

KANSAS FARMER

FOR THE IMPROVEMENT



OF THE FARM AND HOME

Volume 48, Number 18,

TOPEKA, KANSAS, APRIL 23, 1910

Established 1863. \$1. a Year.

University Course at the Farm Fireside

Kansas maintains, at considerable expense and with immense pride, a State University that ranks among the best in America. Its equipment in men could scarcely be excelled, its halls are filled with a high quality of Kansas students and its management is above criticism. Yet, like all institutions which must depend upon a grudging and slow moving public sentiment not only for its usefulness but for its very existence, it has always been hampered by lack of material means. This great school, particularly in recent years, has like the school boy, constantly outgrown its clothes, and while Mt. Oread is now crowned with a diadem of magnificent University buildings, the need for more comes faster than the supply.

In the minds of some the University has been looked upon as a professional school for the training of doctors and lawyers, and as being of relatively little interest to the farmers who constitute the great mass of our citizenship. The University is a professional school, or rather a series of professional schools aggregated into one institution and under one control and yet it is a great deal more. Over 56 per cent of the students now in attendance come directly from the farms and, while this is a gratifying percentage, it is not enough in this state and under our conditions. This magnificent institution is maintained for and by the people for their own use, and it is a part of the duties of that people to see that they get the most good out of it. They are not doing this now and have not been in the past and the fault lies with the people themselves.

A state university is and should be at the head of the educational system of the state. It is within its province and powers to teach any and all branches of useful knowledge. Institutions develop according to the requirements of the communities in which they are located, and for this reason some universities become noted for work along certain lines and others for work on different lines, yet the purpose of all of them is to serve the people as the source of the best and highest in mental and moral attainments.

The fact that only 56 per cent of the students of the Kansas University are from the farm may be pointed out as an adverse criticism of an institution that is located in an agricultural state. It might be urged that more farmers' boys and girls should find place in its halls. It is known that a very large percentage of the great business interests of the country are conducted by or are under the control of men who spent their early days on the farm. It is also known that there are very many boys and girls on the farm who are out of place there if their natural abilities and potentialities are to be considered. Very many of these can hope for no higher distinction than that of becoming "an average farmer" if they remain on the farm, while with a university training they might become leaders in their own or other walks in life.

The most potent reason why the student body of the State University is not more largely composed of young people from the farms, lies in the fact that they have had no means

What the Farmer Cannot Go to the University to Get, the University Aims to Bring to Farmer In the Fullest Measure Possible

of preparation for the courses of study that are there offered them. The farm boy or girl attends the district school and then has the option of going to the nearest city high school or going away to some college. In either case he must leave home and the decision is frequently made in favor of the college. Here he meets an obstruction in his lack of preparation. The training he has received in the country school is not sufficient to permit of his entering the State University and this is in no sense the fault of the University.

The purpose of the State University is to give higher education. The purpose of the public schools is to give elementary training. These two

can not and should not be combined in the University, and it has been the fault of the people themselves that their school laws and the management of their elementary schools has been such as to fall in what should be one of the principal objects sought.

Of late years, however, there has been a decided change for the better in the school system of this state. A very long step in advance was made in the passage of a county high school act through the operation of which farmers' boys and girls could get advanced training without leaving their home counties. Supplementing this came the Barnes high school law, which made a second step in the right direction. Such matters are of slow

growth, however, and it would require years to bring the school system of the state up to the University requirements.

Recognizing this urgent need, the University authorities have established a new division in which they meet the people of the rural districts more than half way, and bring the University to the people as well as the people to the University. This division of work is known as the University Extension, and is comprised in four main departments: The department of instruction by lectures, the department of correspondence study, the department of general information and welfare, and the department of debating and public discussion. The department of instruction by lectures is a continuation of what once comprised the whole of the university extension, that is, the system of sending university lecturers to other communities for the purpose of presenting lectures on college branches. This department has now been enlarged and reorganized so that it furnishes regular courses of lectures in college subjects to Kansas communities covering the ground of courses that are pursued at the university itself. Such courses command university credit. Speakers are also furnished for teachers associations, women's clubs, granges, farmers' institutes and other similar organizations of Kansas citizens.

The department of correspondence study brings through the medium of correspondence instruction, over eighty of the university's class room courses within the reach of these people who can not leave home. These courses are exactly like those given to the students in attendance at the university. The requirements, the teachers, the lessons, and the credits are the same. If there are eight or ten students in one community who are pursuing the same line of work, they may receive additional help from the university in the person of an instructor who will visit them once in two weeks.

The department of general information and welfare brings the facilities of the university faculty, library, laboratories and shops within the reach of all the people of the state. This department is able to furnish to farmers' institutes, women's clubs, literary clubs, and other social or literary organizations the material and references for the study of the social and political questions of the day, while one bureau is organized to furnish city officers, civic organizations, and public spirited individuals with information and ideas concerning all kinds of municipal problems. City charters, sanitation, franchises, paving, accounting, water works, and other public utilities are included here, and the material is available to all.

This modern idea, this carrying of a great university to the homes and hearts of the people, this development of the most advanced methods in education, serves to make of the Kansas institution a university in the highest sense; to make it available to all of the people instead of a few, and to place both the university and the state on a higher plane of usefulness than it has ever had.



"What I'm Driving At"

This Cartoon was Drawn by Albert T. Reid from a Suggestion by Mrs. Anna L. Noland, Zeandale, Kansas.

AMERICA'S LEADING HORSE IMPORTERS--Percherons, French Coach

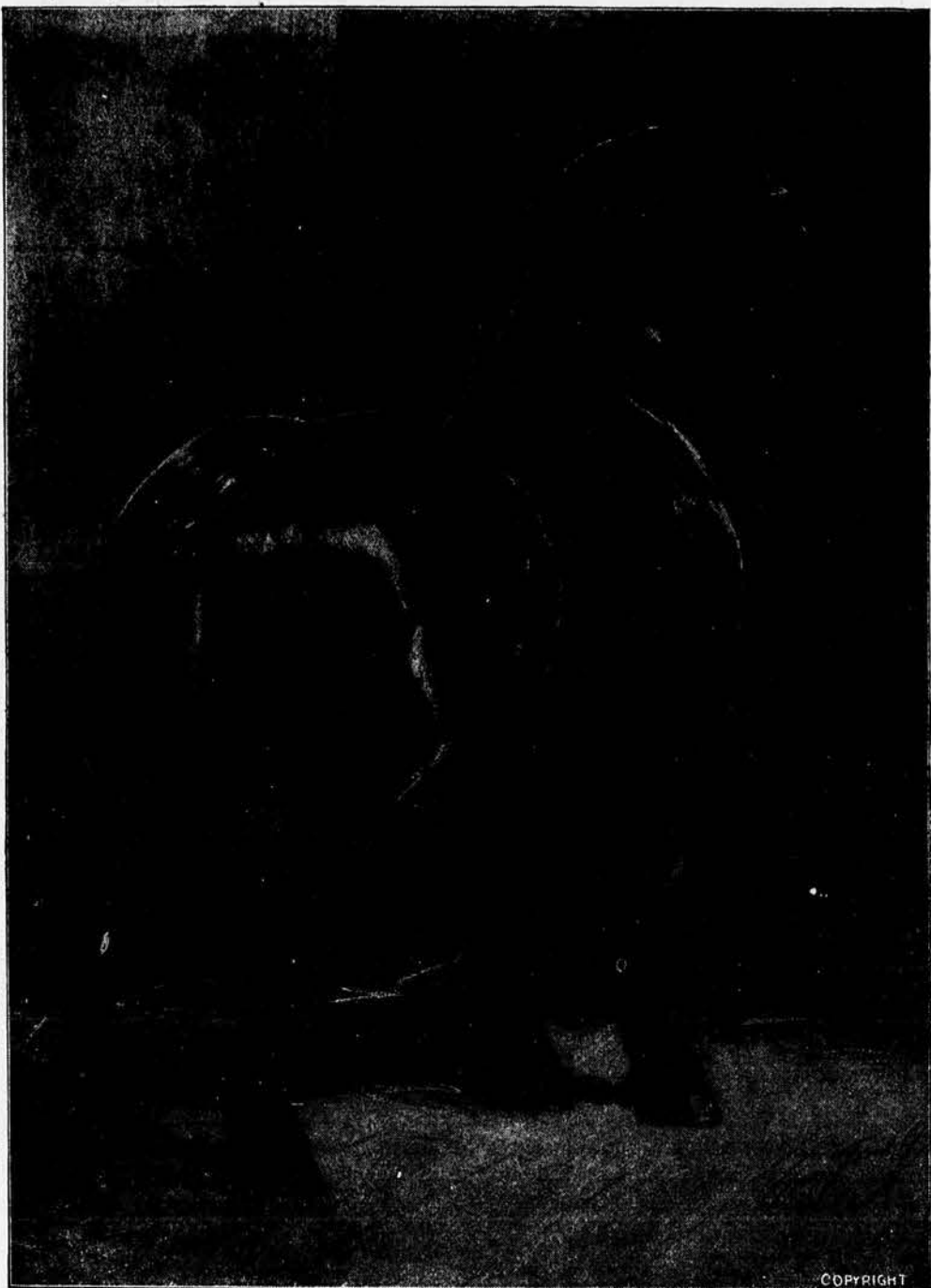
For Next Ten Days We Will Give Exceptional Values on Best Percheron Stallions and Mares Ever Imported to America

In our recent importation we included a large number of the BEST MARES we ever imported to America. We have sold all these mares but THREE, which we intended to save over for Show purposes. We have decided, however, to sell these mares to make room for our new importation.

The mare "HALAMBIQUE" is black, rising Three-year-old. She was landed in America the week before the International Live Stock Show, Chicago, and was awarded Third Prize in the Open Class; afterward, she was awarded FIRST PRIZE, given by the Percheron Registry Co. "HALAMBIQUE" was bred in France to the noted Champion Percheron Stallion "CARNOT," and is now in foal. She weighs a trifle over 1800.

The mare "HAVANE" is another rising Three-year-old, black, imported last December, and she was awarded FIRST PRIZE in Collection of three mares at the International Live Stock Show, Chicago, last December; she was awarded FIRST PRIZE in stud of one stallion and four mares, and was also awarded SECOND PRIZE in Get of Sire at the International Live Stock Show. "HAVANE" was sired by the noted Percheron Stallion "ETUDIANT," which great stallion was the CHAMPION PERCHERON STALLION at the GREAT ANNUAL SHOW OF FRANCE, 1909. "HAVANE" is also in foal to the noted Percheron Stallion "CARNOT."

The mare "GLORIEUSE" is a dark gray, rising Four-year-old, with extreme size, style, conformation, and standing on the best of legs and feet. She was sired by the Noted Percheron Stallion "OSCAR" (45901); on the dam side she also possesses the best blood in France. This great mare is also in foal to the Champion Percheron Stallion "CARNOT."



Any one desiring best imported Percheron mares that were ever brought west of Mississippi river should not fail to come to Kansas City at earliest possible date

AMONG THE STALLIONS at our stables in Kansas City are some of the MOST NOTED HORSES of the past year:

"HARDOUIN," Rising Three-year-old Percheron Stallion; black, weighing over 1900.

"GUINGUET," Rising Four-year-old Percheron Stallion; black. This famous stallion won the Blue Ribbon at the Ohio State Fair, 1909, and at the Minnesota State Fair, same year. "GUINGUET" also won FIRST PRIZE and GRAND CHAMPIONSHIP at the Great Alaska-Yukon-Pacific Exposition, Seattle.

"HOCHÉPOT" is another Rising Three-year-old, black; one of the weightiest, and best proportioned Percherons ever imported to America.

"GAZON," a dark gray, Rising Four-year-old, is one of the most sensational Show Horses we have ever imported.

We also have on hand TWO very weighty and EXTRA-ORDINARY Belgian Stallions which we can offer at unusually attractive prices.

Any intending purchaser should not overlook this grand opportunity to get more value for their money than has ever been offered in imported animals

McLAUGHLIN BROS.

1820 CHERRY STREET

KANSAS CITY, MISSOURI

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Maintaining Supply of Soil Humus

By G. E. DULL
Washington, Kan.

By maintenance of the humus supply we mean the keeping constantly in the soil of an average amount of organic matter in that condition of partial decomposition common in the change of fresh material to the native elements.

When the early settlers in any region of average humidity first broke the prairie sod or felled the native forests they found the soil quite dark in color, light in weight, easy of cultivation, and productive of almost any crop that would grow at all in that particular region. As they farmed year after year raising the same kind of crop on the same field with poor cultivation and without the addition of manure or the return of any of the soil's products to it, the soil became less productive, difficult of tillage, heavy in weight, and sticky and sour. Usually they do not think seriously of the needs of the soil until it has become very unproductive, then if new land is to be had further back from the improvements that follow civilization they move on, leaving their problem of a worn-out farm for a future generation to deal with.

The rich, dark, moist appearance was due to vegetable mold or humus. Humus makes a soil lighter in weight by separating the mineral particles, more retentive of moisture by giving it greater internal surface, and increases the rate of solution of plant food by the increased amount of moisture and internal surface. Capillarity is increased by the addition of humus, thus aiding the transportation of food to the plant. Humus acts as a weak cement, binding sandy soils together and making clay soils more open by binding the soil particles into flocules which alternate with air spaces, thus retarding aeration in the case of sand and increasing it in clay.

The natural conditions most favorable to the formation of humus are an excess of moisture with a lack of aeration, and an abundant growth of vegetation with a moderate temperature. The natural ideal conditions, just described, are most common in humid regions of the Temperate Zones where there is a minimum amount of sand in the soil.

The conditions, which man creates, causing a loss of humus, are brought about by continued cropping without supplying anything to form humus and by improper cultivation which permits a rapid evaporation of the soil moisture and an excessive aeration of the soil and oxidation of the vegetable matter found in it. To supply humus to the soil would require the reverse of the conditions just stated.

There are several methods of supplying or maintaining the supply of humus in the soil, among which may be mentioned, green manuring, rota-

tion of crops, proper cultivation, and the frequent and liberal use of barnyard manures. An attempt along any one of the lines just mentioned may not prove very successful, as for instance on the average farm manure is produced too slowly to make the applications frequent enough to each field to derive any great benefit, or

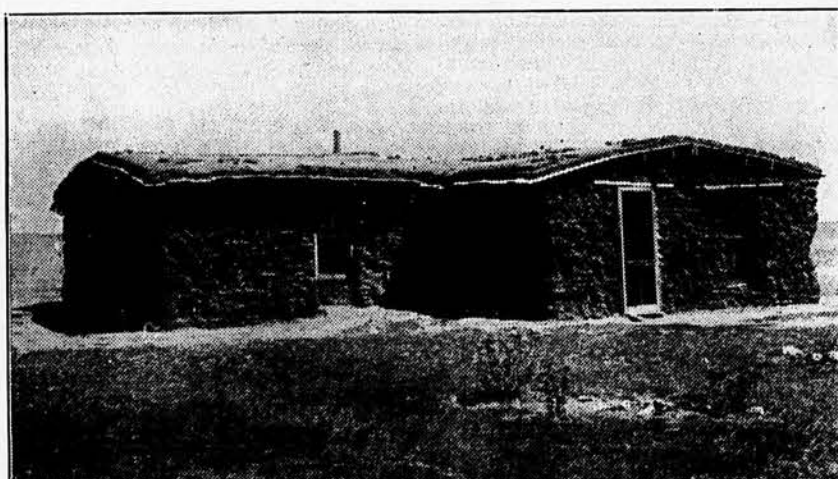
production of grain. Some green manuring crops may be planted among the wheat stubble as soon as the grain is cut, if the field is to be planted to a different variety of grain the following year, and permitted to grow until late in the fall when it may be plowed under and the ground not require much preparation for the

another crop of wheat. Such legumes as cow-peas and soy-beans are best where the crop is to be plowed under in the fall as they will be likely to make a more rank growth than clover or alfalfa. A non-leguminous crop may make a more rapid growth for plowing under in the fall but has the disadvantage of not being able to fix the free nitrogen of the air.

In corn growing a green manuring crop may be sown at the last cultivation of the corn and will make the greater part of its growth after the corn has begun to mature. If clover is sown it may well be left to grow a year, producing two crops of hay, and may be plowed under late in the fall ready for corn planting the following spring. A perennial plant has the advantage as a green manuring crop as it will grow quite late in the fall and starts with the first warm weather of spring. A non-leguminous crop may be quite as valuable as a legume if it is to be plowed under in the fall and has the advantage of costing less to seed.

To secure the greatest benefit from a green manuring crop care must be taken in turning it under to have the soil harrowed and packed as fast as it is plowed. This is usually done at the end of each half day, or at the end of each day at the longest. The amount of packing necessary and the method employed will depend largely on the means at hand and the luxuriance of growth of the crop. If the crop was heavy or the soil turns over lumpy or soddy it will be well to go over the field with a disk harrow, with the disks set straight, until the lumps or sods are broken down and the vegetation pressed down by the earth so no large air spaces are left, as the greater the amount of air space the greater will be the oxidation of the vegetation and the less the amount of humus added to the soil. A sub-surface packer is a valuable implement to use where the soil turns over soft and mellow, but where large lumps are formed the disk will probably be the more efficient. With either of these implements it is well to follow finally with the smoothing harrow to form a dust mulch to prevent too rapid evaporation of the soil moisture.

Barnyard manure adds quite a little plant food to the soil besides containing considerable organic matter which will go towards the formation of humus. Even in the use of a green manuring crop it may be necessary, in the case of a legume on very poor soils, to apply some manure to aid the legume in securing the food necessary for its initial growth. For best results in the use of manure it should not be applied too heavy and like green manuring crops should be well



A Kansas Pioneer's Palace

To the early settler who spent his best days in building for himself a home and for his children a state, the picture of the old sod house will call up vivid memories of the past. In those days he did not have many of the conveniences of life but he had a goodly measure of its joys. He did not ride in an automobile as he now does but he had an abounding faith on whose wings he moved as fast. He did not have all of the good clothes he wanted, perhaps not all he needed, but he did have, beneath his feet, the richest of soils and above his head the fairest of skies and in these his fortune lay. With bounding health he garnered from the soil whose sod had built his home and in his joy of battle with adversity he thought it indeed a palace. The man has grown, the state which he built has grown and with these has grown the home.

with green manuring the cost of seed and scarcity of laborers may be too great to permit the reaching of the desired condition by this method.

Like a great many other problems no hard and fast rule can be given that will fill the requirements of all cases. Some types of soil will respond more readily to one method than to another, or the use to which the field is to be put may determine the method to be used, but on the average farm a combination of the above methods may be used to advantage.

Green manuring is of especial value on farms given largely to the

crop to be put in in the spring. If the green manuring crop used is a legume it will be of especial value because of the free nitrogen it takes from the air and leaves in the plants to be added to the soil upon the decay of the plants. If the legume is a perennial it serves the double purpose of a green manuring crop and a cover crop, thus also preventing the loss of nitrogen and the washing and drifting of the soil. The perennial legume may be plowed under in the spring in time to plant the regular crop or it may be allowed to produce a crop of hay and the second cutting be plowed under in time for seeding

(Continued on page 7, column 2.)



KANSAS FARMER

EDITORIAL



Mr. John M. Scott, of the Florida Experiment Station, is another K. S. A. C. boy who has made good. He graduated from the Kansas institution in the class of 1903, and is now the author of a valuable bulletin on the velvet bean which has been found to be a most profitable legume in that region.

Justice Brewer of the United States Supreme Court who recently passed away was, at one time, connected with the faculty of the Kansas Agricultural College as a lecturer on law. He had the honor of delivering the first commencement address before that institution on the occasion of its first graduating exercises in 1867.

The Industrialist states that R. S. Kellogg, '96, has resigned his position in the Forest Service and is now secretary of the Hemlock and Hardwood Association of the Northwest, Wausau, Wis. The experience that Mr. Kellogg has had during his long connection with the Forest Service has doubtless prepared him to be a valuable man in his new position.

The next National Conservation Congress will be held in Kansas City some time early in September, and President Taft, Ex-President Roosevelt, and Gifford Pinchot are among the prominent men who are expected to be present and address the meeting. It is understood that no definite date has been fixed as the officers desire to consult the convenience of Ex-President Roosevelt.

The new Santa Fe Trail is developing satisfactorily through the work that is being done on it in every county through which the trail passes. This route for an interstate wagon road has been inspected by a number of experts among whom were State Engineer W. S. Gearhart who commends the route and the efforts of the people in building the road in the highest terms. The other interstate road which was planned to extend from Dodge City to Pueblo is also reported to be fairly under way.

The middleman gets another jolt in the statement that American beef is now selling in London cheaper than it is in New York. It is said that the price of ribs in London is only 18 cents as compared with 22 to 25 cents in New York. If the New York prices are correct it means that the shippers have been losing money or else the retailers of the big city are hogging a big profit. We have not heard that the shippers were losing money.

That Hutchinson appreciates the value of a big fair "in their midst" is shown by the fact that a proposition for the city to purchase the fair grounds by means of an issue of bonds was unanimously indorsed by a mass meeting of some 2,000 citizens and this action was confirmed by all of the business men's organizations of the city. The Hutchinson fair has grown from nothing to its present most satisfactory proportions by reason of the earnestness and ability of the men behind it. These men started with small capital and smaller experience and, by working as a unit, they have grown as the fair grew and both are big.

Do not our land laws need the attention of our law makers? There can be no question but that the scarcity and high price of beef have been affected by restricting the free grass area of the West. Under our present laws and their present interpretation there are thousands of acres of non-agricultural lands that are lying idle and profitless because they cannot be sold and the cowmen will not lease them. If these lands, many acres of which furnish pretty good pasture, could be sold to private parties the area of cheaper beef production would be at once greatly enlarged. As the matter stands the West cannot maintain its supply of cheap beef and the whole country is affected.

Secretary F. D. Coburn of the State Board of Agriculture, has been honored and is gratified at the announcement that the Brazilian Government has ordered his book on "Swine in America" to be translated entire into

With which is combined FARMERS ADVOCATE. Established 1877.

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ADVERTISING RATES—25 cents per a gate line, 14 lines to the inch. Announcements of reputable advertisers respectfully solicited. No medical nor questionably worded advertising accepted. Forms close Monday.

OUR GUARANTEE—It is our belief that all advertisements in this paper are from reliable persons or firms. To show that we are in earnest in protecting our subscribers we guarantee the trustworthiness of our advertisers under the following conditions: We will make good the loss of any paid up subscriber who suffers by dealing with any fraudulent advertiser in our columns. A complaint is made to us within thirty days after the transaction. This guarantee means just what it says. It does not mean that we guarantee to settle all trifling disputes between a subscriber and an advertiser, though we offer our good offices to this end. We do, however, protect you from fraud under the above condition. In writing to advertisers be sure always to say: "I saw your advertisement in Kansas Farmer."

CONTRIBUTIONS—Correspondence invited on all farm topics, live stock, soil cultivation, grains, grasses, vegetables, household matters, recipes, new and practical farm ideas, farm news. Good photographs of farm scenes, buildings, live stock, etc., are especially invited. Always sign your name, not for publication, unless you desire it, but as evidence of good faith. Address all communications to

KANSAS FARMER COMPANY Topeka, Kansas.

the Portuguese language for distribution among the framers of Brazil. It may be something of a surprise to many people to know that the Brazilians are not of Spanish descent, as are the people of most of the other South American Republics, but originally came from Portugal and still speak their mother tongue. It may also cause some surprise to know that the people of Brazil live under a republican form of government and are very much the same class in ability, intelligence, educational advancement and general progress as are the people of the United States. They have much the same blood lines, except that ours has an Anglo-Saxon foundation, while theirs is Portuguese foundation. The other nations of Europe have contributed as much to the makeup of the population of Brazil as they have to that of the United States, and while their immense country is not so thickly settled as our own, it is equally progressive and intelligent. Their study of live stock breeding problems indicates this.

A CONGRESSMAN CONDEMNS FREE SEEDS.

I have just read your article on "Free Seed Distribution by the Government," and agree with you that in its present form the law is of little value, and so far as the general Congressional distribution is concerned, should be largely modified if not entirely abolished.—Miles Poin Dexter, Member of Congress, Spokane, Wash.

This is one of the milder expressions of the people's condemnation of the present methods of wasting the people's money through the farce of free seed distribution. Representative Poin Dexter is only one of many members of Congress of the United States who would undoubtedly be ready and willing to take immediate action to amend the laws so that the money, now uselessly spent in this manner, could be made to bring returns of immense value to the people. If this money were only placed in the hands of the state experiment stations or were used by the Department of Agriculture in co-operations with these experiment stations in developing new agricultural facts and new knowledge concern agricultural crops the investment would be a profitable one instead of a dead loss as it now is.

THE RUSH TO CANADA.

The exodus of our good citizens to Canada is steadily increasing, and another wave of immigration from the United States to Mexico has set in. It is estimated that not less than fifty thousand heads of families, most of them successful farmers, expatriated themselves in 1909 and took up homes under the British flag. All of them had money, probably none had less than \$1,000, so that at least \$50,000,000 of good American coin was

taken from this country and invested in Canadian property. The lure of cheap land is strong and as long as the Canadian Northwest offers its virgin prairies to homeseekers at low prices, the rush of settlers is likely to continue. Land values, however, have steadily risen, and with the passing of Canadian lands selling at \$3 to \$15 per acre it is probable that the opportunities for homeseekers in our own West may prove sufficiently attractive to stem the Northwest tide.

A complaint often made by homeseekers is that there is a lack of information concerning the available public domain in the several western states. Our remaining public lands, exclusive of Alaska and our Island possessions, consist of about 370,000,000 acres. Much of this is mountainous and a good deal of it is arid and worthless without irrigation. There are, however, several millions of acres of semi-arid land open to settlers in tracts of 320 acres each, located where new methods of cultivation and scientific planting have enabled the skilled and energetic farmers to overcome the deficient rainfall. These are being rapidly taken up.

The completion of successive units on a number of the large irrigation works of the Government is making available choice farms in several states. To meet the demand for information concerning these lands, the Reclamation Service has issued descriptive pamphlets which are mailed upon request by the Statistician, U. S. Reclamation Service, Washington, D. C.

KANSAS IDEALS.

In the tremendously complex relations of trade today, it is temptingly easy for great moneyed interests to manipulate the delicate machinery of exchange by specious offers skillfully devised to conceal the inequality of the terms and put forward with equal skill in taking advantage of the necessities of the shorter purse. In all political combinations the complication is increased tenfold by the spirit of faction and self seeking. And in questions of morality and religion, the clamor of opposing self-constituted oracles is so bewildering as to reduce our choice almost to a lottery.

If Kansas is to be true to her traditions, she must train up men for public service, unselfish, fearless, clear-sighted to discern the truth, keen enough to detect and expose falsehood however deceitfully tricked out with plausible sophistry.

The state is ready to impart such training.

The annals of the past are rich in records of unscrupulous tryants who have known how to persuade the people that patriotism meant devotion to a person, of false prophets who have posed as ambassadors of God, of honest but deluded seekers after the

philosopher's stone or perpetual motion.

The patient industry of scholars and scientists has not only in historical cases separated the true from the false but has provided in economics and sociology systems for the guidance of future students of practical questions, in logic, metaphysics and mathematics a training in disentangling all possible complication in which a problem may become involved.

Our nation needs leaders and Kansas is qualified to produce them. Climate, rural population, agricultural occupation of the mass of the people their inherited religious temper, democratic customs and spirit of liberty all tend to raise up a generation unusually apt to profit by higher education. It is in our power to make Kansas the most intellectual, and therefore the most powerful state in the Union.—Prof. A. B. Kitzell, State University of Kansas.

AN ITEM ON THE HIGH COST OF LIVING.

During the recent conference on weights and measures of the United States held at the Bureau of Standards in Washington, Feb. 25, 1910, the subject of the high cost of living was referred to by Hon. Charles Nagel, secretary of commerce and labor. He said in part: "Talk about cost of living! I have no doubt there are many explanations for it. Some of them may be charged to pure waste; others may be charged to the greater abundance of gold; still others to combinations; but I believe—and I imagine many of you believe—that short measure has very much to do with the cost of living today. You know a good doctor does not need many symptoms to diagnose a case. If he has a good case, he knows what his verdict is; and when I find in buying a bottle of wine that much of it is in the bottom of the bottle in the shape of glass, I know just exactly what people are capable of doing. When I know that large concerns have to change their description from pint to half-bottle, I know why they do it. One has a distinct measure and the other is left to the imagination. It is so throughout the trade; you know all about it and I need not tell you."

Another illustration was presented by Dr. Reichman, state sealer of weights and measures of New York, who showed an early package of a well known cereal food. This package had gained a large sale by liberal advertising and by having to start with change in the size of type, and only when the two packages were placed a price commensurate with that for the same article in bulk. Recently, all the remaining old packages in the stores carrying this food had been taken up by the manufacturers and new ones put in their places. The price per package remained the same, the same except possibly for a slight change in the printing on the package remained side by side and it was seen that the new package was easily placed inside the old one with considerable spare room, did one realize the change. And as the net weight of the contents was not stated on the package, the taking up of the older and larger packages had made it practically impossible for the average consumer to detect the difference except by the increased frequency with which he had to purchase a new supply. It was with great difficulty that Dr. Reichman had secured one of the old packages for comparison.

Such instances as the above suggest the query whether the object in selling many foods by package instead of by bulk is always to give the consumer increased purity and cleanliness, or is sometimes for the purpose of realizing a greater price per pound for the food sold. This question can readily be answered for himself by any one who will take the trouble to weigh the package goods he is buying and see what he is paying per pound for the food, not for the thick cheap paper covering around the food. He will then be able to compare the cost per pound of the same food in package and by bulk, and can judge if the present sale of many foods by packages with no net weight, marked on the package has any bearing on the high cost of living.—Prof. E. M. Rice, Kansas State University.

THE PATRIOTIC COW

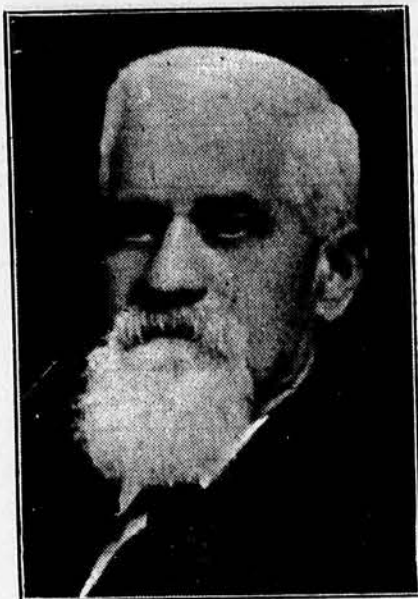
By W. M. MOORE

Munden, Kansas

The above may seem a rather queer heading for an article on live stock, but where is there another animal in existence that does a more patriotic duty to the country and the world than an A No. 1 cow and her multiplicity, if there is we fail to see it. The cow is the great foster mother of all civilized nations, and is doing a greater patriotic duty to the country than very, very many that are handling her and her products. Of course the cow does not know the value she is to the world, but the people do if they will stop for a few moments and reflect. There is, however, a patriotic duty the people owe to the cows of our land. The first food of a child is milk, and in very many cases it must be the milk of the cow. This being the case, how very essential the cows should be healthy, and it is the duty of the producer and buyer for consumption to see that the child's cup of milk is free from harm to the child. In this day of food inspection, it appears to me that milk purity should be first on the list. As the cow is to continue to supply the great beverage of childhood, we should commence right now to see that none but healthy animals are kept for milk supply. I have no business to sell milk that would harm any citizen's child. Next to the parents of children on both sides of the house, the cows of the country should be strong, healthy and happy. Do we say happy cow, yes, by all means possible. Men who handle and deal in milk, should of all men be the best, they should be thoughtful men, not for the dollar only, but for the health and happiness of the nation's children. Along the line of disease the cow should be looked after as much as the human, for to do so is humane. We realize that the sifting out of cows means hardships and loss, but as the consumer is to receive benefit he too should be willing to bear some of the loss of the clean-up.

We wish to say a word right here about the health officer. He holds the first, most important position in the state, for what is the life of a child doomed to disease. After health is secured the good teacher comes next, they both should strive for health and good citizenship. The right good, honest health officer is entitled

to the esteem and love of ourselves and our children, and the child should be so taught. He should be dreaded by only those inclined to make profit out of ruined health. Remember the stamina of our citizenship rests primarily in the quantity, quality and availability of the food supply and in this article it is milk. The healthy cow means healthy beef. The cattle in our yards and fields of today are the result of hundreds of years of careful selections and breeding like our grains, vegetables and fruits have cost years of toil and care. The



W. M. MOORE.

number of breeds of cattle, and the perfection of each class is amazing, and how thankful we should be, that all one has to do now is to take his choice and go ahead on the line he wishes. Right here let me drop a word to the beginner, whichever line you choose, besides getting the right

male, get as soon as possible at least one pure bred mother and you will soon find yourself in the possession of a herd you will be proud of. In doing so you not only benefit yourself but your country as well.

Our aim is to avoid giving advice as to the choice of breeds, it is fortunate we have so many, for location and the man have much to do with the kind which is best. If a man chooses the beef breeds they are to be had, and he should learn how best to succeed. If a man is in the proper location and chooses one of the dairy or milk breeds for a business, or part of his farm work then he must seek to master every detail, he is in a business that will not stand neglect. He must not only get up, but must keep going or see that some one else does. The beef breeds may shrink a little on short pasture, and a little corn later will take the kinks out, but it is not so with the milk cow, if she is to fulfill her mission (filling the pail) the owner must fulfill his and keep her supplied with the proper grists to grind at all times. With the beef breeds, a whoop and a hurrah may not harm much, but had better be left out even there. Milk breeds are of a more nervous nature and quietness and gentleness must be the order of business.

Of the milk and butter breeds the Jerseys, Ayrshires and Guernseys seem to be of a class by themselves, and all good in their place and purpose. Even the beef of the above class may vary some on the block. The world must have meat and leather as well as milk and butter, and good farms must be kept good and poor farms rebuilt. The history of agriculture in dairy countries is one of progress and increased fertility, take the crop worn farms of any and all our states, and it appears that the dairy cow plays the part of a redeemer to our soils besides supplying food for the millions of our people. Take old Wisconsin for an example, even the gold-

en-fcoted sheep has been almost displaced by the animal of milk supply. There are two breeds of especial interest. It does me good to think back to my boyhood days in old Wisconsin, of the village cows, some with bells on and some without, coming home at evening-time with milk streaming from all four teats. Many of those cows would stand and call for the milker to come and relieve them of their burden. Don't be in haste to dispose of a good milking Shorthorn. The Holstein seems to have captured the world's record for both milk and butter, and though the Holstein is of the very large type, they have rather crossed over the line of an all purpose cow. Knowing that the production of milk is foremost, the owner must seek to make his profits from that trait, even if he falls behind in quality of interest just now, one is known as the dual purpose Durham and the other the great milk producing Holstein.

The quality of the meat of the Shorthorn has never been questioned I believe, and the writer has known and milked many grand cows of that breed. I have in mind a great noble herd of Shorthorn cows with such broad backs, and a line as straight as an arrow from tail to horns. My, what great udders those cows had, and the quantity of milk they gave, and when it came to feeding those cows there was no question about the quality on the block. Not long ago we read of an American visiting in England, being shown a herd of milking Shorthorns that were a surprise to him, and he was told that when not milking there was no trouble in fattening them for the slaughter. There seems of late years to have been a disposition to breed away from the milk strains rather than towards them. The farmer must study the breed and its purpose, and the quantity and quality of food supplies. The silo will help make Kansas a dairy state equal with her sisters, in fact plenty of good silage is going to help on all lines of feeding. In conclusion, let us say to the man that makes it a business to supply the public with milk, be a patriot and tote fair with the little kid and his cup of milk.

EXPENSE of BAD ROADS

Money wasted each year would soon make permanent highways

It has been stated on competent authority that the money wasted each year in the United States by our present system of road management amounts to \$250,000,000. Of course this is not all wasted but so much of it is that the statement has been accepted as essentially true. This great expenditure means a direct tax of \$12.50 each year on every man, woman and child living in this broad land. This is a tax which must be paid and which is paid, and any effort that might be put forth to secure its abatement should be heartily seconded by everybody.

Good roads concern the residents of the cities just as much, if not more, than they do the farmers. With good roads the farmer can deliver his products to the market at any time of year and thus prevent, to a great extent, those fluctuations in price which are of annual occurrence. Take the marketing of the wheat crop for example. Threshing occurs during the good fall weather when the roads are in condition and when the need of money, the lack of storage room, or the convenience of delivery makes practically every farmer haul his wheat to town at the same time. This results in a glut of the market, a depreciation in price of wheat, a congestion of traffic on the railroads and general demoralization as far as this particular interest of the farmer is concerned. Further than this, it makes it possible for manipulators to corner the wheat crop and control the prices for the balance of the year. If the farmer had good roads over which to haul

his grain these adverse conditions would be partly if not entirely removed. The laboring man in town pays an extra price for his bread because of the bad roads in the country.

Careful estimates, based upon facts carefully gathered in both Europe and America show that it costs the American farmer more than three times as much to haul his wheat to market as it does the farmer of Europe. This cost includes the extra

labor and effort, the wear and tear on horses, harness and wagons. It does not include the inconvenience and discomfort of the mud and it does not include the fact that the farmer is brought close to his market with good roads while if the roads are bad, he is separated from this market indefinitely or else is entirely isolated. While the farmer feels the discomfort and inconvenience of the mud road to a greater extent it is the city man who pays for it out of his pocket-book.

