchell afford so much extra value?

It is all due to factory efficiency. We built the whole car—chassis and body -under Bate efficiency methods. In a mammoth plant which was built and equipped to produce this one type economically.

These factory methods, introduced by John W. Bate, save us millions of dollars per year. And that saving pays for these extras.

See what these things mean to you. They are vital points in a car you buy to keep. If you do not know our nearest dealer, ask us for his name.

MITCHELL MOTORS COMPANY, Inc., Racine, Wis., U. S. A.



Evidence

Concrete Roads Reduce Tractive Effort

THIS means that substantial savings in hauling, in wear and tear on vehicles, in gasoline and tire expenditure, are effected on concrete roads.

Here's the Proof

The Good Roads Bureau of the California Automobile Association in co-operation with the Agricultural Engineering Division of the University of California, has just completed an exhaustive series of tests on all kinds of road surfaces.

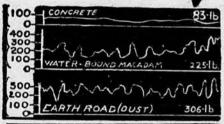
Concrete showed the lowest tractive resistance. The table below shows how concrete compares with two well known road surfaces—water-bound macadam and the ordinary dirt road. Concrete offered shout sme-thirst the resistance of water-bound macadam and the earth road required nearly fewer times more hauling effort than concrete.

DEWEY

Portland Cement

or road improvements insures a lasting b. Reasonable in initial cost—the uppep is remarkably low. Smooth surfaces, o mud. No dust. Good 865 days a year, se the Dewey Dealer and ask him for ulletin on Concrete Roads.

Look for the Dewey Sign



WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

FARM AND HERD.

Fred B. Caldwell, of Howard, Kansas, will be at the Topeka and Hutchinson fairs with a full show herd and will also attend the Lincoln Swine Show. Mr. Caldwell exhibited Caldwell's Big Bob, the grand champion Poland China boar last year, and will have a much stronger and better herd out this year.

George Ela, of Valley Falls, Kansas, the owner of one of the good herds of Hampshire hogs in Kansas, reports his herd doing well. He also reports that they will have a choice offering for the Kansas Hampshire Pig Club sale to be held October 12.

F. Hull & Sons, of Eureka, Kansas, have built up one of the good herds of Scotch Shorthorns in Southwest Kansas. They now have at the head of the herd Kansas Archer, a splendid roan buil by Mistletoe Archer and a grandson of Imported Collynie. The herd now numbers forty-five head of registered cows, representing the very best Scotch families. Hull & Sons own a large tract of pasture land near Eureka, Kansas, and it is their ambition to own one of the best herds of Shorthorns in the corn belt. A feature of the herd at this time is a splendid lot of young buils that will make herd headers.

E. S. Engle & Son, proprietors of the Sand Spring herd of Holsteins at Abilene, Kansas, report recent sales to M. L. Coryell and H. M. Pierce, of Junction City, Kansas, These gentlemen show their faith and confidence in the big "black and white" cattle by investing at a time when the feed and milk market are very much out of line. There is nothing that so nearly relieves the intense situation as a few good dairy cows, and Messrs. Coryell and Pierce are awake to this fact.

Sutton & Porteous, of Lawrence, Kansas, have announced October 4 for a public sale of seventy-eight head of Angus cattle from the largest herd in the West. They have all the popular breeding, representing the Blackbirds, Ericas and Prides. The offering will consist of sixteen bulls of serviceable age, twenty-six bred heifers and thirty-six cows with calves at foot or bred to drop calves this fall. The entire show herd will be sold. This herd won at the leading fairs last year twenty-seven championships and was one of the best herds exhibited.

Exemption Claims of Farmers

HE farms of Kansas cannot sup-ply the soldiers allotted to the state and in addition do their full part in feeding the army. Agriculture is the great industry of the state, and as food is absolutely essential to a successful military campaign, farmers of the state have been urged to increase food production to the limit.

In talking with farmers of the state we find that as a class they are willing to accept the principle of universal liability to service, but they feel that in selecting the quota of troops allotted to Kansas, farm labor cannot stand heavy drains without crop production being greatly reduced. The principle of uni-versal liability to service and the selective draft method of raising an army is thoroughly democratic. We have had it impressed upon us time and again that we are mobilizing the whole nation for war and that every man had a place to fill where he could serve his country.

Accepting this view of the situation, it would seem that the district exempit would seem that the district exemption boards are in duty bound to get all the information possible concerning the men who come up with exemption claims. If, through ignorance of the requirements, or a feeling that it is umpatriotic to bring detailed information before the board, a man fails to supply the necessary facts, should it not be the duty of these boards to use every effort possible to have such information submitted? The boards are intrusted with mitted? The boards are intrusted with a tremendous responsibility—a responsibility vastly more far-reaching than acting merely as recruiting agencies for the army. In every case coming before them, as we understand the principle back of the selective draft method of mobilizing an army and making it effective, they must decide where the man can be of the greatest service.

The Grange and the Farmers' Union of Kansas, which organizations represent

over a hundred thousand people of the state, recently authorized a joint com-mittee to consider the question of exemptions from army service as being administered by the two exemption boards. This committee interviewed personally every member of the Second District Board and were given a most friendly hearing. With the First District Board they have not been so successful. The chairman of this board does not seem to be open to information bearing on the effect of the selection of so many men from the farms for the army. The following statement addressed to the exemption boards of the state of Kansas emption boards of the state of Kansas has been prepared by this joint committee. It is signed by B. Needham, W. T. Dickson, Frank C. Pomeroy, and A. E. Wedd, representing the Grange, and John R. Chittenden, W. C. Whitney, O. M. Lippert, and B. H. Hasserbroek, representing the Union.

"We, the undersigned, composing a duly authorized joint committee of the

duly authorized joint committee of the Kansas State Grange and the Farmers' Educational and Co-operative Union, have been charged with presenting to your honorable body the conditions that the farmers of Kansas are today con-

fronting. "The farmers of this state have been urged to increase the production of food-stuffs. They have been led to believe that food is as important a factor in the prosecution of the war as is the man with the gun, and in response to appeals to their patriotism they have put forth every effort to meet the demands of the nation. In spite of reverses in the present season, the majority of them have gone ahead in preparation for greatly increased production next year, many of them having land now in readiness for

"As is well known, there has for years been a shortage of farm labor. Kansas farmers have experienced this shortage, as have the farmers of every other state in the Union.

"We are now called upon to furnish our share of the national conscript army, and your honorable body has already had before it the cases of a large number of actual tillers of the soil. Some of these men have been exempted because of their occupation, but many of them

have been certified to service in the

"We wish respectfully to invite your attention to the fact that it is a physical attention to the fact that it is a physical impossibility to increase, or even maintain, the present standard of crop production and at the same time furnish the major part of Kansas' quota of the conscript armies. The conscription of large numbers of active young farmers is going to have a very serious effect upon the production of foodstuffs. "It is with grave apprehension, there-

"It is with grave apprehension, therefore, that the organizations we represent note the long lists of farmers being certified to service in the army. We fear that the needs for food of the United States and her allies will not be met unless skilled agricultural workers are kept on the farm. We would not be placed in the attitude of dictating as to the administration of the conscript law, but we do want to urge upon your honorable board the most careful scrutiny of each individual case and the re-taining in agricultural work of every trained farmer."

Crop Conditions Improved

A tremendous improvement has taken place in crop conditions over Kansas since the July report of the State Board since the July report of the State Board of Agriculture. In issuing the August report, which is based on the state's crop conditions August 24, the correspondents of the board estimate that the prospective yield of corn is approximately 110 million bushels, or a fraction less than twelve bushels to the acre on the 9,207,000 acres planted. Abundant rains during the month of August in all portions, except in a few of the north central and except in a few of the north central and northwestern counties, worked a truly marvelous change in the corn situation, particularly in the main part of the principal corn-growing territory. Nearly two-thirds of the state's promised crop is in the counties of the eastern third, where the prospective average yields now where the prospective average yields per acre in a number of counties are nearly normal, and in as many as a half dozen important corn counties above normal, notably in Doniphan with an average of forty-five bushels reported. Three of the four eastern counties in

Three of the four eastern counties in the northern tier have the largest prospective aggregate yields, Marshall leading with 4,383,225 bushels, followed by Doniphan with 3,176,325 bushels and Brown with 3,110,750 bushels. Barton, in the central west, comes next with 3,039,872 bushels, from 190,000 acres. Corn in the major portion of the western third of the state as well as in

corn in the major portion of the west-ern third of the state, as well as in most of the north central part and the counties of the southern tier, was so badly damaged by dry weather that there is little prospect for grain except in fields here and there favored by loca-tion, local showers and stage of grayth tion, local showers and stage of growth owing to the time of planting. Rains, however, over most of this territory assure much silage and fodder of great value to the stockmen.

value to the stockmen. The 9,207,000 acres planted to corn in Kansas this year is 2,242,000 acres more than was devoted to the crop in 1916, and surpasses the previous record planting of 1910 by 617,000 acres. This year's prospective yield is more than last year's crop by 48,000,000 bushels; is larger than the crops of 1913 and 1914 combined, and less than the output of 1915 by 32,000,000 bushels.

Again the sorghums have demonstrated their dry-weather-resisting qual-

strated their dry-weather-resisting qualities. Remaining practically dormant during the period of deficient moisture, they promptly and vigorously responded to improved conditions following the general rains, and in the main are now making gratifying headway. Based on 100 as representing a satisfactory development, the state's 1,448,000 acres of growing kafir is rated at 70, the 369,000 acres of milo at 61, the 231,000 acres of feterita at 60, and the 777,000 acres of "cane" at 64. Aside from the grain these may produce, the heavy tonnage of silage and forage they will provide fur-ther relieves the threatened shortage of winter's feed for live stock.

The average condition of the state's broom corn is now given as 73.3 per cent as against 69 per cent reported a month Spread Straw



contains \$3.00 to \$4.00 of fertilizer—nitrogen, potash, phos—rich plant food, more than manura.

Straw Spreader

5 Bushels Per Acre More

Increase your crop yields 5 to 7 bushels an acr , by spreading straw on wheat, corn, cats and alfalfa. My Perfection spreader makes straw spreading easy and quick work.

30 Day's Trial Spreads 20 to 25 acres a day.
30 Day's Trial Spreads 20 to 25 acres a day.
calm. Guaranteed to work satisfactorily, with 30 days to try it. Now in its 4th year, Thousands in use, increasing the crop yields of their owners.

