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Established 1863. \$1 a Year

## KANSAS FARMER.

Established in 1863.

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I. D. GRAHAM. Associate Editor
H. A. HEATH. Advertising Manager

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#### ADVERTISING RATES.

ADVERTISING RATES.

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Every advertiser will receive a copy of the paper free, during the publication of the advertisement.

Address all communications to

KANSAS FARMER CO., 116 West Sixth Ave., Topeka, Kans.

## Tumblebugs. 187 Veterinarian, the. 177 Weeds in fences and roads. 184 Windmills, horsepower for. 175

The Kansas House of Representatives passed the Garver railroad bill on Tuesday by a unanimous vote. The only amendments made were such as strengthen the measure. The unanimous vote in the House is assurance that the bill will be strong in the Senate and will become a law.

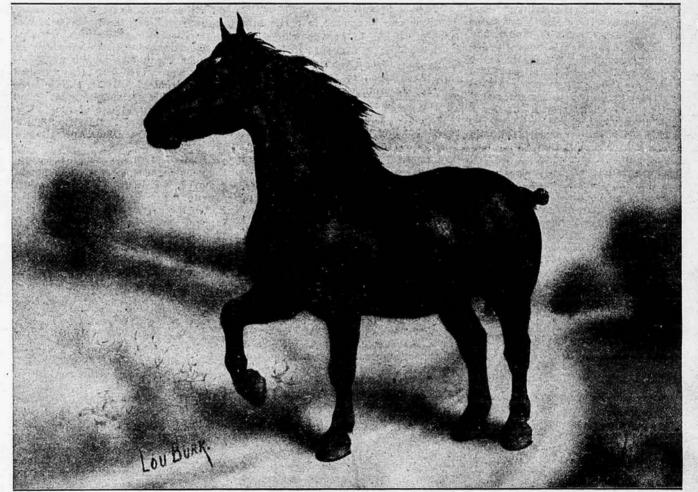
Thomas W. Swinney, Ulysses, Grant County, in a recent letter says: "We

do not want to lease it. The idea of a \$25,000 or \$50,000 experimental concern receives little attention from the oil people and has really little to commend it since there is nothing experimental about refining oil or marketing the products; and it is doubted whether such a small concern could affect the oil industry to an appreciable extent. It may also be questioned whether a \$400,000 enterprise would exert a controlling influence, since it could handle only a fraction of the output of the Kansas field.

The cry of socialism which was sup-

unanimous in their opinion that "his scheme would be a good one if it would only work." Are we at the beginning of a gradual development of this kind of economics?

The oil trust has acquired and held its power to oppress by shrewdly manipulating transportation rates in its favor and by ruthlessly crushing competitors regardless of the cost. Its advantages on transportation have enabled it to crush competitors with little or no cost to itself. Its preponderance in size may enable it to continue crushing even after the enactment of



IAMS DOMINANT (52228)

Black Percheron stallion, 4 years old, weight 2,180 pounds; 2d prize winner at Nebraska State Fair 1904.

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are snow-bound, worst winter on stock in past eighteen years, and zero weather for several days past. Snow, fog, and ice cover everything. Our mail comes from railroad by freight wagons frequently, so it is not fast mail; but we are glad to get it any way it may come, such weather as this."

#### STATE OIL REFINERY.

The Legislature is this week considering two problems of general and permanent interest to Kansas. These are the transportation problem and the oil problem. Transportation is discussed in another editorial in this paper. The oil problem as at present considered is narrowed to a question of a large State refinery with a large revolving fund or no State refinery. The plan of leasing a refinery was dropped by its advocates for the reason that the owners of the independent concern posed to be capable of squelching any State enterprise proposition against which it might be hurled has had surprisingly little effect on the refinery proposition. If on the appearance of Edward Bellamy's book, "Looking Backward," some fifteen years ago-a book which gave a story picture of American institutions under a system in which the Government was represented as having assumed the ownership of all industries, and the direction of all employments and to own all products and to support all the people —if it had been predicted fifteen years ago that by this time the State of Kansas would own and operate a twine-plant and would seriously consider an oil refinery, the prophet would have been laughed to scorn. But, it is undeniably true that the ideas of State socialism have made prodigious progress within the last few years. Readers of Bellamy's book were almost

efficient transportation laws. But a bold and righteous exercise of the ratemaking power by the State and Nation will greatly curtail the malicious power of the oil trust. The advantage in freights gone, independent refiners can hepe to establish and maintain business in the oil field. It is claimed that the building of a State refinery will encourage independent enterprises to such an extent that competition will take the place of monopoly. The KAN-SAS FARMER has not opposed a State refinery, but it confesses that it has been unable to see any connection between the establishment of a State refinery and the encouragement of independent concerns.

It is well to consider that the oil business is not subject to regulation by law as is the transportation business. If it were, the State might provide for a board of oil commissioners and authorize them to determine and enforce

fair prices for crude oil and fair prices for the finished products. The oil business can not be reached thus directly as can the railroad business. There are constitutional limitations to the powers of the State which the railroads long contended should protect them from direct regulation, but which are now conceded to be inapplicable to the case of common carriers, but are held good as to other industries.

The oil problem, now before the Legislature, is an intricate one. The Senate has passed the State refinery bill. It is for consideration in the House on Wednesday and will probably pass. But should the Legislature fail to also enact an effective railroad law, it will have done little to relieve the situation in the oil field and will be reprehensible for neglect of the far greater interests of other industries in the State.

#### PROGRESS OF RAILROAD LEGIS-LATION.

Discussion of the railroad question in the Legislature is progressing. On account of the necessity of preparing copy for the Kansas Farmer in advance of the day of publication we are not able to consider developments later than Tuesday noon. At this writing the advocates of regulation of rates by the railroad commissioners have agreed upon a substitute for the Plumb bill. This substitute has been called the Garver bill. It was drawn by Judge T. F. Garver, of Topeka. than whom there is no better lawyer in the West.

This bill contains the essential provisions, first, that the Railroad Commissioners shall revise any rates which on investigation they shall find to be too high or to be unjustly discriminative; and second, that the rates determined by the Railroad Commissioners shall go into effect in thirty days after notice to the interested parties, and shall prevail until set

aside by a court. This bill is shorter and less drastic in appearance than the Plumb bill, but meets with scarcely less opposition from the railroads. They would consent that the commissioners determine just rates on condition that the railroads retain the option of putting them into effect. Or they might even consent that the Commissioners' findings should be binding if their going into effect should be suspended on taking the case into court and remain suspended until affirmed by the court of last resort. It has even been suggested that pending the decision of the courts, the railroads be placed under bonds to refund all charges above what the courts should finally determine to be just.

The greatest contention is really on this point of the taking effect of the Commissioners' findings. If this could be suspended during litigation, very few cases would be brought, and those brought might easily be kept in court for five or ten years, and by that time a new rate or a new classification might be made to do duty in placing the matter where it was at the beginning of the work. Shippers would rather bear the ills they have than fly to others of the court kind.

The Garver bill is said to have the endorsement of the Governor. Its strength in the House is conceded. It may be unnecessary for constituents to bring their influence to bear upon the Senators, but as a matter of safety it will be wise for every interested reader to write to his Senator, at Topeka, urging the features essential to a law to effectually regulate transportation charges.

It will be observed that the Garver bill is in harmony with the resolutions adopted by the Kansas State Board of Agriculture.

The present system of making transportation rates builds up the large cities at the expense of the smaller. Kansas is so situated that no city in the State is in position to be more benefited than harmed by the inequalities of the present system. Therefore, every Kansas statesman who is true to the interests of his constituents must favor a more equitable adjustment.

No more equitable adjustment is to be expected so long as the rate-making is left entirely to the railroads. The great consolidations which have been effected within the present year are likely to increase rather than to diminish the discrimination against Kansas points. If this State shall prosper as it has a right to prosper both in town and country, there must be a better adjustment of transportation charges. Thus far, there has been put into practice no effective method of securing this better adjustment except by conferring the rate-making power upon a disinterested, official bodyupon the Railroad Commissionersand making their findings effective until set aside by the highest court to which the case shall be taken.

With the authority to make just rates within the State-just not only in comparison with other rates but just as to amount—the Commissioners will be able to cure most of the evils now suffered. But, the Garver bill provides that in case of unjust interstate rates the State Railroad Commissioners shall call the attention of the Interstate Commerce Commis sion to the matter and seek a remody through this body, which will probably soon be given ample authority to make and enforce just rates on interstate commerce. We are able to speak with a degree of assurance on the prospects for a National law from the fact that the House has passed a bill which covers the case, and there is hope that the Senate will also act upon it during the present session.