While the interest in good roads seems to be general throughout the country it is not active because concentration of effort is necessary to secure them. A double purpose can be accomplished by united effort. The

mudtax, which is now so burdensome, would be abolished and the convenience and accessibility to market, with its attendant beneficial results, would be secured. If only a portion of the vast sum of money that is now wasted annually in the spasmodic efforts of our road overseers were expended judiciously in the building of permanent roads, the results would be astonishing with the ready access to market which these would give. The net returns on farm products would immediately increase by reason of the decreased cost of delivery. Land would at once increase in value, population would increase in numbers, and the investment would be found to be a paying one from any point of view.



The Kansas Way. Grading for a good road with a traction engine and road graders, courtesy of K. S. A. C.

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EGGS FROM SCORED ROSE COMB Rhode Island Reds. Red to the skin, \$1.50 per 15; \$3.00 per 100. Mrs. E. C. McCarthy, Elliott, Iowa.

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O. B. Jones, Govt. Kan., president of the State Exchange Bank of that city, also has a large list of Govt county corn, wheat and alfalfa farms for sale at ridiculously low prices. Look up his advertisement in our Kansas Land Department. Be sure to mention the Kansas Farmer when you write him.

Stock and Grain Farm for Sale.
R. M. Dobson is advertising in this issue of Kansas Farmer an 800 acre stock and grain farm. The writer has been all over this farm and considers it a real bargain at the price asked. Mr. Dobson will sell this farm on easy terms with low interest. Look up the ad giving description of farm on another page and if you mean business go and look at this farm. It is a bargain for any one wanting a good farm for stock or grain.

Mr. N. H. Gentry, of Sedalia, Mo., one of the oldest and most successful and best known breeders of Berkshire hogs in America, has written a letter to C. A. Stannard of Emporia, Kan., that is of value to every breeder of hogs in the country. And this, coming from so high an authority as it does, should be absolute proof of the efficiency and value of Stannard's Processed Crude Oil as a dip for killing lice and mites on hogs. Mr. Gentry bought his first barrel of Processed Crude Oil more than four years ago and he has been a regular customer for it ever since. His letter is given below: "Sedalia, Mo., April 11, 1910. I am enclosing you my check for \$10 to pay for the enclosed bill for \$5.90 for barrel of Processed Crude Oil sent me some time ago, and I ask that you please send me another barrel at your convenience for the remaining \$5 included in the check. Your Processed Crude Oil is certainly the stuff to effectually kill both lice and mites on hogs at one application. Yours truly, N. H. Gentry."

Jersey Cattle Sale.

The great chance of the season to buy Jersey cattle will be at the annual Kinloch Farm sale, Kirksville, Mo. This spring's sale will be held in June and will consist of about 125 head, half or more of which will be imported stuff. Dr. Still spent several weeks on the island inspecting personally every animal purchased. This offering will be one of the greatest ever made by this firm. Every heifer and cow of breeding age will either have a calf by sale day or be in calf to a noted bull. More will appear in Kansas Farmer regarding this sale. But it wouldn't be a bad thing to file application at once for a catalog. Mention this paper.

Jersey Bull for Sale.

Johnson & Nordstrom, Jersey cattle breeders located at Clay Center, Kan., have for sale the bull calf, Lizzie's Gold Boy 88298, dropped Oct. 25, 1909, sired by Iddias Gold Boy. Iddias Gold Boy was sired by Golden One by Kentucky Lad. He by Jubilee Golden by Mona's Golden, he by Mona's Glory. Lizzie's Gold Boy is out of the fine sow, Lizzie Sales, test 480 pounds one year. She was sired by Commando, tracing to Oonan's Rajah. The dam of Lizzie Sales was Jennie Sales, a granddaughter of Tormentor and Oonan's Rajah. Extended pedigree showing breeding and number of tested dams sent upon request.

R. C. B. LEGHORN EGGS, 75c setting, \$4 per 100. Mrs. H. R. Walter, Effingham, Kan.

Could Have Sold Out Three Times

"My advertising card in the Kansas Farmer gave me business enough to sell 3 times the amount of stock that I had on hand. The stock is all sold and the inquiries are still flowing in at a rapid pace. I am having fine success with my spring pigs and my entire herd is doing well. I am fitting quite a bunch and they are coming along nicely."

G. W. Roberts, owner of the Short Grass herd of Poland Chinas at Larned, Kan.

THE VETERINARIAN

We cordially invite our readers to consult us when they desire information in regard to sick or lame animals, and thus assist us in making this Department one of the most interesting features of The Kansas Farmer. Kindly give the age, color, and sex of the animal, stating symptoms accurately, and how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this Department should give the inquirer's post-office, should be signed with full name and should be addressed to the Veterinary Department, The Kansas Farmer, Topeka, Kan.

Shoeing the Farm Horse.

The farm horse is generally an all-purpose animal, and for this reason should be shod. In addition to its being obliged to do the ordinary farm work, it is also used for hauling farm products to market, and for a pleasure animal for the family.

Traveling on the hard roads would soon cause the feet to become sore if left unshod, later lameness, and loss of the use of the horse.

The farm horse should be shod with a moderately heavy shoe, one that will be durable and protect the feet. The shoes should have low calks in order that the frog may touch the ground. In winter the calks should be sufficiently long to get a good foothold on the slippery roads. If the feet are obliged to have shoes with the long calks for 3 or 4 months, then a bar shoe is to be recommended. The never-slip calks have become popular of late years for the reason that the calks are quickly removed and new ones replaced, thus saving time and money.

Just as great care should be taken with the shoeing of the farm horse as is taken with a valuable race horse. The feet should be perfectly leveled and placed at an angle of from 45 to 50 degrees for the front feet, and from 50 to 55 degrees for the hind ones. The shoes should not be fitted hot as they are likely to start diseases of the feet which might cause trouble later. The shoe should be attached to the foot with small nails as will be necessary to hold it in place. Then, as in shoeing all horses, the nails should not be drawn too tightly and pinch the sensitive structures.

It is best to have the shoes reset every four to six weeks. If the horse can be kept off the road during the summer months, have the shoes pulled off and allow the feet to come down to the ground and get the natural frog pressure. The feet should be kept growing; then there will be very little trouble from the feet getting dry. Oil the coronary band of each foot twice a week. This band is located just underneath the hair line. It forms the horn of the wall, and if a new hoof is produced normally, the foot will not have time to become too dry.—C. L. Barnes, Colorado Agricultural College, Fort Collins.

Hygiene of the Horse's Foot.

One sees it frequently stated that thrush is caused by standing in wet places, and any morning horses may be seen coming out to work with feet covered with oil, or gummed over with tar ointment. The farmers have said so. The custom has been handed down from the coaching days when the horse man's supremacy was not threatened by a new form of traction, says Dr. Leeney in the London Live Stock Journal. The why and the wherefore of these practices has not been questioned by any but a few students of hygiene. The sight of wild horses' feet is not a common one, but those who have seen them will have noted how large a proportion of the plantar surface is occupied by the frog and bars, and how small is the sole. How much like the donkey foot or the "odd" foot of the thoroughbred horse is that of the wild one. Men with experience of blood horses will also say that the thoroughbred's "odd" or more upright foot is not the most but the least prone to disease. The prevalence of hoof troubles should make us pause to ask if our management is all just as it should be. The structure of the horn with its somewhat harder layer of periople, and of horn tubes passing downwards from the coronet, and a surface both to the

(Continued from page 3.)

MAINTAINING SUPPLY OF SOIL HUMUS.

G. E. DULL, WASHINGTON, KAN.

plowed under before it has been leached by heavy rains.

By a proper system of crop rotation the soil may be rested or even improved. Every rotation should contain a period for grass and some of the leguminous forage plants. A great part of the humus found in the soil by the early settlers was due to the growth and decay of the native grass and one could hardly think of a stock farm being planned without some tame pasture grass being included in the rotation.

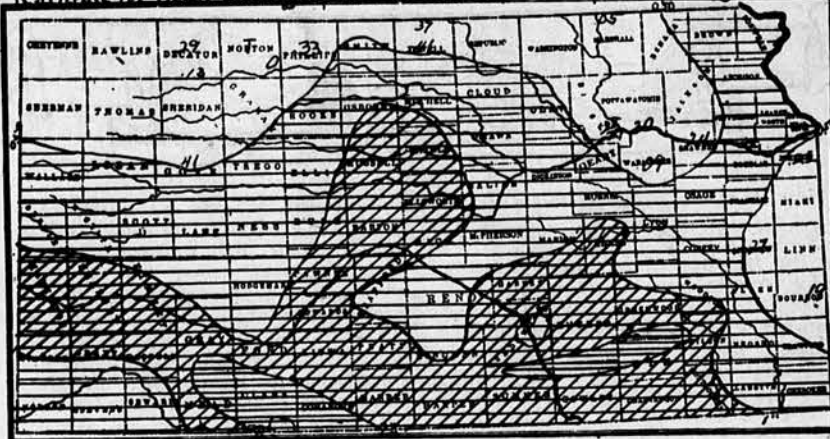
In conclusion I would say, grow some green manuring crop each year, keep enough stock to consume the feed grown upon the farm and return the manure to the land, have a definite system of crop rotation, grow legumes constantly, and cultivate the soil properly.

crust and ground having a capacity for ready absorption and only less rapid evaporation, would tell us, if we learn from nature, that the hoof is intended to be alternately wet and dry, and that such conditions are most favorable, first to its elasticity, and next to its hardness, for the model foot is both tough and elastic. The dead and dried hoof is so brittle that it can be broken by a fall from the currier's hand. The same hoof, placed in water will absorb moisture as during life and resume its normal toughness and elasticity. The wild horse's hoofs are wetted when he goes to water every little while, if not alternately wet and dry upon land affording very little pasture grasses. The stabled horse, with more or less sole and frog cut away, and lifted from the ground by a shoe, has no natural pressure to keep the plantar surface healthy, but is open to the penetration of ammonia in the urine which decomposes horn, hence the disposition to thush when standing in a puddle of dirty water, but the mischief begins in having no frog pressure, which is necessary to functional health. If we engage the smith to rasp away the periople we must go to the oilshop for messes with which to bedaub the hoof. The first is harmful and the second unnecessary, water being all that the hoof really needs to keep it in good condition, except on rare occasions, as when snow and slush persist. Salt put down on the roads has a disintegrating effect upon horn. In all ordinary times we want washed feet, but not washed legs. All the horn of the sole and frog left, save ragged or sequestering portions, so that the healthy secretion of the true frog and horny papillae of the sole shall go on and the crust derive the full benefit of secretion from above, without deprived of the periople by rasping.

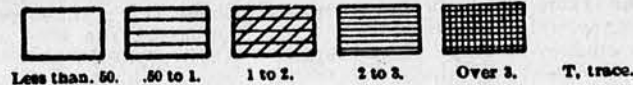
WEATHER MAP

Rain chart prepared by T. B. Jennings from reports collected by the Weather Bureau.

Rainfall for Week Ending April 14th 1910 Prepared by T. B. Jennings, W.B.



SCALE IN INCHES:



General Summary.

The temperature has been nearly normal this week with much more precipitation than had fallen since January.

The general conditions are decidedly improved and all farm work is progressing rapidly.

Pastures are good in the south and grass is starting in the north. Corn is coming up in the south, is being planted in the central counties, with plowing well along in the northern. Fruit seems to have been damaged in some of the southwestern, but over the state, generally, is showing good prospect. Forest, shade, and fruit trees are well leafed out.

County Summaries.

Eastern Division.

Allen—A good week, light showers on two days and a good rain on the 14th. Farm work progressing rapidly, grass coming.

Anderson—The weather, though rather dry, has otherwise been quite seasonable. A light shower on the 10th and light rain on the 14th.

Bourbon—The temperature has been more seasonable, and though the moisture has been much less than the preceding week it was not needed.

Chase—A great many are planting corn; pasture cattle from the southwest are coming in rapidly. Pastures are two weeks earlier than usual and are in fine condition.

Chautauqua—Though light showers occurred on the 8th, 10th and 11th, the rain on the 14th was needed, and will be very beneficial.

Coffey—Weather quite seasonable with two fair showers and one fair rain this week. Wheat, oats, grass, and gardens much benefited by them.

Douglas—Showers on three days, fog on two. Outlook for all kinds of fruit is good. Corn planting progressing rapidly, early planted corn coming up. Wheat and oats looking better since the rains.

Elk—Ground is in fine condition though almost too wet to work by the 14th; corn coming up.

Greenwood—Temperature and precipitation normal; everything growing.

Johnson—Very seasonable weather. Marshall—The weather has been threatening and windy, farmers plowing, pasture short, nearly all trees are leafed out. Rain needed.

Nemaha—Good week, light showers on several days.

Pottawatomie—The week has been more nearly normal in temperature; the ground is in fine condition for crops; corn planting has begun. The showers on two days helped vegetation some. The prospect for a fruit crop is good.

Riley—Light frost on the 9th did no damage; needing rain.

Wabaunsee—A thunder shower on the 10th; grass coming.

Woodson—Good week for farm work. All crops doing well, and plenty of stock water.

Middle Division.

Barton—Showers on three days were beneficial; fog on 11th and 13th.

Butler—Nearly an inch and a half of rain this week, coming on three days, very beneficial.

Clay—Temperature more nearly normal; light showers on two days; conditions improved.

Dickinson—Showers on two days have improved pastures and the condition of the ground.

Ellsworth—Fine showers on three days; farming operations are progressing rapidly.

Harper—The rain on the 10th was the first measurable rain in 42 days and was needed by wheat and oats. Splendid prospect for all kinds of fruit at present; we have had no injurious frosts since warm growing weather began.

Jewell—Showers were light, more needed.

Kingman—Over an inch of rain in eastern and western portions, less than half an inch in central portion; trees are in full foliage; vegetation growing rapidly.

Marion—Weather much improved by rain on four days, and temperature more nearly normal.

Pawnee—Rain came gently and was just what was needed to give wheat the proper start. Plenty of stored moisture, but surface had become dry from high winds in March.

Phillips—A nice little rain on 10th and again night 13th and 14th. Everything looking fine, except fruit, previously damaged.

Reno—Light showers on two days; fine rain on 11th.

Russell—A very good week with three rain on 14th.

Smith—Oats coming up; alfalfa doing nicely; soil in fine condition; fruit safe so far; corn being listed.

Stafford—Light showers on three days, fair showers on two, conditions improving.

Western Division.

Clark—A fine week, with temperature nearly normal and rains daily, vegetation is forging ahead.

Decatur—Winter wheat generally looking well; large acreage of spring grain, barley, oats and wheat sown; fruit uninjured as yet. Grass starting nicely.

Finney—Temperature medium, fine rain on 13th; alfalfa recovering from freeze of 10 days ago, and showing good growth; wheat considerably damaged by winter, and not in first class condition; fruit badly damaged, especially peaches and early plums, by freeze ten days ago, though a good showing for fruit now.

Kearney—All conditions much improved by the good rains this week.

Norton—Some high temperatures this week, with practically no rain—a trace on the 13th.

Seward—Wheat, oats, barley and all spring crops are in fine condition.

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The closest skimming separator made. Saves more labor; has greater capacity, and gives better satisfaction than any other separator, no matter what the price.

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DAIRY



How I Make Money Dairying.

(By S. H. Fife, Glasgow, Missouri, before the Missouri State Dairy Association.)

At the Missouri Experiment Station, the foundation herd of cows was just ordinary stock, while today they have a number producing over 700 pounds of butter per year. Such cows are valued at perhaps several hundred dollars. This gives me encouragement, and I have aspirations that in time I can produce just as good by following the same methods of breeding, testing, selecting, feeding, etc.

The money-making dairy farmer might be one of two kinds. He might spend neither money nor time to achieve greatest results but put up with old and inadequate buildings, poor cows, cheap feed, and refuse to test because it takes time and necessitates spending some money for a testing apparatus. He gets along with very few farm implements, and economizes in every possible way. He never spends a dollar except for something absolutely necessary. Is this making money? We have neighbors who rarely ever sow clover seed because they are afraid they will lose the seed. It is almost useless to add that in time they and their farms get so poor that they can't buy seed if they want to, because they haven't the money. We have other neighbors, who, by close and careful economy, by never spending a dollar for anything short of dire necessities, have taken good care of their land, have invested and loaned their money and have accumulated quite a sum.

One old gentleman of this sort was remonstrated with by his wife for not buying sufficient harness for his teams. He replied, "By George, harness cost money. Let the men tie the old ones up with binder twine." His team sometimes ran away because the lines were not strong enough to hold them if they became frightened, yet I suppose he considered it economy to spend no money for better equipment.

Another man with a fine four-hundred acre farm owned but one pitchfork, depending on borrowing from neighbors when he needed more. He was afraid to hire anyone to husk corn or stack hay for fear they wouldn't do the work right, or was too stingy to part with his money. He thus allowed much of his farm to grow up in brush, because afraid to rent to anyone.

We often see the economical dairy farmer who thinks it a waste of time to read or talk about his business, who refuses to buy books or subscribe for papers devoted to his calling, and gets along with a scrub bull and worse than scrub cows. This man often gets back 39 cents for each dollar's worth of feed, and works for nothing, boarding himself. He is the man the President has been inquiring about, desiring to make his condition better. It can be done by waking him up. He is no better nor no worse than those people in the towns and cities who barely make a living.

Now, we do not make money in any of the ways mentioned, for we do not think them the best ways. To acquire the greatest results is our aim, and we do not hesitate to spend money to help accomplish this. Our farm is five miles from town, the road is quite hilly and sometimes gets very muddy. Ours is a great stock feeding community, therefore but little of the feed raised nearby is offered for sale. To save hauling, time

and money, we try as much as possible, to grow all the feeds we need on our own farm. Corn is perhaps the cheapest feed and is usually grown in the quickest time. We have a brick and stone silo that cost \$700. Have a silage machine, a ten horse power steam engine and all the accessories which have used up all our money. We paid \$3.00 per bushel for seed corn, having every ear tested for its germinating qualities. We do about three times as much work in preparing the land and at least two or three times as much cultivating as our neighbors. Some years I think it pays—some years I don't know, but have a fool idea that good farming will pay in the end.

Our second crop in importance is clover, but we usually have more acres of clover than corn. We try to cut the hay early and sometimes get a profitable seed crop afterward. In about twenty years' experience in farming I have had a very few failures in getting a stand of clover. The few times have hurt, but the many successes have been glorious. I often sow a little timothy with the rye or wheat in the fall to make a heavier sod, if I expect to pasture, and then sow clover in the spring.

Cow-peas are another valuable crop in case we are short on clover, and many times I have sowed them in every unoccupied corner, in the corn on thin land, and elsewhere, and think it has always paid. One winter our cows had nothing but cow-peas and corn and we got fine results—as much as the previous winter when we had to buy bran and cottonseed to balance up with corn and stalks.

Alfalfa is another valuable crop, but we haven't begun to grow it very largely; however, we believe that in time we can make it the best farm crop for dairy cows.

We think it wise to grow all our feeds, yet when necessary to balance the ration we do not hesitate to buy. The question of feeding economically is as great as farming economically. The man who contended his cow could live on fresh air didn't quite succeed, because she died about the time he cut her down to one straw a day. No doubt he was feeding economically, yet it didn't pay. We have various tables showing analyses of feed stuffs; we work out a ration that we think best, then usually have two or three authorities criticize same. We use our best judgment, study the capacity of the cow, weigh and test her product, then feed accordingly. We make mistakes, lots of them we never know, no doubt, yet in the main we are constantly increasing our herd;

Fairview, Ia., 3/10/10
Any Separator Mfg.
Anywhere.
Dear Sir: Will you make me the same proposition in regard to your separator, that the Iowa Separator Co. offer on theirs? A prompt reply will be appreciated.
Yours truly,
A. Wisel
Dairy Farmer.

Here is the way Anybody can tell about a Cream Separator

Here is Something Every Farmer Should Know

If you can find any other separator that under the same conditions will skim to its rated capacity as closely as the double cored IOWA, we will make you a present of one of our machines.

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Doesn't that tell you something? Doesn't it mean that if you can get some other separator manufacturer to put his machine up against the IOWA DAIRY SEPARATOR on the same proposition, that you get a separator, either his or ours, for nothing? Try to get some or all of the other manufacturers to make you the offer that we do. If they won't do it, you know positively what separator is considered the best by the makers of separators—men who ought to know. Their answer to you will be your guide in buying a separator if you want the best. We are the largest separator manufacturers in the World and are the only factory that makes all the parts that go into the separator.

The IOWA skims closest, turns easiest, cleans easiest and wears longest, and we can prove it to you. Give us a chance to show you right on your own farm.

Ask our dealer and write us to-day for our free book of inside information. It will surprise you.

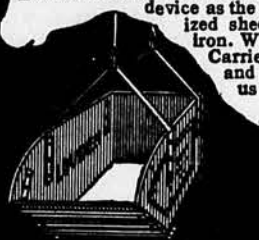
Iowa Dairy Separator Co.
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In and Out

The hardest part of stable work is the carrying in of feed and the throwing out of litter. You can make this boy's work by installing LOUDEN FEED AND LITTER CARRIERS. LOUDEN FEED CARRIERS run on solid steel track and raise and lower by our special worm gear. A pull of one pound lifts 40 pounds. LOUDEN LITTER CARRIERS are made with the same truck and raising device as the Feed Carriers. The box is made of heavy galvanized sheet steel reinforced at top and ends with angle iron. We also furnish a carrier for wire track. See Louden Carriers, Hay Tools, Door Hangers, Stalls, Stanchions and other barn equipment at your dealers, and write us for our Free Catalogue.

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THAT is why the demand for Empires is increasing more rapidly than for any other make of separators. Years of service have proved their worth. Almost any separator may give fair service for a little while—but only Empire construction, Empire materials and Empire workmanship can stand the strain twice a day, year after year. Empires are easy to turn, easy to clean and do perfect skimming, not for a month or year only but for many years. The first Empires sold, nearly 20 years ago are doing fine work, giving satisfaction today. That's why all Empires are backed by the liberal Empire Guarantee—as good as a Government Bond.

Note The Simple Empire Construction—study the cross-section view shown here of the Empire Disc. The same general design is used in the Frictionless Empire also. You don't need to be much of a mechanic to find right here the reasons for Empire ease of turning and long service.

On the spindle at the lower end is cut a worm screw which meshes with the worm wheel. This worm wheel is on a pinion shaft which is turned by a cog. The cog meshes with a large drive wheel which the operator turns by a crank. Immediately below the bowl around the spindle is the upper bearing and at the lower end or point of the spindle is the lower bearing.

That's all there is to the driving part of an Empire. That's why it seems like play to turn an Empire after using any other separator. If the wife, boy or girl is to do the separating that should mean much to you.

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All Empire users get highest price for cream or butter because Empire bowls are sanitary—no corners, slots or crevices in which old cream will stick in spite of washing and taint the next skimming, as in ordinary separators. The bowl of the Frictionless Empire and of the Empire Disc has few parts, all parts smooth and cleaned as easily and thoroughly as saucers.

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Other manufacturers have but one style to offer you. Come to headquarters where the different standard styles are made, and where each style is made better than anywhere else. And we manufacture a full range of sizes in each style, giving you double the choice that others offer.

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Blue Valley Creamery Co.
204 Main St. Joseph, Mo.

31c. per pound for butterfat

our land is getting richer; we are getting more buildings, more and better equipment, etc. Whether this is economical dairy farming or not I leave for others to say. We have no bank account beyond our everyday needs; no money loaned out; no bank stock; no railroad bonds. Yet it is as much satisfaction, perhaps, to see our nice heifers, colts, fat pigs, and to know that we are trying to carry on a progressive and up-to-date line of work, even if we can't count our profits in dollars. To farm economically is much like any other business. One must spend money to make money. A good building, a fine bull, a valuable mare, will often pay more than 6 per cent on the investment.

We sell much of our product at retail and believe in advertising. We have been able to sell our product more readily and at higher prices because people knew about us from seeing our advertisement and had confidence that they would get what they wanted and needed.

Economy in labor is practiced by many. I have been accused by some of making fools of the hired help of our community because I pay higher wages than any one else (and regret often that I can't pay more than I do). I go on the theory that by paying more, the thrifty, intelligent and steady men are attracted to me on account of the extra wage. By having plenty of men, by doing our work on time, I have more time for planning and making improvements, more time to devote to selling the products; do not need to keep myself constantly grinding, and can rest easier and more content knowing that my work is being done properly, because my help is reliable and trustworthy.

Nobody would willingly burn up a ten-dollar bill unless crazy or a fool, yet many dairy farmers, and others, waste this much and more every month by not properly caring for the manure. A little more care, a little more work, would work wonders. I once heard T. B. Terry say that he was confident his manure and method of handling it paid or saved him at least \$100.00 per year over and above what his nearest neighbor realized, and this, alone, in twenty-five years amounted to \$2,500—to say nothing of the interest on it—which would have more than doubled it. \$5,000.00 is a nice little competence for old age, and worth saving. I have often thought of this, especially when passing a farm near us which is divided by a creek. On account of convenience of water and other reasons, this man's feed lots and barns are located along this creek. He has been a large feeder of cattle, mules and hogs for at least fifty years. They make butter, raise poultry of all kinds and all the manure goes off down this creek. If he had the value of this manure in the bank or in the increased fertility of his farm, he would have been able to wear diamonds as big as walnuts, instead of being just fairly well-to-do. I presume he thinks he is practicing economy because he doesn't have to hire any manure hauled, the spring rains thoroughly cleaning up all his feed lots without pay or board.

The dairy farmer has no business to loaf every Saturday around town, nor spend time swapping lies or horses; because the cows must be milked, the butter made, or the cream delivered, rain or shine, hot or cold.

Another essential for successful dairy farming, and to keep it running in the proper manner, is to have a clean woman somewhere near the balance wheel, to keep things bright and shiny, or else the accumulation of dirt and cobwebs is sure to over-balance any effort that we men might make. A dairy farm should also have boys and girls growing up along with the business, or else it is apt to go down hill as we grow old. Yet it is not wise to try to grow high priced cows and cheap boys. I am endeavoring to teach my boys to know more and do better and gain by my experience. These boys are only seven and nine years old, but the firm name is "S. H. Pile & Sons, proprietors of Seven Hills Dairy Farm," and I hope to have it remain thus. I want to educate these boys for the farm, instead of away from it, as so often happens.

There is more in life than the mere accumulation of dollars. We want to keep ourselves bright and young as long as possible, to be able to enjoy some of the pleasures and luxuries of life, to leave behind us better men and women in our children than we are ourselves.

Wise spending of money, I believe, will result in greater returns than niggardly economy, and even if we do not hear so many dollars, we will have

had the satisfaction of keeping them in circulation.

One profitable cow will eat but little more than an unprofitable one. It may cost a little to find the right one, but it pays to do so. It may be necessary to spend some money to find the people who are willing to pay extra prices for good butter and cream, but the money comes back many hundred-fold. Clover seed, silos, machinery, all cost money, but not like high priced mill feeds. It costs to care for the manure, but think of the extra crops resulting therefrom. A good barn costs more than the "dome of heaven," but isn't the barn worth while?

Beef and Veal.

The greatest stumbling block that stands in the way of many would-be dairymen is the matter of beef and veal. Many a farmer would have dairy cattle were it not for the fact that his neighbors frighten him out of the notion by assuring him that there will be no market for beef and veal. They say that the steer calves are a dead loss and that cows, after their period of milking usefulness has passed, can not be sold at a profit. These two things have deterred many a man from entering upon the line of farming that would increase his profits, give him a better home and make him more satisfied with life in the country. Suppose we look into the questions a little and see if they cannot be answered, or see if the men who bring the matter up are right. The life of the average dairy cow is about 12 or 14 years. If she is a dual purpose cow, at the end of this period she can be sold for perhaps \$30. During the period of her life-time she has yielded possibly \$10 a year above the expenses of feeding. This is only a fair average, for one-third of the cows in Iowa and many other states are not yielding any profit over the feed. This cow will have netted its owner \$120 in 12 years. Add to this the \$30 for which she can be sold and the 12 calves, which as veals are perhaps worth \$10 apiece, and you have a net sum of \$270. Suppose this cow had been a good dairy animal. It is not unreasonable to place her yearly net gain at \$50. This for 12 years would be \$600, above the cost of feeding and labor. Now, suppose that she is bred so that her calves will carry dairy characteristics from both male and female progenitors. It is not exaggerating to place the value of these calves at \$100 apiece. There are plenty of dairy breeders whose calves are sold at this price before they are born. This adds \$1200 more to the dairy cow's credit. Which is better; \$1800 from a dairy cow that will not bring a fancy price for beef after her years of milking usefulness or \$270 for a dual purpose cow that finds ready sale when too old for milking?—Kimball's Dairy Farmer.

Oleomargarine has stirred up a good deal of interest and some trouble. The manufacturer of good butter has nothing to fear from the oleo people. It is the poor butter that causes the trouble.

It is not fair to yourself to keep a cow that is merely a boarder. It is not fair to the cow that you do not test her and find out what she can do. It is not fair to either that the cow be not given the best of care and allowed to prove her worth. If the cow does not do for you she will do you.

A party by the name of Theodore Roosevelt once said: "In the long run the most unpleasant truth is a safer companion than pleasant falsehood." This party has said a good many other good things, but this one is especially valuable in all walks in life, and particularly to the man who tries to fool himself by buying cheap breeding stock. He has a pleasant falsehood with him in the animal he has bought, and ultimately he learns what it is.

Legality of Wills.

Every person is interested in the disposition of his property at his death and should know absolutely that it will be received by those whom he desires to have it, without trouble or expense. Nathan Q. Tanquary, Continental Bldg., Denver, Colo., for more than 20 years has made a specialty of the law concerning wills, estates and diversion of property. No will drawn by Mr. Tanquary has ever been broken. All inquiries by mail or in person are treated with the utmost confidence and given careful personal attention.

IMPORTANT TO CREAM SEPARATOR BUYERS



Don't make the mistake of assuming that the inexperienced buyer can't see and appreciate the difference between cream separators.

You can't see the difference in results, in quantity and quality of product, ease of operation, cleaning and durability, of course, without comparative use of different machines.

But there is not a sensible man anywhere who in comparing the DE LAVAL and any other cream separator side by side—the design, construction, finish, assembling and unassembling of parts, simplicity, manifest ease of cleaning and all around practicability—cannot readily appreciate the superiority of the DE LAVAL to the other.

And when it comes to practical test, every responsible person who wishes it may have the free trial of a DE LAVAL machine at his own home without advance payment or any obligation whatever.

Then WHY think of buying any other make of separator without at least first seeing if not trying a 1910 IMPROVED DE LAVAL machine? WHY make so important an investment as a cream separator without being SURE that you are right about it when it need cost you absolutely nothing to be sure of it?

You simply have to ask the nearest DE LAVAL local agent or write the Company directly.

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APIARY

Kansas Farmer invites correspondence upon subjects connected with bee culture, and is prepared to answer questions in this column. Address all letters and inquiries to J. C. Frank, Dodge City, Kan.

Straws from Dodge City, J. C. Frank.
On March 31 our bees were having a good flow from fruit bloom.

If money flows from the sale of fruit this fall like honey is now from the blooms, we'll have both honey and money—but not in the same pocket.

I would say to all who are in any way interested in bee-keeping that any man who expects to make a success in the business must not rest contented with being a mere bee-keeper. He must be an expert in the business. He must learn the business in all its details. His work must be done in due season and in a thorough and systematic manner. Mere haphazard or guess work will not do at all.

The formation of new colonies should ordinarily be confined to the season when bees are accumulating honey; and if this or any other operation must be performed when forage is scarce the greatest precaution should be used to prevent robbing.

The essence of all profitable bee-keeping is "Keep all colonies strong." If you cannot succeed in doing this the more money you invest in bees the heavier will be your losses; while if your colonies are strong you will show that you are a bee master as well as a bee-keeper, and may safely calculate on generous returns from your industrious subjects.

While reading and studying is essential to success there is nothing like several years of experience to fit a person for an occupation of any kind. The reading and the study are only the commencement, the preparatory stage, and the person in contemplation of taking up bee-keeping as a business should not expect to succeed well until he gets the necessary practical and experimental knowledge. He should not commence with too many colonies; perhaps two or three will be sufficient to begin with. Of course some are more capable than others to begin with a greater number; therefore every one can use his own judgment on this point; but I repeat, do not begin with too many, and what ever the number is do not allow yourself to become careless and neglect your bees, but make it a point to be with them as often as possible, for you can always learn something. Examine them frequently that you may know their condition. Notice everything about them you can and attend to their needs and you will thus soon gain much practical knowledge.

If bees have a plenty of sealed honey in their hives I do not think it necessary to feed them, but sometimes they run short of stores, and the bee-keeper should look after his bees and see that they do not run short of feed and thus starve.

When the spring is late and the flowers are slow coming out it is a good plan to feed the bees flour for a substitute for pollen or bee-bread (as it is often called by the inexperienced.) When the days are warm place the flour in boxes or on boards, and it will be found interesting and amusing to see the bees load up with the flour and carry it to their hives. Unbolted rye flour is usually recommended; but I think that unbolted wheat flour is just as good.

For a breeding queen we must select our very choicest queen in the apiary. Choose one reared and tested the previous season, one that has come through the winter with its colony strong in numbers, one that produces uniformly marked bees, with amiable disposition, and good working qualities, in fact one having all the desirable qualities of a perfect bee. I would select a well formed, nice, large, beautiful, golden-

colored queen, being particular to select one that is very prolific.

Save all your capping and bits of comb carefully, and when a sufficient quantity is on hand, it can be rendered into wax. Take any suitable vessel that can be placed on the stove, pour some water into it (rain water is best for rendering wax), and then drop in the old combs and cappings. Heat the mass until the combs are melted. Then strain the whole mass through a coarse cloth into another vessel containing water. Clean the first vessel, replace it on the stove with a little water, collect the wax from the second vessel when sufficiently cool, and place it in the first vessel. Heat slowly and just enough to get the water out. Great care should be taken not to scorch or burn it. Some do not heat it the second time, but, if carefully done, it is best to do so. After the water is evaporated from the wax, pour into suitable moulds and let it cool. As bees wax brings a good price, it pays to save every little bit. Where a sufficient quantity is collected to justify the expense, a salar wax extractor may be used. This gets the wax into the nicest and best condition possible. All one has to do is to drop the bits of comb and cappings into it, and the sun does the rest. The wax can then be removed ready for the market.

Better stock for our apiaries has not been considered enough in this state. There has been too many empty or light hives on hand in the fall to expect great progress in the bee and honey industry. There has also been too many poor honey years for it to take a rise. Locations have too often been considered poor for bees. Honey-plants have been abused for not secreting honey, etc. Everything has been brought up against bee-keeping except the scrubby stock of bees that are most commonly found in our apiaries.

Now, dear reader, right here is where the trouble lies in bee-keeping in this state. The run-down race of bees has been tolerated too long. Conditions would have been much better if even this race of bees had been looked after; and as soon as this is done you will see progressive apiaries appear all over the state.

Golden and Three Banded.

What is the difference between the Golden, and the three banded Italian bees?

What is the difference between an untested and a selected untested queen?—T. W. H., Shelbyville, Mo.

The progeny of the Golden Italian queens have four or five golden bands on the abdomen; while the Three Banded have but three yellow bands.

The only difference between an untested and selected untested queen is a difference in color, the latter being more yellow than the former.

Italians and Italianizing.

The superiority of the Italian bee is so universally acknowledged that it is no longer a disputed question, with possibly a few exceptions. That they have longer tongues has been frequently demonstrated, thus enabling them to work on many flowers that common or black bees cannot reach. I have seen Italians working on red clover, a thing that I have seldom found blacks doing. Being more active and energetic they gather more honey. I have taken as much as 300 pounds of fancy sections honey, one season from my best Italian colony. That they work earlier and later has been frequently observed, that they are better to protect their hives from robbers no one will dispute; yet they are not as apt to rob other colonies as are black bees. This I have often noticed. I have had weak colonies that were being robbed by black bees, yet they were surrounded with hives of Italian bees. The much dreaded moth-larva has almost disappeared since the introduction of the Italians. They are proof against its depredations. They breed up more rapidly in the spring than the common or black bees, the queen being much more prolific, yet are less inclined to breed in winter when it is so desirable that the bees should remain quiet. They are quieter and more easily handled, and adhere to the combs much better while manipulating them. The queens are much less disposed to hide away

and are easier found. I have often spent more time to find a black queen than it would take to hunt a dozen Italians. They are much more beautiful, which is a point not to be lost sight of. True the beauty may not add any to the amount of honey gathered, yet it need not necessarily make the amount less. The bee-keeper with his beautiful golden Italians takes a pleasure and delight in improving his stock that he could never hope for if he kept the common or little black bees, and all men that love the beautiful, if they keep bees, will want the finest looking, most peacable, good natured and most industrious bees that he can get, which I think that he will find in our best bred Italians.

It is no doubt understood at this time and age, that all that is necessary in order to change a colony of black bees to pure Italians, is to procure a pure Italian queen and introduce her to them, and in a short time they will be changed to that race. I remember the first Italian queen I ever purchased. It being some ten years ago. I introduced her to a colony of blacks, and in about six weeks they were changed to pure Italians; the black bees having died of old age in that time, and their places were taken by the progeny of the Italian queen.—J. C. Frank, Dodge City, Kan.

Do you want to sell your farm? If so write the Hoffman Compiled List Report, 328 Sedgwick Block, Wichita, Kan., for information, and full particulars.

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Several nicely matched teams of registered Percheron mares safe in foal, and a few young stallions for sale, ages from three to five years old. Come and see me.
F. H. Schrepel, Ellinwood, Kan.

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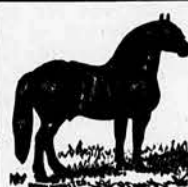
H. N. HOLDEMAN, Meade, Kansas.

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Henry H. Kuper
HUMBOLT, NEB.