Free Book My free, fine 32-page book, shows and surplus straw. Shows how thousands of fazzners have made big money through bigger crops—just as you can do, easily. Write me today.

C. E. WARNER, Pres. WARNER MFG. CO.
410 Union St., Ottawa, Kans.



Uncle Sam's O. K.

The U.S. Dept. of Agriculture gives its endorsement to the standard seed disinfectant

FORMALDEHYDE

Greatest yield secured first by ridding seed grains of smuts and fungus growth. Formaldehyde is the cheapest and best disinfectant for stables, kennels, chicken houses and cellars—it also kills flics. Formaldecellars—a also kins uses. Formasso-hyde in pint bottles, 35 cents at your dealer, treats 40 bushels of seed. Write for new book reporting U.S. Dept. of Agriculture's experiments in seed treatment—FREE on request.

PERTH AMBOY CHEMICAL WORKS 100 WILLIAM STREET NEW YORK

A BSORBINE will reduce inflamed, swollen Joints, Sprains, Bruises, Soft Bunches; Heals Boils, Poll Evil, Quittor, Fistula and

Evil, Quittor, Fistula and infected sores quickly as it is a positive antiseptic and germicide. Pleasant to use; does not blister or remove the hair, and you can work the horse. \$2.00 per bottle, delivered.

ABSORBINE, JR., the antiseptic liniment for mankind, reduces Painful, Swellen Veins, Wens, Strains, Bruises; stops gain and inflammation. Price \$1.00 per bottle at dealers or delivered. Will tell you more if you write. Liberal Trial Bottle for 10c in stamps.

W. F. YOUNG, P.B.F., 211 Temple 8t., Springfield, flace.



FARM AND HERD.

W. T. McBride, of Parker, Kansas, reports his Duroc herd doing fine. This year Mr. McBride raised an extra good lot of early spring pigs. They are extra well grown out and the lot includes some outstanding young boars.

Volume 91 of the American Shorthorn Herd Book has just reached us. This vol-ume comprises pedigrees received before June 1, 1916, and numbered from 457001 to 487000. The volume also contains the usual amount of information valuable to Short-horn breeders.

ago. This crop is grown principally in the southwestern counties, and the nearly 62,000 acres planted for the state is a gain of more than 100 per cent over

last year's acreage.

In the main producing territory the yield per acre of prairie hay is reported at about three-fourths of a ton, suggesting a total output for the state of under 1000 000 tons or less than last year by 1,000,000 tons, or less than last year by 175,000 to 200,000 tons. The third cutting of alfalfa was short, yielding one-fourth to three-fourths ton of hay to the acre.

In marked contrast to the report of a month ago, pastures are now rated as "good" to "very good" everywhere, excepting only in a few counties in the northern portion. The outlook for fall pasturage of grass has probably never been brighter for the time of year.

More than half the playing for fall

More than half the plowing for fall crops is done, according to correspondents. Ground that was summer falents. Ground that was summer fallowed, which may properly include thousands of acres of well cultivated land where corn failed, is in excellent conditions and abundant tion for wheat sowing, and abundant moisture over most of the state gives assurance of well nigh ideal seed beds generally for wheat.

Feed and Care of Dairy Calf

(Continued from Page Four)

DISINFECTION OF CALF'S NAVEL The navel of the calf is an avenue of infection. When infection of the navel takes place, the joints of the legs frequently swell and the calf usually dies within the course of a few days. Infection by way of the navel is very common in barns infected with white scours or contagious abortion.

To prevent infection of the navel of the new-born calf, several applications of tincture of iodine should be made.

of tincture of iodine should be made.
Calves infested with lice do not thrive.
Lice are difficult to get rid of when once
the barn is infested. Washing the calf
thoroughly with a 2 to 5 per cent coaltar disinfectant such as zenoleum or
creolin is effective. The washing should
be repeated in a week in order to kill
any lice that hatch in the interval. If
the washing is done in cold weather, the
calves should be thoroughly rubbed with
dry cloths and kept blanketed until dry.

DEHORN CALVES YOUNG
Caustic potash properly applied to the

Caustic potash properly applied to the rudimentary horns of a calf a few days old will check their growth. Before using the caustic potash, clip the hair from the places to which it is to be applied. Rub the rudimentary horns with the caustic until the surfaces are red but not bleeding. Do not let the caustic come in contact with the calf's skin other than at the points to be treated. than at the points to be treated.

Caustic potash can be purchased at any drug store, and comes in sticks which should not be handled with the bare hand.

Silage and Beef Production

A steer feeding test recently completed at the Missouri College of Agriculture illustrates the possibility of reducing the cost of beef production by the extensive use of corn silage. Sixteen head of two-year-old steers fed for 130 days made an average gain in live weight of 322 pounds per head. They were fed 316 tons of corn silage. 750 pounds of 3.16 tons of corn silage, 750 pounds of alfalfa hay, and 503 pounds of cotton-seed meal and old process linseed oil meal per steer. They received no corn other than that contained in the silage. By this method of feeding a fairly satisfactory grade of beef can be produced, and it is possible to fatten three steers on an acre of good corn instead of one, which was usual under former methods of feeding of feeding.

Income from Land Varies

Farm management studies made in Missouri have indicated that the cheaper and less productive land is more often rented on a share basis, while the highpriced and more productive land is more often rented for cash or for a share of the crops and cash for pasture land. Land rented for a share of the crops nearly always brings a larger rent to the owner than land rented under any other system. The lowest rate is realized from cash rental. One hundred seventy-six cash rented farms paid the owners an average of \$3.50 per acre in rent; 289 farms rented for a share of the great arch for reactive land reid. the crops and cash for pasture land paid the owners \$4.90 per acre; 383 share-rented farms paid an average of \$6.39 per acre. In paying cash rent a tenant gets the land for less but carries a risk which is offset on share-rented farms by

the higher rent rate. The statistics show that a cash renter could afford to love two crops in five years and still pay a lower rent rate than the share renter.

The cheaper land pays a higher rate of interest than the higher priced land. Land worth \$200 per acre or more paid an average of 3.9 per cent interest under all systems of rental. As the land decreases in value the interest paid grad-ually increases until on land worth less than \$40 per acre the average interest than \$40 per acre the average interest on investment paid by the tenants to landlords was 11.6 per cent. The share renter on the cheap land paid practic-ally 17 per cent interest to the owner. The average rent rate per acre paid for the various crops for all land values was as follows: Corn, \$6.41; wheat, \$5.58; oats, \$4; hay, \$4.62; pasture, \$2.92.

Warning Against Asphyxiation

Warning Against Asphyxiation
During the filling of the silo there is danger from the accumulation of carbonic acid gas. Large amounts of gas are produced in the silo and may collect in dangerous quantities if conditions become favorable. To avoid accumulations of gas, doors should be left open as long as possible. Men should not stay in the silo when the blower is not running; and, above all, they should not lie on the fresh silage. If work has been stopped for any length of time, men should not again enter the silo until the blower has been working a few mimutes in order to remove the gases. In the case of the pit silo, men should

never remain in it when the blower is not running, and the blower should also be running before anyone enters.

Boost the County Fair

"Consider the county fair. It teaches the older folks the miracles that care the older folks the miracles that care and intelligence will work; it inspires pride in the farming business; and, above all, it tends to keep the boys on the farm, because it shows them the results of the better grade of farming."

This is the advice of one of the best judges in the country. "My father did not start keeping fine cattle and exhibiting them at fairs until after most of my brothers grew up," said he. "As a

iting them at fairs until after most of my brothers grew up," said he. "As a result, of the eight children in the family, I am the only one who is a farmer. I am sure I stuck to farming because good stock taught me to like the country."

According to this judge, it is not necessary to exhibit animals loaded heavily with fat. "The judge overlooks fat these days," said he. "Good breeding condition is all he asks. Everybody should boost the county fair."

Kafir and Dry Weather

The following remarkable recommendation of kafir was written following one of the dry seasons:

"It was a season of unusual severity

(1911) the dryest and hottest in Kansas, as it was in Oklahoma, since 1901. A pitiless sun burned up the Indian corn and parched the native grass upon the

prairies. Throughout this trying ordeal our unfailing friend, the hardy and indomitable kafir, stood sentinel upon the prairies with that patient fortitude inherent in its nature, born of centuries of hardship upon the desert; it bided its time and silently waited for rain, springing triumphantly into new life with the first downpour from the heavens. Our prairie hay turned out less than a third prairie hay turned out less than a third of a crop and our alfalfa hay only a little better than half a crop. But not-withstanding this accumulation of calamities, we pushed back the impudent face of famine, cheated the hot winds, and whipped the drouth to a standstill, with kafir.'

During the present season kafir has further proved its ability to stand long periods of dry weather and come back when the rains soak the soil.

Hog oilers are the cheapest and most efficient means of ridding the hogs of lice. One application of crude oil kills lice. One application of crude oil kills both lice and nits. The most convenient method of applying the oil is by means of a hog oiler, of which there are several good types. They are always ready and require little attention. The best oiler allows the pig to rub the oil on any part of the body. The oil may also be applied with a sprinkler, spray pump, broom or brush. If there is any indication of skin disease, the parts may be scrubbed with a broom or brush so as scrubbed with a broom or brush so as to get the oil well into the skin. When crude oil is used, the appearance of skin and hair is greatly improved.



Place Carey-ized Stock Tonic Brick in the feed lot or feed boxes, where your animals can get at it all the time and you give them the surest and most economical health and you give them the stress and most economical nearth insurance ever offered the American stock feeder or his live stock. The Carey-ized Way is nature's way. It enables animals to get the right medicine in right quantity at the right time. Does away with costly and trouble-some powders and bottled medicines.

needed medicines at the same time.

Carey-ized Stock Tonic Brick is all pure medicine. It contains all the ingredients approved by medical science to keep the stomach and liver, bowels and kidneys in healthy condition. Destroys worms, purifies the blood, prevents fever, and with the aid of ordinary good feeding builds up a strong, disease-resisting constitution. Its solid brick form makes it convenient to feed, preserves its medicinal value, prevents waste.