#### KANSAS CORN BREEDERS' ASSO-CIATION.

Every one interested in agriculture and especially in corn-growing and corn-breeding will be glad to learn of a meeting of the Kansas Corn Breeders' Association to be held at Manhattan, beginning on the evening of March 2 and continuing to the end of the week. The secretary has been corresponding with the most eminent clant-breeders and corn specialists of the country, and hopes to secure the services of at least two of the following distinguished corn-breeders: Mr. Herbert J. Webber, physiologist, in charge of Plant Breeding Laboratory, U. S. Department of Agriculture; Dr. Geo. M. Tucker, manager of the Tucker Plant Breeding Farm, Blodgett, Mo., and formerly Agriculturist of the Missouri Experiment Station; Dr. C. G. Hopkins of the University of Illinois, who has proved to the world that corn may be improved in feeding-value.

Other distinguished agriculturists and successful farmers who have been secured for the program are as follows: Mr. Arnold Martin of Duboise, Nebraska, who has secured wonderful results by his good farming, is a very entertaining speaker, and has been engaged for some time in lecturing to the Nebraska farmers at their institutes: Supt. P. H. Ross of the Government Experiment Station, Kenai, Alaska, will tell about Agriculture in the far North; President J. W. Robison of Eldorado, will tell of his experience in corn-breeding; Col. Guilford Dudley of Topeka, will discuss the subject of "Corn Growing"; Mr. Homer Myers, of Hutchinson, Kansas, will discuss the "Special Requirements for Corn Growing in Western Kansas"; President E. R. Nichols will talk on "Science in Agriculture," and Professor A. M. Ten-Eyck, on "Adaptation of Plants."

Music will be furnished by the College Music Department. Every farmer in the State is invited to be present at this meeting. It matters not whether you are a member of the Corn Breeders' Association or not; come just the same and learn something about corn. Every one is invited to contribute to the "Corn Show" by bringing a sample of ten ears of corn which represents as nearly as possible his idea of good corn. These samples from various parts of the State will be compared with each other and with samples grown by the Farm Department of the college. On Saturday afternoon will occur the students' Corn Judging Contest in which the students will compete for various cash and im-

plement prizes, and for the Fielding trophy. "Corn Growing Contests" have also been provided for which valuable prizes have been secured. Information may be obtained at the meeting of the Breeders' Association which will assist contestants in this contest.

The secretary has written for reduced rates on all Kansas railroads, announcements in regard to which will appear later.

#### IRRIGATION COMES SLOWLY.

EDITOR KANSAS FARMER:—A few weeks ago, I had the pleasure of reading in the KANSAS FARMER some of the advance sheets of a new work, soon to be brought out by C. Wood Davis, of Clearwater, Kans.; and this calls to my mind Mr. Davis' article, published, I think, in 1890, in The Arena, on "The Future Price of Wheat."

If I remember correctly, Mr. Davis was going to have the farmer receive not less than one dollar per bushel for his wheat in 1895, and in 1900, the wheat would be not less than two dollars per bushel at his home market, and never, in the future, bring less than the two dollars per bushel. Mr. Davis wrote very exhaustively upon the subject, and the article was so convincing that a big real-estate loan company which had gotten a large quantity of land, through default in payment of the loan on the same, had several thousand copies of the article published in pamphlet form, and distributed gratis over the country, hoping thereby to dispose of a goodly portion of the lands acquired as aforestated. Time proved that Mr. Davis was mistaken, as the price of wheat did not advance, as he had anticipated. A few years later, an article appeared in the American Agriculturist, treating on the same subject. I do not now remember the names of the authors-there were two-but they quoted largely from Mr. Davis, showing the fallacy of his statements, and wound up by stating that one of the following countries, viz., Russia, Siberia East Indies, Argentina, Australia, or the Northwest Territory can, in any year, produce wheat enough to supply the whole world, and with the tariff removed, wheat from the Northwest Territory can be put in the United States for twenty-five cents per bushel; and then asked, if in view of this fact, it looked reasonable that wheat can reach, and remain for any length of time, at such prices as those stated by Mr. Davis?

Whether these writers were correct in their statements I lo not know, but I do feel that Mr. Davis, when he claimed the wheat lands of the world were nearly exhausted, failed to take into account the vast area of uncultivated land in our own United States, which, under a system of irrigation, will profitably produce wheat, and is capable of supporting a population equal to that of the present United States. I shall be glad to see and read this new work, by Mr. Davis, as he is a very interesting writer, and I trust that when the book is out the Kansas FARMER will make note of the same, as I want and now speak for a copy of this book. L. C. TEED.

Benson, Mich. The Kansas Farmer is in no sense a defender of or an apologist for Mr. Davis. He is abundantly capable of defending himself, and he has not found occasion to apologize for his publications except in a case of the use of official statistics which he afterwards found to be grossly erroneous. The Kansas Farmer has a copy of a book which Mr. Davis had printed in large numbers. In it he had used the erroneous official statistics. The book was a good seller, but immediately on discovering that it contained error he burned the entire edition as far as he could lay hands on the books. He would probably burn the KANSAS FARMER'S copy if he could get it.

It is the editor's recollection that the Arena article, referred to by our correspondent, was based, to some extent, on the aforesaid official reports, which all had a right to assume to be correct.

The other writers referred to by our



correspondent greatly overestimated the wheat-producing power of the countries they discussed.

It may be remarked that the prophet who bases his predictions upon the average course of events does well to allow considerable latitude as to dates of fulfillment. But, did Mr. Davis ever make as definite predictions as his critics have ascribed to him?

The possibilities of production under irrigation are probably as great as they have been painted. But the Anglo-Saxon takes with great reluctance to irrigation farming. He longs for certainty of crops, but clings to uncertainty. His case is well illustrated in the Arkansas Valley where it passes through the wheat belt in Kansas. Under the valley lands, at an average depth of about ten feet, there is in perennial supply enough water to irrigate a much greater area. The owner of 160 acres of this land might easily sell half of it for cash enough to provide ample irrigation appliances for the other half. To apply water with such a plant is not more expensive than the average in the most favored irrigated regions. The returns from the irrigated eighty acres would be steady, certain, large, remunerative. They should provide an admirable living and several hundred dollars a year above all expenses. But the owner of the 160-acre farm sows it to wheat. It may yield a crop varying from very little to 40 or more bushels per acre. It will probably average, say, 15 bushels. This farmer owns plenty of horses and implements. He hires a little help at seeding time, a good deal at harvesting and thrashing time, turns his grain into cash and has as few cares as it is possible for a farmer to have. He wants to buy another quarter-section, for the profits upon his labor are large. To his mind, this is far more desirable than wading in the mud to make a "sure thing" on a small area. As apportunities for this kind of farming become scarcer, and as the market for irrigated products becomes more active, there will be a gradual development of heavy production under irrigation. The time is probably coming when the arid and semi-arid portions of the country will be irrigated as far as possible with the available water supply. It is also conceivable that the great region between the semi-arid country and the 96th meridian will quadruple its productions by the application of its abundant water. But these changes will come only in response to higher prices for products of the farm.

## SPEAKER CANNON OPPOSES THE ADAMS BILL.

It seems passing strange that it is always so difficult to make the average politician understand the absolute necessity he is under for taking proper care of the agriculture interests. Almost anything that may be presented to him will receive his attention and frequently his favorable action except the requests of the farmers for Legislation needed for the benefit of the foundation industry of the country. The following comments by the Breeders' Gazette of Chicago are particularly valuable on this point.

"There are millions of the Nation's money for navy for army, for the purchases of islands, for river and harbor improvements, but when the farmer knocks at the National treasury for aid in road-building and for increased funds for experimental work in agriculture, the door is closed with a bang

(Continued on page 185.)

# Agriculture

Effect of Manure Upon Amount of Water Soluble Plant-Food Material in Soil, and Upon Yield.

PROF. F. H. KING, MADISON, WIS.

NO. II.