Does Using Pure Bred Rams Increase The Profits From Grade Breeding Flocks?

By CHANDLER BROS., "Clover Hill," Chariton, Iowa.

Real profit in dollars and cents is what sheep and lambs which go to the mutton market are raised for and the desire of the men who breed and rear them is to get the largest possible money return from a certain amount of capital and labor. Regular breeding flocks of 50 or 100 ewes or whatever the number may be are kept on the farm to produce lambs, or a bunch of western ewes may be purchased and bred for two or three years before being sent on to market again. Only well-planned and properly guided work gives best results therefore to be fully successful, breeders who are producing for the mutton market closely study first of all things market requirements in order that the most profitable class of lambs will be bred for. If the breeder does not strive to produce lambs which are any better than the ordinary, he will fall just as far short of getting the largest money return from the amount invested as the lambs fall short of bringing the highest market price. The most net profit comes to those who try to produce exactly what the markets have the greatest and highest priced demand for. By studying the various prices which different lambs bring it will be readily observed that the compact, firm and deep fleshed lambs which are wide and deep throughout are always in demand at the best price because when killed they dress out the highest percentage of most desirable mutton. Butchers and large killers nowadays buy lambs exactly upon their actual merit, and in order that a bunch of lambs will sell high they absolutely must all be up to the mark in quality. If they are a mixed lot the poor ones will bring down the price for those that are good or they will be sold in separate bunches at different prices. To have a lamb crop fully uniform in conformation of body, size, density of fleece, and type requires more than a mere passing thought from the breeder.

The ewes may be mated at as near the same time as possible so the lambs will come well together and by selling time be quite even in size, but in order that the whole lamb crop will be uniform in conformation, density of fleece and general character, it must be bred in them. The flock of breeding ewes may be of a certain quality, and although in such cases it is impossible to get them all very near perfection and anyway each ewe affects but one or two lambs, it is of vast importance to be careful about the ram to be used because his qualities are stamped upon a large number of lambs. Therefore to produce a uniform, high class lamb crop strict attention must be given to selecting the ram. As we are working for actual net profits from the flock the cost of this ram must of course be considered. Different rams will cost varying prices, but the returns they each will give are to be wholly the guide in order that you will purchase the ram which will give largest net money returns. Suppose that you can purchase one ram at \$10, another at \$20, and another at \$30. Probably about 50 ewes would be bred to whichever ram you would get and simply for illustration we will say that 60 lambs would be reared annually which at market time would average 90 pounds in weight, thus making 5,400 pounds of mutton to sell each year from the ewes which were bred to one ram. If the \$10 ram would sire lambs which owing to the lack of general quality and uniformity would sell at \$5.50 to \$6 per cwt., and the \$30 ram would sire lambs which would sell at \$7, there would be a difference of 1 to 1½ cents per pound on 5,400 pounds, or \$54 to \$81 greater annual profit from using the \$30 ram. In two or three years these returns would be so great that the investment in the best ram would be an exceptionally good one in preference to buying the \$10 ram. Or if some of the ewe lambs are kept to mature for breeding purposes in your own flock there is certainly more difference than even 1 to 1½ cents per pound between the value of those which have classy character, uniform markings, the desired mutton conformation, strength of consti-

tution, and dense fleeces which are sired by the best and highest priced rams, and those lambs which do not possess such qualities to any marked degree and are sired by the lower priced ram. Therefore the quality of lambs which different rams would sire must be the basis of all consideration when you are deciding which ram would actually give greatest returns from the amount invested. Suppose that this ram which you have an opportunity of buying at \$10 is quite a fair individual but not pure bred, yet he is sired by a pure bred ram which was purchased from some good breeder. Not much is known about the dam. If this ram will sire exactly the class of lambs you want he is, owing to price, the one to buy but the question is, "Will the \$10 unregistered ram sire the very best and most profitable lambs?" Are there any real reasons to cause you to expect him to? The facts are that some of the bad qualities of his dam will crop out in his progeny and he may not "nick" well with the ewes because of his undesirable and even unnoticeable inherent qualities being the same as the weakness in the ewes, thereby doubling those faults in the lambs. The owner is taking a long chance when such a ram is turned to the flock because in the end he usually turns out to be a very bad breeder, one reason being that he is not strong enough in pure breeding to stamp desirable marked characteristics upon his lambs. On the other hand the \$20 or \$30 ram is pure bred and registered, and even a better individual and from an old reputable flock whose owners have been striving for a number of years to offer mutton rams of absolutely the highest standard. That is assurance that the sires and dams for many generations have been of the highest type and carefully mated. Rams which actually have such breeding are strongly impressive and if of the Shropshire breed they tend to cover the bony framework of the lambs with lean, juicy meat, widen the body and make

ing the best class of registered Shropshire rams. Before making a definite decision consideration must be given to the question, "Will the registered ram sire the above mentioned class of lambs as a rule, and will the unregistered ram in most cases sire the other and less profitable class?" Not all registered rams are desirable nor will all of them breed absolutely right, but some of them will. From close observation of many different lots of lambs from unregistered rams and from studying what can reasonably be expected from nature we are fully convinced that no unregistered ram was ever born which will give the largest net money returns which is possible to obtain from a grade breeding flock.

The grade ram will fall short in different ways because he is lacking himself by not being a pure bred and no one can expect something from nothing. For much the same reason should the lower class of registered rams not be used—their parents either by short breeding or improper mating have not produced desirable lambs, therefore it is practically impossible for such a ram to give best results. By the term "best results" we mean to sire lambs of such perfect breeding that they will possess the quality and conformation which tops the market and does so at the lowest cost of production owing to inherent strength of constitution, digestive and assimilative power. Such results cannot be obtained by using any other than registered rams which possess the desired individuality and have it backed up by long, careful breeding at the hand and mind of the most reputable pure bred breeders. If you were selecting an individual ram just to look at it would not matter where he came from nor what his past breeding is, but when a ram is to be used as a sire his blood lines will immediately affect the profits from your flock, and if he is a grade his mixed breeding will to your detriment crop out in his progeny, and if he is a low class pure bred his lambs will fall short to some extent. The only rams that give really best results from use on grade breeding flocks are the highest class of registered rams, and they are the cheapest because they give largest net money returns. But do not expect such results from a ram just because he is registered. There are scores

tered ram from an old established flock which has been carried on along right lines for many years and whose owners have been untiring in their efforts to offer mutton rams which will actually give best possible results in breeding flocks. Good pure bred rams will increase the profits from grade flocks but the very largest profits come from using only the best of them.

Experiments in Feeding Work Horses.

After making a series of very thorough and comprehensive experiments in feeding corn, cottonseed meal and gluten feed to work horses and noting the results, the animal husbandry department of the Iowa Agricultural College arrives at the following conclusions:

These experiments have not been continued long enough with each feed to suggest infallible conclusions. The work has been carried through two years, however, under excellent conditions for accurate work, and there has been in the fundamental effects of the rations a close similarity of results with the different pairs of horses. While the subject merits more extended study, and future work might give somewhat different results, it seems that the results already obtained justify the following conclusions:

1. The health, spirit, and endurance of work horses were the same when fed corn with a moderate amount of oil meal, or gluten feed, or cottonseed meal; as when fed a corn and oats ration supplying a similar nutritive ratio.

2. The ration of corn and oil meal maintained the weight, flesh, and appearance of the horses fully as well and with less expense than the one of similar nutritive value composed of corn and oats.

3. With corn at 50 cents a bushel, oats at 40 cents, and oil meal at \$32 per ton, the average saving in the daily expense of feed for each work day amounted to 1.6 cents by the use of oil meal in the place of oats.

4. A brief trial of 91 days with gluten feed indicated that while it was capable of giving good results the ration containing it was not as palatable as the oil meal ration, and cost a trifle more per pound when gluten feed was worth \$28 a ton.

5. Cottonseed meal gave somewhat better results on the whole than oil meal. The ration containing it was fully as palatable and as efficient in maintaining the health and weight of the horses, it was less laxative, and a little cheaper with cottonseed meal at \$30 a ton.

6. With corn at 50 cents a bushel and oats at 40 cents, oil meal had a value of fully \$60 a ton for feeding to work horses, with cottonseed meal worth a trifle more still. At the usual prices of these feeds their use resulted in a substantial lowering of the cost of maintaining the horses.

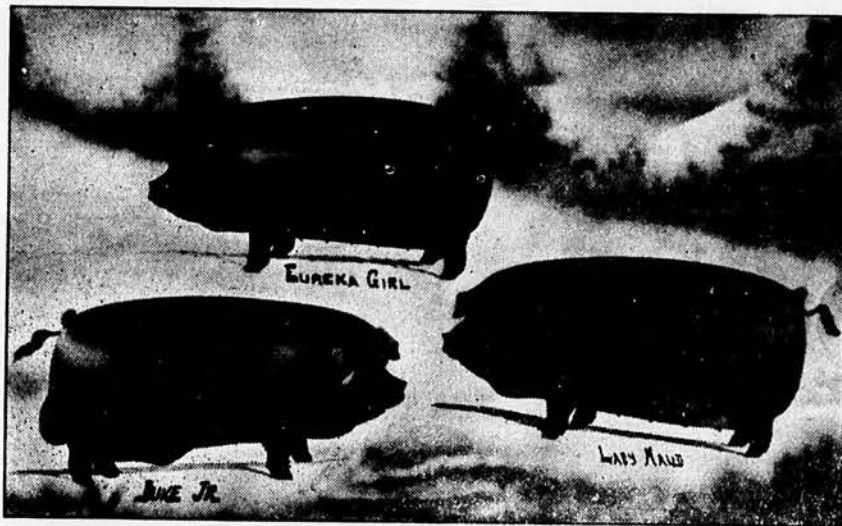
The Silo—Cement Tiling.

I would like to ask some questions through your paper. Can a silo be built successfully beneath the ground by cementing the earth with waterproof cement? Has sub-irrigation by the use of cement tiling been successfully tried as a means of irrigating the farm garden in western Kansas or in a similar climate?—Chas. E. Linn, Thelma, Kan.

Such a silo could doubtless be constructed that would preserve ensilage but it is very doubtful if it could be made economical either in construction or in use. The original cost would probably be greater than would the more efficient silo above ground while the difficulty of handling the ensilage and the trouble in properly curing it underground would probably more than justify the building above ground.

In answer to the second question would say that we do not know of the successful use of cement tile for such a purpose. On page 15 of KANSAS FARMER issue of March 19, will be found a description of the most successful system of garden irrigation the writer has ever seen. By modifying this system so as to substitute a storage tank for the pump and porous drain tile for the glazed pipe we think a very successful system of sub-irrigation could be established.

Be sure to mulch the newly planted trees. The hot, dry days will come and these cost the lives of many young fruit trees that are not so protected.



A trio of prize winning Durocs sired by Dandy Duke and owned by R. D. Martin, Eureka, Kan. See advertisement on another page of this issue.

it deeper and thicker throughout. They remove in the lambs the narrowness of chest development which exists in many ewe flocks and is detrimental to robustness of constitution, also impart a vigorous digestion without which profitable feeding and early maturity are impossible. Lambs from such registered rams possess inherited constitutional advantages bred and fostered for a century giving strong digestion, hence consequent rapid and economical growth together with general thrift. If the \$30 registered ram sires uniform lots of such compact, firmly and deeply fleshed lambs which thrive best on the farm when young and bring highest market price, and the \$10 grade or unregistered ram owing principally to weakness of proper breeding will sire lambs which are lacking in inherent uniform character, correct conformation, and robustness of constitution, every breeder, however large or small his flock may be, is making a desirable and great step toward getting the largest net money returns from the flock by using when you purchase a first class regis-

ed by Dandy Duke and owned by R. D. Martin, Eureka, Kan. See advertisement on another page of this issue.

and perhaps even hundreds of pure bred breeders who are not careful how their flocks are mated, and rams from such flocks are no more to be recommended than grades. You must guard against the men who have used registered rams on unregistered flocks and then offer their ram lambs or yearlings at a low price. Usually they say their sheep are pure bred all right but some of the pedigrees have been lost or not kept up. You can use your own judgment when such statements are made. By using a ram from such flocks you are indirectly denying the fact that the present improved breeds of mutton sheep are the result of nearly a century of most careful selection of the best pure bred rams. The present high standard is a result of that work, and a continuation of such selection means further improvement but using rams from the above mentioned flocks is not doing your best and means going backward. There is great satisfaction and full assurance of largest returns from your flock



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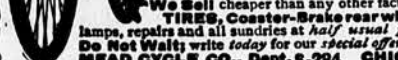
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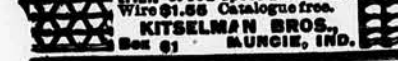


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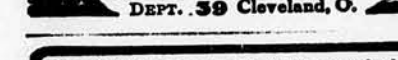


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THE HANDLING OF CORN FOR SILAGE.

For silage purposes, a rank-growing, leafy variety of corn will give a larger tonnage per acre of silage, and if not planted too thick will yield silage of good quality. In this state southern and eastern varieties may be made to grow a much larger amount of forage per acre than those varieties commonly used for the growing of grain. The quality of the silage produced, however, is not so good, and the writer does not recommend their use. Some rank-growing, good yielding local variety will give more satisfactory results. For eastern and eastern central Kansas the McAuley and Boone County White are good, while for the western central portion the Kellogg's Pride of Saline should give excellent results. Farther west the largest well-acclimated variety is recommended.

There is a difference of opinion as to the most desirable thickness of planting for silage purposes. Larger yields per acre can be secured by relatively thick planting, but these larger yields in most cases simply mean an increase of crude fiber and water, and mean the handling of a greater quantity of forage to gain the same amount of digestible nutrients. We do not advise, therefore, that silage corn should be planted more than 25 per cent thicker than corn intended for grain production, and this only where there is abundant soil fertility and a good prospect for sufficient moisture.

In certain portions of the state where difficulty is experienced in the "burning out" of corn on alfalfa sod or heavily manured land, it would be well to use this kind of land for growing silage corn, as the "burning out" usually occurs at a time when the corn is nearly mature enough for silage, and the loss occasioned by this method of handling would be very much less than it would be with the crop grown for grain.

Cultivation of silage corn should be the same as that of corn intended for grain.

Corn should be cut for the silo when it is fairly well matured; that is, when the kernels are in what is known as the "dough stage," all or nearly all of the kernels being dented. At this time the lower leaves will be nearly or quite dead.

The Canada Experimental Farms' Report for 1896 gives the following determinations of digestible matter in corn of different stages of growth:

In 1 ton. On 1 acre. Pounds. Pounds.

Tasseling. 186.2 4,220

Silking. 211.0 5,069

Early milk. 256.5 5,873

Late milk. 285.9 6,012

Glazing. 339.2 7,308

While the more mature plant is slightly less digestible than it is at an earlier stage of maturity, the gain in total nutrients more than offsets the loss in digestibility. It has been shown also that the loss of nutrients in the silo due to the intra-molecular activity of the living plant cells when first placed in the silo is much greater in immature than in mature plants. The later stage of maturity also avoids handling an unnecessary amount of water in the plant. There is, however, danger in allowing the plant to become too dry, as in that case it is difficult to pack it in the silo tight enough to exclude the air and prevent fermentation.

Probably the cheapest and most convenient method of cutting corn in the field is with the corn binder, although any method will do. United States Department of Agriculture Farmers' Bulletin No. 303 gives a full description of corn-harvesting machinery. The bulletin is free on application to that department. Care should be taken not to make the bundles too large, as this makes too hard work in picking them up from the ground and putting them on the wagon, and also requires a large cut-

ter and a great deal of power to cut these large bundles without separating, and the separating takes time.

A long, low, flat rack placed upon the ordinary farm wagon lengthened out so as to give space enough for a full load between the wheels, laying the corn crosswise, makes a convenient outfit for hauling corn to the cutter, as do the special forms of low-wheeled wagons. The low-wheeled wagons, however, pull harder than do the regular wagons, which is apt to decrease the size of loads. An especially low, under-rigged rack is often used and is easily made by making a V-shaped frame of two 4 by 6 pieces and suspending these below the axles with the apex in front. Stakes will keep the fodder out of the wheels.

There are a great number of ensilage cutters on the market, all having their special "talking points." The general characteristics of a good cutter are: Self-feed, freedom from clogging, durability, and simplicity of construction. The latter feature causes a considerable difference in the amount of power required to do the same amount of work in different makes of machines.

In order to secure a uniform quality of ensilage as well as a uniform settling in the silo, it is necessary that the corn, leaves and stalks be evenly distributed. This is most easily and cheaply accomplished by attaching a jointed metallic distributor to the end of the blower elevator. The quantity of material handled per day and the power necessary to cut it will depend upon the length the fodder is cut. The distributor can be used as a chute in taking out the silage to feed.

For well-matured corn cut to three-quarters of an inch will give good results, if the corn is not too dry. If too dry one-half inch would be better, to facilitate packing and thus prevent fermentation. A fourteen-inch cutter elevating thirty feet will require about 6-horsepower. This outfit should handle five tons per hour. Of course, where greater power is available, as in the case of the traction engine, the work can be done faster. In case more power is used, it would probably be more economical to purchase a larger cutter, sixteen- to eighteen-inch, although the first cost of the larger cutter will be somewhat more.

The number of men and teams necessary for hauling corn to the cutter will depend upon the size of loads possible to draw, distance from the field, size of cutter, amount of power, and other considerations. It is important in cheap filling to have just teams enough to keep the cutter running and not enough so that they have to wait before unloading. One man will be required in the silo to see to the equal distribution of the incoming fodder and to the packing, by tramping, around the edge of the silo. If the corn be cut at the right stage of maturity no other packing is necessary. One man will be required at the cutter, who will be assisted by the man unloading the wagon. An engineer will also be needed.

The silo may be filled rapidly or slowly as conditions render either method more feasible. In the case of rapid filling there will be a considerable settling, probably as much as six feet in a thirty-foot silo. The final settling in the case of slow filling will not be a great, which means that more fodder can be put in the same silo if it is filled slowly. In any case the work should not be interrupted longer than two days or loss by fermentation will be increased.

When the silo is filled thorough wetting down and tramping of the top will prevent the entrance of air, and will save more of the top layer from spoiling than would be the case if this is not done. Some will spoil anyway, but not enough to warrant the labor and expense of covering unless straw or other waste material be unusually accessible. Of course, if it is desired to feed at once none of the above precautions are necessary and none will spoil.

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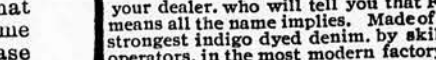
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We do not advocate the filling of the silo with whole—that is, uncut—corn in any case, as the losses will be very much greater, resulting in silage of poorer quality, frequently being positively unwholesome, and the labor involved in putting in and taking out the whole silage is very much greater than in the case of cut silage.

In cases where the corn becomes very dry it may still be used for silage by the addition of water. In this case, however, it should be cut into one-half inch lengths or some will be rejected by the cattle. Water can be added in the silo by wetting down successive layers or can be added by running a stream directly into the blower. Two men instead of one should be used to pack in the silo. The Delaware Station reports the following results in the making of silage from dry fodder:

"Formerly good results were obtained locally by feeding cut fodder packed into boxes, moistened with hot water, and allowed to stand twenty-four hours. The concentrated feeds, such as cottonseed meal, can be mixed with this mass and one of the reasons for purchasing bran can thereby be avoided."

"This method is too inconvenient for general use, but it suggested the possibility of making silage from dried fodder, and several successful experiments are reported on the conversion of dried corn fodder into silage by the addition of water and subsequent fermentation. A rise in temperature was noted in the silos and the development of an aromatic odor as in the case of green silage. It was noted that both young and old stock ate such silage practically without waste, and that cows preferred it to dried shredded fodder. It is a better and a safer mass to use with cottonseed meal than dried fodder or hay. The meal adheres to the damp fodder, cannot be separated from it by the stock, mastication is insured, and impaction of cottonseed meal prevented."

"In this experiment the quality of the fermented product varied. Where the moisture content was normal the aromatic odor above mentioned was present. No points of excessive moisture were found. Fodder in the bottom of the silo was not as moist as that nearer the top. In places channels had formed through which the water, pumped upon the surface, had flowed, leaving masses of only partially moistened fodder in which, to a limited extent, a musty smell and visible mold in extreme cases were noted. This was also the case in the product stored in immediate contact with the cemented lining of the silo, a condition also likely to exist in silage made from green corn-stalks."

"The fact that fire risks were noticeably decreased by moistening the fodder was patent to all observers."

The loss of material from fermentation was calculated to have been just six per cent.

The success of the ensilage of dry fodder has led to the opinion that it might be a profitable practice to snap the ears from field corn and place the stover in the silo. Numerous experiments have been conducted along this line, and it is found in every case that better results have been obtained by the ensilage of the whole plant, "ears and all," than by picking and husking of the ears, grinding the corn, and feeding of the resultant meal with the

silage made from the stover, indicating that the labor necessary for the above operations was needlessly expended.

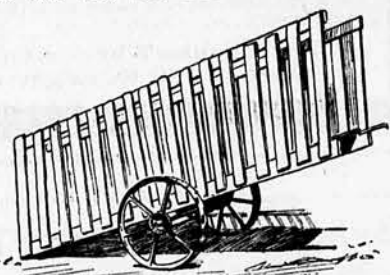
Experiments on the subject at the Wisconsin and Vermont Stations are reported as follows:

At the Wisconsin Station, "33,750 pounds of silage, 'ears and all,' fed in addition to hay and grain (the feed containing 17,127.5 pounds of dry matter in all) produced 11,882.5 pounds of milk; 27,571 pounds silage with ears picked off, plus 4,341 pounds of dry ear corn, in addition to hay and grain as before (the feed containing 16,491.7 pounds dry matter in all), produced 11,423 pounds of milk. The picked ears in the above experiment were carefully stored under cover."

At the Vermont Station an acre of green fodder corn, including ears reduced to silage was equal in feeding value to 1.26 acres of silage from stalks stripped of their ears fed with meal made by grinding the dry ear corn which was produced by the crop. —C. H. Hinman, Dairy Expert, K. S. A. C.

A Stock Chute on Wheels.

Perhaps every farmer has occasion to load some animal into a wagon and many of them prepare for this by building a stock chute. Frequently these chutes are built as a permanent fixture in connection with the feed lots but they are often made so that



they can be transported from one part of the farm to another. When a chute of this kind is built heavy and strong enough to support the weight of a mature hog or a large calf it becomes a clumsy thing to move. Mr. R. J. Linscott, owner of the Rosalpa Jerseys at Holton, Kan., has solved this problem of inconvenience in a very happy way as is shown in the accompanying picture. The wheels and axle used are parts of old machinery found on the farm, the wheels being taken from an old mower. The upper end of the chute is provided with two strong iron hooks which are sharpened so as to engage the bottom of the wagon bed and prevent slipping after the animal starts upward. With such an arrangement, there is no difficulty in building a chute of ample strength because the question of weight has relatively little importance. The chute can be hooked on behind the wagon and hauled to any part of the farm and it is a comparatively easy matter to put it in position by hand.

Pope once wrote:
"Where grows? Where grows it not?
If vain our toil,
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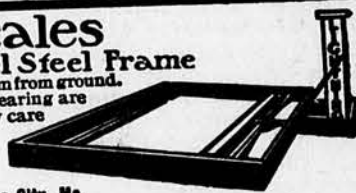
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Alfalfa Ensilage.

O. E. Walker, owner of Park View Dairy Farm, just west of Topeka, is an ardent enthusiast on alfalfa. Mr. Walker has just returned from his winter spent on his Florida plantation and is able to report on his first experiments made with alfalfa ensilage. Last fall he bought a new stave silo and the necessary machinery and began by filling the lower part of it alternate layers of corn and alfalfa ensilage. As his supply of ensilage corn ran short he completed the filling of the silo with alfalfa. He found that alfalfa was much harder to cut than corn as it gummed the knives in the cutter, otherwise it was just as easy to handle. This ensilage kept well and produced very satisfactory results. The foreman in charge of Park View Farm fed the ensilage to every class of live stock on the place but got especially good results when fed to the milk cows. He found that he got the most milk when he fed a ration of two-thirds ensilage and that these cows so fed produced the best crop of calves that has ever been raised on this farm. He was surprised at the early age at which the calves began to eat ensilage and pleased at the growth and development they made. The brood sows on the place ate this ensilage with relish and their farrows were heavy. The pigs are now eating it and doing well. The chickens show great partiality for it while the mules and work horses are fond of it. This being a dairy farm the results of feeding the ensilage were most closely noted in the dairy stock and Mr. Walker states that he has the best crop of calves he ever raised while during the winter he had the largest flow of milk ever produced on the farm. He does not believe that proper dairy farming can now be done without ensilage and is convinced that alfalfa makes the best.

Pasturing Winter Wheat.

We have no recent publications on the subject of pasturing wheat. Several wheat pasturing experiments have been carried on at this Experiment Station and the results have been published from time to time in a number of the earlier bulletins of the station. The results of the experiments are summarized by Prof. W. H. Olin, in the Thirteenth Biennial Report of the Kansas State Board of Agriculture (see page 520).

Wheat pasturing experiments at the Kansas Experiment Station:

Summary of averages for years 1888, 1889, 1891, 1892 and 1896:

	Bu. grain per acre.
Fall pastured.	26.15
Spring pastured.	27.78
Not pastured.	29.6

It is to be noted that a difference of from two to three bushels per acre is shown in these experiments in favor of not pasturing wheat fields. The spring pasturing would appear to be less objectionable than fall pasturing, although it will be observed that the yield was cut down in each instance. According to these experiments the mean average loss in grain due to pasturing wheat may be computed at about \$2 per acre per year. If these experiments can be taken as showing normal conditions, then the question which the farmer must settle is this: whether the amount of green forage resulting from pasturing wheat fields will compensate for the probable diminished grain yield.

In the Biennial Report referred to above is included, "Reports of Kansas wheat growing, experience and practice, by counties," in which a number of farmers answer a number of questions regarding wheat culture, and one of these questions relates to the pasturing of winter wheat. From a brief survey of the data I observe that the experience of farmers varies, some claiming an advantage from pasturing while others claim a disadvantage. The average value placed on the wheat pasture varied from 50 cents to a dollar per acre. Many farmers preferred to pasture the winter wheat but advised not to turn the cattle on when the ground was wet, and not to pasture too early in the fall or too late in the spring.

The general effect of pasturing winter wheat in the spring, should be to prevent rank growth of straw. In a favorable growing season pasturing may benefit wheat, especially if the wheat is growing on fertile land, which may cause too rank a growth and lodging of the grain under very favorable growing conditions. With dry spring conditions such as we are

having, it is a little risky to pasture wheat too closely or too late in the spring, since if the drouth continues the growth of straw is apt to be too short and the yield of grain is apt to be reduced if the growing conditions remain unfavorable.

The pasturing of wheat is supposed to check the ravages of the Hessian fly. It is possible that by close fall pasturing some Hessian flies may be destroyed. On the whole, however, it is doubtful whether the ravages of the Hessian fly are materially reduced by pasturing the wheat. Prof. C. C. Gorgeson concluded from his experiments at this station that "pasturing wheat injures or weakens the wheat plants and thus causes them to succumb more easily to the attacks of the Hessian fly."

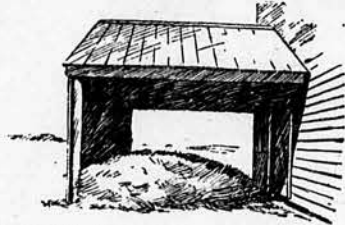
In the judgment of the writer there can be no general rule for pasturing wheat. The farmer himself must decide whether it is advisable to pasture the grain or not. Usually fall pasturing should not be practiced unless the wheat is sown early and made a rapid, rank growth in the fall, when light pasturing may do no harm and may even be an advantage, since wheat which makes too rank a fall growth is more apt to smother if covered with snow and ice during the winter than grain which has made a less rank growth.

Also, if the ground is loose or mellow in the fall the packing due to the tramping of the stock may be a benefit.

If the early spring is very favorable to the growth of the wheat and it starts quickly, stooling abundantly and making a rank growth, it may be advisable to pasture the wheat on the more fertile land on which the grain is apt to grow too rank and lodge. But on land which is somewhat deficient in fertility, on which the wheat is not likely to grow too rank or lodge, the yield of grain may be reduced by pasturing. In any case the farmer should use considerable care in not pasturing wheat when the ground is wet, and taking care also not to pasture too closely or too late in the spring.—A. M. TenEyck, K. S. A. C.

A Manure Shed.

The accompanying drawing shows how one farmer handles the manure question in a most economical manner. This shed is built at one end of the barn and covers the barn door. This door is at the end of the alley behind the stalls, and the floor of the barn is so arranged with a drop that all manure, both liquid and solid, is caught and easily moved toward the door and this shed. If the fields are dry enough the manure spreader is driven under the shed and loaded directly from the barn door. If the fields are too wet for use of the spreader then the manure is piled under the shed where it is protected from rain and consequent waste. The only thing that could be added to this shed to make it perfect for its use would be a concrete flooring with a cistern into which all the liquid ma-



nure could drain. In the absence of this oat straw is used for bedding whenever possible and this serves to absorb practically all of the liquid part of the manure. The shed from which this picture was taken is located on the farm of Mr. R. J. Linscott, owner of Rosalpa Jerseys, Holton, Kan., and his very successful farm practice in handling manure recommends it to other farmers as well.

Taken in the aggregate, there can be no question that thousands of dollars worth of valuable fertilizer is wasted each year through loss of liquid manure and through the leaching of manure piles that are stored in the barn yards without shelter. The question of the best method in which to preserve the liquid manure is well worthy of study. The Agricultural College at Manhattan has its large barnyard paved with stone which drains to a central cistern where all the liquid manure is collected and later pumped out for distribution on the grass and other crops. A Shawnee county farmer reports that the alfalfa which he uses for bedding and which is made of the tops

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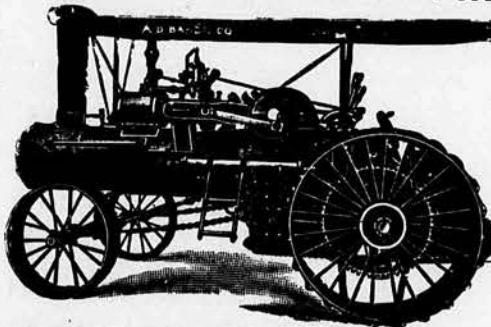
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Dept. I, Kansas City, Mo.

and bottoms of stacks will absorb the liquid manure as well as will oat straw. At first thought this does not seem possible and we would like reports of experience from other farmers.

Value of Coal Ashes as a Fertilizer.

Kindly tell me, through the columns of the Kansas Farmer, what value coal ashes have as a fertilizer, what kind of soil is best to apply it on and how much to the acre?—W. S. Summers, Eldorado, Ill.

Coal ashes has no value as fertilizer in the sense in which our subscriber apparently inquires. In some classes of soil it might be beneficial to use as a mechanical agent but it would have little other value. In closely compacted soils or clays the mechanical action of coal ashes might be in a measure beneficial by loosening the substance of the soil and permitting a freer circulation of air and water, though the use of such ashes is of doubtful value. Any soil which could be improved in this mechanical way would doubtless be equally improved by the growth of clover, alfalfa, cow-peas or some other legume the long roots of which would have the effect of loosening up the soil, of adding a quantity of humus to it when the crop is plowed under, and of fertilizing it very materially by the development of the nitrogen secreting bacteria on the roots. We suggest to our subscriber that he try growing a crop of legumes or even of rape on his land and plowing it under. In doing this he will get both the mechanical and the chemical effects which may be needed for closely compacted land.

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HORTICULTURE



It pays to cultivate the orchard but it does not pay to do it poorly. Constant plowing in but one direction serves to ridge the ground and the trees suffer. Plow the orchard both ways and don't let the singletrees scrape the bark off.

Where it is possible, a sandy loam should be selected for growing potatoes, and a northern slope is better than any other exposure, as it will suffer less in the hot, dry weather of the summer season. If the potatoes proved to be scabby last year do not plant in the same ground this season. It is best to use the ground from which scabby potatoes have come in other crops for a number of years in order that the disease germs which produce the potato scab may have time to die out. Potatoes need draining perhaps more than any other farm crop. They will not stand wet feet and if natural drainage can not be secured, then some artificial method must be resorted to. Parts of Kansas are noted for their potato crops and yet the yield per acre is very much below what it should be with proper management and good seed.

The Spray for Leaf Eaters.

Considerable complaint is made by our readers in regard to the early damage that is now being wrought by leaf eating insects and information regarding a remedy is wanted. Paris green has been the most popular for use in this sort of spraying but now arsenate of lead has largely taken its place. This generally comes in the form of a paste which only needs to be mixed with water to make it ready for use. The materials can be purchased at any drug store and the spray mixed at home, though this

Overcoming Sore Shoulders.

Every man who works horses knows more or less about horses' sore shoulders. Some men certainly know more. How many hundreds and hundreds of these "best friends of man" are compelled to work long hours in the collar, with shoulders blood raw, pulling heavy loads, is perhaps, impossible to reckon. Then there are others, in large numbers, no doubt, in the aggregate, that are turned out to pasture every spring and summer, to permit the sore shoulders to heal, as fast, in the course of nature, as may be. To work a horse or mule with a sore shoulder is both a cruelty and a loss. It is a direct loss, especially in the busy time of the year, to have a work animal idle, waiting for such a wound to heal.

Not many men, if any, would have their work animals afflicted with sore shoulders, as a matter of choice. In fact most men are inclined to use every means possible to prevent them, which is the reason for various forms of sweat pads, and soft "faced" collars.

But even with all of these, the sore shoulders are still the frequent experience on nearly every farm. Kansas has, in round numbers, some 1,100 thousand work animals (900,000 horses and 170,000 mules). If each of these lost only an average of one day in a year, it is easy to figure a loss to Kansas farmers of over a million dollars from this affliction in that time.

Of course, sore shoulders result from ill fitting collars. The flexible collar, or soft sweat pad, easily loses its fit as an animal becomes fat or lean, after the collar has first been fitted. Then too often, collars and pads are used, long after they are unfit for use, through having become sweat soaked, and filled with dirt. This is partly due to the fact that the

costs more time and trouble. The usual mixture is three pounds of arsenate of lead to 50 gallons of water. This costs more than Paris green but as it adheres to the leaves better and is less likely to be washed off in rain storms it is cheaper in the end as fewer applications are necessary.

The San Jose Scale Law Upheld by the Courts.

The Kansas State Entomological Commission has been making a vigorous campaign against the dreaded San Jose Scale and its work has, thus far, proved most efficient. The law under which the commission works requires them to inspect orchards and, if the scale is found, to take immediate measures for its eradication. This is done most effectively by the use of the lime-sulphur spray which is composed of 15 pounds of sulphur and 20 pounds of lime, boiled for an hour in sufficient water and then diluted to make 50 gallons of the proper strength.

Sedgwick county seems to have been the seat of the first and worst outbreak of the scale and the commission has devoted considerable time to the orchards in that vicinity.

Recently an orchard owner near Wichita filed in the district court a petition for an injunction prohibiting the commission, or their agents, from entering upon his premises and spraying his trees. Judge Wilson stated that the purpose of the law was the destruction of this pest and the prevention of its distribution to other orchards, and the arbitrary action of any person in trying to impede the action of the law showed the manifestation of a spirit antagonistic to the welfare, not only of the county, but of the state as well. The judge therefore very properly denied the injunction.

old collar or pad, is not likely to make any more of a sore shoulder, in a busy time, than the "breaking in" of a new collar.

The sore shoulder evil—for it is no less—is the inevitable accompaniment of the soft, flexible collar. It has been proven by long experience that neither the soft, flexible collar is a necessity, nor yet the sore shoulders. The steel collar, while a comparatively recent invention, has shown by actual use that it overcomes the difficulty. It is light, rigid and always smooth, thus giving no cause for undue heat and sweat; affords no retention for sweat and dirt, and is adjustable to insure an even distribution of the pulling pressure over the entire shoulder surface.

These are the great merits of the steel collar. Besides it needs no hames which may shift position on account of stretching straps. The whole collar is a pulling surface. It opens and closes on a hinge and locks with a bolt. There are no straps or buckles. It is as easily kept clean as any other piece of polished steel.

The U. S. War Department in one of its reports, says of the steel collar: "The steel collars heretofore in experimental use, have been slightly modified in shape. They have given great satisfaction, and the Light Batteries are now being fully equipped with them." Thousands of farmers and other team owners have reported, after satisfactory trials, that the steel collar is the only logical and permanent cure for sore and galled shoulders—a permanent cure—because it removes the primary causes.

There seems to be, however, a greater or less doubt among many, that the steel collar is a better one than the old soft padded ones. Still many of these same persons admit that an ox works better in a hard wooden yoke, the pulling surfaces of which have been duly polished. Those who have used the steel collar

Mistaken Beliefs About Manure.

It is argued by some farmers that hauling manure out on the field every month in the year is a mistake, and that if spread out in midsummer the sun will scorch it to a tinder and burn out all the good. The Maryland Experiment Station some years ago determined to test this theory, with the result that its experiments have exploded two very common beliefs, the summer-burning theory being one of them.

The other common belief which has been proved wrong is that it is better to plow manure under in the fall than to leave it exposed on the land's surface during the winter and then plow it under in the spring. In the first instance manure spread in July and allowed to stand until the following spring, gave better results than that spread in October, and still better results than that spread in the following spring just before plowing. In the second experiment better yields were secured after allowing the manure to lie on top of the land all winter and plowing it under in the spring than were obtained from plowing it under in the fall.

Hoarding money is not wise economy, but judicious spending is. Money was created for use and not for hoarding. Think of this when you are tempted to buy inferior live stock because the price is a little low. No man has yet determined the real value of a good cow.