BRICK TONIC CAREV-17FB STOCK

CHILL I -IZLI		IIIC DICICIE
	A Proven Worm Destroyer tan experiment. Has been on the market	and Conditioner
cien	cy in thousands of feed lots. Here's the	proof: C. W. Thompson, Hutchinson, Kansas, writes; "300 of our sheep were scouring
100 C	writes: "If every farmer knew the good this Carey-ized Stock Tonic Brick will do, they would not experiment with all kinds of powders that are on the market. You	sheep are now as healthy as the balance of the flock. They are gaining faster than any
P	surely have the right thing for knocking the worms.	lot of sheep I ever saw, as a result of feed- ing Carey-ized Stock Tonic Brick."
C-1/	or refund all your money at today, or write us a postal.	k Tonic Brick. We guarantee it to satisfy you ter 30 days trial. Fill out and mail us coupon Our booklet "Making Live Stock Pay" free.
Com-	CAREY SALT	CAREY SALT CO.
posed of powdered gentian root,	30 Day Trial Offer Order a dozen or more Carey-ized Stock Tonic Brick	Dept. 256. Hutchinson, Kansas Please send me full information on Carcy-ized Stock Tonic Brick; also Free Book "Making Live Stock Pay."
sulphate of iron, bi-carbonate of soda, sulphur, car- bonized peet, quassia,	from your dealer. Let your animals have free access to it for 30 days. If you are not satisfied with the result, return what you have	My dealer's nameState
charcoal and pure dairy satt. All animals crave it and thrive on it. Supplies needed medicines and salts animals	afford to make this generous offer if we did not know that Carcy-ized Stock Tonic Brick makes good every claim we make for it. If your dealer does not handle Carcy-ized Stock Tonic Brick, write us	My Name
Literature and annual a	does not manufacture and compiled	P. O. State

Kansas Free Fair

Topeka, Sept. 10-11-12-13-14-15, 1917

SIX BIG DAYS AT THE BIG FREE FAIR. The gates stand open day and night. This beautiful 86-acre fair ground, all of the twenty-four permanent buildings and every exhibit is open and free to everybody. No admission charged except races and shows.

Mammoth Live Stock and Agricultural Exhibit

The new Agricultural Hall will be crowded with exhibits of the farm, Boys' and Girls' Clubs, the Junior and Home-Made Departments. A big display by Mother and Daughter Canning Club, Culinary, Art and Textile exhibitors. 'Ten barns devoted to live stock.

24 Horse Races

The afternoons of Tuesday, Wednesday, Thursday and Friday will be devoted to harness and running races.00. \$7,500 in purses. Kansas Derby.

30 Big Shows

Auto Races

Fred Horey, the world's champion, will defend his title in a match race for a purse of \$1,000.00 on Saturday.

Battle in Skies

The Con T. Kennedy Shows will furnish the amusement on Sunflower Trail, where there will be thirty clean and entertaining Coney Island shows.

Katherine Stinson Champion Women Flyer

Katherine Stinson, champion woman flyer, is only twenty years old, but is famed as a flyer. She loops the loop, flies upside-down, does the death drop. Miss Stinson will fly on Saturday, "Katherine Stinson Day," and will race Fred Horey, the auto champion.

Peoples' Pavillon---An Educational Department

In the People's Pavilion, under the auspices of the Kansas Council of Defense, lectures and demonstrations in food conservation and production will be held daily and each day a Mother and Daughter Canning Club will give a canning demonstration.

\$30,000

IN PREMIUMS

\$30,000

Feed the Fighters! Win the War! Harvest the Crops!

On the battlefields of France and Flanders the United States boys and the Canadian boys are fighting side by side to win for the World the freedom that Prussianism would destroy.

While doing this they must be fed and every ounce of muscle that can be requisitioned must go into use to save this year's crop. A short harvest period requires the combined forces of the two countries in team work, such as the soldier boys in France and Flanders are demonstrating.

THE COMBINED FIGHTERS IN FRANCE AND FLANDERS AND THE COMBINED HARVESTERS IN AMERICA WILL BRING THE ALLIED VICTORY NEARER

A reciprocal arrangement for the use of farm workers has been perfected between the Department of the Interior of Canada and the Departments of Labor and Agriculture of the United States, under which it is proposed to permit the harvesters that are now engaged in the wheat fields of Oklahoma, Kanas, Iowa, North Dakota, South Dakota, Nebraska, Minnesota, and Wisconsin to move over into Canada, with the privilege of later returning to the United States, when the crops in the United States have been conserved, and help to save the enormous crops in Canada which by that time will be ready for harvesting.

HELP YOUR CANADIAN NEIGHBORS WHEN YOUR OWN CROP IS HARVESTED

Canada wants 40,000 Harvest Hands to take care of its 13 Million Acre Wheat Field

One cent a mile railway fare from the International Boundary line to destination and the same rate returning to the International Boundary. High wages, good board, comfortable lodgings.

An Identification Card issued at the boundary by a Canadian Immigration Officer will guarantee no trouble in returning to the United States.

AS SOON AS YOUR OWN HARVEST IS SAVED, move northward and assist your Canadian neighbor in harvesting his; in this way do your bit in helping "Win the War."

For particulars as to routes, identification cards and place where employment may be had, apply to Superintendent of Immigration, Ottawa, Canada, or to

GEO. A. COOK, Canadian Government Agent, 2012 Main St., Kansas City, Mo.

WHEAT PREVENTED Millions of dollars were lost by seeding winter wheat last fall in loose, lumpy, unpacked and poorly prepared seed beds. Will it pay to seed in such seed beds again? Western Pulverizer, Packer and Mulcher Three Maents winter killing by putting the seed bed in perfect condition. Requires time, with less work and horse-power, and produces a perfect stand with one-diess seed. LET US PROVE IT TO YOU. It has done it for others, it will do you. Send for free illustrated catalog containing full information and prices direct u. This book is worth its weight in gold to any farmer or land owner. WESTERN LAND ROLLER CO., Hastings, Nebraska, Box 602

READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS

Cave For the Storage of Apples

HE necessity of conserving the surplus crop of apples is being realized by both the producer and consumer. Storage on the farm is the consumer. a practical method of conservation, says F. S. Merrill, assistant professor of hor-ticulture in the Agricultural College. It prevents the decomposition or decay of fruits, lengthens the period of consumption and permits the grower to dispose of his crop at a suitable time for selling. The apple does not decompose as

readily when kept at low temperatures, and for this reason it is desirable that the storage house be so constructed as to maintain a uniformly low tempera-

Only the best fruit should be placed in cold storage, since the expense of storage is rarely returned through increased value of low-grade specimens. The fruit should be carefully graded, and the poorly developed, diseased, and bruised fruits should be used for immediate allows a specimens. diate sale or consumption. The maturity of the fruit is of great importance— many growers pick the apples before they have colored well. Such apples have a greater tendency to scald in storage and are less attractive for use or mar-ket when removed from the storage. The fruit should be harvested when it has attained full size and good color and is still heard. still hard.

The ideal storage conditions demand uniform temperatures, regulated humidity, and good ventilation. These can only be secured in well constructed and managed storages.

For the small grower who is not located near a good commercial storage, the storage cave may often be a valuable asset. Such a cave has been constructed by the horticultural department

of the Agricultural College and has been operated successfully for several years.

This cave is 48 feet long, having two rooms, each 24 feet long. These are 134 feet wide and 7 feet high. The ceiling and walls are made of concrete eight inches thick and the feet long. inches thick and the floor is 31 inches

The ventilation of such a cave is an important factor in the keeping of fruit. An eight-inch tile was placed under the floor of the cave and laid as for ordinary drainage, opening at a distance of fifty feet from the storage room. This exterior opening was covered with a heavy wire screen to prevent small ani-mals from entering. This tile was placed about two feet under the floor level and had sufficient slope to serve as a drain

from the cave as well as a ventilator.

Under the cave floor the eight-inch
tile was connected with two four-inch cross tiles. By means of elbows these four-inch tiles were brought to the sur-face of the cave floor, making four openings located 7½ inches from the ends of the cave and two feet from the side walls.

In order to complete the ventilation. three ten-inch tiles were imbedded, flange down, in the roof. Covers were made for these tiles by nailing the boards together V-shaped, leaving the ends open. In this way the water was excluded, but the passage of air was not materially lessened. One tile was placed in the center of the roof and the others three feet from the end, all being placed in a line dividing the width into equal parts. By this arrangement the upper ventilators were placed in a position to draw the air entering below through the en-tire area of the storage room. A good draft was secured at all times, starting immediately upon closing the cave door and being strongest when the temperature of the cave was about that of the air outside.—MOLLIE SMITH.

Success with Sheep

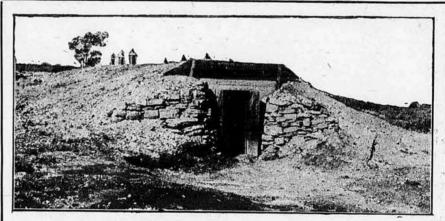
If you want to start in the sheep business, and do not intend to become a breeder of pure-breds, but intend to produce wool and mutton, the cheapest way to start is to buy western ewes from September 1 to November 1. These ewes can be obtained either by writing to a reliable commission firm at one of the leading markets, or by making the se-lection in person. This is the advice of Frank Kleinheinz, shepherd at the Wisconsin Experiment Station and one of the acknowledged authorities on sheep of the whole country.

In buying western ewes be sure to get young ewes. Yearlings or two-yearolds are best. Avoid old, broken-mouthed ewes. Get well-built ewes carrying some Merino blood and having dense fleeces. Sometimes a man can buy native ewes of good quality at reasonable prices.

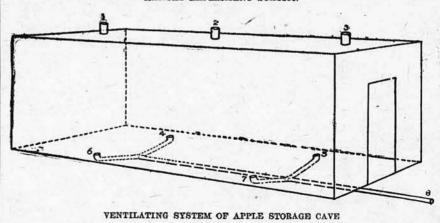
of good quality at reasonable prices. Rams for breeding purposes should also be purchased at this time from reliable breeders of pure-bred mutton sheep.

Sheep do not require warmth except at lambing time. Sheds or barns that keep sheep dry and offer protection against winds and cold drafts are all that is necessary in the sheep industry. Buildings that supply sufficient storage. Buildings that supply sufficient storage space for hay and other feed necessary for winter feeding are desirable.