It was shown, in the last article, that from naturally strong soils, where the yield was 2.47 times what it was on others poorer, the available plantfood material which would quickly dissolve in water was 2.39 times as great. It was also pointed out that, climatic and physical conditions of the soil permitting, the immediately productive capacity of soils is in a high degree determined by the amount of plant-food materials present in the soils which is readily dissolved by water; and that it appears reasonable to expect, when a sufficiently critical study has been made, we shall find that good soil management has the effect to store up about and within the soil granules larger and larger amounts of the readily soluble plantfood materials, the maximum productive capacity being reached when the soil is able to keep the best amount of soil moisture charged with the optimum amount of the plant-food materials. As a part of such an investigation it is important to learn whether the application of farm-yard manure and other treatments which are known to increase the productive capacity of soils do have the effect to increase the water soluble plant-food materials present in the soil and if the yields are in any quantitative way related to these amounts.

Stable manure was applied to adjacent areas on each of 8 soil types at the rates of 5, 10, and 15 tons per acre and the yields of both corn and potatoes accurately determined in each case. Moreover, each experiment was repeated four times on each of the 8 very different soil types, thus making, with the two crops, 64 trials under normal field conditions for each treatment. Another series of similar areas were given 300 pounds of acme guano per acre; while, separating the various fertilized areas, there were similar ones to which nothing was added.

In the next table there are given the average yields of shelled corn from the four stronger and from the four poorer soils, the amounts being in bushels of 56 pounds and the corn containing 10 per cent of moisture.

MEAN YIELD OF SHELLED CORN.

soils, soil	
bus, bu	
Nothing added 56.5 24.	1
300 lbs. guano 62.8 29.	2
5 tons manure 63.1 31.	
10 tons manure 68.1 37.	
15 tons manure 68.0 44.	0

By subtracting the yields, when nothing was added, from those on the soils which were treated, it will be seen that the gains due to the stable manure, on the four poorer soils, were 7, 13.7, and 19.9 bushels per acre where 5, 10, and 15 tons of stable manure had been applied respectively, or amounts nearly proportional to the amounts of manure used; while the 300 pounds of guano gave a gain of 5.1 bushels per acre. The gains on the four stronger soils were 6.6, 11.6, and 11.5 bushels per acre for the three amounts of manure and 6.3 bushels for the guano. On the poorer of the two stronger soils in Pennsylvania, where the yields of corn were 47.1, 59.5 and 64.3 bushels per acre over the three amounts of manure, the gains were 8.6, 21 and 25.8 bushels per acre; and on the poorer of the two stronger soils in Wisconsin the yields were 70.8, 73.5, and 81.5 over the three amounts of manure and the gains were 14.9, 17.6 and 29.3 bushels per acre. On the other two stronger soils, each of which had been previously and recently manured, there was no clear gain associated with the amounts of manure applied.

The mean gains in yield of both corn and potatoes and for the 8 soil types, associated with the 5, 10, and 15 tons of manure are given in the next table. From this table it is seen that the application of 5 tons of manure was associated with a mean gain of 6.8 bushels of shelled corn and of 35.36 bushels of potatoes per acre; that 10 tons increased the yields 12.63 bushels of corn and 54.72 bushels of potatoes per acre; and that 15 tons increased the yields 15.71 bushels of corn and 63.97 bushels of potatoes per acre.

It was also found from an examination of the soils, on six different dates during the season, that the amount of plant-food materials which could be recovered during three minutes washing with distilled water was 3.9 per cent greater where 5 tons of manure had been applied, 7.2 per cent greater where 10 tons were applied and 11.3 per cent greater where 15 tons had been added to the soil. It is clear, therefore, from these observations, as indeed was to be expected, that both the yields and the plant-food materials in the soil, which could be recovered with water, have been increased with the amounts of manure applied; moreover, in some cases, the increases were in amounts roughly proportional to the quantities applied to, or removed from the soil.

On both the poorer and the stronger soils, and with both crops, 5 tons of manure produced a larger gain than did 300 pounds of the acme guano used, the yield of corn being 20 per cent and that of potatoes 35 per cent heavier on the manured ground.

It is important now to consider the relative efficiency of the different quantities of manure applied to the soil. The most accurate expression of the relative efficiencies would be given by comparing the total quantities of dry matter produced under the different conditions, but as these could not be determined, the total dry matter in the shelled corn and in the potato tubers is here used. On this basis the increase on the manured ground, over that produced on that unmanured, was 79.31 bushels per ton where 5 tons were applied; 66.74 pounds where 10 tons were added; and 53.64 pounds where the quantity was 15 tons per acre. Five tons of manure produced a mean gain of 396.6 pounds of dry matter per acre, 10 tons, a gain of 667.4 pounds per acre, and 15 tons a gain of 800.5 pounds per acre. In other words, it was found, as an average for 8 soil types in four States and for corn and potatoes, that the first-year-effect of 5 tons of stable manure per acre was 15.85 per cent more efficient than 10 tons per acre, and 32.37 per cent more efficient than when applied at the rate of 15 tons per acre. Stated in another way, 10 tons of manure applied to-2 acres was found to be 15.85 per cent more efficient than when applied to one acre; and 15 tons was found to be 32.37 per cent more efficient when applied to 3 acres than when applied to 1 acre. These and other observations make it appear that, for general farm crops, moderate dressings of manure, spread frequently, evenly, and widely over the farm will bring larger returns than when it is applied in large quantities to limited areas at long intervals.

#### Experience with Emmer.

EDITOR KANSAS FARMER:—I saw an inquiry about speltz or emmer. I have raised it the last two years. I believe it is one of the coming crops of Kansas; and as soon as its value is known, it will take the place of oats, as Kafir corn has taken the place of corn in portions of the State. I have had no rust on mine while oats along side of it was ruined by rust. The straw is stiff, stands up well, and is eaten as well as oat straw. While it stands the wet weather without rusting it stands the dry weather equally as well, being a deep-rooted plant.

I raised forty-five bushels to the acre while oats by the side of it made only seven. I think every farmer should sow emmer in a part of the ground that he usually sows to oats. I would recommend from 1½ to 2 bushels to the acre. I have discarded oats entirely as I think emmer a much surer crop. Sow as early in the spring as the season will admit. I am not sure but it might be sown in the fall with success. A year ago last fall I

sowed a small piece—sowed it early so as to get a good start. The fall was very favorable for it. It jointed some; a part of it lived through and made some grain. I think if I had pastured it down or sown it later, it would have done better.

W. W. Wicks.

Sumner County.

#### Sixty-Day Oats-Emmer.

Can you tell me where I can find Sixty-Day seed oats for sale? None of the seed houses whose advertisements I have seen, say anything about them. I am very anxious to get one or two bushels.

Would you advise sowing speltz on good bottom land? How does the feeding value of speltz straw compare with oat straw?

F. M. SNYDER.

Butler County.

We did have seed of the Sixty-Day oats for sale but our supply has been exhausted. I do not think you will find seed of this variety sold by seedsmen, as the variety has only recently been brought into the United States, coming originally from Russia. Perhaps you might secure seed from the North Dakota Experiment Station, Fargo, N. D., as this was one of the first stations to grow this variety.

Speltz [emmer] would do well on good bottom-land." Compared with other grain crops, however, it would do better on upland or light soil. Of the grain crops probably emmer is best adapted to light soil and dry climate, being able to withstand adverse soil and climatic conditions better than other grain crops. It is possible also that on the rich bottom-land emmer may lodge and the heads fail to fill as well as they do on lighter soil. You will probably not find emmer so profitable a crop to grow on bottom-land as corn or other grain crops. Rather, I would be inclined to sow emmer on land which does not produce the largest yields of grain crops. Emmer is doubtless better adapted for growing in Central and Western Kansas than in Southeastern Kansas. No experiments have been made at this station in testing the feeding-value of the straw as compared with other straw. Emmer straw is more like wheat or barley straw, yet in my judgment it is superior in feeding-value to wheat straw and will approach oat straw in feeding-value. Emmer, cut green, just about the time the grain is in the milk, makes very fair hay, much better than would be made by green wheat, and emmer hay when put up in good shape is well eaten by stock, especially by horses. Perhaps, however, it is not so valuable as oat hay, saved in the same manner. No experiments so far as I have known have been published relative to the feeding-value of emmer hay or straw. We cut emmer for hay last season and it was fed to horses but no recorded experiment was made of its feeding-value, other than that the horses ate it and seemed to rel-A. M. TENEYCK. ish it.

#### Too Many Corn-Stalks.

A had a very rank and heavy stand of corn—plowed and planted last year. I am on upland but owing to last year's wet season the stalks grew very heavy and I have not stock enough to pasture them down. Will it be advisable to put the stalk-cutter on the field in the spring and plow the stalks under, or shall I rake and burn them? I fear that by plowing the stalks under I run the risk of drying out the land faster.