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have learned that the horse and mule do their hard work without suffering, just as the patient ox has done his, with his heavy, hard yoke for centuries—and those who speak most favorably of the steel collar, are the ones who have tried it out most thoroughly. It not only is cheaper in first cost, but it lasts practically a life time. Nor is this all. While it lasts it makes mercy for the work animal, a source of profit for the owner. No farmer can well afford to overlook the merits of the modern steel collar.

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FROM OUR READERS

The Kansas Farmer invites letters from its readers upon subjects concerning the welfare and advancement of the farm and home. Practical letters from practical men are desired, and letters from the ladies and young folks are especially appreciated. Omit partisan politics and give your experience on the farm and in the home for the benefit of other farmers and their families. A prize will be awarded each week to the writer of the best letter, and in addition a series of three prizes will be awarded each month for the three best letters. Write on one side of the paper only, and make the letters short and to the point. Facts, ideas and experiences are wanted. We will do the editing.

How I Raise Pigs.

There is a great deal written about how to raise pigs, but it is a subject that never grows old, for there are always new beginners and most of us can learn something by swapping ideas with our fellow breeders.

I will not try to tell just how pigs must be raised, for there are many different methods used. Conditions are different and there is a great difference in the crops that are produced in the large area where the hog is raised. The matter of housing is very important and the shed for the sow may be made of almost any material, just so it is dry and warm and will let in the sunshine on the bright spring days.

I aim to have my pigs coming from the middle of February until the middle of March. I feed my brood sows from the time they are bred until farrowing time, on corn, alfalfa hay, and a slop made of equal parts of bran and shorts. I do not feed the sows the first day after farrowing, but quietly put plenty of clean water in the trough where they can drink at will. The sow is always more or less feverish and will usually want plenty of water. The second day I give her a little corn and some slop made of bran and shorts, and gradually increase the feed until in about ten days I am giving her all she will eat up clean three times a day. If I have skim milk and slop from the house I use it with the shorts and bran.

I never give more feed than the sows will eat up clean. If fed in this way they are always ready for their feed. Slop the sow in a V-shaped trough, made of two 1 by 6 boards, nailed together with a short piece of 1 by 5 inch board nailed across each end. This makes a shallow trough and one that is easy for the pigs to get at. I always teach the pigs to drink with their dam as soon as possible. I let the sow and pigs run on pasture of rye, rape, or alfalfa through the day, and when the pigs are eight to ten weeks old I shut the sow up in a closed pen so that they can not get to her. I continue to slop the pigs and feed them a little soaked corn morning and evening, letting them run on the pasture. It is a common practice to shut up the pigs, but I think it is better to confine the sow, because she can be supplied with the feed she needs easier than the pigs can. Pigs handled in this way rarely get the thumps, but when they do, if they are given a teaspoonful of turpentine in a little fresh milk once each day three days in succession a cure is almost always effected.

When new corn comes I begin to feed the pigs all they will eat and when they are nine months old they should weigh 300 pounds each.—Elmer H. Hussey, Eldorado, Kan.

An Idea Awaiting Experiment.

I am a farmer of western Kansas. I am interested in its development and progress. Since it is settled up just thickly enough at present in the western tier of counties to make stock raising in its old sense impossible, that is, the production of large herds of cattle by the rancher almost

entirely upon the strength of sections of buffalo grass.

Now that our range is reduced we must look to the cultivation of the soil for winter feed for our reduced herds, we greatly feel the need for a surer method of gaining this necessary product.

We hoped by advanced methods of dry farming to secure this goal, but in many points we fail. One, for instance—dry farming methods teach us to keep a dust mulch on our field, which works nicely in keeping the moisture in the ground, but for one disadvantage. That is the drifting of the pulverized soil into mounds over the field, over the fences at the edge or often drifting over the grass at the edge of the field in such a quantity as to completely destroy the grass for five, ten, or even fifteen rods back from the field. Therefore giving ample source for the growth of weeds, such as the Russian thistle. The oftener we stir our land the worse it blows. If it wasn't for the drifting of the soil I believe we could make farming quite successful in the west by the method of dry farming by which we stir the soil deep once every three or four years and shallow farm the other years.

The old settlers have proven it is not practicable in general as they run the risk of it being dry and windy during the spring and fall seasons, thereby ruining their fields with drifts.

Yet I am a firm believer in a bright future for this part of Uncle Sam's domain as a general farming country, that is, the raising of grains, feeds, etc., in connection with live stock or the dairy.

It may seem to many as a vague, impossible prediction. But in my mind's eye I see in the near future, through the enterprise and resource of man, "This country, the greater portion of the 'Great American Desert' as Pike termed it or at least that portion west from the 100th meridian, will bloom as the rose."

This region is, with a few exceptions, underlaid with sheet water, ranging in depth of water supply from two to forty feet and from the surface from two to two hundred feet.

So abundant is it as to make one think the God of nature had a purpose more generous than simply quenching the thirst; but also the means of feeding the hunger. This will be, when man has attained to the stage of industrial development, in which he has devised means of bringing this dormant source of wealth from beneath and distributes it, just beneath the surface, where the wind and sun will not be the means of too rapidly conveying it away in vapor. The porous cement tile (when properly proportioned), the development in source of cheap power, and, in the devices for raising the water, are factors in the formation of the idea of transforming one acre (by tile in sub-irrigation) into a productive field, worth twenty at the present time.

Why not some one who has a little capital experiment and publish his experience?—C. E. L., Greeley Co., Kan.

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FARM INQUIRIES



ANSWERED BY
Prof. A.M. Ten Eyck

Will Fall Wheat "Berry?"

I sowed some fall wheat this spring, and I want to know if it will "berry out" all right? I have a fine stand and it is growing all right. Some say it will not "berry" unless it freezes after starting.—B. W. Reber, Morrill, Kan.

It is doubtful whether the winter wheat planted this spring will produce heads. We have sown winter wheat as late as February 20 and it made a crop, but freezing whether occurred after seeding, in fact, after the grain had sprouted. I have planted winter wheat by accident in the spring with spring wheat and it failed to head. Again some varieties of winter wheat may head and produce a crop when planted in the spring. These are the varieties which are usually grown further south and are more often not the hardest varieties of winter wheat. The Turkey winter wheat is a true winter wheat, and as stated above it is doubtful whether spring seeded Turkey wheat will produce grain.

You will be able to decide in the course of a few weeks whether the wheat will head or not. If it does not begin to stem about the usual time but continues to stool and spread, you may decide to plow it up and plant to corn or other late crops, meanwhile you might secure some pasture from it, if you decide to plow it up, before plowing.

Broom Corn as a Sod Crop.

Will broom corn do well on sod that is to be broken up this spring? If so, what is the best kind to plant? When should it be planted and how much seed should be sown to the acre? Would it do to stop up all the holes in a disk wheat drill except the two outside holes and the middle hole and plant the broom corn in that way? Do you know of any one who raises broom corn? If so, would you please let me know.—S. J. Timmom, Webster, Kan.

Broom corn is considered to be a good sod crop. For your section of the state prefer the Dwarf type of broom corn. Plant quite late in the spring when the weather and soil has become warm. We usually plant about the last of May or first of June at this Station.

You may perhaps plant the broom corn with the grain drill by the method which you describe, carefully regulating the feed so as to drop the seed at the required distance apart in the drill row, about one to two inches apart in drill rows, three to three and one-half feet apart. Two to three quarts of broom corn seed is sufficient to plant an acre. For further information on the subject I refer you to Farmers Bulletin No. 174, written by Charles P. Hartley of the U. S. Department of Agriculture. You may secure a copy of this Bulletin by writing to Dr. A. C. True, Office of Experiment Station, U. S. Dept. of Agriculture, Washington, D. C. Also refer to Experiment Station Stillwater, Okla., for bulletin on broom corn.

Stacking Clover and Alfalfa Green.

I have read some about stacking clover and alfalfa green or just wilted. I have 20 acres of clover and timothy mixed. Would it be safe to stack it green and would the green-stacked hay be good for horses as well as cows?—H. G. Landon, Vinland, Kan.

Clover or alfalfa may be put into the stack or mow green in a well wilted condition but is apt to heat and blacken and may burn in the stack. If the hay is put in the mow in an air-tight barn it may not blacken to the same degree that it will in a stack and is not so liable

to burn and it is claimed by farmers that the hay is just as good for feeding as hay which is well cured in the field. A little experiment which we carried on here last summer in putting alfalfa in the stack green, however, did not turn out this way. The alfalfa did not burn but it became very black and in fact came so near burning that the hay was in a charred condition when it was taken out of the stack last winter and was not good feed. While it is possible, and the method is practiced by farmers, of putting green clover into a tight barn I do not consider the method equal to curing the hay before stacking.

Another method of handling green alfalfa or clover is to cure it in the shed in this manner. The shed is constructed with a raised bottom, giving perfect ventilation beneath the mow. The green hay is spread over the whole bottom of the shed to the depth of three or four feet at a single cutting. The hay is spread lightly from a platform and not tramped. Handled in this manner alfalfa will usually cure out and retain its green color. Sometimes a little white mold gathers in places in the mow and makes the hay a little dusty in spots at the surface. We have practiced this method at the Kansas Experiment Station with good results using the alfalfa crop. Really the method is better adapted for handling alfalfa than for handling clover since the alfalfa furnishes four or five cuttings in the season. The plan is to place the second cutting above the first to a depth of three or four feet, the third above the second, etc., filling the shed during the season with layers of hay, the last filling usually being a little greater in depth than the previous ones. We are just taking the alfalfa, which was stored as above described, out of one of our sheds and find it in prime condition.

I doubt whether this plan will work so well with the timothy and clover; it would work better with clover than with timothy. Grass hay tends to lie too closely and prevents the circulation of air and is more apt to mold if put into a shed green; also the combination of timothy and clover is less well adapted to putting into the tight barn green than clover alone. I would recommend, therefore, that you cure the timothy and clover hay in the field before stacking rather than to risk the stacking green in a tight barn or spreading the green hay over the shed bottom to cure as described above. The hay put in the shed green would probably not be so good for horses as hay well cured in the field since the green shedded timothy hay is more apt to be dusty than field cured hay.

I am mailing you bulleting No. 155 on "Alfalfa" in which you will find further information regarding this method of curing green alfalfa in the shed.

Corn will go twice as far in hog feeding if the hogs are on pasture. A good hog pasture is a money saver as well as a money maker.

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This engine can be connected to "any old pump" in 30 minutes. After you have watched it pump water for five minutes you will wonder how you ever got along without it. The longer you have it, the better you will like it. It is right on the job all the time. A turn of the fly-wheel and it is off. A child can operate it. The ladies often start it to pump a pail of water. They rest while it works.

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70,000 Americans will enter and make their homes in Western Canada this year.

1909 produced another large crop of wheat, oats and barley, in addition to which the cattle exports was an immense item. Cattle raising, dairying, mixed farming and grain growing in the provinces of Manitoba, Saskatchewan and Alberta. Adaptable soil, healthful climate, splendid schools and churches, and good railways. For settlers' rates, descriptive literature, "Last Best West" how to reach the country and other particulars, write to Sup't of Immigration, Ottawa, Can., or to the Canadian Government Agent.

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But you must get the
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the best white corn.

None Genuine Without
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W. K. Kellogg



HOME CIRCLE



In these days of general prosperity when the farmer is credited with the ability to buy and pay for what he wants; when labor saving machinery is to be found upon every farm; when the young folks secure the advantages of a college training and rural mail routes, telephones and automobiles serve to annihilate distance and bring the farmer into closer relations with his fellow man does the farmer's wife prosper in her own proper sphere, as well? Is her condition improved? Are her labors lightened by modern conveniences and labor-saving machinery? Does she have her own pin money or hold property in her own name? Does she participate in the meetings of women's clubs or farmers' institutes and does she get time to become active in the affairs of the community? In order to get at the real facts concerning the home life and present conditions of the farmers' wives and families and learn whether the general prosperity has benefitted them as well as it has their sisters of the towns and cities or their husbands and brothers on the farm, The Kansas Farmer will offer a prize of one year's subscription for the best letter on the home life of the farmer's wife and family. These letters must be signed but the names of the writers will not be printed unless special permission is granted. Address your letters to Editor Home Department, Kansas Farmer.

The Paper Pattern.

O daughter, lay your pattern down and pin it straight and strong, And humbly strive to cut it right and never cut it wrong. You will find the undertaking is no merry idle jest, But you'll finish it by Doomsday if you do your level best And follow all directions and lay, as you are told, The double perforations on a length-wise fold.

You've taken "Art" at college, so these tissue shapers grotesque Will probably suggest to you a motif Romanesque; A mingling of geometry and lumpy l'art nouveau, Chaotic parallelograms that Euclid didn't know. No matter if you turn to art or mathematics cold, Lay double perforations on a lengthwise fold.

You've crossed the steppes of Tartary and tiffined with the Shah, You've never lost your bearings from the Pole to Panama! Your smattering of Sanscrit, too, will help you to translate The mystic jangling jargon that describes the fashion-plate. So blaze your trail with caution, then lay with courage bold The double perforations on a lengthwise fold.

And when your task is finished, if by chance you should succeed, You will feel you've earned your laurels for a very glorious deed! The baton of a marshal, the halo of a saint, The brightest golden aureole that artist hand can paint, Will seem to you inadequate, because your name's enrolled In double perforations on a lengthwise fold! —Margaret Armstrong in Woman's Home Companion for April.

successfully cleaned in gasoline, and almost every one has her own special method. Colored clothes do not clean well, as a rule. It is best not to try them.

"Do not buy a quantity of gasoline and store it to use from time to time. Many fire insurance companies will not issue policies—or pay them—if this is done."

Washing White Silk Gloves and Hose.

Wash in warm soapsuds, rinse and hang in a dark room. The best time to wash them is at night; they will be dry by morning. It is the light which turns them yellow.—From Woman's Home Companion for April.

Miss Frances Brown, of the extension department, and Miss Ula Dow, of the domestic science department, of the Kansas Agricultural College, are holding this week at Beloit the first "Movable School in Home Economics" ever held in Kansas, and the first of its kind ever held anywhere. Mrs. VanZile spent Friday in Beloit to note progress and suggest possible improvements for the other fifteen schools yet to be held this spring.—Industrialist.

General Methods of Preparing Meat for the Table.

The advantages of variety in the methods of preparing and serving are to be considered even more seriously in the cooking of the cheaper cuts than in the cooking of the more expensive ones, and yet even in this connection it is a mistake to lose sight of the fact that, though there is a great variety of dishes, the processes involved are few in number.

An experienced teacher of cooking, a woman who has made very valuable contributions to the art of cookery by showing that most of the numerous processes outlined and elaborately described in the cook books can be classified under a very few heads, says that she tries "to reduce the cooking of meat to its lowest terms and teach only three ways of cooking. The first is the application of intense heat to keep in the juices. This is suitable only for portions of clear meat where the fibers are tender. By the second method the meats are put in cold water and cooked at a low temperature. This is suitable for bone, gristle, and the toughest portions of the meat which for this purpose should be divided into small bits. The third is a combination of these two processes and consists of searing and then stewing the meat. This is suitable for halfway cuts, i. e., those that are neither tender nor very tough." The many varieties of meat dishes are usually only a matter of flavor and garnish.

In other words, of the three processes the first is the short method; it aims to keep all the juices within the meat. The second is a very long method employed for the purpose of getting all or most of the juices out. The third is a combination of the two not so long as the second and yet requiring so much time that there is danger of the meat being rendered tasteless unless certain precautions are taken such as searing in hot fat or plunging into boiling water.

It is commonly said that the cooked meat fibers are harder or less tender than the raw, which seems a natural

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assumption since the meat protein, like egg albumen, is coagulated by heat, and furthermore, the water is forced out from the individual muscle fibers and they are shortened and thickened by the application of heat. Apparently, however, such general deductions must be modified on the basis of the experimental data obtained in Lehmann's laboratory, for he found marked differences in this respect between the interior cuts of beef, of which tenderloin is a typical example, and exterior cuts such as flank. When beef flank was cooked by boiling for two hours, the toughness of the fibers greatly increased so that at the end of the cooking period the meat was found to be in about the same condition with respect to toughness or tenderness of the fibers as at the beginning. On the other hand, in the case of the tenderloin, there was a decrease in toughness of the fibers throughout the cooking period which was particularly marked in the first few minutes of cooking, and at the end of the cooking period the meat fibers were only half as tough as before cooking.

A good idea of the changes which take place while meat is being cooked can be obtained by examining a piece of flesh which has been "cooked to pieces," as the saying goes. In this the muscular fibers may be seen completely separated one from another, showing that the connective tissue has been destroyed. It is also evident that the fibers themselves are of different texture from those in the raw meat. In preparing meat for the table it is usual to stop short of the point of disintegration, but while the long process of cooking is going on the connective tissue is gradually softening and the fibers are gradually changing in texture. The former is the thing to be especially desired, but the latter is not. For this reason it is necessary to keep the temperature below the boiling point and as low as is consistent with thorough cooking, for cooks seem agreed, as the result of experience shows, that slow, gentle cooking results in better texture than is the case when meat is boiled rapidly. This is the philosophy that lies back of the simmering process.

When meat is cooked by roasting, broiling, or any other similar process the meat juices brown with the fat, producing substances which to most of us are agreeable to the senses of smell and taste alike. When meats are cooked in hot water such highly flavored substances are not so evident to the sense of smell, but nevertheless bodies of agreeable flavor which are perceptible to the palate are developed in the meat during the cooking process.

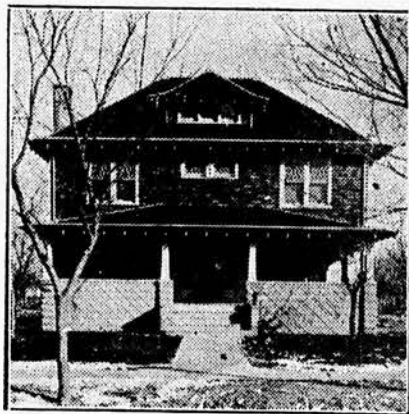
The question of the amount and character of the ingredients which escape from the meat and other changes occurring in it during cooking is too complicated to be discussed in detail here. Much careful experimenting along these lines has been done in experiment station and other laboratories, and the results show that the losses vary considerably with the method of cooking employed, being of course greatest where small pieces of meat are subjected to prolonged cooking.

Among the principal conclusions drawn from the experiments referred to are the following: The chief loss in weight when meat is cooked is due to the driving off of water. When beef is cooked by pan broiling—that is, searing in a hot, greased pan, a common cooking process—no great loss of nutrition results, particularly if the fat and other substances adhering to the pan are utilized in the preparation of gravy. When beef is cooked by boiling, there is a loss of 3 to 20 per cent of material present, though this is not an actual loss if the broth is utilized for soup or in some similar way. Even in the case of meat which is used for the preparation of beef tea or broth, the losses of nutritive material are apparently small though much of the flavoring matter has been removed. The amount of fat found in broth varies directly with the amount originally present in the meat; the fatter the meat the greater the quantity of fat in the broth. The loss of water in cooking varies inversely with the fatness of the meat; that is, the fatter the meat the smaller the shrinkage due to loss of water. In cooked meat the loss of various constituents is inversely proportional to the size of the cut.

In other words, the smaller the piece of meat the greater the percentage of loss. Loss also appears to be dependent somewhat upon the length of time the cooking is continued. When pieces of meat weighing 1-2 to 5 pounds are cooked in water somewhat under the boiling point there appears to be little difference in the amount of material found in broth whether the meat is placed in cold water or hot water at the beginning of the cooking period. When meat is roasted in the oven the amount of material removed is somewhat affected by the character of the roasting pan and similar factors, thus the total loss in weight is naturally greater in an open than in a closed pan as the open pan offers more opportunity for the evaporation of water. Judging from the average results of a considerable number of tests it appears that a roast weighing 6 pounds raw should weigh 5 pounds after cooking, or in other words the loss is about one-sixth of the original weight. This means that if the raw meat costs 20 cents per pound the cooked would represent an increase of 4 cents a pound on the original cost; but this increase would of course be lessened if all the drippings and gravy are utilized. With the quantities used in the ordinary home the relative losses sustained in different methods of cooking meat are not great enough to be of particular importance with reference to economical management. However, in public institutions where a small saving per day for each inmate represents a large item in the course of a year, it may be desirable to select methods involving the least loss which would mean that the advantage would lie with stewing and boiling rather than with broiling and roasting, so far as the relative losses of material are concerned. The relative economy of different methods of cookery depends very greatly upon the kind of fuel, the form of stove and oven, and other similar factors. These vary so much under different conditions that it is difficult to draw general deductions though the subject has often been investigated. However, it may be said that it is often possible to effect a saving if the housewife can so plan the cooking of meat and other foods as to take full advantage of the heat supplied by the fuel used.—Farmers' Bulletin 391, U. S. Dept. of Agriculture.

Cultivated crops such as corn and the roots will deplete the soil of fertility much more rapidly if grown continuously than will the constant cropping in small grains. This is but one other argument for crop rotation.

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a personal representative in every city and town in Kansas, where we are not represented, to write a New, Clean, Progressive Life Insurance Contract. We have the best proposition on the market today, for live-wired, energetic men of unquestionable integrity, who can show us that they have the confidence of the public in their own communities. Previous experience not necessary. Producers can make big money. Write today for our proposition, before someone else secures your territory. ELMER F. BAGLEY, Secretary Columbian Bldg., Topeka, Kansas.

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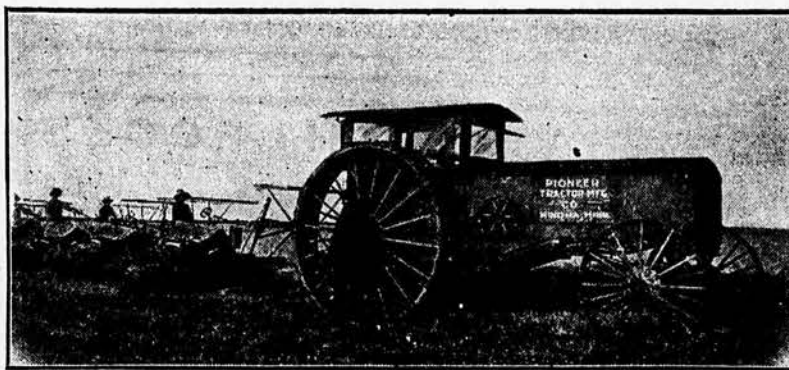
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What does this mean to you?

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Nothing like it, nothing so good, feather, hen feather, bring wonderful results. For fifteen days we are going to sell incubators at prices, never before heard of.

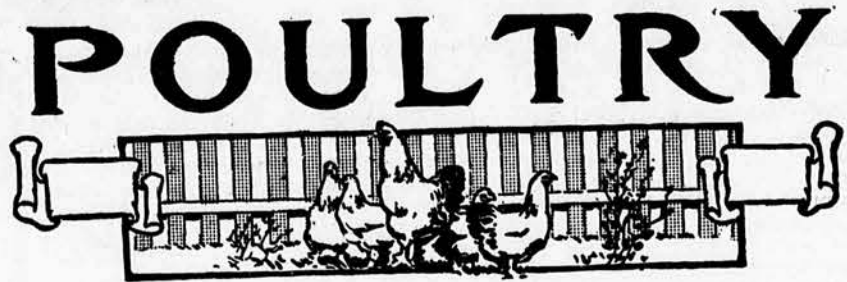
These incubators, are "First Class," and all new stuff.

If you want one, get it now, if you don't want to use it now, lay it away for the next season.

60 eggs	\$4.00
100 eggs	5.00
140 eggs	7.00
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All Freight Paid.

HEN FEATHER INCUBATOR CO.
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Now that the chicks are hatched, comes the difficult part of raising them.

But with proper care and attention 75 per cent of chicks hatched should be raised to maturity.

Of late years the dry feed method has taken the place of the wet, sloppy feed to the advantage of the chicks.

If you have plenty of ground the best way to raise chicks is on the colony plan, a colony here and a colony there, far enough apart not to bother one another.

Colonies of 50 chicks do very well, but colonies of 25 will do better still, for it does not pay to crowd young chicks anymore than it does to crowd old fowls.

When raised in colonies they can be fed by the hopper system, which will only need filling once a week, so that the feeding part will take but little of the attendant's time.

The chicks should be watered every day and plenty of grit and charcoal be always at their command. Shade and shelter should be provided to protect them from sudden storms and the burning sun.

A subscriber inquires if turkey raising is a profitable business. It undoubtedly is, if carried on properly. Turkeys require lots of range to do well and on large alfalfa or grain ranches they ought to be very profitable, for they are great foragers and will get most of their own living hunting bugs in the alfalfa fields and wheat and oats in the grain fields.

If these details are attended to there is no reason why a larger percentage of chicks should not be raised by this plan, than by the old way of feeding them every few hours with its eternal fussing and clatter.

Complaint reaches us from several sources of white diarrhoea among young chicks, and a request for a remedy. After young chicks once get this disease there is hardly any cure for them, unless their quarters are changed immediately. A noted scientist says this disease is caused by mold spores, probably because the chicks have been hovering on damp or moldy straw, and the warm air arising from this poisons them. The only thing one can do is take care of the future flocks and put two or three inches of dry earth in the brooders in place of straw. Dampness of all kinds is fatal to young chicks and unless you see to it that their sleeping quarters are dry it is almost useless to try and raise them.

We notice one of our grocers offering 14c per pound, live weight, for young hens this week. But who would want to sell laying hens even for that price. It would only take a few weeks laying to pay for herself with eggs selling in the neighborhood of 20c per dozen. Of course hens that are not laying had better be sold when a good price is offered but young hens at this time of year ought to be laying in great profusion or there is something radically wrong in the treatment they are receiving at the hands of their owners.

If the incubator has been run too high quite a number of deformed and crippled chicks is often the result. One will sometimes fuss over such chicks for hours trying to remedy the defects with splints or strings, but it never pays to bother with them for they will never amount to anything and will always remain an eyesore to the rest of the flock. While it may seem cruel to kill these little things, it is the only humane way to do for they suffer continually if left to drag out their miserable existence while a few seconds time ends all their pain and suffering.

A correspondent asks if a cross of a white Leghorn male on Light Brahma females would not make a good fowl. Possibly it would, but what's the use. Have we not already got good breeds of fowls that fill the bill for such as said cross would be. Columbian Wyandottes are now an established breed and ought to be just what the correspondent thinks he wants. There is no gain in crossing two pure bred fowls, for the minute the cross is made, you have no longer thoroughbreds that will reproduce their like, but dunghills that will bring forth any old thing. If a person wishes to experiment with different crosses and will follow it up for years, he may eventually strike something better than we now have, but the chances are against him and it would take twenty to thirty years to establish a breed and get it recognized as a standard variety. Then after it was recognized, the remuneration for his time and labor would be altogether inadequate for what he has expended. Better stick to the old standard varieties we have than squander your time in running after phantoms.

Best feed for your baby chicks

It is no trouble to hatch chickens, but it takes the proper feed to raise them: use **Otto Weiss Chick Feed** a complete balanced Ration; it develops bone, flesh and feathers, saves your chicks, and they make a rapid growth. Send for circular and prices on Poultry Supplies.

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BARRED PLYMOUTH ROCKS. Bred for beauty and profit. 33 regular premiums. Eggs: 15, \$2.50; 30, \$4.50; 60, \$8.00; 15, \$1.00; 60, \$2.25; 100, \$5.00. **Mrs. D. M. Gillespie, Clay Center, Kan.**

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Draft Horses as Farm Motors

By H. G. McMILLAN, ROCK RAPIDS, IOWA

Continued from last issue.

There is another respect in which the average farmer makes a mistake. He does not feed well. Does a young man expect to have a good lot of steers, bringing good prices, without feeding all he can to them? He feeds everything he can feed to make them improve and grow well. A man would be considered a fit subject for the insane asylum who expected to have a high market for steers and turn them out in the stock field to shift for themselves. But that is the way the average farmer tries to raise his colts to make fine horses. But you cannot make a fine horse out of corn stalks. He must have feed in plenty from the time he is a colt until he reaches maturity. I do not mean that he must be fed a large amount of grain. I do not believe that any draft horse should be fed a large amount of grain for the purpose of getting him heavy. But your colt must have all the grass he can eat. I do not know whether you have plenty of tall grass, but I think it is best. Your alfalfa will take the place of it to some extent. The alfalfa is good feed. Your alfalfa is perhaps superior to clover, and it is important that your colt have plenty of grass. Next to plenty of feed, he must be in a good pasture. A good many farmers in my country, if they have a piece of land not suitable for oats or something else, overgrown with weeds, turn it into a pasture and expect it to carry as much stock as good land. When the grass gets short the colts get thin and do not gain, and maybe the herd is wet, too. But there is nothing that makes good frames on draft colts like grass, and plenty of it. I think it pays to feed your colts when on the grass, especially in the summer. Give them a little corn or oats. And I may say right here, I do not think it is important what kind—but plenty of it. A boy is not particular whether it is corn beef and cabbage or mince pie, so he has plenty of it. I strongly advise feeding grain to colts after two years old. I think one should have plenty of grass in the summer with enough grain to make an evenly balanced ration. In the winter, corn is to the advantage of the colt, and by feeding some oats and alfalfa hay you will get the necessary growth for your draft horses.

Next to the feed, and perhaps the most important thing, is to keep him out-of-doors, so that he is in the open air and has exercise all the time. A young animal will take a good deal of exercise if he has a chance to be out. This is absolutely essential for the development of the bone, muscle and highest vitality of the horse. The colt, when fully developed into the draft horse, must have good digestion and large lungs and the only way in which you will be able to get them is to let your colt grow up where he can have plenty of exercise in the open air. In the winter it is a good practice to have a shed for shelter, open to the south, and protected from the winds, where they can run into it. Or, in very severe weather, turn them into the barn over night. But let them out for a run of the field during the day; and give it to them rain or shine. It don't make any difference. Some have the impression that the cold is injurious to the horse, but he is provided with a coat of hair for his protection. If he has some shed that he can get in, out of the severest of the weather, he will stand any kind of weather. Some of the best horses I have ever seen were raised out-of-doors, and never had a shed of any kind. So that you do not need to be afraid of the snow and ice for your horse, although they will hurt your cow. It is much more beneficial to have plenty of exercise in the open than to be kept closely in the barn. I remember calling upon a farmer in Iowa and he apologized for the colt that I bought from him. Said that the colt might have been a good deal better than he was, but he did not have any stall for him, and did not have anything to feed him but oats and bran. I don't know. I bought him for two hundred and fifty dollars and sold him for twelve hundred. He kept him just right, but did not know it.

There is another suggestion that I

will make in connection with the draft horses. As I suggested at the outset, this is an age of rapid progress. And there has been a tremendous progress made in agricultural matters in the last decade. Machinery, things agricultural, colleges, meetings of this kind, and farmers' institutes, and farmers and stock raisers go back to their farms well informed. And they are beginning to understand all branches of their business, and agriculture is becoming a live subject for the people. I read in one of the papers that the U. S. Senate had appointed a committee to investigate the cost of living. And so has the House. That means that the laboring men, all of those men employed in factories, and employes in stores and banks and other places, are beginning to feel the pressure of the high prices of the products of the farm. And I want to say to you, gentlemen, that in my opinion the time is not very far distant when every farmer will have to study how to make the most out of the farm. Because the pressure from the class of people I have spoken of for cheaper living, cheaper things they have to buy, will have the effect that the wise ones will begin to figure out how it can be produced cheaper. And then it will be important to know how to make the most out of your farm. You must give attention to your seed corn, to your wheat, to your oats, to your hogs, and to your chickens. Nothing must be done without mature plans. Your horses are an index to the rest of the farm, if you would but stop to think of it. A large part of the people do not see your farm, but they do see your team. Your banker sees your team; it is your advertisement. It is your communication with the outside world. And I want to suggest that your driving a nice team into town will interest the right class of people. They will say that it speaks well for the farmer. There is another thing. The time is at hand when younger men will have to take these farms. We came to the west years ago, but now young fellows must take these farms off our hands. In the future the successful farmer is going to be an ambitious young man, a man who has pride in what he does, who raises his stock and grain for the sake of succeeding as a farmer as well as for the dollar, just as a lawyer or physician works for professional success. He must realize the importance of his position. And he must have an ambition to succeed for the sake of success besides for the dollar in it. There is nothing that will encour-

age a boy more on a farm than to give him a nice pair of brood mares. Mares that he can be proud of,—maybe take them to the Fair. If you will start a boy that way, he will be satisfied to stay on the farm, and will study and help raise the standard, and will be fitted to represent the farmer in any place and under any circumstances. He will understand your interests and you will be represented in legislative halls by one of your own number, if you will but make the proper effort to keep the boy on the farm. And get the very best you can to start with, the best breeding mares you can and breed them to the best stallions. You will get better horses. You may think you are saving money by breeding common mares to good stallions, improving the breed gradually, but it is a slow process. It takes a long time, and when you figure the actual cost between pure bred stock and cross breeds the difference will be less than you think. Then, when you come to sell these horses on the market, the actual difference will be surprising.

And from now on the farmer will be the capitalist. The wealth of the country will pile up in the hands of

the farmer. And, therefore, the farmer, above all classes of citizens, is now in a position to settle those important political questions that may come up, because he can look at them not only from the standpoint of the laborer, but as well from the standpoint of the capitalist, and thus he will be fair to both parties, to both interests. Every farmer boy should be ambitious to succeed in the highest sense of the word, to succeed not only financially, but to be well qualified to discharge every duty as a citizen of his country when called on to do so.

The old practice of burning corn stalks in the field is still practiced in some localities and its wastefulness does not seem to be understood. While stalks may have but little value as manure they have a good deal in the production of humus and farming on land devoid of humus is a heart-breaking proposition. The cutting and plowing under of the stalks involves no more labor than does the breaking and burning while the former process saves all of their value to the land. Ashes from corn stalks do not make good manure.

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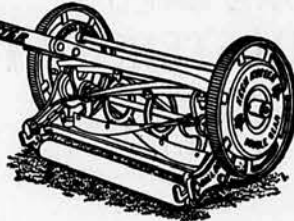
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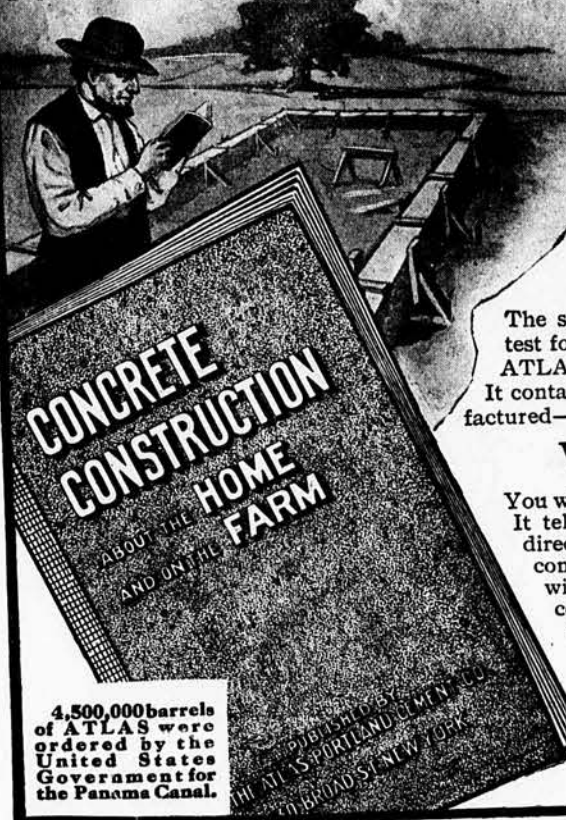
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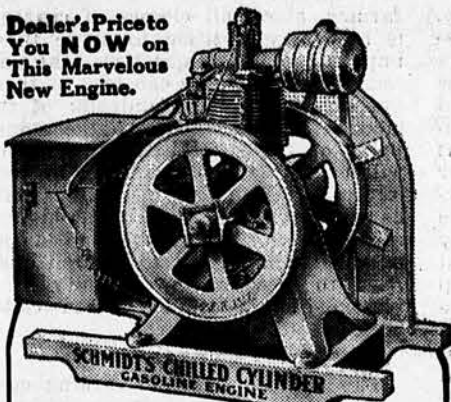
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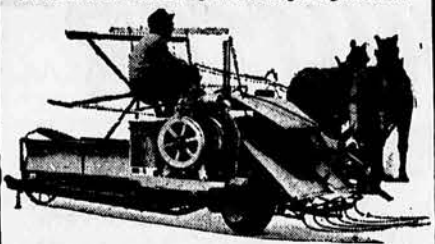
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LIVE STOCK



Common Diseases and Parasites of Swine.

LICE.

The hog louse (*Haematopinus suis*) is a common cause of thriftlessness in young pigs and when numerous, tends to retard fattening in adult hogs and injuriously affects brood sows and boars. It is advisable and profitable to keep swine free from lice at all ages and stages of their existence and development so far as possible. To this end their houses, pens and sleeping places should frequently be cleansed and disinfected, the wood-work whitewashed, the bedding material kept fresh, clean and dry and the yards free from accumulations of litter and filth. It is impossible to keep hogs free from lice without maintaining sanitary conditions in their quarters and in attempting to rid them of these pests the treatment must include not only the hogs, but practically everything with which they come in contact daily.

To disinfect recently purchased hogs, that possibly may carry disease germs or vermin into the herd, wash them in a warm 2 per cent solution of coal tar dip and repeat the treatment in ten days or two weeks; or apply the solution freely with a spray pump and rub it in with a brush. The addition of flowers of sulfur at the rate of 16½ pounds to each 100 gallons of dip mixture renders the solution more effective and such a combination solution should be freely used for all

forms of mange or chronic disease of the skin in hogs.