Fencing may be regarded as one of the necessities for successful sheep pro-duction. Closely woven wire four feet high with two or three barbed wires on top and one at the bottom makes a good fence for pasture. The dog has been a menace to the raising of sheep, but the menace is largely overcome by pasturing the flock in a well-fenced lot. Until the former has quest former has the state of farmer has such a fence, he should con-fine his flock at night in a well-fenced yard or corral.



APPLE STORAGE CAVE CONSTRUCTED BY HORTICULTURAL DEPARTMENT OF KANSAS EXPERIMENT STATION





Let The Hogs Harvest Corn

If CORN is to be fed to hogs it is a matter of economy to let the hogs gather the crop themselves. Practical feeders and experiment stations have shown that hogs when properly managed will gain as rapidly and as economically when allowed to harvest the corn crop as when the crop is harvested and fed in the usual manner. As a matter of fact even more pork may be produced from an acre when the hogs be produced from an acre when the hogs be produced from an acre when the hogs do their own harvesting. This statement is proved by tests conducted by various experiment stations. Henry and Morrison in "Feeds and Feeding" show that sixty-eight pigs which were allowed to harvest their own corn, gained 1.4 pounds daily during fifty-three days, and required 488 pounds of concentrates for 100 pounds gain. Another lot of thirty-one pigs which were fed ear corn in a yard gained 1.1 pounds during fifty-seven days and required 546 pounds of concentrates for 100 pounds gain.

Results obtained at the Missouri Ex-

Results obtained at the Missouri Ex-Results obtained at the Missouri Experiment Station show that summer pasture combined with hogging down corn in the fall is a profitable method of fattening hogs since high-priced grain is necessary when pork is produced in this manner. The Missouri station has shown that 20 to 40 per cent less grain is required to produce a given amount is required to produce a given amount of pork when good pasture crops are supplied throughout the grazing season. To effect such a saving, however, it is necessary to limit the amount of grain which is fed to hogs on pasture so that at the end of the grazing season they will not be fat but will be grown, and in excellent condition to hog down the corn necessary to finish them for market.

This system of hog management not

This system of hog management not only reduces the amount of grain required to finish the hog for market, but saves labor, removes less fertility from the farm, keeps the swine herd more healthy, and offers other advantages for the cost of production. cheapening the cost of production.

The number of acres of corn necessary to finish a given number of hogs will vary with the kind of hogs and yield of the crop. It has been estimated that twenty pigs weighing 125 pounds will harvest a yield of forty to seventy bushels per acre in from fifteen to twenty-six days respectively; forty pigs in eight to fourteen days; sixty pigs in five to nine days, and eighty pigs in four to seven days. The number of acres of corn necessary

five to nine days, and eighty pigs in four to seven days.

Most feeders prefer well grown thin shoats which weigh from 125 to 150 pounds—shoats that have been grown through the summer on forage and have not been previously fed a heavy grain ration. Such hogs will eat a large amount of feed and will gain rapidly. Heavier hogs such as brood sows and fattening hogs almost finished are apt to break down too much corn and not clean it up so well as they go, thereby increasing the waste.

Some nitrogenous supplement must be

Some nitrogenous supplement must be supplied to make the hogs gain rapidly and economically. At least part of this supplement may be supplied in the form of roughage such as alfalfa, clover pasture, or soybeans. If provision has not been made for clover, alfalfa, or rape pasture in a field adjoining corn, or if soybeans have not been planted in the corn or in an adjacent field, then it is absolutely essential, with feeds at the present prices, to supply some nitrogenous supplement such as tankage, linseed oil meal, or middlings. The particular supplement used would depend upon the relative prices of this class of feeding stuffs. Ordinarily tankage is a cheap supplement. Some nitrogenous supplement must be supplement.

In hogging down corn it is generally better not to use too large a field at once. Especially is this true toward the latter part of the feeding season when snow is likely to fall before the field is entirely clean and feed is likely to be lost. The farmer can usually make a reasonably close estimate of the yield. Suppose, for instance, he estimates the yield to be about forty bushels per acre and he has shoots averaging about one and he has shoats averaging about one hundred pounds each. The pigs should gain from one and a fourth to one and a half pounds daily, and to make this gain will require approximately ten to fifteen pounds of corn per day. This means that four or five pigs will eat

about one bushel of corn daily. One acre of corn yielding forty bushels will carry the same number of pigs forty days, or twice the number one-half the

days, or twice the number one-half the time, or twenty days.

Hogs are not hard to confine in fields where they have plenty of feed. A 26-inch woven wire fence and poplar or willow posts spaced twenty to twenty-four feet, is generally sufficient. It is a good plan to cut out one row of corn where the line of fence is to come. This can be cut by hand and the corn thrown inside the enclosure where the pigs will clean it up. In this way a clear space inside the enclosure where the pigs will clean it up. In this way a clear space is open to drive through the field, and this makes the work of fencing easier. The corner posts should be well set and braced. This is the only particular part of the fencing. After the pasturing season, the fence can be rolled up and stored for another.

stored for another year.

It costs five or six cents a bushel to pick corn and when it is picked a load at a time during the rush of fall work the cost is considerably greater. Add to this the cost of feeding the corn in the dry lot after it is picked and it very probably amounts to eight or nine cents

When it is remembered that a bushel of corn should make approximately ten pounds of pork, this means that the pork produced by the old-fashioned method will cost from one-half to three-fourths of a cent and in some cases one cent and in of a cent, and in some cases one cent a pound more than where the hogs are allowed to harvest their own corn.

Need for Good Horses

In discussing the horse question recently President H. J. Waters of the

Kansas Agricultural College pointed out that any immediate increase in the number of cattle, sheep and hogs must be accompanied by a corresponding increase in the production of grain, pasturage and forage. Grain and forage production cannot be increased without horsepower to do the farm work. Nearly, if not quite all the surplus horses of the United States have been exported. There never was a time when the demand for good horses with weight was as great as it is at the present time, and the price as high. For this reason every farmer who has a sound mare of breeding age should breed her to the best every farmer who has a sound mare of breeding age should breed her to the best draft stallion available in his commu-nity. This will insure an adequate amount of horsepower for taking care of the agricultural work-which is bound to increase in the future. It will also give to the American farmers a salable horse to meet the needs of European countries which are being stripped of

horse flesh by the war.

On many farms a few mares can be profitably bred for fall colts.

Why Save Veal Calf

A great many people seem to think t would be a very easy matter to increase our meat production by prohibiting the use of veal and lamb. In other words make it impossible for producers to sell calves and lambs on the market. People who know little about the live stock business have been springing this idea from time to time for a number of years. "Those who advocate leaving veal and young lambs off the hotel and restaurant menus as well as eliminating restaurant menus as well as eliminating them from the home bill of fare are half right and half wrong," says Thomas E. Wilson, who is a member of a live stock commission firm. Mr. Wilson knows, as does every good live stock man, that allowing a large percentage of the present stock of calves to grow up would better neither milk nor beef production. In the case of sheep it is probably much more important that as many ewe lambs as possible be saved for the ewe lambs as possible be saved for the breeding flocks, since we are seriously in need of an increase in the supply of wool

and good mutton. Even here, however, the growers must use their discretion in maturing the ewe lambs because not all of these are suitable to raise to maturity

as breeding stock.

People who think that every piece of veal they see served means diminishing the future supply of beef or milk are mistaken. Most of the calves used for veal are fit only for veal. They would the seek and milk are mistaken to the calves used for veal are fit only for veal. veal are fit only for veal. They would not make good milk cows nor cows that would produce good beef animals. They simply are not bred right for either milk or beef production. Under present consciult ditions such calves would not be worth for beef in their matured form as much

for beef in their matured form as much as the corn it would take to fatten them. It is all nonsense to talk of legislating against the sale of such calfest.

Mr. Wilson states that he is heartly in agreement with the proposition that we ought to raise all the ewe lambs that are fit to raise for the sake of the wood and for breeding purposes. The Cov. and for breeding purposes. The Government and other agencies should cooperate in finding a market for all such stock as is suitable for breeding purposes. The Government has taken steps already to use the county agricultural

poses. The Government has taken steps already to use the county agricultural agents along the lines indicated.

In view of the shortage of meat the suggestion has been made that many who are milking cows might help by using two males, one a well-bred dairy animal and the other a good type of beef animal. By doing this the poorer cows of the herd could be producing calves that would make fairly good beef animals, while the heifers from the best calves that would make fairly good beer animals, while the heifers from the best cows could be raised to go into the herd as milk producers. This is a plan that has been actually put into practice on a number of farms with good success. The principal difficulty is the necessity for having two herd sires. This probably could be overcome through neighborhood co-operation. borhood co-operation.

You can get your fodder on the table by first putting it in the silo. The silo is one of the greatest of food conservation agencies.

You put a lid on waste every time you seal a preserving jar.



The recorder and reproducer should tell the simple truth, no more, no less.

The Victrola is not an instrument in which the interpretation and expression depend on the player like the organ, piano, etc. No instrument can be made to improve on Melba, Caruso and the other great artists. The true function of the Victrola is to reproduce faithfully the work of these artists.

The only modifications permissible are those obtained by changing the needles from loud tone to soft tone and by adjusting the sound doors to suit the size of the room or the mood of the listener. There are Victor dealers everywhere, and they will gladly play your favorice music for you and demonstrate the various styles of the Victor and Victrola—\$10 to \$400. Write to us for the handsome illustrated Victor catalogs, and name and address of nearest Victor dealer.

Victor Talking Machine Co., Camden, N. J.

New Victor Records demonstrated at all dealers on the 1st of each month.

"Victrola" is the Registered Trade-mark of the Victor Talking Machine Company designating the products of this Company only. Warning: The use of the word Victrola upon or in the prothe products of this Company only. Warning: The use of the word Victrola upon or in the promotion or sale of any other Talking Machine or Phonograph products is misleading and illegal.

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Important Notice. Victor Records and Victor Machines are scientifically coordinated and synchronized by our special processes of manufacture, and their use, one with the other, is absolutely essen-tial to a perfect Victor reproduction

To insure Victor quality, always look ter's Voice." It is on all genuine products of the Victor Talking Ma-



Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 60,000 farmers for 5 cents a word per week. No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

— 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.

HELP WANTED.