A. J. Berges.

Jewell County.

If the season of 1905 should prove to be dry, plowing under the heavy stalk growth would cause the soil to dry out at the surface as you have said in your letter. On the other hand, if the season is reasonably wet the growth of stalks plowed into the ground might prove an advantage, giving a warmer and better-drained soil. If the purpose is to grow corn another year, the effect of plowing under the stalks would not be so likely to cause injury as if you grew grain crops. At this station we would probably cut the stalks with the stalk-cutter, as you have suggested, but instead of plowing them under would put the corn in with the lister, and it would seem to me that this would be a good

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method for you to practice in Jewell County, especially on this piece of land.

Probably the safest plan for you to follow, if you plow and plant, is to rake and burn the stalks, although as a rule I do not like to recommend this method since in burning the stalks you are actually burning organic matter which might supply the soil with more · humus. How would it do to cut the stalks with the stalk-cutter, plow early, cultivate the land for a time and plant with a late crop, such as Kafir-corn, cane, or sorghum? Or you could plant cow-peas or soy-beans and thus add a still larger amount of humus and nitrogen to the soil, putting it in excellent condition for growing corn another year. Perhaps by spring the stalks will not be so bulky as they now appear and after cutting with a stalkcutter they may plow under in good shape, or you might practice the lister method of planting as suggested above. However, if your intention is to plow and plant corn and it is your judgment that the stalk growth is too heavy to plow under I would recommend that you rake and burn the In the eastern part of the 1, which is the opening of the next college year. I have therefore about decided that we will not be able to publish a 1904 crop report; although the crop work of this past year has been fully as interesting as the crop work of 1903 was, which was published in Bulletin No. 123.

We have no bulletin treating directly on the subject of prevention of the washing of the lands due to rains. Prof. J. T. Willard has mailed you a copy of Bulletin No. 121, regarding the treatment of flood-damaged lands, but this is not exactly what you want. There are several ways in which the washing of rolling lands may be more or less prevented. A common practice is to plant and cultivate across the slope rather than with the slope, also the ditches which are formed may be dammed by brush, trash, or stones so as to stop the water and cause a deposit of sediment and prevent the washing of deeper ditches.

My recommendation is to seed such land to grass or alfalfa whenever it is possible, since it is impossible to stop the washing on rolling land which is inclined to wash when the land is kept continually in cultivated crops.

tivate, probably during the month of April in your locality. The following method is the method pursued at the Oregon Experiment Station: "The tubers were planted in furrows which were three feet apart, the seed was dropped 18 inches apart in the row. The seed was covered with a hoe; but an easier method would be to turn a furrow over the seed; and in a few days harrow the furrow down, making the ground smooth, and keeping the ground loose at the same time. .

The plants were cultivated a few times but after they were a few feet high, cultivation was not necessary." the Oregon experiment the hogs were turned on the artichoke field October 22, the crop having been planted the last of April. In general it appears that a rather light, warm soil is best adapted for the growing of artichokes, at least a soil which does not become compact and hard.

It is not always necessary in this climate to replant each year, as many of the tubers left in the ground will grow the next season. This method, however, is more generally practiced in States farther south, since in our climate unless the fields are covered.



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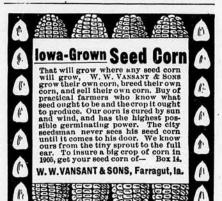




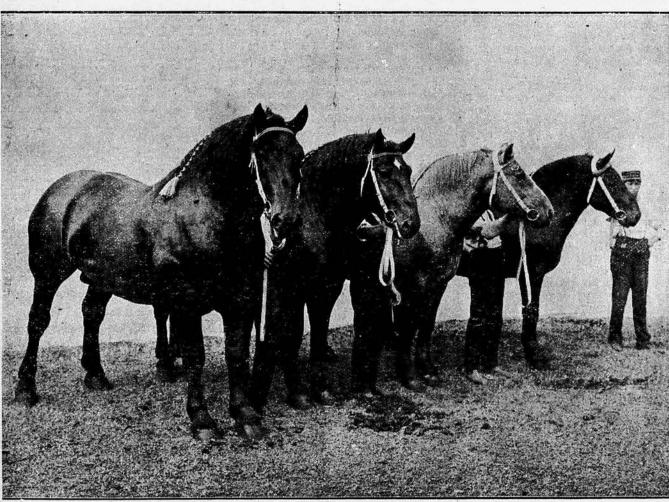
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State or in States where the precipitation is apt to be more uniform and of larger amount, it would be safer to plow under the stalks than it would be in your locality where the season is as apt to be dry as favorable or wet.

A. M. TENEYCK.

#### Crop Experiments of 1904.

Have you published a bulletin on crop experiments this year? If so, please send me one. I would like to know how the seeds you got from me compare with the others. Have you a bulletin on how to prevent rolling ground from washing? Ed. F. ELTON.

Russell County. We have not published a bulletin on crop reports for 1904 yet. Such a bulletin is being prepared but it is doubtful whether we will be able to publish it. The State has been very slow in publishing the bulletins of the station. There are several bulletins in the hands of the director of the station awaiting publication, that are held up by the State Publication Committee on the grounds that there are no funds available for this work. It is to be hoped that the present Legislature will remedy this matter and make a sufficient appropriation so that the bulletins can be published and published on time. Probably, however, nothing can be accomplished until after July

Bromus inermis is the grass best adapted for growing in your part of the State, especially on the land described. Also, I believe alfalfa might succeed fairly well on such lands, provided a stand is once established. I would recommend early spring seed-A. M. TENEYCK.

#### Growing Artichokes.

What particular kind or variety of artichokes would you prefer to grow and how would you plant and cultivate same? What kind of soil is best adapted for growing them, light or heavy?

I have had no experience in growing artichokes and any information that you can give me will be greatly appreciated. W. T. LANTZ.

Harvey County.

I have had no experience in growing artichokes. I find from looking up the subject that the Jerusalem artichoke is the variety usually grown in this latitude. This variety is sold by most seedsmen. Artichokes should be planted in a soil favorable for growing potatoes, and the ground should be prepared much the same as it would be for planting potatoes. The artichoke tubers may be planted almost any time in the spring after the soil is in fit condition to plow and culthe tubers are apt to freeze so that they will not grow.

A. M. TENEYCK.

#### Why Am I a Farmer?

W. B. CELLAR, BEFORE COFFEY COUNTY FARMERS' INSTITUTE.

The answer to the question "Why am I a farmer?" can not be given in a word, nor yet by stating a single reason. The reasons are many and varied. First of all, perhaps, should come the reasons which induced me to choose farming as my occupation in life.

Among those reasons was force of circumstances, which I believe influences all of us to a greater or less degree, unless it be those favored of fortune with the means to acquire a thorough education. Another more or less potent reason is, that farming affords a life of independence, which is true in a large measure, despite the encroachments and limitations which are continually being made and put upon the farmer's chances of success by commercialism, and especially that form of it known as trusts. Yet perhaps the strongest reason of all is, that no place under the shining sun will compare favorably with the farm for rearing and training a family, and especially is this true in the case of

boys. Why, boys can just be turned loose upon the farm to grow up much as young colts are grown, and just as the colt needs a certain amount of grain and handling and training if we are to obtain the best results, so also, the boy must receive an amount of training and disciplining which constitute what we call an education.

Like the colt, the boy from the farm will appear a little rough on the outside, but if his training has been thorough he will have a wealth of moral fiber as well as physical health and strength which will carry him through all of the arduous duties of life, no matter what station or position he may be called to fill. As I said in the beginning, the reasons why I am a farmer are varied. For instance, I am very fond of fried chicken and like to choose the young and frolicsome pullet for myself, leaving the aged and leathery he bird for my less fortunate city friend.

Then there is the fresh fruit from the first green apple of early summer which gives little Johnnie a pain under the apron, to the red and golden beauties of autumn and winter. Think, too, of the luscious watermelon growing on the vine, with dad and the boys watching it all the time. And when that watermelon has ripened in the sun, don't you think for a minute the town boys will pick it. They're afraid of dad's old gun.