To destroy lice a mixture of equal parts of kerosene and machine oil, or one part of turpentine and two parts of machine oil, should be applied to every part of the hog by means of a rag or swab of cotton waste; or it may be applied along the back, from ears to tail, with a common machine oil can and allowed to ooze down the sides of the hog. Repeat the application in 10 days. As a remedy for lice on black hogs crude petroleum oil is successfully used, in the University herd. It is mixed with an equal amount of warm water and applied with a spray pump or brush. A repetition of the application, in 10 to 14 days, eradicates lice with certainty. Irritating applications, such as undiluted kerosene, cannot safely be used on pregnant sows, as abortion may follow their use.

WORMS.

Intestinal worms most frequently infest growing pigs, but the young animals usually withstand their ill effects successfully and get rid of the parasites, if generously fed and properly managed. Insufficiently fed, neglected pigs, living in dirty pens and yards, fed from filthy troughs and swill barrels, drinking contaminated water, bathing in old hog wallows and rooting and sleeping in manure piles and stack bottoms, soon are infested with worms. In consequence they fail to thrive and become pot-bellied,

rickety, profitless runts, or quickly succumb to the effects of the parasites, or of some ailment readily acquired and made deadly by their presence.

The round worm (*ascaris suilla*) is most commonly found and inhabits the small intestine. The thorn-headed worm (*echinorhynchus gigas*) also inhabits the small intestine and adheres to the lining membrane by hooks. This worm is less common and fewer in numbers than the round worm, but causes more irritation. Other worms met with in the intestines do little harm and the kidney worm, so often spoken of by farmers, is comparatively rare and does not cause paralysis of the hind quarters, as commonly supposed. The lung worm (*strongylus paradoxus*), found in the air passages of the lungs, is a common cause of cough.

For the destruction of worms, turpentine is a popular remedy, being given in the slop for three successive mornings at the rate of one teaspoonful for each 80 pounds live weight. Sulfate of iron (copperas) is an effective remedy, if given as follows: Dissolve half a pound of copperas in warm water and mix in the slop for 100 pigs for five successive mornings and repeat as required. Either turpentine or copperas may be given occasionally as preventives in herds where worms have been prevalent. In bad cases where immediate action is imperative, affected pigs may be given five grains of calomel and eight grains santonin for every 100 pounds of live weight. The pigs should be starved for at least twelve hours before receiving the medicine, which is best administered in a little slop. Santonin is a somewhat dangerous drug unless used strictly in accordance with the proportion mentioned here.

SCOURS.

When young nursing pigs begin to scour, it is evident that the milk of the sow is disagreeing with them and

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Immediate attention therefore should be directed toward improving her rations. Most often the trouble comes from overfeeding on corn, or other rich food, just after farrowing, and pigs of fat, flabby, pampered, cross, nervous, constipated sows, are most apt to suffer. Sudden changes of food, or feeding sour or decomposing slop, or food from dirty troughs, or scur swill barrels, also tend to cause diarrhoea either in nursing pigs or those that have been weaned, and all such causes should be prevented or removed.

To correct scouring in nursing pigs, give the sow 15 to 20 grains sulfate of iron (copperas) in her slop night and morning and if necessary slightly increase the doses until effective. Lime water may with advantage be freely mixed with the slop as a preventive when there is a tendency to derangement, or after the trouble has been checked, and also is an excellent corrective for weaned pigs showing a tendency to scour on slop or skim-milk. Where little pigs are scouring severely, each may with advantage be given a raw egg and five to ten grains of subnitrate of bismuth, twice daily in addition to changing the food of the sow and mixing copperas in her slop. In cases which do not promptly respond to treatment success may follow the administration of a dose of castor oil shaken up in milk. In all cases it is important to set right all errors in diet and sanitation and to provide the pigs with dry, sunny, well ventilated quarters. The derangement is always most apt to occur and sure to prove disastrous among pigs kept in unsanitary conditions.

CONSTIPATION.

Inactivity of the bowels most often gives trouble in pregnant sows and other adult hogs when given too little exercise and too much rich food. In such animals the liver is torpid, the system feverish and the muscles and other organs overloaded with fat. A brood sow in such a condition, and troubled with constipation, will be likely to have weak, puny, or dead pigs, or require help with instruments at farrowing time. Constipation seldom troubles where hogs are fed laxative foods, such as bran, flaxseed meal, roots or alfalfa, during the winter season, and in addition are made to take abundant outdoor exercise. Such foods and exercise are most necessary for pregnant sows and usually will obviate the need of medicines. Where such simple means fail, recourse may be had to laxatives. The simplest treatment is to mix two to four ounces of raw linseed oil once daily in the slop for an adult sow, or hog, or where more active treatment seems necessary, give four ounces of epsom salts at one dose in the same way.

THUMPS.

This term is applied to that ailment of young pigs which is indicated by spasmodic jerking motions of the flanks. These are at times so severe that they move the body backward and forward. The trouble is akin to hiccoughs and the contractions of the diaphragm may, in some cases, be associated with palpitation of the heart. In thumps there usually is derangement of the digestive organs, as well as of the nerves and overfeeding and lack of exercise would seem to be the common cause. The tendency to this disease apparently is hereditary, pigs of pampered sows being most prone to such attacks.

Prevalence of the trouble in a herd indicates the advisability of infusing fresh blood by the use of vigorous boars and choosing young and robust sows for breeding purposes. Careful feeding and abundant enforced exercise will then prevent the occurrence of thumps, which may be set down as the result of bad management. It seldom pays to treat badly affected pigs. Prevention is of far greater importance than treatment, but the latter should consist in giving the affected pig a dose of castor oil and following with teaspoonful doses of paregoric, or five to fifteen drop doses of laudanum two or three times daily to allay distress. Then feed on light, easily digested food and have the pig live an outdoor life.

CANKER SORE MOUTH.

The loss of little pigs from this disease annually is extensive, but largely might be prevented by proper care. The cause of the disease is infection of slight scratches of the nose, mouth, tongue and gums by the bacillus necrophorus. This germ is present nor-

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mally in the intestines of hogs and may be found wherever their voidings have dropped. The disease, therefore, is most likely to attack pigs kept in unsanitary buildings and yards and the contagion lurks there from year to year. The sharp teeth of new born pigs cause lacerations when the animals play and fight and the cuts and scratches becoming infected by the germs derived from the filth of the floors and the soiled udder of the sow develop the eating canker sores or ulcers of the disease.

To prevent the disease, sows and pigs should be provided with clean pens and yards. Provide clean bedding, keeping it fresh and dry. Pens should be cleaned out often and yards kept free from accumulations of filth. Disinfectants and land plaster (gypsum) should be freely used in the pens daily. At birth the sharp teeth of each pig should be carefully nipped off with pinchers, but more harm than good may follow if the gums are cut or bruised when operating. Treat the disease by scraping each ulcer thoroughly and then rubbing it lightly with a lunar caustic pencil. Afterward swab the affected parts twice daily with a 5 per cent solution of permanganate of potash.

If lumps or boils form upon the snout, cut deeply into each with a sharp knife and at once saturate with tincture of iodine. Repeat the appli-

cation once daily and each other day apply iodine tincture to the ulcers in place of the permanganate solution. In mild cases good results have followed sousing the heads of the affected pigs over and over again daily in a solution of one to two ounces of permanganate of potash in one gallon of warm water.

RICKETS.

In this common disease of young pigs there is enlargement, bending and distortion of the bones of the joints and limbs, and fractures of leg bones are not uncommon. The bones of the body in affected pigs lack their normal proportion of mineral material and have an excess of vegetable matter. The tendency to the disease is hereditary and most likely to be seen in closely inbred hogs or those of herds kept under unsanitary conditions and long imperfectly nourished upon unbalanced rations and allowed too little exercise upon grass.

The excessive feeding of corn to generation after generation of pampered hogs doubtless induces a weakness of constitution conducive to rickets and the disease may appear as a result of any aggravating circumstance productive of malnutrition. Worms, indigestion, diarrhoea, constipation, prolonged use of acid foods, lack of exercise, exposure, dark, dirty, damp quarters, and any other influence detrimental to health may give

rise to the ailment. Fattening hogs may suddenly go down paralyzed in their hind parts, or the thigh bones, or shoulder blades may break and the animal be unable to walk. Fat, heavy, nervous sows after nursing pigs for some time, may become weak, stagger, and finally go down paralyzed. Distortion of the snout ("bullnose") and difficulty in breathing ("snuffles") often are associated with rickets in swine and prove fatal.

Pigs affected with rickets can seldom be profitably treated. Prevention is to be sought by avoiding the causes mentioned, maintaining sanitary conditions about the hogs, providing adequate supplies of various foods, rich in all of the requisites of a perfectly nourished animal, and obviating degeneracy by careful selection of robust sows and timely infusion of fresh blood.—A. A. Alexander, Madison, Wis.

Where alfalfa can be fed to hogs less corn is required for fitting. With alfalfa hay the summer pasture conditions are most nearly realized. Alfalfa pasture during the summer and alfalfa hay in winter solves the question of cheap pork production.

Three things are essential for summer hog raising; a hog tight fence, an alfalfa or clover pasture and shade. The hog cannot stand excessive heat, and shade and water are necessary. If the fence is tight and the hog knows it is tight he will not waste his energies in trying to get through it but will attend to his proper business of making pork. Pasture is an important element in helping him to do this.

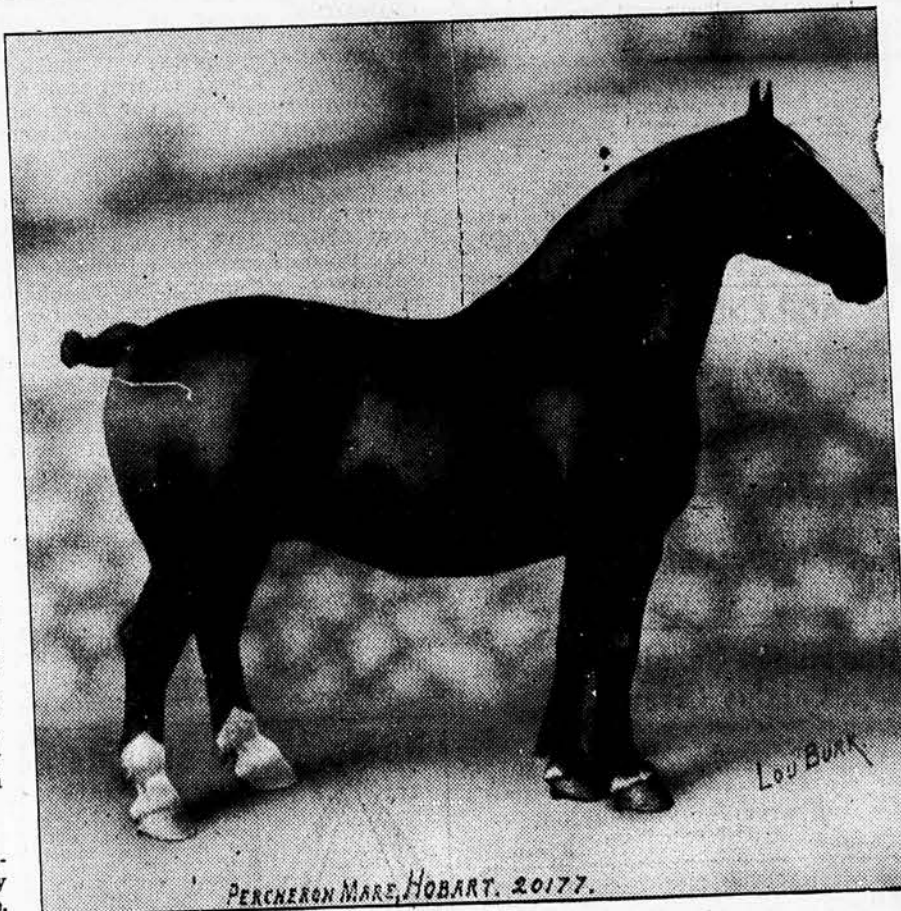
Rumor has it that farmers generally are stocking up on hogs and that the scarcity may be overcome by another season. Many now see the mistake they made in selling off their brood sows when the price of corn ran so high. Breeders generally report a strong demand and several are already sold out of everything saleable. There has always been more or less profit in hogs and there probably always will be if they are rightly handled.

Hog Money Is Good.

Over \$1,000 for three wagon loads of hogs is the record made one day last week by a Shawnee county, Kansas farmer. One of these loads sold to the Wolff Packing House for \$478.20 and the three loads brought \$1,002.80. They were raised and marketed by Mr. John A. Peck, who owns and operates a quarter section farm about six miles southeast of Topeka. Mr. Peck is one of the most practical and enthusiastic members of the Shawnee Alfalfa Club and attributes his very successful farming to this crop and its judicious use.

BINDER TWINE 7½c. lb.

F. O. B. Melrose, Ohio, or Kansas City, Mo. Farmer Agents wanted. For samples and catalog write THEO. FUERT & SONS, Melrose, Ohio.



PERCHERON MARE, HOBART, 20177.

One of the Percheron mares in the herd of Percherons owned by F. H. Schrepel at Ellinwood, Kan. Mr. Schrepel has several nicely matched teams for sale at very reasonable prices. See ad on another page.

I am the Only Man Offering a Modern Horse Collar—Try Mine One Year—I'll Pay the Freight

NO matter where you live, I want to pay the freight to you on one of my horse collars. Use my collar one year. After that, send it back and get your money if not satisfied. You've wasted enough time and money on old-style collars. You've tortured your horses enough. Leave it to me to save you money, prevent galled horses and make harnessing easier. Just send me your name and address on a postal.

INDESTRUCTIBLE HAMELESS HORSE COLLARS

are the only modern collars made. No leather, no hames, no pads, no straps or buckles. It is made of highly polished, zinc-coated steel; lighter, stronger, adjustable in size, and puts the draft where it belongs. I've sold a hundred thousand, and never a horse or mule galled when properly fitted. It even cures sore necks and galled shoulders. True, leather collars must go. Sweat pads do the galling. Send for the facts and opinions of high authorities. Most dealers sell my collars. If yours doesn't, order from me direct. I'll pay freight to you and send your money back at the end of a year, if you say so. Send postal. That's all.

FRED SLOCUM, Gen'l Mgr. Johnston-Slocum Co., 550 State St., Caro, Mich.

K. C. S. RY.

(Kansas City Southern Railway Co.)

For Health and Recuperation, visit

SULPHUR SPRINGS, ARKANSAS,

All Year Health Resort.

The Kihlberg Hotel and Bath House

Will Open May 1, 1914.

Illustrated folders sent free.

S. G. WARNER, Gen'l Pass. Agt. Kansas City, Mo.

OIL OIL OIL

Wholesale Price to Consumers

Combifax best quality with low price. NO WATER IN MY KEROSENE OR GASOLINE.

XXX 46 gravity water white kerosene.....	\$4.25 for 52 gal. bbl.
XX 42 gravity kerosene (the kind usually sold).....	\$3.75 for 52 gal. bbl.
XXX 64 gravity gasoline.....	\$7.50 for 52 gal. bbl.
1 case graphite axle grease (2 doz. 3 lb. pails).....	\$2.50
40 gravity prime white stove distillate.....	\$3.25 for 52 gal. bbl.
32 gravity stove distillate.....	\$2.80 for 52 gal. bbl.
60 gallon (26 gauge) galvanized steel tank with pump and hood cover complete—	
a great convenience in every home.....	\$2.00

I also carry a full line of lubricating oils.

I pay \$1.25 each for all barrels returned to me at refinery in good order, freight prepaid.

Send the money with your order.

Read my advertisements of crude and Stannard's Processed Oil in next week's issues of this paper.

C. A. STANNARD, EMPORIA, KANSAS.

ALFALFA SEED

prices and free samples. Address MCBETH

STAR SQUIRREL AND GOPHER POISON.

Sure death of gophers, rats and other pests. Cheapest, guaranteed poison on the market. Ask your dealer for it. For information write J. R. Crabb, Clay Center, Kan., or the Comco Co., Minneapolis, Minn.

SEED CORN.

Plant Young's Yellow Dent seed corn, the best on earth. Won Missouri's gold medal at National Corn Show, Omaha, 1908. Guaranteed 90 per cent germination under all conditions or will fill order again free of charge. Price \$2 per bushel. Sample cars 50 cents each. Sample free. Choice Poland China fall pigs \$25 each. One Jersey bull calf for sale.

Robt. I. Young, R. F. D. 5, St. Joseph, Mo.

PURE BRED SEED.

We have one thousand bushels of pure bred Black Dwarf Cane Seed for sale for \$1.50 per bushel, f. o. b. cars at Syracuse, Kan. This seed was raised without irrigation and is pure. Samples upon request.

L. P. WORDEN & SON, Syracuse, Kansas.

BILL BROOK FARM SEED CORN

We have a large quantity of pure bred, well matured, well selected Boone County White corn. Shelled and graded, sacks included, \$2.00 per bushel. Crated in the ear, \$3.00; sacked in the ear, \$2.75.

H. O. TUDOR

Holton,

Kansas

FOR SPRING SOWING. From locality where it grows best and most abundantly. Our seed won the gold medal at the St. Louis World's Fair in competition with the world. All our seed is native grown, plump and vigorous. Write us today for DALLAS GARDEN CITY, KANSAS.

SEED CORN FOR SALE.

First at Leavenworth, first at Topeka, three first at Leavenworth Co. Farmers' Institute, two firsts and sweepstakes at Wichita, three firsts and two sweepstakes at Hutchinson State Fair, first at State Corn Show, five firsts at Kansas City Inter-State Fair, seven firsts at National Corn Exposition, five being open to the world class. All in 1909. First three successive years at state corn show. Immense yield.

J. M. GILMAN & SONS, Leavenworth, Route 1, Kansas.

ABILENE NURSERIES.

Write for catalog and price list before placing your order. We have the stock that bears fruit, also all kinds of ornamental trees. Forest trees, shrubs, roses and vines. Special attention given mail orders. 10 per cent discount on \$5.00 order; 15 per cent discount on \$10.00. Cash with order. Mention paper.

W. T. Gough & Co., Abilene, Kan.

BEEKEEPING its pleasures and profits, is the theme of that excellent and handsomely illustrated magazine, **GLENNINGS IN BEE CULTURE**. We send it for six months on trial for twenty-five cents, and also send free a 64 page book on bees and our bee supply catalog to all who name this paper. **THE A. I. ROOT CO.**, Box 62, Medina, Ohio.

One Million Genuine Speciosa Catalpa Given Free

To Advertise the Genuine SPECIOSA CATALPA

Write for this offer and enclose 2c stamp for our new thirty-four page illustrated booklet on Speciosa Catalpa growing. **THE WINFIELD NURSERY CO.**, J. Moncrief, Pres., Winfield, Kansas.

MAGIC NEEDLES ROSE, Goldometers Chronometers, etc. for treasure seekers. Millions of wealth under your feet. Guaranteed to find! Best made. Interesting too let for FREE! Write P. & M. AGENCY, 48 E. 34 PALMVA, Pa.

Selection of a Foundation Flock.

Before attempting to become breeders of pure bred stock we should consider several things: Are we to become breeders or just multipliers? If the latter, we have already far too many and not enough of the first mentioned. Are we capable of becoming successful breeders? Have we the instinct to select and mate successfully? With some this instinct is acquired by experience with stud, flock or herd, with others it is born in them.

In selecting the foundation flock, we must be very, very careful, for a mistake at the start may multiply a hundredfold, and mean disaster in the end.

First, we must consider from the mutton and wool standpoint, for are not the woolen mill and the butcher's block the final test?

Second, we must take up breed type and the several other things that together compose the important points in a foundation flock. As my experience has been with Shropshires—both a mutton and a wool breed—I will use them to illustrate my discussion, though the same ideas will apply to any mutton and wool breed except the breed type.

First, the mutton form—for I think this the most important at the present day. For a good mutton form, we must have a very wide sprung rib; a straight spine (no drop behind the shoulders); the shoulders smooth on top and wide in proportion to the rest of the body; the chest deep and full, denoting a strong constitution; the loin wide; the hips broad, carrying the width well back to the tailhead, and dropping much from a line with spine; the leg-of-mutton full and well-fleshed down to hocks; the neck short and smoothly fitted to shoulder; also, the body should be well covered with natural flesh all over, especially the back and loin. The face should be short and broad, the legs short and straight, setting on each corner. These latter points denote quality.

To illustrate what I mean by the legs setting on each corner, I will relate an illustration made by "Uncle Dick" Stone to a city man who didn't know very much about sheep. (This happened at the Missouri State Fair year before last.) Dick was showing this city chap the proper way a sheep's legs should set on. Said he: "See this imported lamb's legs set on each corner supporting a good leg-of-mutton, while this here Missouri lamb's legs all come out of the same hole and his owner has trained him to stand with them apart until they have grown crooked." I think quality might also be mentioned along with good mutton form, since it plays so important a part, both in the market and the show ring.

To have what we call "lots of quality," a sheep must be very compact, symmetrical, features refined, but not delicate, the bone short and strong, but not out of proportion with the rest of the body. I have noticed that, except in rare instances, our American-bred sheep tend to have a finer bone each succeeding generation, unless very close care is given to the feeding (then it is noticeable but not so clearly), while the sheep coming from Great Britain have a much stronger bone, in some instances inclining to coarseness, but their offspring show the same tendency as the American bred. Two things may account for this: Climatic and domestic conditions. Darwin, in his great work, "The Origin of Species," says that sheep are more quickly affected by changes of climate and domestic conditions than any other of our domestic animals. If this be true, we must select animals with heavy bone, even though they seem to be a little coarse.

As stated before, wool is an important factor; therefore, we want as many pounds as possible so long as we can keep the quality. In examining a sheep's fleece, the first thing we want to look for is evenness of length,

density and quality; all over the body, keeping a sharp outlook for hemp, hair and black fiber. For good weight of wool, the sheep should have as long a fiber and as dense as possible, with wool all over the body, legs and face.

Breed Type—Something that has been the ruin of more than one good stud, flock or herd. Too many people let breed-type and breeding make fools of them. Breed type must be considered, but do not discard an animal for the simple reason that the type does not exactly suit you, for an animal whose type is right, but nothing else, for neither is desirable. Several points go to make up the breed type: General form, shape of the ear and head, fleece, color of the hair, etc., all of which must be taken into consideration. You hear people say that a certain sheep "had the breeding behind him." They may have two meanings for this: One that his ancestors were prize-winners or the producers of prize-winners; the other, that the sheep may have come from some noted stud flock whose owner had the rare gift to mate and select successfully. For instance, at the last International a French Rambouillet ram sold to the United States government for \$425. In everything but breeding this ram was a miserable joke. At the 1906 International, a Shropshire ram lamb sold for \$305. This lamb possessed everything that a Shropshire breeder would ask for—breeding, type, mutton form, the fleece and the quality. There were other lambs that went through the sale ring, with just as good breeding, that did not bring \$40. The same day that the Rambouillet ram sold, there were far better rams sold—except in breeding—that didn't bring \$100. Breeding is all right—but be sure to buy some sheep with it. We often see breeders leaving everything else out but one, two or three points, but they sooner or later go out of the business. Take everything into consideration.

Those who have had experience with stud flocks know that it is seldom that we find a ram or a ewe that are producers of both good rams and good ewes, while it is common to find a good ram breeder or a good ewe breeder; therefore, we must let experience guide us in our selection. A ewe showing too much masculinity or a ram too much femininity are to be avoided, although they be suitable in every other way; for such animals are apt to produce offsprings that are not uniform.

The ewe should look like a ewe, having that timid, feminine appearance; the ram should be the opposite, showing a bold, masculine appearance, strong head, neck and shoulders but not too much out of proportion with the rest of the body. A little coarseness is not so objectionable in a ram. I like to see a ram that is ready to knock his shepherd over, or whip the other ram from the feed; then I know his lambs will stand the knocks that would kill the lambs from a ram that is willing to let some other ram have his share of the feed.

In selecting ewes for my reserve breeding flock, I use this system: I stand off and note their general form and breed type, also that they have a determined, stylish action, and feminine appearance; I examine their mutton form, as described in the beginning—if the mutton form is right, the constitution is sure to be right also; I examine the fleece for the points described, on the side midway between the hips and shoulder, on the hip, well down on the thigh, on the belly, on the top of the head, and on the cheek. In the ram I look for the same things, except that I watch out for scurr or horns, and see that he shows plenty of masculinity, as I have before described. If a sheep lacks in one single point, don't put it in your foundation flock.

Now, in conclusion, a few don'ts: Don't stand back because of a few dollars when you find a ram or a ewe that suits you—the best are by far the cheapest in the end.

Don't let any man have his choice of your ewe flock, or he will be selling you stud rams, the first thing you know.

Don't go into the business for the dollars alone—if you do, you will never make a success, either financially or as a breeder. Go into it for the pleasure of breeding and improving pure bred sheep, and the dollars and success are both certain—don't ask A. Green, Oakland, Ill.

No More Sore Shoulders



Never lay off your horse. This \$1.25 Lankford Cotton Filled Collar beats the world. Galls and sores are impossible because it is an absolute fit. Light, pliable, long lasting, humane. Fits any shaped neck. Flocklet tells all. Write for it. Free. The Powers Mfg. Co., 144 Sycamore St.,

FIELD NOTES

FIELD MEN.

O. W. Devine.....Topeka, Kan.
Jesse R. Johnson.....Clay Center, Kan.
R. G. Sollenberger.....Woodston, Kan.

PURE BRED STOCK SALES.

Shorthorns.
April 28—Henry H. Kuper, Humboldt, Neb.

May 17—H. M. Hill, Lafontaine and S. C. Hanna, Howard, Kan.
June 10—C. S. Nevius, Chiles, Kans.
June 11—H. E. Hayes, Olathe, Kan.

Poland Chinas.
May 12—C. S. Nevius, Chiles, Kan.
May 17—Roy Johnston, South Mound, Kan.

Aug. 11—E. H. Davidson, St. John, Kan.

Oct. 14—T. J. Dawo, Troy, Kan.

Oct. 18—Herman Groninger & Sons, Bendena, Kan.

Oct. 20—Roy Johnston, South Mound, Kan.

Oct. 26—W. R. Webb, Bendena, Kan.

Oct. 26—G. M. Hull, Garnett, Kan.

Oct. 21—J. M. Ross, Valley Falls, Kan.

and W. E. Long, Ozawie, Kan., sale at Valley Falls.

Oct. 22—H. C. Graner Lancaster, Kan.

Nov. 1—H. B. Walter, Effingham, Kan.

Nov. 1—H. F. Pelphrey, Humboldt, Kan.

Nov. 2—J. W. Pelphrey, Chanute, Kan.

Nov. 2—R. J. Peckham, Pawnee City, Neb.

Nov. 19—G. W. Roberts, Larned, Kan.

DUROC JERSEYS.

Oct. 28—Thompson Bros., Garrison, Kan.

Feb. 2—Thompson Bros., Garrison, Kan.

Horses.

Oct. 26—W. S. Corra, Whitehall, Ill.

Nov. 10—T. I. Woodall, Fall River, Kan.

For eggs from prize winning Barred Plymouth Rocks write at once to W. C. Opfer, Clay Center, Kan.

If you want to buy a big, smooth fall big type Poland China boar worth the money write at once to W. F. Fulton, Waterville, Kan.

Jimmie Weller of Faucett, Mo., one of the country's most successful Duroc Jersey breeders, reports good results from advertising in Kansas Farmer the past season. Mr. Weller has about 60 of the best pigs ever farrowed on the farm and will be ready to fill orders in the near future.

D. A. Wolfersperger writes from Council Grove, Kan., that the Wolfersperger family are nicely located in their new home and that they all like their new location very much. The pigs are arriving in fine shape. The general tone of his letter is, "that all nature rejoices and every prospect pleases." Mr. Wolfersperger is one of the most wide awake young Poland breeders in the state.

D. A. Kramer, an old time Poland China breeder of Washington, Kan., who has been buying a few good Jerseys lately writes as follows: "I have just finished testing the Erdley heifer. She is surely going to make a good one. She gave 277 3-4 pounds of milk in seven days, nearly 40 lbs. per day. From this milk was churned 12 3-4 pounds of butter, weighed not estimated. During the test she dropped a fine bull calf that ought to make a herd header."

Thompson Bros. Write.

Thompson Bros., the wide awake young Duroc Jersey breeders of Garrison, Kan., authorize us to claim Oct. 23 and Feb. 2, for their sales. The brothers have their usual fine bunch of pigs and will have at these sales, as they always do, stock worthy the attention of the best breeders. There are no more hustling or conscientious young men in the business than Thompson Bros.

Ridge View Berkshires.

Out on Route 1, Lawrence, Kan., is one of the oldest and best known herds of Berkshires in Kansas. This is the Ridge View herd owned by Manwaring Bros., who have always been progressive in methods of breeding as well as of feeding and who have owned and used some of the best herd headers that have lived in Kansas. Their lines of breeding have proved so popular that they are entirely sold out at this time but the sows are in fine shape and the spring litters are coming along splendidly. You will want some of these Berkshires later so keep tab on Ridge View.

Jacks and Jennets at Reduced Prices.

Al. E. Smith of Lawrence, Kan., is offering a few large Black Kentucky jacks for sale at reduced prices. They are well broken, and matured jacks. Sold on an absolute guarantee. Look up ad in this issue and write for prices or go and look them over. Lawrence is only 40 miles west from Kansas City, Mo., and located on two main lines of railroad. Mention Kansas Farmer when you write.

A Few Good Jacks.

The writer called at the Elk County Jack Farm, Moline, Kan., and found the owner, Mr. Phil Walker, very busy showing customers his valuable string of Jacks. Each year Mr. Walker gets together a better lot than the year before. His sales this year have far exceeded any preceding year and the prices obtained have been better. Mr. Walker now has on hand a few well broken and matured jacks, that are sound and guaranteed sure breeders and prompt workers. If you have not bought look up his ad in this issue and write him. Kindly mention Kansas Farmer.

Leon Carter's Golden Rule Durocs.

At this farm we found over 200 head of good Durocs. Mr. Carter has not been holding annual sales but he is by no means out of the pure bred business. He is coming along with a large number of spring pigs already and a number of sows yet to hear from. Just at present Mr. Carter has 20 sows and gilts for sale, bred and carrying their own guarantee. They are of such breeding as Parkers Echo, Ohio Major and other noted boars. They are bred to richly bred boars for April and May farrow. Write him, he can please you as to price and quality. Address him at Asherville, Kansas.

Pagett's Sows Make Good.

The noted herd of F. H. Pagett of Beloit, Kansas, was inspected this week and as usual a large lot of good Durocs were found in stock. The good boar, Chief Wonder by Ohio Chief and out of a sow by Crimson Wonder, now heads this herd. This is one of the best if not the best Ohio Chief boar now living. As a breeder he is all that could be desired. Mr. Pagett's spring pigs are by this boar and W. L. A.'s Choice Goods, Bonney K., Lincoln Chief and others out of richly bred sows. Messrs. Rinehart & Slagle, Smith Center, writes Mr. Pagett that the sow with which they topped his Feb. 1st sale, being sired by Pearl's Golden Rule and bred to Bonney K., farrowed and is raising 12 pigs. This is the kind he puts out. Write for prices on bred sows or gilts.

Good Bulls and Good Cows for Sale.

A representative of the Kansas Farmer visited the Cedar Heights Shorthorns, owned by D. H. Forbes & Son, near Topeka, Kan. They have for sale one herd bull, Royal Violet, a pure Scotch bull by Prime Minister, out of Golden Violet, fourth dam was Imp. Violet. This bull is in fine condition, strong and active and an extra good sire. They also offer a few choice young bulls, sired by Royal Violet. One of these young bulls is out of a Buttefly cow training direct to Imp. Buttefly 14th. Messrs. Forbes & Son are offering a carload of good cows and heifers for sale, at very reasonable prices for high class cattle. Don't fail to look up ad and if you are looking for good cattle it will pay you to get in touch with Messrs. Forbes & Son. Kindly mention the Kansas Farmer when you write.

J. M. Ross Visited.

J. M. Ross of Valley Falls, Kan., one of the good Poland China breeders of north-eastern Kansas, was visited by the writer recently. Mr. Ross has a fine lot of pigs out of great sows and sired mostly by the herd boar Ross Hadley, a son of the \$500 Big Hadley. His dam was Lady Hutch, a sow of great scale, and carrying the blood of big and noted sires. Mr. Ross' other boar is a son of Big Chief, a boar of considerable note, formerly heading a well known Nebraska herd. His dam was by Billy K., second dam Minnie Price by Price We Know, winner of first at Nebraska State Fair a few years ago. Among the best sows in the herd are Minnie Price by Price We Know, Amy Jumbo by Jumbo, he by Standard Tecumseh, out of Old White Face, Sue bred by Peter Mow, Graceful Eve by Anderson's Model dam Beauty Eve, Lady Look by Look Grand and Molly, her sister both have beautiful litters; Bell Princess by Highland Prince has a fine litter. Mr. Ross is quite an old breeder and has always been a good buyer, buying the best stuff liberally. The larger percent of the pigs are by Ross Hadley, and we predict some mighty fine ones for the sale which Mr. Ross will make this fall. He and W. E. Long will hold a joint sale at Valley Falls, Oct. 21.

Shorthorn Bulls For Sale.

C. H. White, of Burlington, Kan., is offering seven very fine young bulls for sale at very reasonable prices. These young bulls are from 10 to 15 months old, they have been well grown out and are choice individuals; they are Scotch and Scotch topped. All the cows in this herd are carrying 5 to 6 Scotch top crosses. They are rich in the blood of the young Marys, Rose of Tharon, Matildes, Elizabeths and Imp. Beauty, the pure Scotch families represented are the March Violet, Lavenders and Browth. Bud, Mr. White is a new breeder but has the foundation for a great herd of cattle. One of the choice cows in this herd is a Buttefly cow bought from the Harriman Bros. herd, this cow is the dam of Good News, the bull now used at the head of John Rejler's herd at Whitewater, Kan. One roan heifer by White Goods, that is caring for a very fine bull calf by Gallant Knight's Heir. One Violet heifer by Scotland's Charm. One very fine heifer by New Goods, that has a very fine bull calf by Search Light that promises to make a herd header. All prospective buyers should visit this herd of cattle. If they want real values they will find some bargains on this farm. Kindly look up ad on another page of this paper.

W. E. Long Visited.

To visit W. E. Long, Poland China breeder of Ozawie, Kan., is to meet a man thoroughly in earnest in the work in which he is engaged. Mr. Long is a firm believer in better stock of all kinds and backs his judgment every time he attends a sale of good hogs. He has a good lot of pigs sired by Big Chief and Long's Mogul. Big Chief was sired by Wonder 2d, he by Wonder 377552. His dam, Mollie M. 2d by Chief Price. Big Chief is a boar of immense size and transmits this size to everything he sires. Long's Mogul was sired by Big Medium, J. H. Hamilton & Son's herd boar, he by Mogul, the best sire ever owned in northern Kansas. Long's Medium had for a dam Faultless Queen by Belleville Chief by Kansas Chief, he by Chief Tecumseh 3d. Mr. Long has a class of sows to match these great sires for breeders and farmers familiar with Poland China breeding know that certain blood lines are sure to be accompanied with size. Among the sows will be found Maud Hadley 2d by Duke's Hadley, My Wonder by Blain's Wonder, dam May Expansion by Expansion, Minnie K. by Billy K., dam by Price We Know. Blue valley Girl carries lots of Expansion blood. Graceful Eve sired by a son of Big Hadley. Queen Wonder sired by Jumbo 37811, her dam, Wonder Girl by Wonder 2d and Big Blue, sired by a son of Pawnee Blain. Remember Mr. Long's fall sale.

Geo. E. Smith's Polands.

At the head of the herd owned by Geo. E. Smith, Agenda, Kan., will be found Billie K. 45998 by Exwansee, he by Old Expansion. He is ably assisted by Highland Chief 52024 by Highland King. Among the sows are such good ones as Mogul's Mail by Jensen's Mogul, raising 8 pigs by Billie K.; Honeymoon by Billie K., raising

a fine litter by Highland Chief; My Choice by Keep-Coming, he by Old Keep On. Others by Black Jumbo by Old Jumbo U. S. dam K's Queen by Expansion Sue by Old Expansion and in pig to Billie K. This will be a fine bred litter worth looking after. This herd is of the big medium type and are the kind that please as can be verified by Mr. Smith's sales the past year. Keep this herd in mind.