SALESMAN ON COMMISSION ONLY, TO represent eastern ribbon manufacturer, Must be ambitious and come well recommended. Box 2800, Kansas Farmer.

WANTED—MEN-WOMEN, 18 OR OVER, Government jobs, \$100 month. Big opportunity for farmers. War necessitates hundreds appointments. Write for list positions, Franklin Institute, Dept. G-82, Rochester, N. Y.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HOLSTEIN CALVES, HIGH GRADE, from cows producing up to 60 pounds. Either sex, \$15 to \$25. L. D. Arnold, Manhattan, Kaneas.

FOR SALE — DOUBLE STANDARD Polled Durham bulls. Write for description and price. C. M. Albright, Route 2, Overbrook, Kansas.

FOR SALE — HIGH-GRADE GUERNSEY cows and helfers, some fresh, close springers and fall cows, all bred to a registered bull. C. R. Ryan, Leavenworth, Kansas.

FOR SALE — VERY CHOICE HIGHgrade Holstein calves, either sex, three to skipment. Or if you want dairy cattle of any age, I will buy them at a commission from the best herds in Southern Wisconsin. Albert M. Hanson, Whitewater, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. \$23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

SCOTCH TERRIER PUPS-GREAT RAT dogs. Frank Healy, Bedford, Iowa.

FIVE MONTHS MALE COLLIES, QUICH, \$8. Frank Barrington, Sedan, Kansas.

TRAINED BEAGLES, RABBIT HOUNDS, foxhounds, coon, opossum, skunk dogs, setters, pointers, house, farm dogs. Ferrets. Catalog 10c. Brown's Kennels, York, Pa.

TRAINED RABBIT HOUNDS, FOX hounds, coon, opossum, skunk dogs, setters, pointers, ferrets. List free. Violet Hill Kennels, Hanover, Pa.

AIREDALES AND COLLIES—GREATEST of all pups. Grown dogs and brood matrons, Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

SITUATION WANTED.

WANTED—WORK ON MODERN PUREbred dairy farm, by experienced, reliable young man. Lawson Sappington, Centralia, Missouri.

SEEDS

SEED WHEAT, SEED RYE, ALFALFA seed, turnip seed and other seeds for fall planting. Write for prices. The Barteldes Seed Co., Lawrence, Kansas.

PURE-BRED HIGH-YIELDING TURKEY red hard seed wheat, cleaned and graded, at \$3.50 a bushel. Ferdinand Hubka, Vliets, Kansas.

TIMOTHY SEED, \$4.00 PER BUSHEL. High purity and germination, first class in every way. Timothy-alsike mixture, \$4.50 per bushel. Satisfaction or your money back. Henry Field, Shenandoah, Iowa.

BUSINESS CHANCES

FREE FOR SIX MONTHS—MY SPECIAL offer to introduce my magazine, "Investing for Profit." It is worth \$10 a copy to any one who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how \$100 grows to \$2,200. Write now and I'll send it six months free, H. L. Barber, 431,28 W. Jackson Boulevard, Chicago.

THE STRAY LIST.

TAKEN UP — BY W. A. PATCH, OF Olpe, Center Township, Lyon County, Kansas, on August 15, 1917, one cow, color red with white on flank, dehorned. No marks or brands. Appraised at \$45. G. L. Miller, County Clerk.

TAKEN UP—BY EDWARD WARE, OF Eureka Township, Greenwood County, Kansas, one red three-year-old steer branded with letter "W" on left side, 3-4 on left hip. Right ear cropped, appraised at \$40. Ethel Eastwood, County Clerk.

TAKEN UP—ON THE 23D DAY OF August, 1917, by Alex Shepard, residing nine miles southwest of Leott, Wichita County, Kansas, one bay pony mare, weight 750 pounds, wire mark across right shoulder; no brands. Deon Trueblood, County Clerk.

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MISCELLANEOUS.

1,024 YEARS AMERICAN HISTORY, 80c postpaid. Elias Pelton, Hudson, Kansas.

POULTRY.

BUFF DUCKS, \$1.25 EACH. ROBERT Webster, Canton, Kansas.

WHITE ROCK EGGS, \$4 PER HUNdred. Nora Lamaster, Hallowell, Kansas.

SINGLE COMB BROWN LEGHORNS—Pullet mating only. Tiff Moore, Osage City, Kansas.

CHOICE MARCH-APRIL HATCHED White Rock cockerels, \$1.50 and \$2. Mrs. Rudolph Johnson, Bendena, Kansas.

SINGLE COMB BROWN LEGHORN cockerels, 75c and \$1 each. C. H. Robinson, Urich, Missouri.

POULTRY WANTED.

POULTRY AND EGG MARKET HIGHER. Coops free. For prices, "The Copes," Topeka.

Real Estate For Sale

10,000 ACRES of good grazing land, well watered, for \$3 to \$5. All crops good. No drouth, no hot winds. Grass for cattle and corn for hogs. Best country in the world to live and make money.

W. W. TRACEY - ANDERSON, MISSOURI

950-ACRE BOTTOM FARM
Four hundred acres in cultivation, 160 acres meadow, balance pasture. Splendid alfalfa, wheat or corn land. Splendid oil possibilities. A fine bargain for some one. Only \$75 per acre. Might take a small farm in on the deal. Write
M. T. SPONG - FREDONIA, KANSAS

A BARGAIN

158½ Acres, 3½ miles from good town of 1,000 people, with high school, good school house on the land; seven-room house, good barn, plenty of water, on state automobile road. A splendid farm. Price, \$7,200.00; \$1,000 cash, balance from one to fifteen years at low rate of interest. Why rent? Send for views of this farm. Address THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas.

SUMNER COUNTY

The great Sumner County withstood the long drouth and high winds of the spring and then produced more high-priced wheat than any other county in the U. S., and yet land prices are very low on improved farms—\$40.00 to \$75.00 per acre. Write for description and prices.

description and prices.

WILLIAM HEMBROW

The Land Man Caldwell, Kansas

EIGHTY ACRES, 6 miles McAlester, city 15,000. 50 a. cult., mostly dry, black bottom land. All fenced. Some improvements, Corn now on farm, make 40 bu. per acre. \$21 per acre. Terms.

SOUTHERN REALTY CO., McAlester, Okla.

Beautiful Shawnee County, Kansas, Farms Near Topeka.

160 a. farm, fine improvements, \$80; 160 a. farm, good improvements, \$65: fine 43 a. farm, good improvements, \$3,800. I can fit you out in any size farm desired. One to two crops will pay for farm. E-Z terms.

J. E. THOMPSON (The Farmer Land Man)

Tecumseh, Kansas

FARM AND HERD.

John Coldwater, of Chase, Kansas, one of the successful breeders of pure-bred Shropshire sheep, will be at the State Fair at Hutchinson, Kansas, this year with his show flock. Mr. Coldwater owns one of the outstanding flocks of Shropshire sheep in Kansas and a feature of his flock at this time is the choice lot of young stock, including a lot of fine rams.

J. C. Parks, of Hamilton, Kansas, has made a great success breeding Percheron horses and Shorthorn cattle. Mr. Parks has been breeding Percherons for twenty years and has built up a splendid herd of mares and young stallions. He has worked most of his mares and has grown a number of useful stallions on his farm. They are broken to work when three years old and are handled in a way that they always make good as breeders. The Shorthorns are a useful lot of Scotch and Scotch-topped cattle that would raise the standard of many herds.

E. L. Barrier, of Eureka, Kansas, is one of the successful farmers and breeders of Greenwood County. Mr. Barrier owns one of the best herds of Angus cattle in the state, but is also doing a great hog business. At the head of his herd of Poland Chinas is one of the real big-type hogs, Dalebanks Hadley by Big Hadley Jr., he by Major B Hadley, a thousand-pound hog that won grand championship at the American Royal. This hog is assisted by King Jumbo, he by Elkmore Jumbo. The herd now consists of 150 head of registered hogs. A large number of fall yearling gilts are bred for September litters and a strong feature of the herd at this time is twenty-five choice spring boars, a number of them herd header prospects.

Col. Thomas Darcey, well and favorably known to many Western Kansas men, has moved from Dodge City to Hutchinson, where he will continue his profession as auctioneer. For twenty-eight years Mr. Darcey has had charge of sales in Western Kansas and has been very successful. He has been a breeder of pure-bred live stock for many years and knows values of all classes of live stock.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas,

Of Deepest Worth

These are the things I prize
And hold of deepest worth:
Light of the sapphire skies,
Peace of the silent hills,
Shelter of forest, comfort of the grass,
Shadow of clouds that swiftly pass,
And after showers
The smell of flowers,
And of the good brown earth—
And best of all, along the way,
Friendship and mirth,
—Henry Van Dyke,

Truck Farm Cans Products

An order for 2,000 quart tin cans to be used in saving the surplus products of one truck garden, is an index to the food loss-of former years that is being checked this summer. The Dudley Company, a farm partnership, which operates a truck garden of 2,200 acres a few miles west of Kansas City, has placed this order for cans through the extension division of the Agricultural College. There is a shortage of tin cans and an effort is being made to keep them out of the hands of speculators. Arrangements have been made by the United States Department of Agriculture with can manufacturers whereby they will supply tin cans for home canning when the order is approved by the state extension director.

Only such products as cannot be sold in the regular way on the Kansas City market, will be canned on this farm. In other years when the market was oversupplied the surplus represented a waste, as there were no facilities on the farm for canning vegetables. At the beginning of the present season Miss Mabel F. Smith, a teacher in one of the Topeka schools, offered to spend her summer vacation period on this truck farm canning the surplus products. A small building was erected for the work. This building has a cement floor, sanitary walls, running water, and is equipped with a community canner.

Before starting her summer's work

Before starting her summer's work Miss Smith spent an afternoon at the Agricultural College in conference with Otis E. Hall, state club leader, for the purpose of profiting by his wide experience in the canning of vegetables, meats, and fruits. Her work is being done according to the methods recommended by Mr. Hall to the members of canning clubs in all parts of Kansas.

Corn and tomatoes are the main crops of this truck garden. It is expected that 1,500 quarts of tomatoes will be canned during the summer. Dealers in Kansas City have agreed to buy all the canned goods offered for sale by the Dudley company.