Here, too, upon the farm is gained that rugged health which distinguishes the typical farmer from the rest of puny mankind and causes his hair and whiskers to attain that beautiful and luxuriant growth which everywhere marks him as the man from the scented field, whom the city man calls

a "hayseed." Why am I a farmer? Because farming is the most gloriously independent life on earth. The farmer is his own boss (next to his wife). He can plan his work as he likes. He can raise corn and clover or he can raise the dickens just as he pleases. He goes to bed when he gets ready and gets up when his wife tells him to. He owns the farm he lives upon-or shouldand all that grows upon it, from cows to chiggers and from hens to hedgeposts, and everything under it half way down to China. He owns the water running through it and the ice that forms upon it together with the blue skies bending above it and all the sunlight that falls upon it, and wind-why. he has wind to run the feedmill with and wind to run the pump, the woodsaw, the cornsheller, and the grindstone. Sometimes the wind blows so hard it blows the post holes which he has so carefully bored, all together into one big hole; and it has been known to blow a jug of molasses inside out and never spill a drop. And oftimes after a hard day's work in the field where the wind has blown his eyes and ears full of dirt, his hair and whiskers full of cornstalks and cockleburs, with his thumb pinched black monkeying with the doublterees, his knuckles skinned from sudden contact with the point of a bolt, his breeches torn on the barbed wire fence, and a lump on

"How blest the farmer's simple life, How pure the joy it yields; Far from the world's tempestuous strife, Free 'mid the scented fields."

his knee as big as a pumpkin where

the colt kicked him, he comes home

singing:

And his wife tells him to go out and feed the calves and stop his noise or he will wake the baby.

Why am I a farmer? Why shouldn't I be a farmer? It is one of the oldest established occupations on earth. Why, away back at the dawn of creation Cain was a farmer and might have left behind him an honored name and character if he had not quit his job and united with a club-gone on a strike, so to speak.

Last but not to be forgotten, farming is very remunerative, as is evidenced by the fact that every once in a while some farmer buys a gold brick, costing anywhere from a few hundred to several thousand dollars. Now, who ever heard of a lawyer or an editor or a preacher or college professor investing in gold bricks? They can't afford it, poor things, it is only the plutocrat of the farm who can afford gold bricks

and lightning-rods. So here's to the farmer boy. May his shadow never grow less!

#### Rolling Alfalfa.

Where alfalfa is sown in the spring on very mellow upland would it not be well to roll the ground after sowing? If you have any pamphlets on alfalfa I shall be pleased to have them.

Lyon County. C. B. BACHELLOR.

I have asked Prof. J. T. Willard, director of the station, to mail you a copy of Bulletin No. 114, giving information on the growing of alfalfa. It would be advisable to roll the "mellow upland" which you will sow to alfalfa in the spring, but I should prefer to roll before the seeding rather than after, or it may be advisable to roll both before and after the seeding; but in case you roll after seeding, the roller should be followed with a light harrow in order to reestablish the soil mulch and not leave the ground hard and smooth at the surface. Such surface will cause the soil to dry out rapidly, and if heavy rains fall immediately after seeding, a crust will form which will seriously interfere with the germination of the alfalfa-seed and the growth of the young plants. If this ground is loose and mellow as deep as it is plowed, a smoothing harrow will hardly put it in a desirable seed-bed condition. A better implement for preparing a seed-bed would be a subsurface packer, or in case no subsurface packer is at hand, the disk harrow may be used on very mellow ground, the disks being set nearly straight and the harrow weighted. This will serve to pulverize and firm up the bottom of the furrow slice and then the surface may be put in proper condition by the use of the smoothing roller as mentioned above. In preparing a seed-bed for alfalfa the general principle should be to fully prepare the seed-bed before seeding, and after seeding cultivate just sufficiently to cover the seed; usually one brushing with a light harrow is sufficient even when the seed is sown broadcast, but in a very loose, mellow soil it may be advisable to firm the soil about the seed by the use of the roller, using a light harrow after A. M. TENEYCK. the roller.

#### Treatment for Hardpan Soil.

I would like to know if there is a book or bulletin published on soil culture, that is, on such soil as we have down here. Our soil has hardpan, gumbo and alkali spots and a good deal of gravel. The hardpan shows where the top soil is washed away, and we can not plow it as well as we would like to as it will lift the heaviest riding plow out of the ground. I did plow about one hundred acres last fall, eight inches deep. I notice where I plow deep the hardpan freezes out and gets mellow but if it rains much in the spring, it runs together again. I intend to sow a lot of cane-seed this spring and plow it under while green. Do you think it will improve the soil? Some people tell me it will sour the land but I do not think so. I have been changing my crops a good deal, sowing timothy, clover, two kinds of alfalfa, common and Turkestan, bluegrass, speltz, wheat, oats, corn, Kafircorn, and sorghum, but all the changing and seeding does not seem to do as much good as barnyard manure.

Greenwood County. J. L. Elmes. We have no book or bulletin on soil culture such as you desire. There are many books and bulletins published on this subject and on agriculture that would be helpful to you in working out these soil problems. I refer you to King's book "The Soil," published by the MacMillan Publishing Co., New York; also, the "Fertility of the Land," by Roberts, published by the same company. You should also secure a copy of Campbell's "Soil Culture," published by H. W. Campbell, Lincoln,

I do not know that I can suggest any better plan of restoring the soil, which you describe, to a good cropping condition, than the plan which you are following. Deep plowing, manuring, and the rotation of crops, especially the growing of such crops as clover, alfalfa, and grasses will improve such soil and bring it to a higher state of

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fertility, if such a result can be accomplished, and I think it can. Probably the infertility and bad texture of the soil is due largely to a lack of humus, as shown by the beneficial effects of manure which improves the texture of the soil and at the same time increases the supply of plant-food. The rotation with clover, alfalfa, and grasses will also have a like beneficial effect. The deep plowing is essential in order that the soil may be exposed to the changes of weather which cause disintegration and decay, thus changing the soil physically as well as chemically. Perhaps deep plowing may be more readily accomplished by the use of the disk plow. The disk plow is better adapted for plowing hardpan or gumbo land than the moldboard plow. However, the fact that you plowed one hundred acres eight inches deep last fall shows that it can be done with the moldboard plow. Although this soil may again become compact and cemented by heavy rains, yet it will gradually improve in texture by deep plowing and I consider fall plowing much more beneficial in altering the texture of the soil than spring plowing, since fall plowing allows a better opportunity for the frost and other weather agents to accomplish their work.

A. M. TENEYCK.

#### Seed-Corn Production.

It is commonly supposed that the seedsman or the seeds advertiser depends upon others for the seeds that he disposes of. This is almost wholly true, but the methods employed in the breeding of new varieties and improving old or common varieties is largely carried on by the seedsman himself, and the crop grown from his seed under his direction, by the farmer.

In a day spent with that energetic, versatile seedsman, Mr. Henry Field, of Shenandoah, Iowa, much may be learned on the subject.

In the great corn-belt there are many who are breeding seed-corn with various ends in view—for stock-feeding, as well as for commercial purposes.

One can not visit Shenandoah without becoming impressed with the fact that there is the great seed-corn center, and it behooves those who are responsible for making this reputation to maintain it.

Mr. Field has "test grounds," the same as you will find at the State experiment colleges, with a view to determining the value of the various varieties of corn commonly grown by farmers. He planted eighty-five varieties on trial, but the schedule here published includes those of great merit. All the leading varieties of the corn-belt are represented. The corn was planted May 17 on land that was in corn last year, and previous to that had been in strawberries. The ground was naturally very rich and was not fertilized. It was prepared in the most thorough manner possible, and the corn planted in small plats in rows 3½ feet apart, two grains every two feet, tended with a six-shovel riding cultivator, laid by about the last of June, and harvested and weighed November 6. Each sort was weighed separately and the ears counted, nubbins and all, so as to get an exact idea of the average weight of the ears, as well as the yield. He allowed 75 pounds of ears as the equivalent of a bushel of shelled corn, so the figures represent the yield in bushels of shelled corn per acre. This table represents careful and painstaking work, and can be relied upon as being accurate and trustworthy. Outside of the figures and results shown, one of the striking points brought out was the difference in behavior of seed-corn from the East and from the West in the matter of standing up and resisting wind-storms. The Western corn accustomed for generations to prairie winds stood up well even in a considerable storm, while the Eastern corn of the same or similar varieties went down easily. The farmers who grow corn extensively for fodder want corn that will stand up so

it can be harvested easily.

Mr. Field's plan of reenforcing his idea by personal and thorough tests, giving his customers and the public the benefit of his experiments, is a

worthy undertaking and will, no doubt, be much appreciated by corn-growers 'everywhere.

seed-corn, but my price is no higher than you would have to pay for good seed to any reliable seed man."

Mr. Field has set an example which others are following, and which is bound to lead to more careful discrimination of seed-selection by all who are interested in the business, and who desire to serve their customers honorably and fairly.