FRANK IAMS'

"Selling Clothes" will fit all buyers, prices reduced for 60 days. He has all his "Prize Winners" and largest horses on hand. His 1910 Imported Stallions have all competitors "skinned to a frazzle." They are "rosy ripe," and in the "pink of condition." All imported September, 1909, and fully acclimated. They are "Live Wire" "business propositions," that "knock the persimmons" on a "wide-awake" "horse buyer's Easter hat." Iams' "Peaches and Cream" imported stallions are "Eye-Openers," "Big Diamonds" (compared with others). His barns are full of "Top Notchers" and at big bargains, and all must "positively be sold" in the next 60 days. IAMS

40 Prize Medal Winners

at Paris and Brussels, and leading European "Horse Shows" are still in "Iams' Big Barns." "Ikey Boys" get into Iams' "money saving game." Buy a stallion and save \$300.00. Iams "tickles" buyers with "Rippers" at "Let Live Prices." Owing to bad crops, panic—Iams' cash, his 28 years' successful business. He bought and sells horses cheaper than ever. Mamma, Iams is a "hot advertiser" but, "he has the goods" and sells horses at his barns only. Buyers get the "middleman's profits" at Iams. Iams has

100 Percherons and Belgians

Two to six years old, weighing 1,700 to 2,500 lbs.; 90 per cent blacks, 50 per cent ton stallions. All registered and branded. He sells "Toppers" at \$1,000 and \$1,400 (few higher), so good that they need not be "peddled" or put on the "auction block" to be sold. Iams' "selling clothes" fit all buyers. No man with money or bankable notes gets away from Iams. He buys, owns and sells more stallions than any man in the United States; saves thousands of dollars to stallion buyers. He is not in the stallion trust. Iams places \$1,500 insurance. \$1,000—Saved at Iams—\$1,000. Ikey, what a "graft" these "stallion" salesmen are working on the farmer, selling fourth-rate stallions at \$2,000 and \$5,000! Mr. Buyer, see Iams' stallions yourself. Take no salesman's word. "Iams has the goods you read about." His establishment is worth going 2,000 miles to see. Iams saws wood, "butts in," sells more stallions each year. He makes every statement good. Big Bill, buy a stallion of Iams. His \$1,200 stallions are much better than our neighbor paid those Ohio men \$4,000 for. Then I can wear diamonds. Iams speaks the language, buys direct from breeders, pays no buyers, salesmen, or interpreters; has no two to ten men as partners to share profits with. Iams guarantees to sell you a better stallion at \$1,000 to \$1,500 than are sold to stock companies at \$2,500 to \$5,000 by slick salesmen, or pay you \$500 for your trouble, you the judge. Iams pays horses' freight and buyers' fare; gives 60 per cent breeding guarantee. Iams' guarantee is backed by half million dollars. Write for Million Dollar Horse Catalog, Greatest on Earth. References—First National Bank, Omaha; Omaha National Bank, Omaha, Neb.; St. Paul State Bank and Citizens' National Bank, St. Paul, Neb.

ST. PAUL, NEBRASKA

Percheron Mares and Stallions Registered

Several matched teams of Percheron mares, all blacks, safe in foal by Imported Stallions. Have both imported and home bred mares. Come and see our horses and satisfy yourself.



Our Motto: Top notch animals, square deal, quick sales, small profits. Make your wants known.

DANIEL WREN, Manager,

EUREKA, - - - KANSAS



BELGIANS and PERCHERONS

I have 22 big Belgian stallions that weigh from 2,000 to 2,500 each. Also have a number of big, heavy, ton Percherons, weighing up to 2,400 each. I am making extremely low prices on big stallions for the next 30 days and it is to your interest to see them if you want a big boned, heavy horse. I can show you the largest Belgians and the best bone and quality that you can find in the United States for the money.

America's Largest Horse Importer, W. L. DECLOW,

Cedar Rapids, Iowa.

HOLLAND STOCK FARM

IMPORTERS AND BREEDERS OF Percheron and German Coach Stallions and Mares

Do you want to buy a stallion for cash? Go to the Holland Stock Farm.

CHAS. HOLLAND, Prop.

Springfield, Mo.

MAASDAM & WHEELER

Breeders and Importers of Percheron Horses.

60 STALLIONS AND MARES to select from. Our stock has size, bone and quality. Stallions and mares from weanlings to 7 years old for sale. Imported and home bred. FAIRFIELD, - IOWA.

TEXAS LAND

A PARADISE RECLAIMED

15,000 Acres Actually Irrigated in the

BEAUTIFUL PECOS RIVER VALLEY OF TEXAS.

Deep, rich soil. Abundance of water. Delightful climate. Right on Santa Fe Railroad, station in center of tract.

DAM, RESERVOIR, CANALS, ALL COMPLETE NOW.

Free water with every acre. Selling fast. Act quick if you want an actually irrigated farm cheap, or an investment that will pay you 50 per cent annually. Excursions and cheap rates first and third Tuesdays of each month.

Most desirable irrigated land and townsite proposition on the market today. Send for interesting booklet. Tells you about it. Good live agents wanted in every locality.

ARNO IRRIGATED LAND CO.

Topeka,

Kansas.

FREE TRIP TO TEXAS

If you want to take a free trip to the Sunny Pecos Valley of Texas where they cut six crops of alfalfa and raise all kinds of fruits and vegetables, write us for further information
The Heath Company, Topeka, Kan.

GOOD RANCH.

3,368 acre ranch, improved, \$5.00 acre. Robertson Co., 7 miles county seat. Adjoining land couldn't be had for twice our price. Would sell part or all. All fine grass and much first class farm land. Detailed description and plat free.

C. A. BABCOCK,

Harper,

Kansas.

Dalhart Texas

is where we are located and we have some land bargains for the buyer. Write for our free, handsomely illustrated book or come to Dalhart and let us show you a country without a fault.

J. N. JOHNSON LAND COMPANY,

Dalhart,

Texas.

Puts Life in the Incubator Chicks.
The Ralsall Remedy Co., of Blackwell, Okla., are putting a remedy out to raisers of incubator chicks that is a wonder. This remedy is sold direct to you. It stamps out bowel trouble in 24 hours regardless of the age of chicks. Read what Mrs. Bert Balles, of De Witt, Neb., has to say as to the merits of this wonderful remedy: "De Witt, Neb., Aug. 24, 1909. Ralsall Remedy Co., Blackwell, Okla. Kind Sirs. Have had such splendid results with your chick remedy that I do not hesitate to recommend it to any one trying to raise incubator chicks. I lost so many of my first hatch when a friend sent me a package of your remedy. I used it according to directions with the June and July hatches, and lost none of those with bowel trouble. Would not do without it another year at any price and I am sure others can have as good success. Yours most gratefully, Mrs. Bert Balles." For further particulars see further announcement on another page of this issue.

W. R. Webb Visited.

W. R. Webb, Bendena, Kan., breeder of big, smooth Poland Chinas, was visited by a Kansas Farmer fieldman recently. Mr. Webb was busy superintending the building of what will be one of the finest hog houses in this part of the state. The building which is 72 by 40 feet will include a sale pavilion. Mr. Webb has at present about 60 very promising pigs and several sows to farrow in a short time. This season's crop of pigs are by the boars Union Leader, Colossus, Hadley Boy and Major Hadley. A pair of very choice Bell Metal sows have very fine even litters by Colossus, Union Leader is one of the well known sires of the west. He can be depended upon to sire good ones, no difference what he is mated with. He has done well the past season and now in his 3-year-old form is as smooth as a younger hog and stands up on his feet like a pig. Major Hadley was sired by Major Bob and out of a Big Hadley dam. Hadley Prince is by Prince Hadley making him a grandson of Big Hadley. Those who visited Mr. Webb last fall remember three extra fine gilts sired by Old Expansion. They were out of the same litter as the boar now heading Webb & Sons herd. Two of these gilts have good litters and the other one will farrow in a short time. Other sows in herd are by Union Leader, Grand Look, Big Hadley, Nebraska Jumbo and other well known sires. When writing Mr. Webb about hogs always mention Kansas Farmer.

Peckham's Big Polands Inspected.

Recently a representative of this paper visited the splendid herd of big type Poland Chinas owned by R. J. Peckham of Pawnee City, Neb. Mr. Peckham owns a fine, well improved farm six miles from town and is in the pure bred hog business in real earnest. He is one of the fellows that carries the swill pail himself and spends many of the wee small hours out among the sows during farrowing time. Mr. Peckham has recently completed one of the finest and most convenient farrowing houses the writer ever looked at and in order that the work be done exactly right and owing to the scarcity of hands most of the work was done by Mr. Peckham himself. Such a man deserves the success with which he is meeting. Mr. Peckham has in service the good boar O. K. Chief by O. K. Price, he by the noted sire and prize winner, Price We Know. O. K. Price is a most excellent sire of large, uniform litters. He is assisted by the yearling boar, Looks Chief 54097, sired by the great breeding boar Look Grand. His dam was the sow, Elghteen (116578) by Pfanders Giant Pride 41454. The pigs by Looks Chief are certainly great prospects, the greatest uniformity possible in the type and size of litters. The 90 pigs already farrowed are all by these boars with the exception of litters from sows that have been bought the past winter from other good herds. In looking over the great sows capable of farrowing and raising such large and valuable litters we noted many that seemed to be of outstanding merit, among them Lady M. by Blains Tecumseh and out of a dam by Curtis Chief. Mr. Peckham is offering three choice fall boars out of Lady M., three great big useful daughters of the brood sow sire, King Do Do, one of the best sons of old Expansion, two of them out of a daughter of old Corwin Medium, the other one the

noted sow, Sampson's Sister by Logan Chief, one of the first big boars of note. Nan Paterson, a sow of immense size and a splendid brood sow type, always farrows around 14 pigs. She is by Major Blain by Blains Tecumseh and her dam was by King Do Do. Blains Lassie also by Blains Tec. and out of dam by Corwin Medium. Flora B. by Hadley Sampson, dam by King Do Do, and last but not least the great sow, Tecumseh Goldust, the sow that topped John Blain's closing out sale. Mr. Peckham paid \$251 for this great sow. She is a daughter of Johnsons Chief and her dam was Lady Goldust by Big Hadley 23180. Mr. Blain considered Tecumseh Goldust one of the greatest sows he ever owned. At his last fall sale she furnished the highest priced litter; one of her boar pigs topped the boar division at \$103, and one of her gilts topped the gilt offering at \$86. Her litter this year are fine and sired by Blains Last Hadley, one of the very best sons of the noted big Hadley. In his advertisement which appears elsewhere Mr. Peckham offers a few choice fall boars, the tops of his fall crop. His prices are reasonable. Write him.

Whitney's Durocs.

For a man to be a breeder in deed as well as by name he surely should improve his herd each year. And this was impressed on the writer last week when he visited the herd of W. C. Whitney, of Agra, Kan. While things have been somewhat dull in the hog business in his territory the past year or two, Mr. Whitney has kept right on with the improvement in the breeding and individuality of his herd until today he has a herd that is a credit to any breeder. The sows in this herd are raising an average of eight and one-half pigs each this spring. Paul Jumbo, a Nebraska State Fair winner, has been used in this herd the past two years but only four litters this spring are by him, as Mr. Whitney had the misfortune to lose this good boar last winter. Agra Top Notcher by the grand champion, Tip Top Notcher and out of a dam by Mayor Jr., is another of the good boars he has in use. I Am a Bonney K. by Bonney K. and out of a dam by Rosebud Chief, completes the trio of boars used the past season. Their pigs are showing up fine in both numbers and quality and prove no mistake was made in the choice of these boars. The herd sows are of such breeding as Tip Top Notcher, Rosebud Chief, Paul Jumbo, G. C.'s Col., Model H., Model Chief Again, Belle's Chief. The spring pigs are by the above mentioned boars and Bonney K. Nearly all this year's pigs will be from well matured sows and a few extra strong gilts just the kind you should choose for breeding stock this fall and winter. Mr. Whitney is starting a card this issue and offers for quick sale some extra good fall boars, two of which are by Paul's Jumbo. These were selected as the best from a large number and if you want a bargain write at once. Some sows are also offered bred for June farrow. These are good and are bred to the boars mentioned above. They will farrow when the weather is warm and will undoubtedly raise you a good litter. You can also place your order here for a spring pig. Write at once for prices and description as these will only be offered for a short time.

Albrecht's Durocs.

At the Albrecht farm near Smith Center, Kan., was found over a hundred spring pigs mostly of early March farrow. At the head of this breed is Waldo by Gifford's Benediction. This is an extra smooth boar and now at three years of age does not show any shields at all. He stands well up on his feet with good bone, and best of all a back, loin and hams that are seldom equaled. A Lincoln Top by Lincoln Top and out of a dam by Jr. Jim was used to assist Waldo last season. All Mr. Albrecht's spring pigs are by these two good hogs, out of sows with such breeding as Ohio Chief, Proud Advance, Improver 23, Top Notcher, 2d Climax and others of equally good breeding. In this herd will be found an evenness of type not found in many herds. Some of the best sows in other herds of Kansas and Nebraska were bred on this farm.

and the crop of pigs now growing up in this herd will do full justice to Mr. Albrecht's reputation as a breeder. A nice herd of good Shorthorns were also found on this farm of which more will be said later.

Stryker Bros., who have made such a fine reputation as Poland China breeders at Fredonia, have evidently struck a vein of popularity in the good hogs of high quality which they offer to the public from their herd. A recent letter from Frank Stryker announces that last week they received inquiries for 35 head of hogs in one day, and he says it wasn't a very good day either. A combination of good blood lines, good feed, and good advertising in the Kansas Farmer brings such results as this.

J. E. Joiner's Durocs.

In building anything it is all important that there should first be a good foundation and in referring back to the time when J. E. Joiner, of Clyde, was founding his herd we find the foundation was laid from the very best to be had in the Duroc herds of Kansas, Nebraska and Missouri. It was a common occurrence when Johnnie Joiner was at a sale or sent a bid he topped the sale. The quality has been kept up by mating these top sows with boars of the highest quality and breeding. Among the herd sows we found some sired by such sires as Ohio Chief, Kant Be Beat, Crimson Wonder, Belle's Chief 2d and pigs by G. C.'s Col., a son of G. C.'s Kansas Col. and others.

Bred Poland China Gilts for Sale.

This number of the Kansas Farmer contains the announcement of F. D. Fulkerson, the well known Poland China breeder of Brinson, Mo. Mr. Fulkerson has for sale 30 head of choice spring and summer gilts that are bred for April and May farrow. Most of these were bred to his good herd boar, On the Dot 2d. These gilts are a good, useful lot and are being priced very reasonably. Mr. Fulkerson will also spare a few tried sows and a number of fall boars. Among the latter is a son of old Meddler. Others by U. S. Corrector 2d and other good boars. More will be said about this good herd later. Mention the Kansas Farmer when writing.



High Class Shorthorn Sale May 17.

A notable event in cattle circles will be the Shorthorn sale of H. M. Hill and S. C. Hanna at Fredonia, Kan., May 17th. This will be one of the best lot of young cattle to pass through a sale ring this season. All lovers of Shorthorn cattle should send for a catalog. It contains valuable information about the breed. If interested send your name in early for a catalog, addressing H. M. Hill, Lafountain, Kan. Watch Kansas Farmer for further mention of this sale.

The Supremacy of Aberdeen Angus Cattle

Under authority of the American Aberdeen Angus Breeders' Association, its secretary, Chas. Gray, of 817 Exchange Avenue, Chicago, some time ago issued a pamphlet entitled: "Supremacy of the Aberdeen Angus Cattle," which was mighty interesting reading not only to lovers of this particular breed but to all who are interested in good farming and the quick production of the highest class of beef. At the late meeting of the association a second and revised edition of this pamphlet was ordered and Secretary Gray announces that it is now ready for the printer and will shortly be distributed to breeders and others who may want it. A one cent postal card will cover the cost of the order for this pamphlet, and the secretary especially requests that all interested parties send him a postal card request as early as possible so that he may know how many copies to have printed. The Aberdeen Angus Association now numbers over 2,000 members in this country, and yet there are many breeders and admirers of this breed who are not members. Each member has the advantage of being able to record his animals under one year of age for only \$1, while non-members pay \$2.50. During the ten years in which the single steer championship awards have been made at the International Live Stock Show at Chicago, Aberdeen Angus pure bred animals have won six times, the Herefords twice, cross bred Herefords once, and Shorthorns once. This shows the kind of beef animals produced by this breed.

The McLaughlin Bros.' Percherons.

Among the very many men who have made marked successes of the horse importing business, the McLaughlin Bros. stand out conspicuously. Their methods serve to supply their customers with the best animals to be had in the old country by keeping a member of the firm in residence who, with the expert judgment gained by long experience, is able to buy of the best from the shows, the breeders and the dealers. That he is successful is shown by the long record of unbroken successes in the show rings of the great state and national horses which McLaughlin Bros. have to their credit in this country. They always show at the larger fairs and shows only and they always win their full share of the prize money. Lately they have changed the location of their Kansas City barns and are now offering some special bargains in both Percheron stallions and mares. Some of these are animals which had been reserved as show animals for this fall and such an opportunity as they now offer is a rare one, generally such show horses are without price or are held so high that the man who does not show cannot afford to buy. In the full page advertisement on another page it will be seen that an opportunity is now given to buy these splendid animals at reasonable figures and thus secure show horses for breeding purposes. As this offer only lasts ten days it would be wise to visit their barns or write them at once.

The Sunflower Herd of Holstein-Friesians.

F. J. Searle, of Oskaloosa, Kan., sends in an important change in his advertisement which will be seen in another column, and announces that he has decided to change the name of his herd from the East Side Dairy Herd to the Sunflower Herd of Holstein-Friesians. While Mr. Searle has won an enviable reputation as owner of the East Side Dairy Herd, he has made a patriotic move in changing the name, which we believe will be popular. Mr. Searle's herd has a very large proportion of A. R. O. cattle as he had bred for quality ever since he has been in business. He announces that Mr. W. F. Turner, dairy expert of the Kansas Agricultural College, has just concluded an official test of five head of his heifers and cows. The results show that the butterfat product of a seven days' test ranges from 12 pounds for a 2-year-old heifer, to

17.44 pounds for full aged cows. Such cows are worth a great deal to the owner, and we are pleased to announce that Mr. Searle has furnished us a short article showing a comparison between the Holsteins and other breeds, which will appear in the next issue of Kansas Farmer.

T. J. Dawe Visited.

One of the old timers in the pure bred stock business of Kansas is T. J. Dawe of Troy, Kan. Mr. Dawe came to Kansas, locating near where he now resides, in 1858. He came without a dollar and today owns a fine 240-acre, highly improved farm and one of the best small herds of Shorthorn cattle that can be found in the state. Also a herd of big type Poland Chinas. Mr. Dawe has bred Shorthorns and Polands for 25 years and knows more about blood lines and the history of breeds than most people know about their nearest relatives. His Shorthorns are headed by the great young bull recently purchased from Hopkins and Carter of Mexico, Mo. He was sired by Royal Standard by Imp. Barmpton Diamond. In selecting this bull Mr. Dawe was much influenced because of the greatness of his dam, Imp. Red Lady, one of the good cows formerly owned by D. R. Hanna. Mr. Dawe has a herd of about 20 pure Scotch cows, among them some of the best individuals the writer has ever seen in any herd. Among them the beautiful snow white heifer bred by A. J. Ryden of Abingdon, Ill. She was sired by Village Sultan by White Hall Sultan. Her dam was Clover Blossom Wimple by Imp. Nonpareil Victor. Another good one is Bessie Viscount by Orange Viscount and out of Imp. Bessie 51st. Silene Goods, sired by the great Choice Goods, her dam, Silene Goods 2d, making her a full sister to Bellows Bros.' herd bull, Rosa 19th, sired by Standard Bearer and out of Imp. Rosa. Archer Emma by Champion Archer by Fearless Archer, he by the great Scottish Archer. Grassland Duchess by White Hall Count by White Hall Sultan. Mr. Dawe will show at some of the good fairs this fall.

Oklahoma Land

"WE SELL THE EARTH."
Farmers grow wealthy in a short time in Custer and adjoining counties in Oklahoma growing hogs, corn and alfalfa. Farms at from \$30 to \$50 per a. Write us for land list.

Clinton.

DULANY & RANDOL.

Oklahoma.

CORRESPOND with us about Garfield Co. lands. McCarty & Plumley, Enid, Okla.

Alfalfa County Farms for sale at less than their actual producing value. Write Hood & McFadden, Cherokee, Okla.

IF YOU have money to loan on good farm and city security, write John Hankins, Chickasha, Okla.

FREE INFORMATION about Oklahoma. Homer H. Wilson. Here since 1893. Enid, Okla.

DO YOU WANT TO SELL YOUR FARM? Write us, we will give you good information. Hoffman's Compiled List Report, 328 Sedgwick Block, Wichita, Kan.

CADDO CO. FARMS. Best in Oklahoma for homes or investment. Your address on postal card will bring descriptive list and literature. **BALDWIN & GIBBS CO.,** Anadarko, Oklahoma.

A CUSTER COUNTY BARGAIN. 160 acres, 2 miles R. R. station, 80 in cultivation, 55 fenced in pasture, fine water, four-room house. Price \$2,500; easy terms. Many other bargains. New list free. **HUGHES & SORTER,** Custer City, Oklahoma.

CORN, OATS, WHEAT and alfalfa and all staple crops grow to perfection here in the garden of Oklahoma. Prices reasonable. Write for list and descriptive literature. **C. E. POCHER,** Newkirk, Oklahoma.

EASTERN OKLAHOMA. Improved farm, 160 acres, good, new house, half section of unimproved land, very fine. Several other good bargains. Write me if you want to know about Eastern Oklahoma. **T. C. BOWLING,** Owner, Fryor Creek, Okla.

WASHITA VALLEY LANDS. From \$10 to \$50 per acre offer great opportunities for investment. They are well located near railroads, towns, churches and schools. Write for further information. **JOSEPH F. LOCKE LAND & LOAN CO.,** Wynnewood, Oklahoma.

FINE ALFALFA FARM. 480 acres rich, alluvial valley soil, 260 under plow, 25 alfalfa, fair improvements, living water, good well, 7 miles railroad. \$25.00 per acre. Terms. Many other snaps. **W. C. ATKINSON,** Gotebo, Oklahoma.

REAL ESTATE BROKERS. Mangum, Okla. Lands that produce big crops of cotton, alfalfa, corn, wheat and all other staples at very reasonable prices. Write for free list of bargains. **McMILLAN & LANGFORD,** Mangum, Oklahoma.

BECKHAM COUNTY, OKLA. 160 acres, 3 miles Doxey, railroad town, house, barn 100 in cultivation, 700 peach and apple trees four years old, 140 tillable, \$3,000. Terms. Other farms. Will sell at extremely reasonable prices. **SECURITY INV. CO.,** Mangum, Oklahoma.

"Hough Sells The Earth" in Caddo county, fertile, rich, cheap. Send 10 cents in stamps for handsome colored county map of Oklahoma, circulars and list. Letters answered in German or English. **W. R. Hough,** Apache, Okla.

CADDO COUNTY, OKLAHOMA corn, wheat, cotton and alfalfa lands. \$20.00 to \$75.00 per acre, according to improvements and distance from towns. Lands are advancing rapidly. Now is the time to buy. Write for full information. **J. ELZIA JOHNSON,** Hinton, Okla.

WASHITA VALLEY LANDS. Good corn and alfalfa farm, four miles Pauls Valley, one mile State Industrial School. 170 acres, 150 under cultivation, 160 acres Washita Valley, 6 room house, above overflow. Electric line soon. Price \$10,000. **O. W. JONES,** Pauls Valley, Oklahoma.

IMPROVED FARMS. 180 acres, 140 in cultivation, good 9 room house, barn 45x65, tool shed and granary, 4x40, orchard, telephone. R. F. D. near school, 4 miles county seat. Price \$9,000. Write **J. T. RAGAN,** Vinita, Oklahoma.

McLEAN COUNTY. Timber and prairie lands \$10 to \$50 acre, mostly on good terms. Lands have never been boomed; will undoubtedly double in value soon. For a good investment or speculation write us. **BYARS REAL ESTATE CO.,** Byars, Oklahoma.

NOTICE TO RENTERS. Here is something you may never see advertised again: No. 240-160 acres, 3 miles from good town, 17 mi. from R. R. 152 a. tillable. \$5 a. in cultivation, 140 fruit trees, 2 room house, \$2,500. Terms. \$1,000 cash, bal. terms. Write us when you can come. **The Grant Investment Co.,** Thomas, Okla.

GOOD FARM. 160 acres, 6 miles Tecumseh. 80 in cultivation, good buildings 6 acre orchard in fine, good bearing condition, marketed 1,000 bushels in 1909. Price \$2,500; easy terms. Other farms for sale on small payments and long time. **E. J. DICKERSON,** Tecumseh, Oklahoma.

A FINE HOME FARM. 320 acres 1 1/2 mi. south Wagoner. New 7 room house, nice outbuildings, good barn, granary, wagon shed, windmill, concrete tanks. Nice bearing orchard, 225 acres cultivation; can most all be plowed. All good land, good set tenant improvements, 4 good wells, one of the best improved farms in the county. Price \$45.00 per acre. Lots of others. Write for information. **W. H. LAWRENCE,** Wagoner, The Land Man, Okla.

MAJOR COUNTY corn, wheat and alfalfa lands. Lowest prices. Best terms. Information free. **J. Nile Godfrey,** Fairview, Okla.

EASTERN OKLAHOMA. 200 acres, 7 miles from Muskogee, 2 miles of railroad town, all good valley land, living creek water, 20 acres cultivated, balance meadow, all fenced. In white settlement, on main road, close to church and school. Price \$30 per acre. Many other farms, improved and unimproved at \$25 to \$35 per acre. **R. B. BEARD & CO.,** American Nat'l Bank Bldg., Muskogee, Okla.

SNAPS IN GRANT CO., OKLAHOMA. 1/2 section, 2 miles of Medford (county seat), 1-4 deeded and 1-4 school land, 185 a. in cultivation, 110 a. in wheat, 25 a. fine alfalfa, balance pasture, 6 room house, barn 6x60, granary for 3,000 bu., 2 good wells about 20 ft., also mill, 1 mile to school and good high school in town, creek bottom, deep black loam soil, 1/4 all crops in granary and possession next Aug. 1. Price until April 1, 1910, \$11,500. **BATTEN REALTY CO.,** Medford, Oklahoma.

Another Poor Man's Chance

Quit renting. Come at once and buy this 160. Practically all tillable and fenced. 1 room house, stable and outbuildings, lays well, 1 1/2 miles to school. Price \$4000.00; \$1000.00 cash. Balance on suitable terms. Write at once or better still, come. **DONAHUE & WALLINGFORD,** Mound Valley, Kansas.

Oklahoma Land

Where corn, wheat, alfalfa and cotton are making the farmers rich. We specialize on Oklahoma, Cleveland, Logan and Washita counties. Fine alfalfa lands, \$30 and upward. Write for list and printed matter, mailed free. We also lead all in Oklahoma City property.

FARM & HOME INV. CO., Culbertson Bldg., Oklahoma City, Okla.

OKLAHOMA FOR HEALTH AND WEALTH.

320 acres, 7 miles from Texola, Okla., R. F. D. school 1/2 mile, 200 acres lies nearly level and all tillable, 140 acres under cultivation, 120 acres fine pasture land, supplied with plenty of living water and good grass. Has small house, sheds and outbuildings. Well and windmill. If you want a farm where you can raise good crops and keep a bunch of stock, you should see this one. A farm and ranch combined, \$2,500, on liberal terms. Send for our catalogue. **Texas-Oklahoma Realty Co.,** Texola, Okla.

640 ACRES OF DEEDED LAND: 330 acres of this is first class farming land; 400 acres of Indian land, leased and under cultivation; 3,000 acres of first class grazing land (Indian) leased for term of years; excellent water and good grass; very cheap lease, good two-story house of 8 rooms, water in house, hen house, cave, good grain elevators, scales, corals and everything in first class shape, and the farm land is of the richest. Plenty of timber for wood and plenty of shelter for stock, and is an ideal farm and cattle ranch very desirably located; 2 miles to railroad. Steam plows, farming tools, horses and everything in connection with this ranch go. **First Loan & Mortgage Co.,** Watonga, Okla.

EXCHANGE COLUMN

FOR SALE OR EXCHANGE—Farms and stocks of merchandise in Kansas, Missouri and Oklahoma. Write me. **FRANK SEELY,** 102 Ridge Bldg., Kansas City, Mo.

FOR EXCHANGE—Missouri and Kansas farms and city property. List free. Est. 20 years. **G. W. Clardy Investment Co.,** 301 Commerce Bldg., Kansas City, Mo.

SALE OR EXCHANGE—Texas, Missouri, Kansas, Oklahoma farms, stocks merchandise for good propositions. Cash considered. **Western Land Exchange, 404-5 Ridge Building, Kansas City, Mo.**

FOR EXCHANGE OR SALE—Kansas, Missouri, Oklahoma, Texas farms, city property, stocks, merchandise for other good propositions. **McNeal, 214-15 Finance Bldg., Kansas City, Mo.**

BARGAINS FOR CASH OR TRADE. Of all kinds direct from owners of farms, ranches, mds., hardware, hotels, livery barns. Send for our book on trades or cash list. **Bersie Real Estate Agency, Eldorado, Kan.**

920 ACRES PASTURE LAND. Elk county, Kansas, under good wire fence; five miles railroad station, \$20.00 acre. Incumbance \$5,500. Want merchandise in country town for equity. Other exchanges. **B. F. Carter, 1216 Commerce Bldg., Kansas City, Mo.**

PHILLIPS COUNTY, KANSAS. Corn, wheat and alfalfa lands for sale and exchange; reasonable prices; good terms. Values are rapidly advancing. Buy at once and you will get a good profit in a very few months. Write today for prices and descriptions. **LEWIS & ELDRED,** Phillipsburg, Kansas.

FOR SALE OR EXCHANGE FOR OTHER PROPERTY.

17 room hotel, finished new throughout, in growing town; best hotel in town—practically no competition. Also some snaps in Gove and Sheridan County land. **D. A. BORAH, Cashier State Bank, Grinnell, Kansas.**

TO EXCHANGE—17 room hotel in good town in southern Iowa, want farm or residence. Stock of dry goods to trade for Kansas City residence. Farms to trade for city property. I can match you on any kind of a trade. **HENRY G. PARSONS,** Lawrence, Kansas.

Mitchell County Breeders' Association

DR. C. B. KERN, President.

J. M. RODGERS, Secretary.

Nothing but first class animals offered for sale for breeding purposes.

Mitchell County Fair, Sept. 28, 29, 30, and October 1, 1910.

E. O. LOGAN, President.

W. S. GABEL, Secretary.

Premium List Ready June 1.

SHORTHORN CATTLE.

THE PURE SCOTCH BULL HIGHLAND Laddy by Brave Knight by Gallant Knight heads our herd. Some fine young bulls developed for this fall's use. A young herd of real merit. **BRINEY & BRINEY,** Beloit, Kan.

LOCUST GROVE HERD SHORTHORNS. Up-to-date breeding with good quality. **ELMER C. CRITZ,** R. 7, Beloit, Kan.

BOOKDELL STOCK FARM. Shorthorn cattle, Poland China hogs. Silver Laced Wyandottes. **E. E. BOOKER & SON,** Beloit, Kansas.

FOR SALE A few young Shorthorn cows and some young bulls ready for service. Best of breeding. Write for information and prices. **VINTON A. FLYMAT,** Barnard, Kan.

HERD BULL, Royal Goods by Select Goods by Choice Goods for sale, also young bulls. Herd headed by Drednaught, **MILLI BROS.,** Cawker City, Kan.

HEREFORD CATTLE.

W. B. & J. M. RODGERS, Beloit, Kan. Breeders of Hereford Cattle and Berkshire Hogs. Quality before quantity. Come and see us.

50 HEREFORD CATTLE, comprising the H. B. Woodbury herd. Some famous cows in this herd; 8 young bulls of serviceable age for sale, 4 miles from Tipton, Kan. 8 from Cawker City. **JOHN SCHMIDT & SONS,** Tipton, Kan.

100 HEAD OF HEREFORDS—The home of Caster 259475, the winner in every big show he was ever in. A few choice young heifers and cows for sale. **F. L. BROWN & CO.,** Sylvan Grove, Kan.

PERCHERON HORSES.

REGISTERED PERCHERONS—The home of Vidouze (Imp.) 40463, also the brood mare Risette (Imp.) 51115. Inspection invited. Farm adjoins town. **E. N. WOODBURY,** Cawker City, Kansas.

REGISTERED PERCHERON HORSES in stud. Imported Ribels 42529, by Cosaque by Theidus, who sired Calipso and Casino. Visitors welcome. **C. J. JOHNSON,** Solomon Rapids, Kan.

THE HOME OF JAQUE W. 42659 by Tlatrey, dam Imported Risette. Inspection of my Percherons invited. **RALPH G. MCKINNIE,** Glen Elder, Kansas.

TO EXCHANGE FOR KANSAS FARM. Suburban grocery stock, will invoice about \$3,000. Will assume some on farm. Residence properties in Kansas City and 20 farms, Kansas and Missouri, ranging from 80 to 400 acres each to exchange. **J. R. REED REALTY CO.,** 628 N. Y. Life, Kansas City, Mo.

FOR SALE OR EXCHANGE, WEST CENTRAL KANSAS LAND. Wheat, corn and alfalfa lands, Lane and Gove counties, \$15.00 to \$25.00 acre. Prices advancing rapidly. If you have a good trade to offer write us. **W. H. DAYTON LAND CO.,** Abilene, Kan.

FOR SALE AND EXCHANGE. Kansas and Missouri farms for city property, stocks merchandise and other farms. Describe what you have, will make you a good trade. List your farms for exchange with us. **H. Woodward Real Estate Investment Company, 264 N. Y. Life Bldg., Kansas City, Mo.**

FOR SALE OR EXCHANGE. Corn, wheat and alfalfa lands in Sheridan county, Kansas; on liberal terms. Grand investment opportunities, great chance for the homeseeker. Also stocks of merchandise and city property. Write for my free list. **R. A. ROGERS, Selden, Sheridan Co., Kan.**

FOR SALE OR EXCHANGE. Alfalfa land in shallow water district of Oklahoma in 40 to 640 acre tracts, \$20 to \$65 per acre. For particulars write **C. B. RHODES R. E. & INV. CO.,** 400 Helst Bldg., Kansas City, Mo.

TREGO COUNTY

Lands for sale or exchange; prices \$15 to \$40 per acre; also city property and stocks of merchandise. If you have a good trade to offer, no matter where it is located or what it is, write us. **ED. PORTER LAND AGENCY,** Wakeeney, Kansas.

TO TRADE

350 acre grain, grass, alfalfa and stock farm, close to good town, 100 mi. S. W. of Wichita, a fine combination farm, \$50 per acre, \$12,000 inc. 5 yrs., 6 per cent, want income property or merchandise for equity of \$15,500.00. Address **Box 382, Kiowa, Kansas.**

The Arthur Mosse Herd of O. I. C's. Arthur Mosse, breeder of O. I. C. swine, R. 5, Leavenworth, Kan., writes: "I have built a barn this winter and got behind with every kind of work, especially the manure, and have been hauling that every day possible. I have been breeding hogs for six years and have culled my herd very carefully so that now I have nothing but the very best to offer. I sell all the

COLEDALE STOCK FARM—The home of three first prize winners at the International. Nothing but the best in this herd. Come and see us. **FRANK A. COLE,** Barnard, Kan.

GRANITE CREEK STOCK FARM. Percheron and Standard bred horses. Make known your wants to **M. A. SMITH, Supt.,** Cawker City, Kansas.

COACH HORSES.

LAWDALE STOCK FARM—Oldenburg German Coach Horses. International prize winning stock. A tried stallion for sale. Inspection invited. **JOSEPH WEAR & SON,** Barnard, Kan.

POLAND CHINAS.

LEBAN CREEK STOCK FARM—Poland Chinas, large herd to select from. Fall pigs of both sexes for sale now. Not related. Can also spare a few bred gilts. **Logan & Gregory,** Beloit, Kan.

EUREKA HERD OF PURE BRED Poland Chinas and Duroc Jerseys. Bred gilts and sows all sold, but have a few fall boars and gilts of both breeds. Prices right. **W. H. SALES,** Simpson, Kansas.

DUROC JERSEYS.

GOLDEN RULE STOCK FARM—Choice bred sows and gilts for sale at prices to move them, best of breeding and individuality. Satisfaction or no sale. **LEON CARTER,** Asherville, Kan.

ALFALFA STOCK FARM. Choice Duroc Jersey bears of early fall farrow for sale. Ready for work. Write quick if you want one. **PEARL H. FAGETT,** Beloit, Kan.

HAMPSHIRE.

HAMPSHIRE HOGS. Always have stock for sale. Write for prices. **A. B. DOYLE,** Beloit, Kan., Rural Route 1.

O. I. C. SWINE.

Tracing to the famous Kerr and Big Mary families. No more males to offer. A few choice bred and open gilts for sale. **T. C. WRENCH,** Beloit, Kan.

AUCTIONEERS.

COL. H. H. VANAMBURG

General and Live Stock Auctioneer. PHONE 431. **BELOIT, KAN.**

COL. F. L. SMITH

General and Live Stock Auctioneer. PHONE 943. **BELOIT, KAN.**

culls to the butcher. My hogs trace back to Big Mary, Kerr Shelton, and Kerr Ella; Kansas King and Kansas Girl; Kerr Garnett, grand champion at the American Royal of 1906, Cramer's Choice Goods and last, but not least, to White Oak, the St. Louis champion. I have a number of pigs by the boar I showed at Topeka last fall, who stood second in class and beat the International champion. This boar is by O. K. Mikado, who was grand champion in Iowa, Nebraska, and St. Joseph in 1908, and second in class in Missouri and Illinois State Fairs. I think his breeding can not be bettered in the white hog world today. I am pretty well sold out on everything now, but a few fall boars and the spring pigs. Notice Mr. Mosse's advertisement and write him about these very popular and profitable hogs.

STALLION BARGAINS

Imported and Home Bred Belgian Stallions.

Wolf & Cooper are offering reduced prices on choice Belgian stallions for next 20 days. All are good individuals and sold with an absolute guarantee. 2 of these horses won at the Belgian Horse Show at Brussels, Belgian. Call and see **DAVID COOPER,** Manager, Freeport, Harper Co., Kansas.

SHETLAND PONIES FOR SALE—20 imported stallions and a few bred mares. We have recently returned from Scotland with the finest importation of ponies ever brought to Nebraska. Write for private sale catalog. **CLARK BROS.,** Auburn, Neb.

FOR SALE—I have a good road or general purpose stallion (Standard bred, but not registered), sired by Douglas Almount (0398) by Alice Gaines by Almost (23), dam by "Champtonian" by Hambletonian 10. Bred by the present owner, has never been abused and is a sure foal getter and gets good ones. Fine disposition. \$300 will buy him. Address "H." Box 314, Baldwin, Kan.