A Few Meat Extenders

The following methods of using leftover meat are recommended by the Home Economics Department of the Ohio State University: COTTAGE PIE.—Cover the bottom of a

COTTAGE PIE.—Cover the bottom of a buttered baking dish with mashed potatoes. Add a thick layer of cold roast beef, chopped or cut into small pieces, seasoned with salt and pepper and onion juice, and moisten with some of the gravy. Cover with another layer of mashed potatoes. Bake until dish is heated through and potatoes browned on top.

MINCED MEAT ON TOAST.—Chop or grind cold meat, heat with some of the gravy, season with celery salt or onion juice. Serve on toast, or thin slices of hot corn bread.

ESCALLOPED MEAT. — Into a baking dish put alternate layers of macaroni or rice and chopped or ground meat. Pour tomato sauce or gravy over each layer. Cover with buttered crumbs prepared by melting one tablespoonful of butter or other fat in a pan, adding four or five tablespoonfuls bread crumbs and mixing thoroughly. Bake until dish is heated through and crumbs brown.

CASSEBOLE OF RICE AND MEAT.—Line a

CASSEROLE OF RICE AND MEAT.—Line a buttered mold with cooked rice, fill center with chopped cold meat seasoned with salt, pepper, cayenne, celery salt, onion juice, and lemon juice, and moistened with stock or gravy. Cover meat

with rice and then cover whole dish and steam or bake from thirty to forty-five minutes. Serve on a platter surrounded with a sauce made by browning flour in butter or meat gravy and adding meat stock or tomato juice in the proportion of one tablespoonful of butter and one tablespoonful of flour to a cupful of liquid. Season with salt and pepper.

of one tablespoonful of butter and one tablespoonful of flour to a cupful of liquid. Season with salt and pepper.

Browned Hash.—Mix together equal parts of chopped meat and chopped boiled potatoes. Moisten slightly with gravy or stock. Season and place in heated frying pan containing a little fat. Press compactly into one-half of the pan. Heat slowly until brown. Turn on a platter and serve with the sauce used in the preceding recipe.

Schools Are Important

The unsettled condition of our nation should not be used as an excuse for paying less attention to the educational training of our youth. Well trained men and women always will be needed, and especially at the close of this world war. Men and women whose heads, hands and hearts are trained are those upon whom the nation must build, and the greater the number of such men and women, the more ideal will be our democracy and the more free will our people be. It is to the trained the greatest opportunities for service come.

Lack of training and limited usefulness, in far too many cases are due to lack of encouragement during the school years. Few children need encouragement in the earliest school years, but as the novelty wears off a new interest in the school work should be created. Children usually attach to the school the same importance given it by their elders, and for this reason the subject should never be treated lightly or overlooked on account of the pressure of other matters.

There may be a tendency this fall to neglect the school, but if necessary a sacrifice should be made in order that all those of school age may enter at the earliest possible date.

In this matter we can learn a valuable lesson from France. The attitude of that country on educational matters is given as follows by John H. Finley, head of the educational system of the State of New York, who has recently

head of the educational system of the State of New York, who has recently returned from a trip to France:

"France is not forgetting the intellectual training of her children and youth in the midst of her peril and sorrow. She is making immortal struggle and immortal sacrifice in the trenched and barbed fields, but she is steadfastly, heroically maintaining her places of moral and intellectual discipline as essential to the perpetuation of the very things she is fighting for. The children must not be deprived of their heritage. At first many school buildings had to be taken for use as hospitals, but gradually other places were found for the sick and wounded that the schools might go on; for democracy herself would perish without these—the flame of France's supreme gift would go out."

If we at this time neglect our schools and underestimate the necessity for standardizing them, we will have committed an offense the harmful effects of which will be felt for many years.

Corn-Meal Breads

Cornmeal breads are low-priced and nutritious and may be quickly and easily prepared. In those raised by soda, great care should be taken in measuring, as more soda than the acid of the sour milk can neutralize is believed to make the bread unwholesome. It is also very important to have the bread thoroughly baked. The safest way is to make the loaves small so that there may be a large proportion of browned crust.

Cornmeal milled by modern processes does not make as moist bread as the old-fashioned type of meal, unless it is heated with water before the bread is mixed. If one understands this point, either kind of meal can be easily and

satisfactorily used. A few recipes for cornmeal breads follow:

SPOON CORNBREAD cups water cup milk cup white corn meal tablespoonful butter 2 eggs 2 teaspoonfuls salt

Mix water and cornmeal, bring slowly to the boiling point, and cook five minutes. Add eggs well beaten and other ingredients. Beat thoroughly and bake in a well-greased pan in a hot oven for twenty-five minutes. Serve with a spoon from the dish in which it was baked. Fruit spoon bread is made by the addition of any fruit that is in season. Cooked dried prunes, apricots, or peaches may be used. may be used.

SOUTHERN CORNBREAD

cupfuls cornmeal cupfuls thick sour milk teaspoonful soda teaspoonful salt

1 egg 3 teaspoonfuls melted drippings Beat egg in mixing bowl, add milk, sift in meal with soda and salt and add melted fat. Beat quickly until well mixed, pour into hot, well-greased pan, and bake in moderate oven. Cut in squares and serve hot. The egg may be omitted. If sweetened cornbread is preferred, use yellow meal and add three

tablespoons of sugar.

The following recipe is similar to the one just given excepting that sweet milk and baking powder are used instead of sour milk and soda, and flour is com-bined with the meal:

1 cupful cornmeal
1/2 teaspoonful salt
1/2 cupful sugar
1 cupful white flour
1 egg
1 teaspoonfuls baking powder
1/2 cupful milk
1/2 cupful milk
1/2 cupful milk
1/3 cupful melted fat
1/3 melted fat
1/4 mix dry ingredients, add beaten egg,
1/4 melted fat
1/4 mix dry ingredients, add beaten egg,
1/4 melted fat, and liquid. Mix thoroughly.
1/4 Bake in a greased pan in a moderate oven.

Mock Duck

Here is a suggestion for making a de-licious dish from an inexpensive steak:

On a round steak cut thin, place a stuffing of bread crumbs well seasoned with chopped onions, butter or other fat, with chopped onions, butter or other fat, salt, pepper, and flavorings such as sage, celery seed, etc., if desired. Roll the steak around the stuffing and tie in several pieces with a string. If the steak is tough, steam or stew the roll until tender before roasting in the oven.

If desired, the roll may be cooked in a casserole, in which case a cupful or more of water should be added.

FASHION DEPARTMENT-ALL PATTERNS TEN CENTS

This department is prepared especially in New York City, for Kansas Farmer. We can supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10 cents each, postage prepaid. Full directions for making, as well as the amount of material required, accompanies each pattern. When ordering, all you have to do is to write your name and address plainly, give the correct number and size of each pattern you want, and enclose 10 cents for each number. We agree to fill all orders promptly and guarantee safe delivery. Special offer: To anyone ordering a pattern we will send the latest issue of our fashion book, "Every Woman Her Own Dressmaker," for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to Kansas Farmer, Topeka, Kansas.



No. 7860—Ladies' Shirtwaist: Cut in sizes 34 to 42 inches bust measure. For the esteem of the discriminating woman this waist was planned, Figured and plain materials are advantageously used, but all one material will be just as desirable. A deep cape coliar cut in points covers the entire front and has a frill all around its edge; the full sleeves are gathered to deep cuffs. No. 8171—Girls' Dress: Cut in sizes 6 to 14 years. For the exact style requirements in a dress for a school girl, look at this model. It is cut in one piece with the bodice and skirt section plaited and joined to deep yokes. The point coliar developed in contrasting goods is very effective and a belt with its ends tacked under the first plait in each front is ornamental as well as being necessary to mark the straight line effect at front. No. 8178—Ladies' Waist: Cut in sizes 36 to 42 inches bust measure. A blouse of truly distinctive character, cut with ample fullness and having the fronts and back gathered to yokes. An inset vest of contrasting goods is a striking feature; the covered buttons suggest front closing, but in reality the blouse slips on over the head. No. 8183—Ladies' House Dress: Cut in sizes 36 to 44 inches bust measure. Anyone can trace the newest style feature in this model. It may be developed in material that will proclaim it for wear in going the round of household duties, or in goods that will put it in a different class. The surplice waist shows a few gathers where the three-gore gathered skirt is joined under a straight belt of contrasting goods. No. 8179—Ladles' Skirt: Cut in sizes 24 to 34 inches waist measure. Among the dressy numbers in skirts recently arrived, this is a model that will have wide acquaintance. The four gores are gathered and mounted on a raised waistline and to achieve the straight line of Fashion's acceptance, a box plait is made at each side of the front and back. No. 8148—Misses' Dress: Cut in sizes 14 to 20 years. The collar and sleeves give a note of individuality and smartness to this mode

17th Annual

Kansas State Fair

HUTCHINSON, SEPTEMBER 15-22, 1917

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Two best quality steel blades. German silver tips, brass lined. Transparent handle showing your own name.

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Remember that starch is a cheap kind body fuel; corn meal contains about 75 per cent of starch.

This is the time that clothes moths are at work. If woolen clothes or furs are hanging unprotected, take them out and give them a good brushing and beating every two to four weeks, hanging them in the sunshine is also good. Carpets that are in use are seldom attacked unless it be in corners not much disturbed by walking or sweeping.

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You're in the dairy business for profit—the net profit that your herd has made you at the end of the year will determine the size of your bank account. Jerseys yield the largest returns from every ounce of feed—proved by tests at two great expositions. Jersey milk averages 5.3% butter fat, 9.1% solids not fat—highest of all breeds. Buy a Jersey bull.

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A Herd of Producers, Backed by Records, pular blood lines. Choice individuals. We invite inspection of our herd at all times.

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Write today and ask to be placed on my mailing list. Address B. C. SETTLES, Sales Mgr., Palmyra, Mo.

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Will Be Sold at Public Auction October I.
We have thirty cows in the Register of Merit,
d many others that will qualify. This is
e best for of producers to be sold this year,
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Merit cows of dairy capacity, conformation, snapely udders and high class Bulls ready for service, out of Register of Merit dams and by Register of Merit sires.

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RED POLLED CATTLE.

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Eighteen young bulls for sale. A few of them about ready for service. Priced to sell. The kind that always please. D. BALLANTYNE & SON, Herington, Kan.