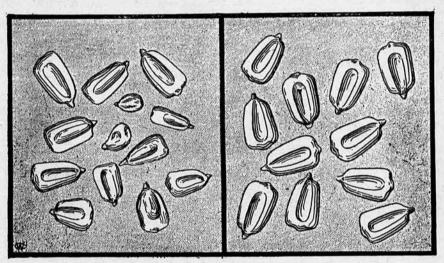
## Best Varieties of Corn on Unmanured Land.

Can you tell me through the Kansas Farmer what variety of corn made the best yield on unmanured land in 1903, also the variety that made the best yield in 1904 on unmanured land? Also, the variety of corn which made the best yield on manured land in 1904?

J. F. Rankin.

Johnson County.

We grew only fifteen different varieties of corn on unmanured land in 1903. Of the varieties tested, those yielding highest were, Iowa Gold Mine, 55.4 bushels; Bickers' Choice, 52.2 bushels; Sedgwick Yellow Dent, 47.6 bushels; Ramsey Yellow Dent, 46.3 bushels; Legal Tender, 39.8 bushels; and Leaming, 39.4 bushels. In the trial on manured land which was reported in Bulletin No. 123, 79 different varieties were tested, including all these named above except Legal Tender. In this trial the varieties giving highest yields were, Hildreth Yellow Dent, 89 bushes; Hammett White Dent, 79 bushels; Mammoth White Dent, 77.1 bushels; Griffing Calico,



In speaking of his method Mr. Field says:

"It takes a mill built especially for the work, and as yet there are but very few of them in use. The picture shows a sample of its work. Elegant, isn't it? We select the seed ears carefully for type and purity, make sure they will grow perfectly, shell off the grains at both ends, and then pass them over to the new mill. No guesswork about it there. If a grain is a little too thick, out it goes. If it is a hair's breadth too narrow, or too wide, or too light, out it goes. It can't tell yellow corn from white, but it can do almost anything else. The right hand picture shows you what it looks like after the mill is done with it.

"Another seedman was standing watching it work one day and he said: 'Why, Field, you are losing lots of pretty good seed there'—he was looking at the off-size grains being thrown out. 'Yes,' I said, 'but it is better pig-feed than it is seed.' And that's the truth. If I left it in I could sell seed-corn at a dollar a bushel, and it would be 'pretty good seed-corn,' but with all those odd grains out, it is as near perfect seed as a man can get, and you could afford to pay double price for it if you had to.

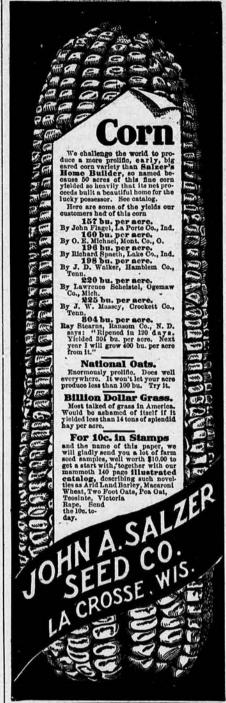
"But I don't charge you any more for it than you would have to pay for the common run of good ungraded seed.

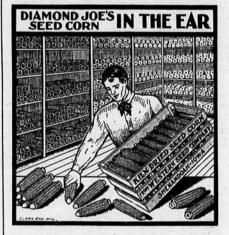
"One of my neighbors (the man that grew 101 bushels of Shenandoah Yellow on an acre this last season), declares that he is going to bring his seed-corn over in the spring and have it graded in my mill, if he has to pay us all wages to stay away and let him have the use of it for a day.

"But I offer you the use of it free. Every bushel of shelled corn I sell is graded over this machine without extra cost to you. Of course I will be making a little profit off of you on the

76.6 bushels; Klondyke Yellow Dent, 75.7 bushels; Coke Prolific White Dent, 75.7 bushels; Bicker's Choice Yellow Dent, 74.5 bushels; Hogues' Yellow Dent, 72.6 bushels; Forsythe's Favorite White Dent, 72.5 bushels; World's Fair Yellow Dent, 71.2 bushels; and Kansas Sunflower, yellow dent, 71 bushels.

In the 1904 trial all of the varieties of corn were planted on unmanured land, but owing to the cold, wet spring the stand of corn was very poor. The stalks on each plot were counted so that we know the percentage of stand and we know the field yield as the corn was husked. However, on account of the poor stand I do not think that we will publish the results of the 1904 trial. Some of the varieties which made good yields are as follows: Reid's Yellow Dent, Golden Eclipse, Iowa Gold Mine, Leaming, Hogues' Yellow Dent, Early Mastodon, Hildreth, Kansas Sunflower, Bicker's Choice, Rumold, Boone County White, Silvermine, Forsythe's Favorite, Farmers' Interest. Mammoth White Dent McAuley's White Dent, Hammett, Gibbons' White Dent, Kansas Pearl, Bloody Butcher, and Griffing Calico. One of the largest yields made in last year's trial was by McAuley's White Dent, which made a fair stand, having more stalks than some of the other varieties named above. On account of the conditions named above I am unable to place any variety of corn as being the best yielder in the 1904 trial. I have therefore named a number of the best producing varieties. Eightyeight varieties of corn were grown in our field trial last season. The stand of corn varied greatly, some plots having only a little more than half as many stalks as other plots, while on no plot was there a perfect stand. The largest field yield (which may be corrected when the amount of moisture which the corn contained when husked





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is determined) was 58 bushels per acre, while there were no yields less than 30 bushels per acre.

The varieties named above were those yielding from 45 to 58 bushels per acre; most of them were grown in the 1903 trial and are described in Bulletin No. 123.

A. M. TENEYCK.

#### Field-Peas and Cow-Peas.

What is the relative value of fieldpeas and cow-peas as a feed for cows and pigs? When should they be planted and what quantity per acre? Where can I get them and at what price per pound or per bushel?

H. MATTILL.

Worth County, Mo. I have referred your inquiry in regard to field-peas and cow-peas to Professor Erf, of the animal husbandry department. Both of these crops should be planted during the fore part of June or some time after the soil has been thoroughly warmed. The past season our highest yield of cowpeas, both in grain and hay, was secured from the planting of June 17. The cow-peas should be planted in rows about 36 inches apart and should be sown at the rate of nearly one-half bushel per acre, depending somewhat upon the size of the peas. If the peas are sown with the grain-drill, a sufficient number of the feed-cups should be stopped up so. that the drill will sow the rows at the required distance apart. The drill should be set to sow about two bushels of wheat per acre. The field-peas should be sown at about the same rate. Seed of the cow-peas and field-peas can be secured from F. Barteldes & Co., Lawrence, Kans.; Iowa Seed Co., Des Moines, Iowa; A. A. Berry Seed Co., Clarinda, Iowa; or nearly any of the seed companies in this and adjoining States. The price of cow-peas varies from \$2 to \$3 per bushel, while that of field-peas is from \$2 to \$2.25 per bushel. Experiments at this station indicate that the New Era and the Black-eye are among the best varieties for peas or hay, although for hay or pasture the Whippoorwill, Clay, and other varieties are V. M. SHOESMITH. also good.

#### Emmer.

I take the liberty of writing to you in regard to emmer or speltz. Is it a success as a crop in this part of the State? My land is a black, crumbly soil somewhat sticky, with a yellow clay to a hard-pan subsoil. This is my first year here. The farmers say that oats do not do well on account of rust, and I have seen emmer advertised highly. If it is a success, would like to sow four or five acres. How does it compare with oats or corn as to feeding-value? Can you give me the address of a reliable seed firm for farm- and garden-seeds?

THOS. G. WATKINS. Elk County. I published an article on emmer in the KANSAS FARMER of December 1, 1904. As you will see from that, em-

other grains on light soil or soil rather poor in fertility. Emmer is a hardy, thrifty grain and should not perhaps be grown provided other crops may be grown on the same land to advantage. It would be well, however, for you to try emmer, and four or five acres would not be too large an amount to

Emmer will hardly take the place of oats or corn as a feed, rather it should be fed in combination with other grains. The chemical analysis of the hulled grain shows the composition much like that of wheat, while the analysis of the grain in the hull, which is its natural condition when it is thrashed, shows a composition much like that of barley. In experiments which have been carried on at the South Dakota Experiment Station. emmer was not equal to barley as a fattening ration for sheep, and the general result from other experiments is that emmer is not usually relished by stock when fed whole and it has not proven equal to oats or barley when fed alone.