KANSAS LAND

IF YOU WANT

The right land, at the right price, in the right place, from the right man.
Write right now to
H. D. HUGHES,
McDONALD, KAN.

REAL ESTATE DEALERS, ATTENTION.

If you want to know how and where to buy advertising space in a big farm paper and a daily paper covering the richest agricultural sections of the United States for less than a half cent a line per thousand circulation write

625½ Jackson Street,

ROY O. HOUSEL,

Topeka, Kan.

LIVE LAND AGENTS WANTED

to sell Thomas and Sherman county lands. Big commissions. Sure sales
McKENZIE REALTY CO., Inc.,

Colby.

Kansas.

HOMESEEKERS

Send for a copy of the Southwestern Kansas Homeseeker, the best land journal published. It's free to those wanting homes or investments. We make a specialty of lands on small payments and easy terms. Address

THE ALL-AN COUNTY INVESTMENT CO.,
Longton, Kansas.

SNAPS!

35,000 acres in McMullen Co., Texas, all good, level land, black, sandy loam; price \$10.00 per acre.

73,000 acres in southwestern Texas, \$1.85 per acre.

200 acres near Marquette, McPherson Co., Kansas. Well improved. Price \$10,000.

CHAS. PETERSON,

Hutchinson,

Kansas.

CLOSE IN

320 acres, improved, 1 mile of Spearville, house, granary, horse barn, cow stable, well, windmill, tanks, etc., 250 acres in cultivation, 140 in wheat, 100 a. spring crop, 70 acres pasture. This is a dandy, fine wheat and corn land, rich soil, 1-3 of all crops delivered, send for plat, and big list free.

THOS. J. STINSON,

Spearville,

Kansas.

Corn, Wheat, Alfalfa

Lands in Trego County, Kansas, where prices are advancing rapidly. Best opportunities in Kansas for home seeker and investor. Write for our list, mailed free and postpaid. Live agents wanted.

D. W. KELLER LAND CO.,

Wakeeney,

Kansas.

SOME BARGAINS

IN SOUTHEAST KANSAS.

Good farms, 80, 120, 160, 240 and 320 acre tracts; also some good grass land and improved ranches in 320 to 2,000 acre tracts. Fine climate, good soil, low prices and easy terms.

LONG BROS.,

Fredonia,

Kan.

Buy This if You Want a Good Farm

160 a., 6 miles from Newton, 1½ miles from market. Good six room house, barn 30x40, all rich bottom land, can't be beat for alfalfa, corn and wheat. Price \$12,000, half cash. 200 other good farms for sale right.

SOUTHWEST LAND CO.,

Newton,

Kansas.

Labette Co. Bargain.

NINE—80 a., 1½ mi. from Coffeyville, new 3 room house, barn, granaries, etc.; plenty water, lays nice, gas, telephone. R. R. short time for \$4,000. Also sell implements, hay, grain, if desired, etc.

BOWMAN REALTY CO.,

Coffeyville,

Kansas.

Ottawa Co. Bargain.

160 acres, 3 miles town, 110 cultivation, balance pasture, 4 room house, barn, 65 acres wheat, all goes with possession, \$6,500. Easy terms. New list free.

J. S. Boyle,

Bennington, Kan.

GOOD FARM.

344 acres adjoining town, highly improved, 6 acres alfalfa, 5 miles fence, mostly woven wire. Further particulars write

Harper,

J. C. ELVIN,

Kansas.

LANE COUNTY, KANSAS

Offers bargains in wheat and alfalfa ranches at \$10 to \$20 per acre. Write for my price list and investigate at once.

Dighton,

WARREN V. YOUNG, Kansas.

KINGMAN CO. LANDS

Banner Wheat and Corn County of the State. Write for Selected List.

BROWN REAL ESTATE CO.

KINGMAN,

KAN.

Ellis and Trego County lands, at the lowest prices on the best terms. Write for list, sent free.

C. F. SCHEPMANN,

Ellis,

Kansas.

IF YOU WANT

To buy Trego County corn, wheat and alfalfa land, at \$15 to \$40 per acre, write for free information about this section.

SWIGGETT,

Wakeeney,

Kan.

TREGO COUNTY LAND.

Where prices are advancing rapidly, at low prices on liberal terms. Near markets, churches and schools. Write for prices and descriptions.

J. I. W. CLOUD,

Wakeeney,

Kansas.

400 ACRES, 2½ miles from Cedar Point, Chase County, Kansas, on the main line of the Santa Fe. 100 acres creek bottom, all in fine alfalfa, nice creek and timber, 300 acres pasture, fair orchard, rather poor buildings, close to school, daily mail, telephone. The best thing in the county at the price, \$14,000. Pasture lands a specialty. J. E. Roock, Cottonwood Falls, Kan.

BARGAINS NEAR EMPORIA.

400 acres, 13 miles Emporia, good upland, 2 sets improvements, \$35. 480 near Emporia, fair set improvements, \$50. Good 80 near school, \$75. 320 good upland, well improved and located, \$40. These are genuine bargains and we have sold 14,000 acres this season. Our prices talk. See or write us at once.

H. L. DWELLE & CO.,

6th and Commercial,

Emporia, Kan.

BUY WESTERN KANSAS LAND.

Should you want to buy any Western Kansas land for speculation or for a home, don't fail to write me. I am selling land throughout all counties in Western Kansas. I am myself farming extensively on the kind of land I offer for sale. I can sell you land that will make you money. Write me at once for prices. Address

Engene Williams,

Engene Williams,

Minneapolis, Minn.

SOLOMON VALLEY LAND.

80 a. improved, 3 mi. to market, 40 a. pasture, 40 a. irrigated, \$2,000. 640 a., 320 a. can be plowed, creek through this section, 5 mi. to market, \$12,800. 400 a. all grass, one-half tillable, 5 mi. to market; terms: \$6,000. 160 a., 4½ mi. out, all good land, 50 a. broke, terms, \$8,800. Other farms for sale and exchange. List free.

A. E. ROBINSON LAND CO.,

Minneapolis,

Kansas.

240 ACRES within one mile of Rexford, all smooth, tillable lands, good seven room house, nearly new, good barn with hay loft, hen house, hog house, corn cribs, granary and stock sheds, 130 acres in cultivation, Price \$7,600. Many other bargains located in Sheridan and Thomas counties, Kansas. Also Colorado land from \$8.00 per acre up.

A. T. LOOMIS,

Rexford,

Kansas.

SHERMAN COUNTY LANDS, where prices are advancing rapidly, \$12 to \$30 per acre, good terms. Gulf and Northwestern Railroad now building at Goodland. Unexcelled opportunities for homeseeker or investor. Now is the time to buy, and you will double your money shortly. Write for free illustrated literature.

GLIDDEN REAL ESTATE CO.,

Goodland,

Kansas.

THOMAS COUNTY, KANSAS. Where wheat and other crops are making the farmers rich. We own and control thousands of acres of the finest wheat and alfalfa lands in the county, which we sell on easy terms at \$15 to \$30 per acre. Write for illustrated literature and list, mailed free and postpaid.

JOHN ACKARD & SON.

Colby,

Kan.

CAN GIVE IMMEDIATE POSSESSION

of 120 acres, 4 miles out, 7 miles to county seat, good roads, 75 a. in cult., 45 a. pasture, 2 a. alfalfa, some orchard, land lies fine, 2 a. hog tight, good well, windmill and tank, pond in pasture, 1½ story frame house 16x24, barn for 8 head, cow barn, hen house, granary, etc.; 30 a. wheat, 1-3 acres to purchaser. This farm can all be put in cultivation except about 10 acres; good soil, fine location, on R. R. D. and telephone. A bargain at \$15 per acre. Terms on part. Get our list.

Shepard & Hoskins,

Bennington, Kan.

KANSAS FARM BARGAIN.

160 acres nice, smooth land, 2½ miles city limits of Parsons, Labette county, 6 room house, good barn, 6 acre family orchard, 8 fenced hog tight, 50 prairie meadow, 20 blue grass and blue stem pasture, balance in cultivation. R. R. D. and telephone line, \$50 per acre. Good terms. Also 320 acre stock and grain farm, Linn Co., \$25.00 per acre; easy terms. Other Missouri and Kansas farms.

THE STANDARD LAND CO.,

Room 4, Rickacker Bldg., Kansas City, Mo.

FINE IMPROVED 160, 5 miles out, \$5,700. Terms. L. E. Thompson, Norwich, Kan.

FOR FREE INFORMATION about Allen county lands write F. W. Frevert, 51 years a Kansan, Gas City, Kan.

FREE LIST.

Dickinson county corn, wheat and alfalfa farms. Write today.
Bannagath & LaPort, Abilene, Kan.

PHILLIPS COUNTY corn, wheat and alfalfa lands, \$40.00 to \$60.00 per acre. Prices rapidly advancing. Write or see L. E. COUNTRYMAN, Phillipsburg, Kan.

FOR SALE—Improved 160 acre farm, near Parsons, Kan., fine improvements, black loam soil, price \$25 per acre. Write WALKER & CARDWELL, Parsons, Kan.

FREE—32 page booklet, brimful of interesting and valuable information about Smith county and corn and alfalfa land.

Muhlin Bros., Smith Center, Kan.

MONTGOMERY COUNTY LANDS.

Montgomery county is second in population and 5th in wealth in Kansas. Write for list of choice farm bargains and prices. W. J. Brown & Co., Independence, Kan.

CHOICE KANSAS FARMS in Smoky Valley, Saline and McPherson counties, where you can raise alfalfa, corn and wheat with profit. Write for information and list. David Bachman, Lindsborg, Kan.

MARION, MORRIS AND DICKINSON county, Kansas, lands. Bargains in improved farms at prices ranging from \$15 to \$50 per acre. Write for big list.

T. C. COOK,

Lost Springs, Kan.

RENO COUNTY FARM—320 acres highly improved, fine new house with gas and water in, sandy loam soil, best kind corn and wheat land; price \$4,000. Other bargains.

W. W. BARRETT,

Sterling,

Kansas.

FOR NINETY DAYS ONLY.

560 acres, 5 miles from town, all tillable, 9 room house, good barn and sheds, fine orchard, good well and water system. Price \$50 per acre. Write

McCLURE & SUTTON,

Moline,

Kan.

A GREAT SNAP FOR A QUICK SALE.

320 acres of our very choicest land located only one mile from this town, fairly well improved and fenced, about 200 acres in crop and 1-3 of the crop goes with farm. I am offering this choice farm for a short time only at \$30 per acre; will give terms on part if desired. W. O. EATON, Cashier The Gem State Bank, Gen., Kan.

NESS COUNTY, KANSAS LAND.

Good soil as any in the state at \$10 to \$15 per acre, well improved land \$15 to \$25 per acre. Fairly rough at \$5 to \$8 per acre. Come before the new railroad gets here or write

J. G. COLLINS,

Ness City, Kan.

BARGAINS IN LAND.

A well improved 10,000 a. ranch in Sherman Co., \$10 per a., easy terms, also other smaller ranches and 100 scattering quarters and half sections from \$9 to \$12 per a.

M. ROBINSON, the Land Man.

Goodland,

Kansas.

LIVE AGENT WANTED

In your locality to assist in selling corn, wheat and alfalfa land. We own thousands of acres in Pawnee and adjoining counties. Write us for a proposition on our own ranches.

Frizzell & Ely,

Larned, Kan.

CORN, WHEAT AND ALFALFA LANDS In Cloud, Washington and Republic counties, where all staples produce bountiful crops and prices are advancing rapidly. Best section in Kansas for a home or investment. Write for free list.

Nelson Land Co.,

Clyde, Kan.

560 ACRES, 6 miles Smith Center, county seat, 350 under cultivation, 140 wheat, 50 alfalfa and hay, 160 pasture; balance for corn; extra good house, barn, well, windmill, outbuildings, 1-3 all crops go if sold soon. \$40.00 an acre. Other farms.

RECORD REALTY CO.,

Athol,

Kansas.

CORN AND ALFALFA FARMS.

Where all staples grow to perfection, at \$35.00 to \$65.00 per acre. Lands are advancing rapidly and offer the best opportunities in Kansas for homes or investments. Write me what you want. I will try to suit you.

John Reitz,

Lebanon, Kan.

320 ACRES, 160 in cultivation, balance pasture and hay land, fenced and crossed, 105 acres in wheat, 15 fenced hog tight, two room frame house, barn for 10 head horses, good well and mill, on R. R. D. Price \$22.50 per acre. Other farms.

NORTON LAND CO.,

Norton,

Kan.

DICKINSON COUNTY FARMS.

Good water, good climate, corn alfalfa and wheat produce mammoth crops. We sell these lands at prices that will produce big interest on the investment. Write us for full information.

Murphy & Fenton,

Abilene, Kan.

SHARON COUNTY ALFALFA LANDS.

Choice corn and alfalfa farms for sale in Barber county, Kansas. Crop failure unknown. Write for particulars and list. Address

WILLIAM PALMER,

Medicine Lodge,

Kansas.

HARPER COUNTY.

Home of corn, alfalfa and wheat. Lands \$25 to \$75 per acre, that would be cheap at twice the money. Values advancing rapidly. Now is the time to buy. Descriptions and full information free.

HEACOCK REALTY CO.,

Anthony,

Kansas.

LET ME SHOW YOU

That Western Kan. farms and ranches are the best to be had at the price. Wheat, barley, rye, corn, broomcorn, cane, and millet are the products. Good stock country. Best of soil and water, healthy and nice people, farmers and ranchmen are making easier livelihood than anywhere else. What more do you want? Improved farms \$12 to \$30 per a., raw land \$10 to \$20 per a. Write for list. J. C. JONES, Kadorada Kan.

JEWELL COUNTY.

Leads them all, according to Coburn, in corn, alfalfa, poultry, mules, cattle, hogs, honey. Write what you want to

GREEN REALTY CO.,

Mankato, (county seat), Kan.

TO HOME SEEKERS.

Don't fail to write me for prices on farms and ranches before you buy. Land is sure to advance, abundance of alfalfa and clover. Wheat is fine. No expense at this end. W. C. BRYANT, Elk City, Kan.

BARGAIN.

Improved ¼ section level farm land, ¼ mi. P. O. and school, 250 a. in cultivation. 100 a. wheat, 1-3 crop goes with place. Price \$30 a.; make very reasonable and long time terms. W. B. Grimes, Owner, Arhland, Kan.

240 ACRES VALLEY LAND.

Good improvements, near school, 4 miles town, several acres orchard, fine grove forest trees, water at 13 to 30 feet, \$30 per acre. Good terms. Big list and booklet free. PARK M., THORNTON, Coldwater, Kansas.

COWLEY COUNTY BARGAIN.

284 acres, 2½ miles of Arkansas City, 160 acres is Arkansas river bottom land, 40 acres in alfalfa, 120 for corn, 9 room house, bank barn 30x40, small orchard and wind mill. Price \$57.50 per acre. Write R. A. GILMER, Arkansas City, Kan.

EASTERN KANSAS BARGAINS.

1.—320 a. well improved, near town, \$45 a. 2.—160 a., good improvements, close in, \$45 a. 3.—160 a., finely improved, \$9,600. 1,152 acres, great ranch, finely improved, easy payments, \$28 a. Write for list. JOHN TAGGART & SON, Kansas.

White City,

IMPROVED FARMS.

\$35 to \$60. Producing immense crops corn, wheat and alfalfa. Nearly every farmer has 10 to 100 acres alfalfa. Fruits of all kinds and vegetables do well. List free.

W. C. ALFORD,

Hazleton,

Kansas.

"A FEW SNAPS."

In McPherson Co. farms which it will pay you to investigate. 150 a., 2 miles from Lindsborg—valley land, 15 a. alfalfa, can all be cultivated, good buildings. Price \$11,000. Terms will be given. For full particulars and full list write Joseph A. Brandt, Lindsborg, Kan.

CORN AND ALFALFA FARM.

53 acres river bottom, 6 room house, good new barn, 2 wells, windmill, family orchard, double granary, abundance large shade trees, 2½ miles good market, some alfalfa. Write for price and full description free. Box 114, Minneapolis, Kan.

FOR HOMESSEKER OR INVESTOR.

Kiowa and Cavalry Creek Valleys, Comanche County, Kansas. Alfalfa land \$20 to \$35; rapidly advancing. Great opportunities for homeseeker or investor. Write for our large list of bargains, mailed free and postpaid.

PIONEER REALTY CO., Protection, Kan.

240 ACRES, 200 acres in cultivation, 50 acres in wheat, 1-3 goes to purchaser, balance for spring crop. This is good corn and wheat land, dark, sandy loam soil. This land is practically level, good water, 3 room house, stable for six head of horses. This land is 3½ miles to R. R. town in Harper Co., Kan., and 1½ miles to school. Price \$7,500. For further information write Hilton & Garrison

GREAT BARGAINS IN IRRIGATED LANDS.

We can sell you the richest irrigated farm lands with free perpetual water right in the healthiest climate of the universe adjacent to the great new High Grade Oil Fields, that will produce abundant crops of alfalfa, 80 bushels of oats per acre that weigh 48 lbs. per stricken bushel and all other crops in proportion for \$20 an acre. These lands will not last long for the Eastern farmer is getting alert.

Great Northern Land Co.
Evanston, Wyoming.

Central Minnesota LANDS

We have a large list of choice bargains in Crow Wing and Cass Co. lands, both wild and improved. From \$10 per acre up. Write us for our map and checkings of what you want, whether wild or improved, whether you want a small or large tract, and we will mail you our map and our list of what we have to offer. Perfect title or no sale with us.

Keene & McFadden, Brainerd, Minn.

Virginia,

"THE MOTHER STATE."
Farm homes, mineral and timber lands, cheap and good soil. Long growing season. Mild climate. Great demand for all farm products. Va. books, maps and information FREE. Address with stamp
VA. LAND MIGRATION BUREAU,
Walter J. Quick, Mgr., 6 Gale Bldg.,
Roanoke, Va.

MISSOURI LAND

NORTH MISSOURI farms for sale and exchange. Home of blue grass, corn and clover. Booklet and state map free.
Broyles Land Co., Chillicothe, Mo.

IMPROVED corn, clover and blue grass farms, 40 miles south Kansas City, \$50 to \$75.00 per acre.
J. M. Wilson & Son, Harrisonville, Mo.

CORN, clover and bluegrass farms in the best section of Missouri, very reasonable prices. Write for description.
W. A. HORN, Harrisonville, Mo.

DID YOU GO TOO FAR?
Do you want to have a clover, bluegrass and timothy farm again? If so, write us. We sell well improved Johnson county farms for \$40.44 up. Write for our list, mailed free and postpaid.
LEETON LAND CO.,
Leeton, Mo.

830 ACRES FINE TIMBER LAND.
Abundant living spring makes ideal ranch; if cleared would be good agricultural; farms adjoining all sides cannot be bought for \$50 per acre; near county seat; price \$75 per acre; no incumbrance; will take some trade. J. H. McQuerry Realty Co., 120 Commerce Bldg., Kansas City, Mo.

YOUNG MAN, PUT YOUR SAVINGS IN LAND.
It's accumulating while you sleep. We can sell you southwest Missouri land in the best fruit and grain country for \$8.00 per acre; \$1.00 per acre down, balance in six years at 6 per cent. See or write Locator Realty Co., 312 Ridge Bldg., Kansas City, Mo.

FOR SALE

60,000 acres of land in Stone and McDonald Counties, Mo. Especially adapted to the Fruit, Poultry and Dairy Business. Can be purchased on easy terms in 20 acre tracts or more. Write
JOSEPH C. WATKINS,
305 Miners Bank Bldg., Joplin, Mo.

NEBRASKA LAND

TWO SPLENDID FARM BARGAINS.
400 acre farm in Red Willow county, Neb., 2 1/2 miles from McCook, good 8-room house, good barn and other good improvements; 160 acres choice valley alfalfa land, 55 acres now growing; 100 acres bottom and 40 acres upland, cultivated, balance pasture; well watered, some timber and abundance of choice fruit trees, bearing. Actual value of land over \$30,000 but belongs to non-resident, who will take \$16,000 if sold soon—only \$40 per acre. Act quick; don't miss this.
550 acres 12 miles from McCook, 7 miles from Troyer, Kan., 400 acres choice, smooth farm land, balance good pasture, half cultivated, slight improvements. A splendid bargain at \$16 per acre.
For other snaps in farm and ranch lands write or see
ACKERMAN & STEPHENS,
McCook, Nebraska.

IRRIGATED HOMESTEADS.
In the famous North Platte Valley, where Uncle Sam furnishes the water on ten years time without interest. Crops yield \$25 to \$100 per acre. Homesteads at from \$730 to \$3,500, according to improvements. Deeded land \$75 to \$100 per acre. Free rural mail delivery, telephone and all modern farm conveniences. These lands in splendid settlement of fine homes near town. For particulars write or see
CARPENTER, PLUMMER & MURPHY,
Morrill, Neb.

45 BUSHELS WHEAT LAND, \$25 PER ACRE.
We own and control 20,000 acres of Cheyenne county, Nebraska's choicest farm land now on the market. The heaviest crop yielding county in Nebraska for ten years; alfalfa also a leading crop. Ask for folders and full particulars. Agents wanted everywhere. Write for our proposition at once. Railroad fares refunded if things not as represented.
FUNDINGSLAND & SEVEKSON,
Sidney, Nebraska.

Kimball County, Nebraska.

has excellent farm lands. Produces alfalfa and all kinds of small grain. Prices \$10 to \$20 per acre. State amount of land wanted.
KIMBALL LAND CO.,
Kimball, Nebraska.

KANSAS LAND CONT'D

FOR REPUBLIC COUNTY
corn, wheat and alfalfa lands, at reasonable prices on good terms. Write or see
Hall & Cartensen, Belleville, Kan.

FREE.
List Sherman and Thomas county wheat, alfalfa and corn lands, \$12.50 to \$35.00 per acre. Send your name today.
R. T. Hemming, Brewster, Kan.

IDEAL RANCH.
4,200 acres. Three creeks. One-fourth can be farmed. On line of new railroad. \$10 per acre. Easy terms. See
MARSHALL BARLOW,
Coldwater, Kansas.

FOR SALE.
Sherman county lands, in any size tracts on most liberal terms. Write for prices, descriptions, and illustrated literature mailed free and postpaid.
IRA K. FOTHERGILL,
Real Estate & Investments,
Goodland, Kansas.

STAFFORD COUNTY BARGAIN.
160 acres, 4 1/2 miles of Macksville, Kan., nice level land, well improved, good house, near school and church, 50 acres in wheat, balance corn and pasture land, one-third crop goes with farm; possession in September, 1910. Price \$9,000. Call or write
CHAS. F. FIELDS, Macksville, Kan.

HAVE YOU ANYTHING TO TRADE?
If you have, list it with Howard, the Land Man, and he will get you something in short order that will suit you. I have farms to trade, automobiles, houses and lots, in fact, everything you can think of that you are likely to want. Talk it Over With Howard, the Land Man, Room 15, Turner Bldg., Wichita, Kan.

160 ACRES, 4 1/2 miles Selden, good five room new house, half in cultivation, 70 acres in wheat, all necessary improvements, on rural route, fenced and cross fenced, school house, on one corner of the place; everything in good shape; price \$4,000; terms. Other farms.
Trimble & Trimble, Selden, Sheridan Co., Kansas.

640 ACRES, smooth as a floor, 2 1/2 miles station, well improved, 6-room house with double cemented cellar, porch nearly around house, large barn, 320 acres fenced with 3 wires and hedge posts a rod apart; 220 acres in cultivation, good well, windmill and tank. Price \$25.00 an acre. Terms. Other farms at lower prices.
JOSEPH SAGER, Colby, Kansas.

DIRECT FROM OWNER.
320 acres, 3 miles south of Goodland, all smooth, rich black loam soil, 160 acres under fine state of cultivation; produced 25 bu. wheat per acre last year. One of the finest farms in Kansas. Price \$26.00 per acre. Liberal terms.
T. V. LOWE, Owner, Goodland, Kansas.

CLARK COUNTY BARGAINS.
800 acres 10 miles from town, 700 acres good farm land, black sandy loam soil, 200 acres in cultivation, 30 acres in alfalfa, 140 in wheat, 1-4 of crop goes with sale, 2 room house, windmill, granary, etc. One mile from school. Terms one-half down, time to suit purchaser. Price, \$12 per acre.
WILSON & HAVER, Englewood, Owners, Kan.

WALLACE COUNTY, KANSAS.
Where land is now selling for \$10.00 to \$15.00 per acre. If you buy now you will double your money shortly. The best "buys" in Kansas are to be had here. If you are looking for a good home or money-making investment write me.
G. G. IMMELL,
Land Agent, Sharon Springs, Kan.

WALLACE COUNTY, KANSAS.
\$8.00 to \$10.00 per acre, on liberal terms. Prices are advancing, and you must act quickly if you buy at these prices. Write or call and see me.
G. W. McEWEN,
20 Years Experience, Wallace, Kansas.

GOOD STOCK RANCH.
560 acres, 200 acres in cultivation, 300 more can be, 360 acres pasture, this is valley land. Improved 4-room house, barn 40x50ft., granary, etc., family orchard, and some timber, fenced, watered by well and never failing springs. Located 2 miles from railroad town, 8 miles from Winfield in Cowley County, Kan. Price \$30 per a. Call on or write THE NELSON REAL ESTATE & INS. CO., 137 N. Main St., Wichita, Kan.

GOVE COUNTY LANDS
8.00 an acre and up. If you want a good home, and an investment that will double soon, write me.
THOMAS F. McQUEEN,
Treasurer of Gove Co., Gove, Kan.

GOVE COUNTY
If you want to buy wheat and alfalfa land, at the lowest prices on the best terms, write to or call on
O. B. JONES,
Gove, Bonded Abstractor, Kan.

MEADE COUNTY FARMS
400 farms, 160 to 640 acres, improved and unimproved, at \$12.50 to \$25.00 per a., easy terms. 320 a. 7 mi. Meade in German settlement, 300 a. fine tillable land, 106 a. cult., price \$6,100. Experienced salesman wanted. CHAS. N. PAYNE, Hutchinson and Meade, Kansas.

Looking for This?
For Sale: For a quick deal, 240 acres of good land, S. E. quarter of 15-24-17 and E. 1/4 22-24-17, two miles north and half mile east of Pliska, Woodson county, Kansas, at \$25.00 per acre, half cash, balance on liberal terms. If you are looking for a snap, go and see this. Don't write until you have examined it.
J. B. Van Deren,
1410 Union Ave., Kansas City, Mo.

800 Acre Stock and Grain Farm

Two miles of two railroads and near trolley line, 480 acres rich creek bottom and second bottom, black loam soil, does not overflow, best of corn, alfalfa and wheat land; 900 a. fenced hog tight with good cross fence, two sets of improvements, No. 1 seven room house, three good barns, all in good condition, never failing well, soft water, three water tanks, 18 barrel capacity; plenty bearing fruit trees, good stock scales, with house over and stock yards, 20 a. good timber, last a life time, never failing supply natural gas to run all machinery and for light and fuel. No. 2 improvements, good seven room house, good water, good barn, barn 30x40, capacity 3,500 bu. grain, 12 tons hay, oat granary and cow shed, some fruit, one-half section pasture land, good water. The natural gas sold from the 800 a. is \$1,000 cash in advance each year and free fuel for house, 175 a. fine growing wheat, \$65 per a. will buy this land if taken by June 1; about 200 hogs, 250 cattle mostly registered Herefords, 12 horses and mules, harness and implements will be priced away down with the land, 1/4 cash, balance 10 or 20 years' time at low interest. No trades considered. Come and see me.

R. M. DOBSON, Owner, Independence, Kansas.

A BIG BARGAIN.
2120 acres fine wheat, corn, alfalfa land, except 200 acres pasture, well located, watered and improved. Most of this worth twice the price, \$13 per acre. A sure snap.
M. G. STEVENSON, Ashland, Kan.

HIGHLY IMPROVED and Stocked Ranch of 800 a., 2 mi. from town in Phillips Co., Kan. High grade cattle and horses. Price of ranch and stock \$50,000, want half cash and bal. in income property or would carry \$25,000 long time at 5 per cent; first class in every respect. N. W. White Land Co., Phillipsburg, Kan.

FINE FARM CHEAP.
A No. 1 40 a. farm 1 1/4 mile from good county seat town, good buildings, splendid water and family orchard. Raised 412 bushels wheat last year on 16 a., reason for selling going into business. For particulars and price address owner.
F. T. JARRETT, R. F. D. No. 3, Columbus, Kan.

WALLACE COUNTY LANDS.
At \$10.00 to \$25.00 per acre. You will double your money if you buy now. If you want a good investment, write for further information. The Great Western Development Co.,
H. FITZGERALD, Mgr., Hays, Kansas.

BARGAIN IN GAS BELT.
120 a. in Wilson Co., Kan. Fine soil, well improved, lays well, good 7-room house, good barn, orchard, grove, paying \$120 gas rental, close to market. Will pay to investigate.
SHANNON & HARSFIELD, Fredonia, Kansas.

ADMINISTRATOR'S SALE.
160 a. 1 1/2 mi. from Downs, about 80 a. broke, balance in pasture with good fence, all good farm land, 30 a. in wheat, balance in corn, 1-3 goes with place delivered in town. The best of sand in pit place, 1 a. of it will pay for the place. For terms address
B. D. Courter, Downs, Kansas.

Land Bargains
ELLIS AND TREGO COUNTIES.
Where corn, wheat and alfalfa produce big crops. Prices are now only \$15.00 to \$40.00 per acre; about half what the lands are actually worth. Write for further information and bargains.
D. W. NICKLES, Hays, Kansas.

Million acres Texas School Land for sale by the State; \$1.50 to \$5 per acre; only one-fortieth cash, 40 years on balance; three per cent interest; good agricultural land; some don't require residence; send 50 cents for 1910 Book of instructions. New State Law and description of lands. J. J. Snyder, School Land Locator—Congress Ave., 568 Austin, Tex. Reference: Austin Nat. Bank.

TAKE ADVANTAGE of one year's advance in prices on nice 80 a. in Nemaha Co., Kan., 3 miles S. E. Cornings. You can buy now and get March 1st, 1911 settlement. Price \$65 per a., terms to suit. Will pay 10 to 15 per cent on investment, rented for crop rent. Write owner, C. E. Tinklin, Cornings, Kan.

A RICE COUNTY HOME.
A fine quarter section 3 1/2 miles from Lyons, splendid improvements, orchard, 30 acres fine alfalfa, 50 acres pasture, all tillable, 70 acres in corn, all goes with place, school 19 rods. Possession if sold at once. Price \$13,000.
NODURFT & TORREY, Lyons, Kan.

SPECIAL BARGAIN.
Square section 3 1/2 miles Brewster, some rolling, but not rough, fair buildings, two wells and mill, fenced and cross fenced; 240 acres in cultivation, at sacrifice. Price of \$12.50 for short time, \$3,000 5 years at 6 per cent. Odd quarters, half sections, 3 to 8 miles Brewster, smooth raw land, \$12.50 to \$18.
Wheeler & Mallory, Brewster, Kan.

EAST KANSAS FARM BARGAINS.
90 acres Franklin Co., Kan., 65 a. in cultivation, 25 a. native grass, 2 a. orchard, new 7 room house, barn for 4 horses, other outbuildings, 8 mi. to Ottawa, R. F. D. Enc., \$2,000. Price \$60 per acre.
84 a. Franklin Co., Kan., 59 a. in cultivation, 25 a. native grass, 3 room house, stable for 4 horses, other outbuildings, 8 mi. to Ottawa, R. F. D. Enc., \$2,200. Price \$61.50. For full particulars write Mansfield Land Co., Ottawa, Kan.

JUST LIKE STEALING.
To take this beautiful half section in Cowley Co., only 8 miles from a good R. R. town, in a fine community, school, church, and stores only 1/4 mi.; free phone, rural route, 5-room house, cistern, good stable, well, finest water in the state, pond, two orchards, 100 acres cultivation, bal. splendid bluestem pasture, can all be tilled but 20 a., level; upland country farm, smooth and level; soil is a deep black limestone loam, average over 46 bu. of corn per a. last year; grows alfalfa perfectly; only \$30 per a. for a short time; you'll have to hurry, this won't keep; \$5,000 cash, balance back; talk fast; it's money for you.
SHARP REALTY CO., Turner Bldg., Wichita, Kan.

WESTERN KANSAS LAND.
In Lyon and adjoining counties from \$11 to \$25 per acre, according to location and improvements.
T. E. HALE, Solomon, Kansas.

LOGAN, THOMAS AND GOVE CO. LAND.
In tracts to suit purchaser, at \$10 to \$30 per acre. If you want a good home and paying investment, write to or call on
F. E. CANAN, Oakley, Kansas.

GOVE AND SHERIDAN COUNTY.
Wheat and alfalfa lands, \$15 to \$30 per a. Lands several miles out, for still less. Write for full information, and our free list.
THE S. J. BAKER LAND CO., Grainfield, Gove Co., Kansas.

320 acres, 1 mile Wilson, 220 acres in cultivation, fairly well improved, would make a fine wheat and dairy farm. Price \$21,000. Easy terms. Other farms. If above above doesn't suit, write me.
N. COOVER, REAL ESTATE, Wilson, Kansas.

MIDDLE AND SOUTHWESTERN KANSAS LAND.
Corn, wheat, alfalfa and ranch lands, at low prices on liberal terms. Great opportunities for homeseeker and investor. Be sure to see me before you change your location.
E. B. FRITTS, Real Estate Broker, Hays, Kansas.

640 ACRES RAW LAND 8 mi. from Brewster, Kan. Smooth and pretty, good soil. Price \$6,890; \$2,890 can run 17 years at 6 per cent optional.
160 acre smooth farm, small frame house, 40 acres in wheat, balance fenced in pasture, all smooth and tillable, 8 mi. from Brewster, on R. F. 1-4 crop delivered, and all for \$2,000. E. W. Albright, Brewster, Thomas Co., Kan.

12,700 ACRE ranch, 8 miles Sharon Springs, county seat and Union Pacific division point; 8 miles of creek, 3,300 acres alfalfa land; fine blue-stem hay now on land, which cut 500 tons last year; fenced; will sell en bloc, or in tracts to suit purchaser, at \$12.00 per acre. Will give terms.
HAYS & WARD, Sharon Springs, Kansas.

65 ACRES GOOD BOTTOM LAND, 2 mi. town. Small house and barn, 9 a. alfalfa and 100 fruit trees. Price \$75 per acre. We have a steam laundry that clears \$160 per month, for sale at a bargain. If taken before May 1st. Write for free list and exchanges. Frank Miller & Co., Minneapolis, Kan.

I HAVE SOLD my half section near Colby and now offer a fine smooth quarter 3 miles from Brewster, Kan., no improvements except 40 acres under cultivation, school house across road from it. This quarter is choice and is offered for the small sum of \$2,200.00 cash.
Another smooth quarter, 14 miles from Brewster, 55 acres under plow, 14 miles Brewster, 55 acres under plow, sod house, good well and new wind mill and a bargain at \$2,000.00 cash.
These are bargains and must be sold soon. Address
IKE W. CRUMLY, Brewster, Kan.

AN IDEAL FARM FOR SALE.
Kansas farm of 300 acres, adjoining a flourishing railroad town, forty miles west of St. Joseph, Mo. The soil naturally rich has been made more fertile by twenty years of judicious application of manure; well watered, fine walnut timber, finest blue grass pastures, alfalfa, timothy and clover meadows; finest corn and wheat land; well fenced; hay cattle and horse barn for a large amount of live stock; large silo, water tanks, granary, fine mill, etc. A model stock or grain farm, ready for use. An excellent opportunity. For complete information address K 225, care Kansas Farmer, Topeka, Kan.

Kuper's Milking Shorthorns at Auction.
The cows that go into the Henry H. Kuper Shorthorn sale, to be held at Humboldt, Neb., Thursday, April 28, are the kind that give large quantities of rich milk. Mr. Kuper has paid special attention to developing this characteristic in his herd. They are not only heavy milkers but have the best of pedigrees. Out of the 40 head that go into the sale 24 are pure Scotch. They are representatives of the oldest and best families and are good individuals. This is Mr. Kuper's seventh annual sale and one of the best offerings he has ever made to the buying public. Write at once for a catalog, mentioning Kansas Farmer.

Holland Stock Farm.
Perhaps no company of breeders and importers have done more for the good of the pure bred industry of the home state than have the Holland Stock Farm of Springfield, Mo., with their big Percherons and German Coachers. They always import good stuff and from this they breed good stuff. Last year they made a killing in the show ring at the great Missouri State Fair as well as at the American Royal. The Missouri State Fair is always a strong show place for horses and the winners there have a right to feel pride in their victories. The American Royal is the grand round up of the big fair circuits and prizes won in its rings are indeed valuable. When a stud can win right and left in both of these shows as did the Holland Stock Farm, it can mean but one thing. They have the horses.

Colorado Land

CALL OF THE WEST

Why do you rent? Why give the best years of your life working for others? Own your own farm—you can do it on payments less than the rents you are now giving.

BE INDEPENDENT—DO IT NOW.

We have plenty of choice smooth fertile lands such as are now producing from 25 to 45 bushels of wheat per acre and yield abundantly of corn, alfalfa, oats, potatoes and other crops. We can sell you at from \$10 to \$25 per acre on good terms. Write us at once for information as to the splendid opportunities for investment in lands both irrigated and irrigable, or choice farming uplands.

These lands are in Logan and Weld counties and the famous Crow Creek Valley.

THE BEST OF NORTHWESTERN COLORADO.

Act now and get the benefit of the rapid rise in values. Some good homestead lands subject to filing.