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Valiant 346162 and Marengo's Pearl 391-962 in service. Young bulls up to 10 months old for sale. Reds and roans, in good thrifty condition and the making of good useful animals. Inspection invited.

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WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

War Lessons From English Poultrymen

THE past four weeks I have spent in visiting poultrymen of New York, Massachusetts, Connecticut, Rhode Island, New Jersey, Pennsylvania and Maryland. I also visited the Government farm at Washington and went through the marketing places of Boston and New York City, where a large personal new York City where the York City where a large personal new York City where the Yor and New York City, where a large per-centage of our eggs and poultry is fin-ally sold. I also had the pleasure of attending the Massachusetts state con-vention of poultrymen at their state college and experiment station at Amherst. The sectional meting of the American Association of Instruction and Investigation in Poultry Husbandry was held at the same place and I therefore had the opportunity of meeting the men in charge of the poultry departments of the various agricultural colleges and experi-ment stations of many of the states and provinces of the United States and

It is from this meeting that I wish to carry a message to the poultrymen of America — facts which I believe every one engaged in the poultry business in this country would do well to consider. England has been at war for over three years. That country has been put to a test, and its resources and its industries affected as never before. Some of the affected as never before. Some of the poultrymen of England are within one hundred miles of the firing line and can sometimes hear the roar of the mighty guns as they are engaged in the present deadly conflict. Would it not be well for us to consider what has been the effect of such a situation upon the poultrymen of that country? poultrymen of that country?

Edward Brown, the most noted English poultryman, author, writer and lecturer, addressed this meeting in Massachusetts, and among other things he stated the following facts, as I gathered them from his lecture: Feed has addressed them from the lecture of the state o vanced about 100 per cent since the bevanced about 100 per cent since the beginning of the war, and eggs have advanced 80 per cent. If they use the same rations for laying hens as previously, it costs \$1.50 more per hen for feed, but they get \$2 per hen more for their eggs. The government does not allow the use of wheat or oats as poultry food. Where poultry has been given the range of the farm, in many cases, it costs only 15 to 20 per cent more than formerly to feed the farmer's hens. Many poultrymen are succeeding re-Many poultrymen are succeeding remarkably well by feeding chiefly on green food, roots and bran, and eliminating most grains. They give all the range possible. They are learning to grow some of their own foods carred by grow some of their own feeds, especially green food. Mr. Brown advises at this time against casy feeding or wasteful feeding. If, by a little extreme effort, you can save something that is now going to waste, it will pay you to go to that trouble. He stated that he never saw such extravagance as in this country, and he has traveled in many countries. This is not only true with poul-try, but with all things. The English "dollar" doesn't go far in America. In spite of the submarine warfare, corn, spite of the submarine warfare, corn, wheat and oats are cheaper in England than in America. This is something that is hard to understand, for it seems under present conditions they should be cheaper here. It is their custom to feed mashes in the morning and grain at night. Practically every man feeds differently. Each feeds what is at hand, and adapts himself to the circumstances.

Mr. Brown said that the fanciers and poultry shows had been hurt most in

poultry shows had been hurt most in England. He said there was a great gulf and a continual fight between the fan-ciers and the utility men in this coun-try—much more so than here. He advised never letting that division become so marked in this country. He said we should never let that bitter feeling grow up between us as it has there, for they realized more than ever that both fancy and utility were essential. Each was largely dependent upon the other and America would do well to guard the good feeling that now exists between these two branches of the industry in this

Particular stress was laid upon the importance of encouraging back lot poul-try keeping just at this time. Mr. Brown thought that millions of Americans should be urged to raise poultry in the towns and cities. In England the back-lotters are doing exceptionally well at this time. The waste from the table, the parings from vegetables and fruit, go a long way toward keeping a few

Eggs were selling at 60 cents per dozen and poultry by the piece instead of by the pound. Farm poultry averages

110 to 120 eggs per hen each year, and those in the hands of specialists average about 140 to 145 eggs. Eggs have increased in price more than poultry.

In spite of three years of war right at their door and a condition such as

they never saw, Mr. Brown stated that he could not bring many deep-shadowed pictures or discouraging things about poultry conditions in England. Can't America take courage and learn a lesson from that? It seems to me that in the face of the facts and conditions in England and Canada, some American poultry raisers have become frightened poultry raisers have become frightened unnecessarily. In all my visit through the East, I found every man who had kept records on the cost of production and receipts from sales was staying in the business, and some making more money than ever. They are culling closer, which is a good thing any year, but in the face of the facts it is a great mistake to quit the business. If Canadian and English poultrymen can make money, why cannot Americans?

Mr. Brown thought that this war, in

money, why cannot Americans?

Mr. Brown thought that this war, in the end, would benefit the industry in many ways in this country. It would bring an end to many of the fads in poultry keeping. People would study the business and proceed along saner lines. Each new condition that the country faces brings new problems, but we should meet and solve them in the same way as the English poultrymen have. The high prices of eggs are going to educate the people to the value of eggs, so that after the war the prices never will be as low again and the consumer will not object so much to paying sumer will not object so much to paying reasonable prices for eggs in the future. The whole of Europe will have to practically be restocked with poultry at the close of this war, and they will have to close of this war, and they will have to depend largely on America for their breeding stock. He stated that in the present crisis and scarcity of food, Eng-land regarded her poultry highly, for it was proven that the hens of England were picking up forty-five million dol-lars worth of grubs and waste products from the soil which would absolutely be wasted and which no other animal would wasted and which no other animal would be able to use and to turn into food if it were not for the hen.

The only difference between the poultry business of today and a few years ago is this: Then feed was cheap and a poultryman could make a lot of mistakes and still stay in the business. He can make more money today than he did then, but he must know how. Feed prices are certain to go down some when the growing corn crop goes on the mar-ket. Eggs are certain to be higher than ever known. Many incubator companies are already booking more orders in ad-vance than in any previous season. The worst is over, in my opinion, and those who have stock and eggs for market or breeding are certain to make some good money if the right methods are used in

handling their poultry.

We must impress upon the general public that eggs at five to eight cents each are still the cheapest, most wholesome meat food that can be purchased at the present time. There is also less chance of waste in bone and fat. If the American Poultry Association, and poul-trymen in general, will raise a fund to advertise these facts and get them before the public in the same way that the orange grower, raisin grower and dealers in dairy products do, there will be a big demand, for eggs and poultry meat at paying prices. Production will take care of itself, and all poultry raisers will be insured a profit if we will spend our money and energy in education the consumer to paying the prices. ing the consumers to paying the prices and consuming the products. Instead of urging a great production, we had better spend our money in educating the consumers to the value of eggs and poultry and the cost of producing same. As long as there is a demand for these articles at profitable prices, there will be producers in plenty, and no one will be going out of the business.

There is no reason to be greatly alarmed or discouraged. American poul-

trymen certainly have as much backbone, as much patriotism, as much love for the business, and as much ability to adapt themselves and their methods to meet varying conditions so as to solve poultry problems, as has the poultrymen of England or Canada. Don't sacrifice the great American hen. The facts and conditions don't justify it. Meet the issue with right methods and you are certain to find the business as profitable for the next twelve months as at any time in the past.—T. E. QUISENBERRY.

POLAND CHINAS

POLAND CHINAS.



Famous Spotted Polands Faulkner's The world's greatest pork hog are raised exclusively on

HIGHVIEW BREEDING FARMS

The largest registered herd of old, original, big-boned, spotted lands on EARTH.

Spring Pigs Now Ready to Ship, Pairs and Trios No Kin. H. L. FAULKNER - BOX D - JAMESPORT, MISSOURI

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HOME OF THE GRAND CHAMPION, CALDWELL'S BIG BOB. See show herd at the Topeka Free Fair. Annual bred sow sale February 19, 1918. FRED B. CALDWELL, HOWARD, KAN.

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Thirty spring boars, thirty spring gilts. Sired by Billie Sunday, Cainville Giant and Perfect Judge. Sows by Brandywine, Budweiser, Old Clipper and Spotted Giant. riced to sell.
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BIG-TYPE POLAND CHINA HOGS. See our show herd at Topeka Free Fair, Kansas State Fair at Hutchinson, and Okla-homa City. Fifty spring boars for sale, Six hundred head in herd to select from. H. O. Sheldon, Herd Manager oswego, Kansas.

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For Sale—Ten fall yearling gilts, bred for September farrow to Dalebanks Hadley and King Jumbo; twenty-five spring boars ready for service; twenty-five spring gilts open. One hundred and fifty head registered hogs in my herd. Write today what you want. E. L. BARRIER - EUREKA, KANSAS

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Ten big stretchy fellows farrowed in June. Every one a good one. Two choice fall yearlings. I ship my boars and gilts any place on approval. They make good. Prices are right. CHAS. E. GREENE, Peabody, Kan.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, sired by seven of the very best boars of the East and West, Priced right. Write your wants to the CEDAR ROW STOCK FARM

A. S. Alexander, Prop. Burlington, Kansas OLD ORIGINAL SPOTTED POLANDS
Choice March and April pigs of both sexes.
H. A. MATTOX, Route 2. Burlington, Kan.

Langford's Spotted Polands.—Last call for early spring boars. Yours for good hogs— T. T. Langford & Sons, Jamesport, Missouri.

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check gets choice. . ORRICK, MISSOURI

FAIRVIEW POLAND CHINAS.

Heavy-boned March pigs, either sex. Eighty
o select from. Prices reasonable. Write us your wants. P. L. WARE & SON - PAOLA, KANSAS

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FOR SALE
Spring Pigs in Pairs and Tries
Not related, from my undefeated show herd 1916. Ship
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& CRUM, Danville, Kansas.

O. I. C. SPRING PIGS, BOTH SEXES.

Bred gilts,
HARRY W. HAYNES, GRANTVILLE, KAN.

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Booking orders for spring pigs of National Swine Show blood lines. Fall and spring J. H. McANAW - CAMERON, MISSOURI

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Jas. T. McCulloch Live Stock Auctioneer. I make sales anywhere. CLAY CENTER, KANSAS

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Live Stock Auctioneer
Write for terms and date. Clarksdale, Me.

Live Stock and Real Estate Auctioneer. Rifteen years experience. Write for terms. Thos. Darcey, Hutchinson, Kansas.

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Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to seven months old. ADAMS FARM, Gashland, Mo., 12 miles from K. C.