One of the largest seed firms in the State is F. Barteldes & Co., Lawrence, Kans. This firm sells emmer and other farm-seeds as well as garden-seeds. Our local seed firm, Geo. T. Fielding & Sons, can also supply you with the seeds mentioned. Other seed firms in the State are, Bird & Small, McPherson; Ross Bros.' Seed Co., Wichita; Zimmerman Seed Co., Topeka; and M. G. Blackman, seedsman, Hoxie. Mr. Blackman makes a specialty of Western-grown farm crop seeds.

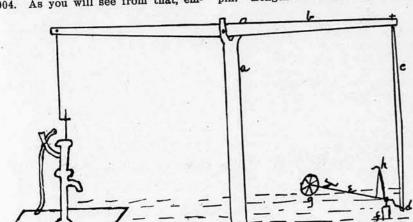
A. M. TENEYCK.

#### Horsepower for Windmills.

EDITOR KANSAS FARMER:-In an article published in your paper some time ago, there was a description of horsepower for running windmills. As the wind often fails us and the stock must have water, I wish you would publish the article again.

G. JEFFERY. Graham County. Following is the letter in part:

"While traveling in California last summer I saw a cheap and efficient horsepower for raising water which I fully determined to have at my stock well here in Kansas. During the rainless season the 'coast' rancher's windmill frequently and exasperatingly can't be induced to 'get a move' on it, and his practical native wit and common sense forced him to invent the following described pumping power, which I have tried to make plain by enclosed rough sketch. A is a stout post ten feet high, with forked end above, through which the walkingbeam (b), about twenty feet long, works with one end attached to pumprod and the other end to pitman (c), which in turn works on crank d; e is a heavy rod (an old tumbling shaft or large gas-pipe will do), about eleven feet long. Get the blacksmith to bend one end for a crank and crankpin. Length of crank depends upon



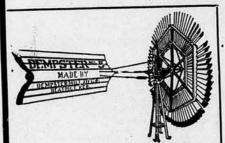
mer has proven to be a better producer at this station than oats or barley, and it is possible also that in your part of the State emmer will succeed well, although I do not expect it will yield quite so well as compared with oats and barley as it has yielded at this station. Possibly the crop will succeed well on the land you have described, although a light soil may possibly be better adapted for the growing of this crop. The crop will do well on the best kind of land but it will do better when compared with

length of stroke you wish to give your pump. Get some old boxing in which rod turns at crank end, and fasten it to a plate with hole in through which pass a heavy lag bolt, and screw down to pivotal post (f), which ought to be about as high from ground to top, inclusive of pivotal boxing, as hub of wheels, in order to leave shaft (e) horizontal. Now get the wheels of an old discarded mowing-machine, insert them close together into shaft at g. If your well is deep and pump large, you will need both wheels for weight and adhesion. Hitch singletree and

# (II) HBAN



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day of slip-shod farming is past. Get in the line of progress by ownership of the Chatham, day of slip-shod farming is past. Get in the line of progress by ownership of the Chatham, long-time terms. Send for our free book, "How to Make Dollars Out of Wind." Address

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horse to piece of scantling, two feet long, fastened to old boxing near wheel hub. Tie horse to lead-pole (h), and there you are, with a simple homemade engine, which any farmer can make with the aid of a blacksmith, and not to exceed \$5 outlay, and as good as a \$40 horsepower.

"While in California I saw more than once an old mule or horse with a gunny-sack drawn over his head and no driver in sight, pumping water as above. On inquiry, I was told that by this funny method, the animal would go right along on his 'merry-go-round' without attention.

ED. SECREST."

Riley County.

#### Sugar Beet Questions.

I would like information in regard to mangles and sugar-beets. What variety do you consider best for hogs? What for cattle? At what depth should the seed be planted, and how far apart in the row? Also, should there be one or more seeds in each hill?

CLARENCE BEAVERS.

Marshall County.

For stock-feed it is not necessary that sugar-beets test especially high in sugar, rather it is more important to grow those which produce the large yields. The Imperial sugar-beets are

to require about 20 pounds of seed per acre and the seed will be dropped in the drill-row at an average of an inch or so apart. For sowing the sugar-beets the feed of the drill should be set up a little closer, say to sow two to two and one-half bushels per acre. It is necessary to plant the beetseed much closer than the beets are required to grow in order to secure a stand. It is also safest to sow rather thickly and thin out after the beets have reached a height of two or three inches. The beets should be thinned to one in a place, about eight inches apart in the drill-row. This can be accomplished with a hoe by a careful man and some use of the fingers.

A. M. TENEYCK.

## Borticulture

EDITOR KANSAS FARMER:—I wish to make a hotbed for early plants and would like to ask: When shall I start? How soon after it is made should sweet potatoes be put in? How deep should the manure be after it is

After the pile has warmed through the second time, it is ready for the bed. Put in and spread smoothly with the fork and when it has begun to heat, tramp well and put on the soil. Soil should be about five inches deep and should be rich, with a fair portion of sand, a good garden or potting soil.

The frames may be of almost any material, and of a variety of constructions. Boards held in place by stakes are often used. When a bed is to be made each year (and every farm should have a good hot-bed) it is economy to make good frames and take care of them. Two-inch material is more durable and the frames may be made with eye-bolts and rods or hooks so that they will take up but little space when stored. Eighteen inches on the back or north side of the bed and twelve on the front is a good width for the frames. The ends may be made sloping, or a piece may be set in to hold the sash. Narrow pieces are set in every three feet to support the sashes where they meet. Sash may be bought the desired size or made by the man who is handy with tools.

The sides and upper end are usually three inches wide by one and onehalf inches thick and grooved to hold LAMP-FITS. How do you know what

Your grocer tells you. How does he know?

He don't.
Do you then?

That's about how lamps are fitted with chimneys by people who don't use my Index; and they complain of bad chimneys! Lamp-Fits indeed! Do you want the Index? Free.

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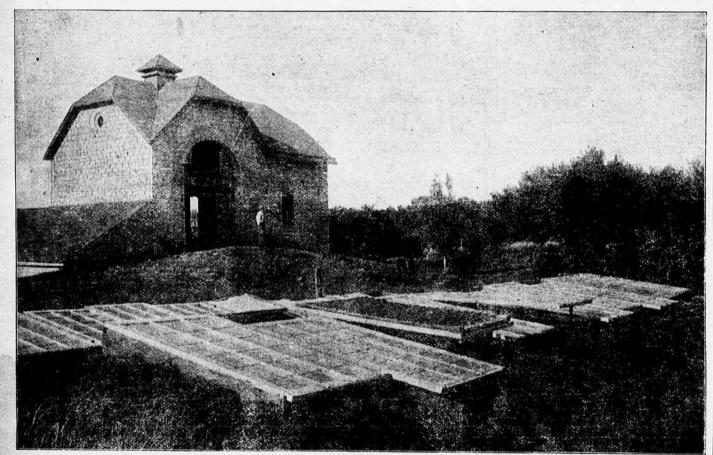


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recommended as being especially adapted for growing as stock-feed. Other varieties are the Kleinwanzlebeuer, Vilmorin, and Silesian. The three varieties last named are grown especially for sugar-production. Other varieties of stock sugar-beets are New Danish Improved and the Giant Half Sugar. Any of these varieties may be fed to hogs or cattle.

Among the varieties of mangles which may be recommended for growing are the Red and Yellow Globe, the Golden Tankard and the Mammoth Long Red. At this station in 1904, out of six varieties of sugar-beets and mangles tested, the Giant Half Sugar save the largest yield: Lane's Imperial sugar-beets ranked second; the White French mangle, third; and the Long Red mangle, fourth. All the yields were low, due partly to a poor stand. The sugar-beets made slightly the better stand, which accounted probably for the better yield. As far as the feeding-quality of these different varieties of mangels are concerned, there would be little choice in feeding them to hogs or cattle.

The seed-bed for sugar-beets or mangels should be well prepared. The seed should not be covered very deep, say an inch to an inch and a half. The rows may be planted eighteen to twenty inches apart, to allow room for cultivation. I have usually used the ordinary grain-drill to plant mangels or sugar-beets. For mangels, open the feed of the drill to sow about three bushels of oats per acre. This will sow the mangel-seed at such a rate as

tramped in? How much dirt on top? What is the best way to regulate the heat, and what is the best temperature to keep it in? How long after planting should plants be ready to put out?

C. L. HOLLINGSWORTH.

Montgomery County.