THE WESTERN LAND CO.

STERLING,

COLORADO.

Kiowa County, Colo., Land.

12,000 acres of choice wheat land offered in quarters and half sections. On line of Mo. Pac. R. R. close to three good towns. Prices range from \$5.00 per acre upward. Write for terms and descriptions.

ALBERT E. KING,

McPherson, Kansas.

MAP OF COLORADO

And handsomely illustrated literature telling about our lands in Eastern Colorado on the Union Pacific Railroad where we will sell you a good farm from \$5 to \$15 per acre. Send your name today.

KIT CARSON CO.,

Kit Carson, Colo.

EASTERN COLORADO LANDS.

Where all staples grow to perfection. Lands from \$7.50 to \$30 per acre, on liberal terms. Illustrated literature free.

Flager, Colo.

SAN LUIS VALLEY, COLORADO.

Irrigated pea, alfalfa, hay and livestock farms. \$45 to \$90 per acre. Write for full information. HAIGLER REALTY CO., 112 1/2 E. Pike's Peak Ave., Colorado Springs, Colorado.

CHEYENNE COUNTY, COLORADO.

Where land of ten acres pays for itself in one crop. For \$8 to \$16 we can sell you choice land, well located, near schools, churches and markets. Write or see WILD HORSE LAND CO.,

Wild Horse, Colorado.

KIT CARSON COUNTY, COLO.

Deeded lands, \$10 to \$20 per acre. Homestead relinquishments, \$300 up. Also a few 320-acre homesteads yet. Printed matter free.

Vona, Colo.

BEAR & CLIFT REALTY CO.,

EASTERN COLORADO Lands at lowest prices on best terms. If you want a good home or investment, you should see me. I have been here for 17 years. Inclose stamp for reply. J. G. Jansen, Genoa, Colorado.

EASTERN COLORADO Lands \$10 an acre and up. Live agents wanted. Write for our descriptive literature, and county map, mailed free.

HAYNES LAND CO., Colo.

Vona, Colo.

960 ACRES AT \$6.75 per acre of good farming land 10 miles out. For this and prices on other lands write us.

KENEDY LAND CO., Genoa, Colo.

St. Peter, Minn.

KIT CARSON COUNTY.

Lands now \$10.00 to \$20.00 per acre, and homestead relinquishments at prices according to improvements. Great opportunity for the homeseeker or investor. Descriptive literature free. Vona Land Co., Vona, Colo.

FREE.

List of Kit Carson and adjoining counties land at an average price of \$15.00 per acre. Also descriptive literature. Tell us what you want.

MERWIN LAND CO., Colo.

Siebert,

HOMESEEKERS Attention—Why pay big rent or farm high priced land where your returns are not as large as actual returns on our cheaper lands; many acres netted growers \$40 to \$50 and few cases \$100 per acre, on land ranging from \$10 to \$25, situated in one of the healthiest counties in the world; fine climate, purest foot hill water; write for circulars. Address C. C. Miles, Calhan, Colo.

EASTERN COLORADO.

Our lands raise big crops of wheat, oats, flax and corn, and are rapidly increasing in value. If you act at once we can sell you a good farm for \$12 to \$25 per acre. We want a hustling agent in your locality. Illustrated descriptive literature free upon request.

CLARENCE M. SMITH, Colo.

Flager,

EASTERN COLORADO BARGAIN.

1,600 acres, 1250 deeded, 350 relinquishment with over \$2,000 worth improvements, not 50 acres waste land on entire tract; over \$3,000 worth improvements on deeded land; 175 acres in cultivation, 15 fine alfalfa. Plenty outside range, price \$12.50 an acre. Liberal terms. Other tracts. Write for free list and literature. WILKINSON R. E. CO., Burlington, Colo.

KIT CARSON COUNTY, COLORADO.

Corn, wheat and alfalfa lands, at \$10 to \$25 per acre, according to location and improvements. Prices are rapidly advancing, and the time to buy is now. Write for our free illustrated booklet, stating what you want. A live agent wanted in your locality.

A. W. WINEGAR, Colo.

Burlington,

EASTERN COLORADO—The home of wheat, barley, millet, cane, broom corn, speltz, and all staples. Lands are now very cheap, from \$9.00 to \$11.00 per acre for raw land to about \$20.00 an acre for improved farms, but are rapidly advancing in price. Write for free printed matter stating what you want.

McCRACKEN LAND CO., Colo.

Burlington,

COLORADO LAND

CHEYENNE COUNTY, COLORADO. Good lands, mostly smooth, \$9 to \$15 per acre on most liberal terms. Now is the time to buy, you will double your money within a year. Send 25 cents for a three months' subscription to the "Wild Horse Times." Contains valuable information about Cheyenne county.

CAMPBELL LAND AGENCY, Wild Horse, Colorado.

COLORADO LANDS

Send for our descriptive map folder of Eastern Colorado, mailed free upon request. We have many bargains in wheat and alfalfa land, nice and smooth, at \$8.50 to \$20.00 per acre.

FLAGLER LOAN & INV. CO., Flager, Kit Carson County, Colo.

GOVERNMENT LAND FREE IN ROUTT COUNTY COLORADO

To secure good farmers, we tell you how to locate 160 acres of fine government land in Routt County, on Moffat Road, (Denver Northwestern & Pacific Railway.) Big crops, pure water, good soil, fine climate and markets. Fine openings for investments and business. We have no land to sell, its absolutely free from the government. Law allows you to return home for 6 months after filing. Write for free book, map and full information that tells how to get this land free. Address, W. F. JONES, Gen. Traffic Mgr., 708 Majestic Bldg., Denver, Colo.

STOP! LOOK! AND LISTEN.

to what we have to say in regard to our business. We have a large list of the best lands in Morgan County. Should you desire a good irrigated farm, good dry land on a homestead, communicate with us or come and give us an opportunity to show you what we have.

B. W. JACKSON REALTY CO., Fort Morgan, Colo.

Rinehart and Slagle Durocs.

On the Rinehart & Slagle farm at Smith Center, Kan., was found a most promising lot of spring pigs mostly sired by their two good boars, King of Kant, Be Beat and Golden Rule, by Pearl's Golden Rule, one fine sow being sired by Pearl's Golden Rule out of an Ohio Chief dam is raising nine out of twelve farrowed, the pigs being sired by the good boar, Bonney K., now at the head of W. E. Monasmith's herd. The boar, Golden Rule, has proven an excellent breeder, some of their best pigs being from this hog, but when you come to King of Kant Be Beat you will declare he is a great hog and his pigs show they have descended from the right kind of parentage. Good individuals only are allowed to remain in this herd and with an ideal farm and equipment such as they have will produce and send out sows and boars that will do the buyer good. It will be remembered this firm made one of the best if not the best Duroc bred sow sales held last winter, which of itself speaks more for the quality of the hogs to be found here than could be written. Please keep this herd in mind when in need of anything in the Duroc line. Mention the Kansas Farmer when you write.

Scotch Shorthorns at Auction.

On Thursday, April 28, Henry H. Kuper, of Humboldt, Neb., will hold his annual sale of Scotch and Scotch topped Shorthorns. This will be Mr. Kuper's seventh annual sale and the offering Mr. Kuper considers one of the very best he has ever put into one of his sales. There will be 40 head in the sale, 24 head of which are straight Scotch bred cattle. There will be 27 females and 12 bulls. The females that are of breeding age will all either have calves at foot or be in calf to Mr. Kuper's great bull, Imp. Strowan Star. The bull division of this sale should attract breeders for it is doubtful if a better lot will be sold anywhere this season. All of the bulls are reds, all of them are elegantly bred and good individuals. Among them are several sons of Imp. Strowan Star. Others by Secret of Champion, another bull that has done splendid service in this herd. Number 1 in catalog should prove one of the attractions. He is a very blocky, wide sort of bull sired by Imp. Strowan Star and his dam was the cow, Imp. Winifred 4th, bred by Wm. Duthie, Collyne, Aberdeen, Scotland. Her pedigree contains the names of some of Scotland's most noted bulls, and some of the best cattle of today are descended from her. Number 2 in catalog was sired by Secret and his dam was Red Blossom by Imp. Nonpareil. Number 3, Gloster Boy, got by Baron Sunrise and out of Gloster Girl by Sir King's Charmer. Number 4, Secret Daybreak, was sired by Secret Champion and had for a dam the cow, Scottish Daybreak by Imp. Prince Odeic. Secret Champion is a pure Scotch bull and Secret Daybreak, the dam, is a great milker, her milk testing 6 per cent butter-fat. This bull is good enough to head any herd and should interest breeders or farmers that are anxious to improve the quality of their milking stock. The bulls are certainly a good, useful lot. Two-thirds of them are of straight Scotch breeding and they range in age from 12 to 24 months. Practically everything that goes in the sale was bred by Mr. Kuper himself and have been fed and handled under the most favorable conditions, being fed only such feeds as grew upon the farm. Write for catalog and mention Kansas Farmer.

AUCTIONEERS

L. E. FIFE,

LIVE STOCK AUCTIONEER.

Breeder of Percherons, Shorthorns and Duroc Jersey hogs, posted in pedigrees; terms reasonable. Write or wire for date.



LAFE BURGER

LIVE STOCK AUCTIONEER.

Write or wire me for date. WELLINGTON, KANSAS.

JOHN D. SNYDER

Auctioneer, Winfield, Kan. I sell for many of the most successful breeders.

THOMAS DARCEY

Live Stock and Real Estate Auctioneer. Fifteen years' experience. Breeder of Poland China hogs. Well posted in pedigrees. Dealer in real estate. Terms reasonable. Wire or write for date. Long distance phone 2615. OFFERLE, KAN.

W. C. Curphey

LIVE STOCK AUCTIONEER.

Write, phone or wire me for date. Abilene, Kansas.

Col. Essie Craven

NORTH BRANCH, KAN.

Twenty Years Selling All Breeds.

LIVE AND LET LIVE

is my motto. Reasonable charges and good service. Choice of dates if you write early.

JAS. T. McCULLOCH

CLAY CENTER, KANSAS.

J. H. MOORMAN.

Live Stock and General Farm Sale Auctioneer. Satisfaction guaranteed. Long distance phone connection.

SOLOMON,

KANSAS.

SHORTHORN CATTLE

Tomson Shorthorns

Barmpton Knight, sire of Benefactor, champion Shorthorn steer at the International, 1909, and Gallant Knight's Heir, a winner of three grand championships, 7 firsts and three seconds in ten shows. Our breeding cows are the best blood lines representing 15 different Scotch families with 3 to 6 Scotch tops. Individually they are low down, thick fleshed, breedy cows of the most approved type.

Ten Head of Choice Scotch and Scotch Topped Bulls for Sale. A first class lot of cows and heifers. Railroad station is Willard on Rock Island, 15 miles west of Topeka.

T. K. TOMSON & SONS, Dover, Kansas.

SHORTHORNS.

If you need a young bull or some females write us: prices right.

SHAW BROS., Phillips Co., Glade, Kan.

SHORTHORNS AND POLAND CHINAS.

The pure Scotch bull Scottish Archer in service. Polands headed by the line bred Expansion boar Bell Expand. Nothing for sale at present. Visitors welcome. S. B. Amcoats, Clay Center, Kan.

SCOTCH SHORTHORNS.

7 young bulls from 10 to 15 months old. Scotch and Scotch topped; one pure Scotch bull by Blythe Conqueror. A few choice heifers for sale. C. H. WHITE, Burlington, Kan.

SUNSHINE HERD.

20 spring and summer gilts for sale, bred for fall litters, price \$35 and \$40, sired by Farnell and other good boars, out of Dot's best Spartan Fancy Silver Tips, 10 spring boars just put for service, priced reasonable. A. L. ALBRIGHT, Pomona, Kan.

TENNESSEAN SHORTHORNS.

Have on hand a few young red bulls ready for service that are out of splendid milking dams and have good beef form. No better breeding could be wished. Can spare a few females. Prices moderate. E. S. MYERS, Chanute, Kan.

A CARLOAD SHORTHORN COWS

All are bred or have calf at side. 4 good young bulls that I am sure will suit. Everything nicely bred and in good condition. Moderate prices. Come and see us. D. H. FORBES & SONS, Topeka, Kan. R. F. D. No. 8. Bell Phone 31.

Humboldt National Stock Farm.

Shorthorn cattle, large type Poland China hogs, 10 spring boars, priced right. Write me your wants. I meet parties at trains. We can do business. Come and see us. H. F. Felphey & Son, Humboldt, Kan.

JEWELL SHORTHORNS.

A young herd of up-to-date breeding. Also Percheron and Standard bred horses. In stud, the Percheron stallion Marquis De Wierre (Imp.), also the Standard bred stallion Red Seth 31st. Farm adjoins town. Come and see us. W. T. LOWE, Jewell, Kan.

DO YOU WANT TO BUY Eastern Colorado lands? Write for our free folder, of 28 large illustrated pages. Cheyenne County Land Co., Cheyenne Wells, Colo.

THE LIEBER LAND & REAL ESTATE

Co., Hugo, Colo., dealers and absolute owners of Colorado lands. We bought right by buying early, and best by having first choice. Buy direct from owner and save agents' commissions. Choice farming lands in eastern Colorado, \$5.00 and up. Live agents wanted. For handsomely illustrated pamphlet of 20 large pages, address John Lieber, Manager, Hugo, Colo.

WANTED.

Agents to assist in selling eastern Colorado land. A good opening for alive men in your locality, one who can produce results. Write for our liberal offer, and full information.

ARRIBA LAND CO., Arriba, Colo.

LINCOLN COUNTY, COLORADO.

Good lands, that raise big crops of all staples including corn, wheat, barley, milo maize and many other crops, at \$10 to \$25 per acre. These prices won't last long. You must act quickly. Write for further information.

A. B. DAYWITT LAND CO., Genoa, Colorado.

LINCOLN COUNTY, COLORADO.

Corn, wheat, and alfalfa lands, \$12 to \$25, on liberal terms; are well located, mostly smooth; dark chocolate loam soil; raises big crops, all staples. Prices are rapidly advancing; buy now and get in on the ground floor. Write for illustrated descriptive literature and sectional map of eastern Colorado, mailed free.

COLORADO LAND INV. CO., Arriba, Colo.

GOOD LAND, Kit Carson County, Colo. \$3.50 to \$25.00. Why stay last and pay big rent when you can come to Kit Carson county and buy a home for the rent you pay for the eastern farm one year. Land produces wheat, barley, oats, corn, cane, alfalfa, etc. Write for colored map of Colorado, sent free.

G. W. DINGMAN, Stratton, Colorado.

MUNTZING PAYS THE FREIGHT.

Farms, Sheep and Also Cattle and Horse Ranches.

I own 40,000 acres of choice lands in Washington and Yuma counties, and am offering both improved and raw lands at prices far below all others and on terms to suit all purchasers. Monthly payments if desired. 160 and 320 acres relinquishments adjoining lands offered for sale. Best of wheat, oats, cane, corn, potatoes and alfalfa lands. I refund railroad fare and hotel bills for those who purchase for me. All lands are level, smooth and rich farm lands. NONE better. COME NOW and buy homes and get the free ride. Why pay big commission when you can buy direct from the owner? Write for maps, plats, price lists and explanations and proofs to AUGUST MUNTZING, Akron, Colo.

DO YOU WANT A HOME?

Buy now in Washington county, Colo., where choice land with best of soil, can be had; where good farmers raise from 20 to 45 bu. wheat per acre and oats, barley, corn, speltz, potatoes and alfalfa grow abundantly on upland, without irrigation; in a county rapidly settling and being improved by good thrifty farmers. We have hotel bills for those who purchase from me. many tracts of choice, smooth, fertile farm land, healthful climate and abundance of \$15 per acre. If you are looking for good investments write or see Vanderhoof & McDonald, Otis, Colo.

FREE

Illustrated descriptive pamphlets and booklets telling all about Eastern Colorado; choice land at \$10 to \$20 per acre.

KENNEDY LAND CO., Limon, Colorado.

4,000 ACRES

Good, smooth land, in tracts to suit, \$20 an acre on most liberal terms. Only 1-3 down. Close to Hugo.

N. E. MOSHER, Owner, Hugo, Colo.

\$1 MAKES ANOTHER—WHERE

\$1 MAKES ANOTHER—WHERE In the South Platte Valley, Morgan county, Colo. Money invested in land here will double itself in 3 years. Write for full particulars to

E. E. SEAMAN, Brush, Colorado.

SHORTHORN CATTLE**SCOTCH TOPPED BULLS.**

We have for sale some choice last spring bull calves sired by our herd bull Pleasant Hill Master one of the best sons of Master of the Grove. Will make reasonable prices on these.

O. A. TILLER, Pawnee, Neb.

Prospect Farm Shorthorns

The oldest Shorthorn breeder in Kansas. The largest herd of Cruickshanks in Kansas. Herd headed by Violet Prince 145647 and Orange Commander 220590. Young stock of both sexes and some cows for sale. Quality and prices right.

H. W. McAFEE, Topeka, Kan.

Bel Phone 59-2.

Shorthorn Bull

If you are looking for a young Shorthorn Bull to head your herd right in every way write us for full particulars at once.

O. G. COCHRAN & SONS, Plainville, Kansas.

Center Grove Stock Farm

Scotch Shorthorn cattle and 30 bred sows and a few good spring boars of large type Poland China hogs. Write me what you want. No trouble to answer letters. Bell phone.

J. W. Polphrey & Son, E. C. Chanute, Kan.

JERSEY CATTLE

CAR LOAD Registered Jersey Cows and Heifers, also Young Bulls. H. C. Young, Lincoln, Neb.

LINSCOTT JERSEYS

Offers a few choice cows in milk and some bred heifers. Milk and butter records accurately kept.

R. J. LINSCOTT, Holton, Kansas.

HEREFORD CATTLE**BEAU BRUMMEL**

10th 167719
Modern Herefords. Herd bulls, Beau Brummel 10th 167719, Beau Beauty 192235 and Protocol 2d 17175. Robert H. Hazlett Hasford Place, Eldorado, Kansas.

DUROC JERSEYS

BARGAINS IN DUROCS.
Big, growthy, spring boars for sale at bargain prices. Bred right and fed right. Priced right.

E. M. MYERS, Burr Oak, Kan.

HOWE'S DUROCS.

Special prices on boars and gilts sired by Rex K, champion at Wichita fair this year. Also a few by Perfect Improver, grand champion at Wichita, 1907 and 1908. Only a few left. Get busy and send in your order.

J. U. HOWE, Wichita, Kan.

GREENWOOD HERD DUROC JERSEYS.

Herd boar Bandy Duke 64663, few choice spring boars for sale and few extra good spring and fall gilts. Few tried sows bred for spring litters. Write or come and see me.

E. D. Martin & Sons, Eureka, Kan.

"DUROCS GROWN IN THE OZARKS."

Ohio Chief and Col. blood. Litters by Muncie Chief, Model Prince, King of Models, Inventor, The King I Am, Advance; several by Col. Carter, my leading bred boar. They are all grown right, are good and we answer all letters of inquiry.

C. L. CARTER, Albany, Mo.

SPRING BANK HERD DUROCS.

Herd headed by W. H.'s Colonel, the first prize junior yearling boar at Hutchinson fair, 1909, and Chief's Orion, the third prize aged boar at Kansas State Fair, 1909. A few choice spring boars and sows bred to either of the above named boars for sale.

W. H. Williamson, Raymond, Kan.

20 - BRED GILTS - 20

Daughters of King of Cols. II and G. C.'s Col. These are very choice gilts priced to sell. Also a few choice boars of summer farrow.

FRANK ELDER, Green, Kansas.

LIZZIE'S GOLD BOY 88298 JERSEY BULL.
Dropped Oct. 25, 1909; sired by Iddias Gold Boy by Golden One, he by Kentucky Lad, dam Lizzie Sales, out of Jennie Sales, granddaughter of Old Tormentor. Lizzie Sales has record of 489 lbs. of butter in one year and the grand dam of calf on sire's side. Iddias Daisy, a record of 23.7 lbs. in seven days. Extended pedigree showing breeding and all tested dams submitted upon request. Good individual and large for age.

JOHNSON & NORDSTROM, Clay Center, Kansas.

YOUNG HEREFORD BULLS.

A choice lot ranging in age from 12 to 20 months, sired by Mystic Baron; all good ones, in fine shape. Among them are some choice herd headers. Prices right. Visitors welcome. Write your wants.

S. W. TILLEY, Irving, Kan.

POLLED DURHAM CATTLE**POLLED DURHAMS.**

Young bulls, cows and heifers bred to Roman Hero, the double Standard champion. Prices reasonable. Write for terms.

C. J. WOODS, Chillicothe, Kan.

BELVEDERE X2712-195058

Son of the \$1,500 Grand Victor X1685 150264 heads my herd of Double Standard Polled Durhams. A few extra good, blocky, thick-fleshed young bulls for sale. Inspection invited. Farm adjoins town.

D. C. VAN NICE, Richland, Kan.

HOLSTEIN CATTLE**ROCK BROOK HERD OF REGISTERED HOLSTEIN-FRIESIAN CATTLE.**

Special offer for next 30 days in bull calves from 1 month to a year old. A few high class registered cows and heifers, and can also offer a few very high grade cows and heifers, consigned to me to be sold by parties wishing to secure pure-breds. 100 head in herd. Address

HENRY C. GLISSMANN, Sta. B, Omaha, Neb.

SUNFLOWER HERD HOLSTEIN-FRIESIAN.

(Formerly East Side Dairy Holsteins.) I have now nearly 20 A. R. O. cows in this herd, all with nice records, including Inka Hijaard Dekol No. 78076 with the fine record of 24.67 lbs. butter in 7 days from 617 lbs. milk. This herd is strictly Advanced Registry breeding throughout and with Sir Segis Cornucopia 39936 as herd header, there certainly cannot help but be great results coming, for his sire now has over 50 A. R. O. daughters, and one sister with over 31 lbs. His dam is a 21.92 lb. cow sired by Paul Beets Dekol (one of the greatest sires that ever lived), she has a number of A. R. O. daughters and 2 sons with A. R. O. daughters, including Sir Segis Cornucopia himself, and Segis Dekol Korndyke Prince, with 5 A. R. O. daughters (3 above 20 lbs., at 3 years old.) A choice lot of bull calves to offer.

F. J. SEARLE, Oskaloosa, Kansas.

RED POLLED CATTLE**AULD RED POLLS.**

Herd established 7 years. Choice breeding and individuality. Three young bulls for sale.

AULD BROS., Frankfort, Kansas.

DUROC JERSEYS**HANLEY STRAIN OF DUROCS**

Write for prices.
Paul B. Johnson, Leavenworth, Kan.

CEDAR LAWN HERD.

I have a nice lot of fall boars and gilts sired by Long Wonder, a grandson of International Champion by such dams as Josie Surprise, Bessie Advance and Miss Orion and other popular sows. Write me your wants. F. M. Buchheim, R. 3, Leecompton, Kan.

CROW'S DUROC JERSEYS.

Herd headed by Climax Wonder, he by Missouri Wonder. 100 head to select from. Prices reasonable. The electric car runs within three blocks of my farm. Come and see my herd at any time.

W. R. Crow, Hutchinson, Kan.

DUROC SOWS and GILTS

30 fall gilts by G. C.'s Kansas Col. and 15 yearling and matured sows, all by noted boars. Will sell and hold until safe for fall litter. Also 10 fall boars, tops of our fall crop.

CHAPIN & NORDSTROM, Green, Clay Co., Kan.

25 - Duroc Jersey Gilts - 25

Spring yearlings bred for last of April and May farrow, large and smooth. The best of breeding priced at \$40 and \$50. Write today, these bargains won't last.

MARSHALL BROS., Burden (Cowley County), Kan.

OHIO IMPROVED CHESTERS**MOSSE OF KANSAS**

Breeder of O. I. C. swine.
ARTHUR MOSSE, Leavenworth, R. F. D. 5, Kansas.

The Arkansas City Business College and School of Telegraphy are making a reduced rate of \$25 for three months tuition. You can almost finish your course in that time. For full particulars write the Arkansas City Business College and School of Telegraphy, Arkansas City, Kansas. See full page announcement, issue April 9.

The Hen Feather Incubator Co., of Blackwell, Okla., are making a reduced price on their 1909 Incubator. This incubator is bringing wonderful results. For prices see ad in this issue of Kansas Farmer or write direct to Hen Feather Incubator Co., Blackwell, Okla.

The Railway Training School. To the prospective student of telegraphy and all ambitious young men and ladies who are desirous of entering the railway and telegraph service we would advise that you send for the Wichita Telegraph College free catalog. Address Wichita Telegraph College, W. D. Alvey, Manager, 605 E. Douglas, Wichita, Kansas.

We invite our readers to look up the ad of the Grain Growers' Hall Insurance Co., of Topeka Kan. They are advertising for good live agents. This company has been doing business in Kansas for about ten years and have always given satisfactory settlements with their clients. This would mean they do business on a fair basis. Kindly look up their ad in this issue and write Elmer F. Bagley, secretary, for particulars. Mention the Kansas Farmer.

Gibson, the Farm Harness Specialist. J. W. Gibson, the farm harness specialist, located at 105 W. Douglas, Wichita, Kan., is without doubt one of the most progressive manufacturers and dealers in harness in the south-west. Eleven years ago Mr. Gibson started a small shop in Wichita, and the superiority of his hand made harness at once built him up a business that amounted to more than \$3,000 the year. Now this business has grown to the amount of \$3,000 the month. Farmers who are using the Gibson hand made harness will use no other. He offers to sell his hand made 1-1/2 and 1-3/4 harness at \$34 and \$36. The leather used is very carefully selected and satisfaction guaranteed. Mail order business is Mr. Gibson's specialty. Write for his little illustrated catalog and get full particulars. Send him the name of some neighbor farmer that wants a harness and he will send you a little useful farm harness tool worth 25 cents free of cost. When writing please mention the Kansas Farmer. See advertisement on another page.

The Marsh and Needles Band house, of Wichita, Kan., are the largest dealers of sheet music, music folios, band instruments and musical merchandise in the southwest. Their business has grown more than 70 per cent in the past eight years. All of their instruments are guaranteed in quality, tone, pitch and workmanship. Hundreds of instruments have been sold in the southwest and have always given satisfaction. They carry a full and up-to-date line at all times of the year. They are the sole agents for the celebrated Holton Band Instruments. The Mercader and Schubert line of instruments are also handled. This firm have a fine illustrated catalog which they would be pleased to send you free upon request. Address Marsh & Needles, 134 North Main Street, Wichita, Kan. When you write or call kindly mention the Kansas Farmer. See large announcement on another page of this issue.

Horses' Skins Are Tender in the Early Spring.

Every successful farmer knows how highly important it is to have all of his work horses in working condition every day during spring and summer, the time when he needs them most. A difficult thing to do, it is admitted. In the early spring horses' skins blister and gall easily and badly; during the winter months they have become tender. In the summer, when the weather is aggravatingly hot and insects are bad, their skins are apt to scald and chafe and become bitten. Owing to these conditions many an otherwise good horse is laid up when his services are most needed—most valuable. To provide against just such occurrences the foremost farmers of the country have discovered and provided themselves with the only sure, safe, quick remedy, Bickmore's Gall Cure. Invaluable and convenient; it cures while the horse works. A practical, valuable horse book, every horse owner should have. Address Gickmore Gall Cure Co., Box 209, Old Town, Me.

Double the Size of Your Farm Without Adding a Single Acre.

This sounds like a new sort of arithmetic, but it isn't; it is a practical solution of one of the big problems of farming, made possible by the inventive genius and practical experience of Mr. George Spalding of Cleveland, Ohio. His invention is a deep tilling machine that bids fair to revolutionize farming, as it means getting at a new, virgin farm that lies under yours, just deep enough to be out of reach of any plow you ever used. The Spalding Tilling Machine plows this new farm for you, and what is more, plows the old one at the same time, and thoroughly pulverizes and mixes the two together, leaving no furrow-slice, and combining top and subsoil in the right proportions. You get a seed-bed of twice the depth, and save a large part of the cost of fitting. Although this thorough, deep tillage takes away from the cost of preparation, it adds to the cash returns of the crop. This is another sum in the arithmetic of scientific farming that has already been worked out by practical, hard-headed men who have used the machine and greatly increased the yield of their crops. This result is easily understood when we consider that deep plowing in the fall brings up new soil which is exposed to the elements all winter, and makes a deeper and richer top soil for the next planting. The deep seed-bed gives more room for root growth, and creates a reservoir to store up moisture for dry seasons. It means also better drainage and less washing in wet ones.

ANGUS CATTLE**25 - BULLS ANGUS - 25**

Ready for Service.

30-BRED COWS AND HEIFERS—30
Sired by or bred to Champion Ito, sire of 1st Prize Calf Herd at American Royal.

10-SHROPSHIRE EWES IN LAMB—10

To our Imported Show Ram.

SUTTON FARMS, LAWRENCE, KAN.

TAMWORTH HOGS—I still have a few extra good males and some gilts for sale. These are the ideal bacon and alfalfa hog. They make a great cross on any of the lard breeds. Try one of my June boars before they are all gone. J. G. Troutman, Comiskey, Kan.

POLAND CHINAS**HIGHVIEW BREEDING FARM**

Devoted to the raising of **BIG BONED SPOTTED POLANDS**

The Farmers Kind. The Profitable Kind. I am now booking orders for spring pigs to be shipped when weaned. Pairs or trios; no kin.

H. L. FAULKNER.

Box K, Jamesport, Mo.

MELBOURNE HERD POLAND CHINAS.

I have a few choice spring boars and gilts sired by Gold Metal, Hadley Boy and Klever Boy for sale at moderate prices. Let me know your wants.

John C. Haldeman, Burchard, Neb.

POLANDS! POLANDS! POLANDS!

Capt. Hatch, Moguls Monarch and Teulon Prince in service. Big type clear through. 4 young boars for quick sale. 3 July boars that are herd boar prospects.

J. H. HARTER.

Westmorland, Kansas.

EXPANSION POLAND CHINAS.

A choice lot of Expansion bred fall pigs, both sexes, September farrow, for sale. Nice, thrifty pigs and will be sold worth the money. Mostly Expansion blood though I have other good ones for those who want them. Get your order in early.

W. H. Willey, Steele City, Neb.

BIG TYPE POLAND BOARS

7 Poland China boars September farrow. The tops of our fall crop. Extra good ones. Sired by Grandson of the prize winner Price We Know. Out of big dams of Bib Hadley and Major Blain breeding. Will price reasonable.

R. J. PECKHAM.

Pawnee City, Neb.

STRYKER BROS.' HERD POLAND CHINAS.

The greatest show and breeding herd in the West. Write your wants and they will please you. Hogs any age at reasonable prices. Buy the best and make the most. They breed the kind that win; the kind you want. Address

Stryker Bros., Fredonia, Kan.

BIG TYPE POLAND BOARS.

Tops of my fall crop. Sired by grandson of Bell Metal and out of a Big Hutch dam. Excellent individuals; will ship on approval. Also pure Minorca eggs, \$1.00 per setting.

W. F. FULTON.

Waterville, Kansas.

BIG STRONG SEPT. BOARS.

Sired by Guy's Monarch, the boar with frame, for 1,000 lbs. and a 10 1/2-inch bone. Out of dam by the noted boar First Quality. Low prices for quick sale. Must make room for spring pigs.

H. C. GRANER.

Lancaster, Kansas.

ELMDALE POLAND CHINAS.

10 fall boars and 10 fall gilts. Choice individuals. Sired by Imperial Sunshine and out of Mischief Maker, Impudence I Know, and Voter dams. \$25 each if sold quick.

C. S. MOYER.

Nortonville, Kansas.

10 SPRING POLAND BOARS 10

Big, husky fellows, sired by Orphan Chief Jr. and Hutch Jr., out of strictly big type sows; low prices.

J. F. Menehan.

Burchard, Neb.

30 BRED POLAND CHINA GILTS for sale. Spring and summer farrow, bred for April and May litters, choicest blood line, also five mature sows and boars ready for service, one by Meddler. Reasonable prices.

F. D. FULKERSON, Brimson, Mo.

25 SUMMER AND FALL BOARS—25.

We have for sale 25 good summer and fall Poland China boars, many of outstanding individuals. The best out of 50 head. Must have room for our 200 spring pigs and will sell you a boar at very reasonable figure. Best big type breeding. Write at once. Mention this paper.

HERMAN GRONNIGER & SONS,

Bendena, Kansas.

BERKSHIRES**RIDGEVIEW BERKSHIRES.**

1 herd boars for sale. 1 two-year-old by Forest King, other males of different ages. Sows and gilts open.

Manwaring Bros., Lawrence, Kan.

THE STRAY LIST

Woodson Co.—John E. Barrett—Clerk. **TWO STEERS**—One red 2-year-old steer brand "R" on right hip, and one roan 2-year-old steer, white face, no brand, valued at \$25 each; taken up March 28, 1910, by R. M. Steele of Center township.

Ottawa Co.—H. A. Brownlee Co. Clerk. **HOG**—Female, black, three white feet, two V marks or cuts in ears, valued at \$25, taken up March 7, 1910, by Leonard Hammond, Minneapolis township.

LIGHTNING



Is Your Home Protected?

You see the deadly work of lightning all around you. Houses and barns are being burned, live stock killed, precious human lives blotted out in an instant. Other people's property is being destroyed. Your turn may be next. Lightning is no respecter of persons. In an hour your home may be in ashes. And the stroke may fall on you or on someone near and dear to you.

Are you justified in refusing to protect your home and family from so deadly a peril?

Lightning Can Be Controlled

A new era has dawned in the world of electricity. Protection to life and property from the dreaded lightning has developed into a science. The principles discovered by Benjamin Franklin are as true today as they ever were, and we have made them ten-fold more effective by learning to apply them in the light of modern science to the protection of life and property.

Prof. West Dodd Takes Up the Work of Benjamin Franklin.

Prof. West Dodd, who 26 years ago took up the work of the great Franklin, has again made the lightning rod business respectable. Protection from lightning has been his life work. He started with the Franklin discoveries. He gave force and effect to the Franklin principles by applying them in the light of what we know of electricity at this day.

A New Lightning Rod System.

Prof. Dodd found too much guess work and too much carelessness and criminal indifference in the way lightning rods were constructed and erected.

He set all this aside by perfecting a system by which he is able to control lightning under all circumstances, and is able to demonstrate to everybody's satisfaction under just what conditions lightning will or will not strike a building, tree or other object.

The Dodd Thunderstorm.

In his great work of rightly interpreting the principles of Franklin, Prof. Dodd actually reproduces on a small scale the thunderstorm with all its attending phenomena.

With this artificial thunderstorm he makes his demonstrations and has shown to learned men and scientific bodies just how and why and with what certainty he is able to control lightning.

Insurance Companies Convinced.

Prof. Dodd is now hailed everywhere by insurance companies as their benefactor.

His work has reduced fire insurance losses. Insurance companies are all agreed that over three-fourths of their fire losses are due to lightning.

By official report of 111 fire insurance companies, reporting thousands of losses, not a single building with Professor Dodd's system of lightning protection was destroyed.

Endorsed by 2000 Companies.

No other man in the history of the world, not even the celebrated Dr. Franklin, has ever been honored in his lifetime as Professor Dodd has been honored by Fire Insurance Companies.

Over 2000 Mutual and other Insurance Companies have endorsed Professor Dodd and his system of lightning protection.

The endorsements have been particular and specific, mentioning Professor Dodd and his system by name, and in no case including any of Professor Dodd's followers or imitators.

Lower Insurance Rates.

People everywhere are urged by these Insurance Companies to protect their buildings by the Dodd lightning rod system.

In many cases buildings thus protected receive from Insurance Companies a reduced rate of insurance. At least one insurance company of national note refuses to insure any building that is not protected by the Dodd system of lightning rods.

Only Experts Are Permitted to Erect Prof. Dodd's Lightning Rods.

No system of lightning rods can be of any avail if not rightly erected. Prof. Dodd permits Dodd lightning rods to be erected only by thoroughly trained and schooled men. Each man must be specially commissioned and instructed by Prof. Dodd. No lightning rod man who does not carry with him the Dodd license is or can be a representative of the Dodd system.



Benjamin Franklin



Professor West Dodd

The D. & S. Guarantee.

The Dodd & Struthers Company was organized solely for the purpose of manufacturing and erecting the Dodd lightning rods according to the Dodd system. That means scientific rods and scientific erection—urged by fire insurance companies—guaranteed by a company with greater responsibility and with more substantial backing than any other system of lightning rod protection in the world.

The D. & S. Guarantee is direct and personal to you and is signed by the one company that has the hearty endorsement of the fire insurance companies of America.

Are You Interested?

You have a home. Dear ones are housed in it. Their lives and yours all are endangered. Don't you want that home protected?

Can you afford to take chances on losing your home, your property and the lives of your family?

The insurance companies urge you to move in the matter.

Your own affections as well as your own property interests prompt you to act.

Whether you have made up your mind or not, let us tell you about Professor Dodd's system of lightning protection. Fill out the coupon and mail to us. It puts you under no obligation.

The Lightning Book Free.

Professor Dodd's wonderful work is well set forth in his book "The Laws and Nature of Lightning." We want you to read it, and therefore agree to mail you a copy free. Simply write and say you want it. Use the coupon and learn what the Dodd System means to you and your home. If you prefer, write a postal, but do it today.

MESSRS. DODD & STRUTHERS,
423 Sixth Avenue, Des Moines, Iowa.

GENTLEMEN:

I would like to read Prof. Dodd's book on lightning. Also would like to see proof that Fire Insurance Companies unreservedly endorse his system of lightning rod protection. Without obligating me, please mail these to me.

Name

Address

DODD & STRUTHERS
423 Sixth Avenue
Des Moines, Iowa