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300 HEAD. 75 Animals Imported from Scotland. 143 cows have qualified for advanced

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Males and females for sale,

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A LIFETIME EXPERIENCE proves the Ramboulliet the best sheep for Kansas, Stock for sale. E. D. KING, Burlington, Kansas.

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Sixty Registered Shropshires—Thirty ewes and ewe lambs, thirty rams and ram lambs. Lambs sired by our undefeated ram, Ohio and Michigan, 1916.
HOMAN & SONS - PEABODY, KANSAS

FIVE EXTRA GOOD HAMPSHIRE RAM

Priced right if taken in the next two weeks. L. M. SHIVES, ROUTE 1, IUKA, KANSAS



RAMS Registered Shropshires,
WOOL. Our aged ram was champlon 1916 Iowa State Fair. Imported
Buttar rams. Also 100 eves.
C. W. Chandler, Kellerton, Ia.
Above Kansas City.

FOR SALE—Ten registered Shropshire ewes, fifteen registered Shropshire buck lambs, ten pure-bred unregistered Shropshire yearling bucks.

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REGISTERED SHROPSHIRE RAMS
Ten extra large boned yearling Shropshire
rams by imported sire, priced to sell.
E. E. LAUGHLIN
Bates County.
Rich Hill, Missouri

First Class Shropshire Rams For Sale

Will exhibit them at Hutchinson, Kansas, State Fair. Don't buy a ram before you see it. I sell and ship on approval.

JOHN COLDWATER, BREEDER, - - - - Kansas Chase

FARM AND HERD.

Redmon & Son, the well known Jersey breeders of Tipton, Missouri, have announced a public sale of very high class Jersey cattle to be held at ipton, October 1. They will catalog over thirty head of Register of Merit cows for this sale, sired by Eminent Brown Lad and Golden Jolly Masterpiece, both Register of Merit bulls and two of the best now in service in this country. This sale will be under the management of B, C. Settles, of Palmyra, Missouri, and it will be one of the big Jersey sale events of the season.

Walter B. Brown, of Perry. Kansas, will catalog one of the best Poland China offerings for his October 17 sale that will sell in this state during the fall sale season. His offering will consist of the get of the most noted sires of the Poland China breed and will include practically all of the popular blood lines. Among the lot sired will be

PERCHERON STALLIONS

FOR SALE THIS FALL AT REDUCED PRICES

Two yearling colts; two 2-year-old colts; two 3-year-old colts; two 4-year-old colts, and one herd stallion. All sound and registered in Percheron Society of America. Blacks and bays. If sold this fall I will cut the prices. Also five registered Shorthorn bulls, reds and roans. Come and see me. J. C. PARKS

HEREFORDS MODERN

HAZFORD PLACE

Home of the Grand Champion BOCALDO 6TH, assisted by CALDO 2D, PUBLICAN 4TH AND BEAU BALTIMORE,

All our show cattle our own breeding. Inspection of farm and breeding herd invited.

A few choice young bulls reserved to head high-class pure-bred herds now ready for inspection and sale.

William Condell, Herdsman.

ROBT. H. HAZLETT, EL DORADO, KANSAS

HOLSTEIN CATTLE.

HOLSTEIN CATTLE.

Iowa Holstein Breeders' Sale

AT WATERLOO, IOWA, OCTOBER 4

This sale will afford an opportunity to get the best in individuality and breeding. Iowa contains some of the best Holstein herds in the country and the entries for this sale are from these establishments.

All stock has been closely censored so you will get high-class animals. All over six months of age are tuberculin tested, thus insuring healthy stock. Plan to make this sale and visit the Dairy Cattle Congress. Catalogs ready about September 20.

For further information address

F. C. Barney, Sec. Holstein-Friesian Assn., Chapin, Iowa

F. W. ROBISON. Cashler Towanda State Bank OLYDE GIROD, At the Farm HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

We effer special attractions in choice young bulls, ready for service, both from tested and untested dams, as prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING
of high grade young cows and haders, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

- - - TOWANDA, KANSAS GIROD & ROBISON

SAND SPRING HERD E. S. ENGLE & SON - - - ABILENE, KANSAS

Not the biggest nor the best herd in Kansas, but a reliable herd of consistent producing Holsteins, famous for their business and debt-paying qualifications. Superintendent Gardner's Advanced Registry report August 1, 1917, gives four of our cows that have an average of 11,700 pounds of milk, 471 pounds butter, in 238 days. For sale, an Ormsby bred bull from a 12-pound two-year-old, born in February, that will please. We won't keep this bull very long. Visitors always welcome.



MAURER'S HOLSTEIN

Why not buy pure-breds when you can get them at near-grade prices? WE HAVE THEM from three-months-old heifer and bull calves to matured cows, all with exceptionally high class breeding. Finely marked and good individuals. Also grade cows and heifers. Write for description and prices or, still better, call at farm and inspect them. T. R. MAURER & COMPANY.

EMPORIA, KANSAS



HOLSTEINS AND **GUERNSEYS**

High grade cows and heifers, carloads or less. Calves crated and shipped anywhere, price \$20.

F. W. WALMER

Way Side Stock Farm - Whitewater, Wis.

DUROC JERSEYS.

15 Duroc Spring Boars

Sired by Illustrator O'Rion 3d and Fancy Victor and out of my best herd sows. They are real herd prospects, selected from 91 pigs raised. Write today if you want a good spring boar.

John W. Petford Route 1

Saffordville, Kansas

WOOD'S DUROCS

Boars, sows and gilts,
THE WOOD DUROC FARM
Wamego, Kansas LONE TREE DUROC FARM

Herd Boar Graduate Prince by Graduate Col. Sows, Ohio Chief, Tatarrax, Model Top and Good Enough Again King blood lines. Spring pigs, two for \$35.00, three for \$45.00; not related.

6EO. J. BURKE, LITTLE RIVER, KANSAS

IMMUNED DUROCS

With size and bone. Bred sows and males a specialty. 150 early pigs; pairs and trios, no kin. All immuned. Satisfaction guaranteed. C. C. Ditmars & Co., Turney, Mo.

McBRIDE'S DUROCS

Six-months-old boars for sale, cherry red and good ones, Priced right.
W. T. McBRIDE - PARKER, KANSAS

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS GEO. W. ELA, Valley Falls, Kansas

spring boars and gilts by Gerstdale Knight by the famous Gerstdale Jones. Among the recent additions to his choice herd of big-type sown is a Big Giantess sow, also a Master Orphan sow. Both are very fine individuals.

FOR SALE

Registered Holstain Heifer Calves, 3 to 5 months old. Bull Calves, 1 to 2 years old. A. R. O. backing. Also milk cows. BOCK'S DAIRY, Route 9, Wichita, Kansas.

Braeburn Holsteins Bull Calves by Walker Copia Champion, whose dam and sire's dam each held world's records in their day. H. B. COWLES, 608 Kan. Av., Topeka, Kan.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Heilo 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

HOLSTEIN CALVES

Very high grade helfer calves, five weeks old, nicely marked, \$25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - SCRANTON, KANSAS

HEREFORD CATTLE.

HEREFORD CATTLE

Want to Sell Forty Cows and Heifers.
Cows have calves at foot and are rebred.
Twenty-five bulls of breeding age, real herd
headers. Send for my annual sale catalog,
October 6, 1917.

J. O. Southard, Comiskey, Kan.

PLEASE MENTION KANSAS FARMER WHEN WRITING TO ADVERTISERS



PUT YOUR IDLE ACRES TO WORK

WAR has devasted the fields of Europe. Belgium and France have been laid waste. Millions are starving. Upon the American farmer rests the responsibility of feeding the world. You must raise bigger, better crops. You must plow more acres. You must feed fewer horses and more humans. You must put your idle acres to work. The farms of America are producing only 40 per cent of their possible capacity. You can greatly increase your production and reduce your expenses by the use of a good tractor. It is with pride we call your attention to the



THE Nilson is a light weight tractor. It is different from all other tractors. It automatically secures its traction by a patented lever hitch which means grip by the drive wheels just when it is needed. The Nilson develops traction by pull instead of by weight. It does not pack the ground. It carries no dead weight and consumes a minimum of power in propelling itself.

What Automatic Traction Is

If you were to tie a rope to a stump and to the other end your team of horses, put the rope over your shoulder and give the word to your team to pull—

you would find yourself with plenty of traction on the ground. The harder your team would pull that rope—the harder your feet would grip the ground.



This is the principle of the Nilson and its patented lever hitch. The line of pull is directed over the drive wheels and the harder the plow or other implement pulls back, the harder the wheels grip the ground and the more traction is secured.

Two Nilson Models

There is a sized Nilson for your farm. The Nilson Senior has 36 H. P. at the Belt, 25 H. P. at the draw bar and pulls a 4-14 inch bottom plow with ease. The Nilson Junior has 25 H. P. at the belt, de-

County

velops over 16 H. P. at the draw bar and easily pulls a 3-14 inch bottom plow.

As neither of these models carries any dead weight, they are able to do more work at less cost for fuel and upkeep than any other tractor on the market.

For Road Hauling

The Nilson develops a high speed on the road. It will transport your harvest and supplies to and from market in less time and at less expense than you can possibly do with horses. The Nilson road speed is six miles an hour—a good buggy speed.

Waukesha Motor and Hyatt Bearings

The famous Waukesha Motor—made especially for tractors—is used in both Nilson models. This insures a power plant free from trouble. Only the best materials are used in the Nilson, such as Hyatt Roller Bearings, Nilson Perfex Radiator, K-W high tension Magneto Ignition, with impulse starter, and Kingston Carburetor with Bennett Air Cleaner. The Nilson can also be adapted to the use of kerosene.

Has Stood The Test For Four Years

For four years, under all conditions, the Nilson has proven its merits and has stood every test. It is not an experiment. We have hundreds of letters from satisfied Nilson owners.

War has greatly increased the demand for tractors. While our capacity is large, our output is taxed to supply the demand. If you want a tractor this year, write us at once for catalogue and the name of your nearest dealer. Let us explain Nilson service to you. Remember, every acre tilled means human lives saved.

NILSON TRACTOR COMPANY

1651 HENNEPIN AVENUE

MINNEAPOLIS, MINN.

SON Tractor. This puts me under no obligations. My farm is.	
P. O. Address	***************************************