We have had best success by locating hotbeds in some protected situation, south of a building or wall for wind-break, and excavating a pit for the manure and soil so that the surface of the bed when completed is but slightly higher than the ground level. When made early, an excavation may be made two feet deep and a couple of feet longer and a foot wider than the bed is to be. Hotbed sashes, most of those in use, are three feet wide and six feet long—a very convenient size—and the bed is made six feet wide, and as long as required.

Horse manure is considered best, and while a large amount of straw is objectionable, as much as a third of wet bedding will furnish moisture and prolong the heating period. Leaves are good in place of straw as they heat more slowly. The manure should be forked over and put in a pile four to six feet wide and three or four feet high. If dry, it should be moistened slightly, though not wet through, with cold water; the warmer the water the sooner the pile will begin to heat.

Within four or five days the pile will begin to steam and should be worked over, turning the manure that has been on the outside of the pile inside and working it over well; if there are any dry spots, moisten them. the glass. The lower end is better made wider for convenience in handling and placing. The center strips are about an inch wide.

The beds should not be planted until the heat has run down a little below ninety degrees; if it remains much higher for more than a few days, it should be cooled by boring holes with a dibble through the soil, and if very hot, some water should be poured in the holes. When the sun is shining bright or the bed is hot, the sash may be raised a little or slipped down a few inches, more or less, as the weather and plants demand. Plants that are to be set in the open field, as tomatoes, cabbage, egg-plant, etc., should be hardened before setting by gradually exposing them to the open air; great care must be taken not to make the change too quickly. A considerable amount of lettuce and radishes may be grown in a hotbed, by putting the rows close together and thinning the plants as they require. Lettuce started in the hotbed and then put in a cold frame (a cold frame is a hotbed without the heating material), will make fine plants for early market

For use in milder weather the hotbed may be made entirely above ground. Muslin tacked to frames is often used in place of sash.

For sweet-potato plants this kind of hotbed is commonly used and less pains is taken with the manure. It is not often worked more than once and many growers take the manure direct from the stable to the bed. The sweet potato usually produces plants in about six weeks after the roots are bedded, and as our season for setting begins about the middle of May or a little later, there is comparatively little danger from frost. It is always well to have some cover handy for a sudden change, and for the early beds some matting or straw covers are almost indispensable. Banking around the bed with heating manure during severe weather is a common practice.

Beds made with little work, as described for the sweet potatoes, will require very close watching for some The roots may be bedded when the soil is under ninety. should not run above that point and should begin to cool within a few days.

Close attention is required; the beds must be ventilated and the plants watered as often as they require it. In severe weather, the water should be slightly warm, about the temperature of the bed. The weeds must be kept down and the soil stirred a little occasionally.

Celery plants are often started in the hotbed after the early stuff is off, and a spent bed may be made to produce good spinach and mustard for greens, and indeed, by adding a little more soil, made to grow a number of vegetables ahead of the season.

ALBERT DICKENS.

#### Farm Notes.

N. J. SHEPHRD, ELDON, MO.

Manure never made land poor. The best seed is the medium sized,

if otherwise well grown. Land never stands still. It is either

growing better or worse. With the farmer the best wealth is

the fertility of the soil. Regularity in feeding animals is es-

pecially needful for their trift. Drive the colt the first time with a

fast-walking horse. To get the best results, look to pur-

ity of breeding on both sidts. The sow that suffers from indiges-

tion gives this to the young pigs from the very start.

The finer products in every art and trade give the best products because they demand more intelligence and skill.

The time and manner of planting and cultivating have very much to do with the growth and yield of the crops.

No valuable time should be wasted in the endeavor to bring up the size of dwarfed stock.

Orchard-grass and red and white clover sown together make a valuable pasture and are equally good for soil-

To supply the loss of fats in skimmilk, feed with it a small quantity of

Bees are a good adjunct to the orchard; they help to pollenize the flowers and make the orchard more produc-

While we may feed quantity to a certain extent into a cow's bulk, the quality is largely beyond our power to reg-

Before using commercial fertilizers it is advisable to know the demands of the soil for the plants to be grown.

As sure as any animal gets to a point where it is making no gain it is sure to begin encroaching on past accumulations of profit.

In nearly all cases where one has a specially fine product it will pay to go a long way to find a proper market.

A neat lawn with shrubbery, fruits and flowers, not only makes the farm a pleasanter place to live in but adds to its money-value.

Clover is the only crop which leaves the land better than it finds it. Even the ripening of its seeds tends to enrichment instead of impoverishment.

See that you feed in such a way that the food placed before an animal is consumed and not dragged down and trod under foot.

Animals kept through the cold weather on short rations will be worth less in the spring than they are now and will return nothing for their keep.

Do not plant a young orchard and then use every effort to grow such crops as will absorb every bit of the available plant food. Give the trees a

little chance at least, High feeding alone will not turn the

colt into a valuable horse. It is equally important to give opportunity for exercise to develop bone and muscle.

Unless making a specialty of some one thing as a commercial breeder, it will be advisable to diversify your stock as you do your crops.

To utilize all of the farm products to the best advantage requires a variety of stock and should carry several

If the sowing of a crop is not rightly done, all remaining labor will be in vain, so far as the effort to produce a full crop is concerned.

## 

## The Beterinarian

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color and sex of animal, stating symptoms accurately, of 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 postoffice, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kans., or Dr. C. L. Barnes, Manhattan, Kans.

Sores on Cattle.—I would like to have advice in regard to my cattle. They have sores on all four legs, inside, opposite the ankle. C. L. L.

Topeka, Kans. Answer.—It will probably be well for you to apply a disinfectant such as Car-sul, Creolin, or Zenoleum, in five per cent solutions, to these sores.

Bloody Milk.—I have a cow that gives specks of blood in her milk; she has been fresh about one month. What can I do for her? A. B. S.

Stafford, Kans.

Answer.-Melt about four ounces of gum camphor in 8 ounces of lard; rub this preparation night and morning with considerable kneading, into the udder. She has probably injured the udder in some way which has caused the bleeding.

Eye Out of Condition.—I have a horse 5 years old this spring, that has a milky looking scum over his eyes. Can you tell me a cure for it? Some call it moon-eye. It has been that way for a year and seems to be getting worse. I have tried a little pulverized burnt alum; is that good? C. H. S.

Furley, Kans.

Answer.—It will probably be well for you to give your horse some internal treatment of say, iodide of potash. Better give the horse about half a dram, pulverized, daily, in a pint of water as a drench. Continue this for about two weeks; withhold it for about a week and then begin again. If you fail to get the desired results,

Contagious Abortion.—Since August, 1903, five of my cows and heifers have lost their calves, from 3 to 5 months before time. Please give cause and remedy, if any.

McLouth, Kans.

Answer.—If your cows have not been injured by being hooked by other animals, or hurt by blows or falls, and have not had injurious feed, they are affected with infectious abortion. We send you by mail a press bulletin which gives cause and remedy to prevent and cure this. This bulletin has been copied in the KANSAS FARMER.

C. L. BARNES.

Salzer's Home Builder Corn.

So named because 50 acres produced so heavily, that its proceeds built a lovely home. See Salzer's catalog. Yielded in Ind. 157 bu., Ohio 160 bu., Tenn. 198 bu., and in Mich. 220 bu. per acre. You can beat this record in 1905.

WHAT DO YOU THINK OF THESE YIELDS?

120 bu. Beardless Barley per acre.

310 bu. Salzer's New National Oats per A.

80 bu. Salzer Speltz and Macaroni Wheat.

1,000 bu. Pedigree Potatoes per acre.

14 tons of rich Billion Dollar Grass Hay.

60,000 lbs. Victoria Rape for sheep—per A.

160,000 lbs. Teosinte, the fodder wonder.

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—rich, juicy fodder, per A.

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**FLOWER** GARDEN

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is built scientifically. We make our own wire and weave the fence in our own mills. Special attention given to the galvanizing, the heaviest and most enduring ever known on fence. Heavy steel wire throughout, stays 6 or 9 in. apart, spacing and distribution, like a brick wall, to give greatest strength. Adapts itself to hills or guilies. Handsome, strong, durable. Made in all heights and for all purposes. We ship promptly direct from factory. Free catalog and prices by return mail if you write

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days' trial you may return the fence to us at our expense and your money will be refunded. This guarantee is backed by our entire reputation and by the reputation of this paper. A responsible publication
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There is no investment a farmer can make of a like amount that will save him as much time and money as will an outfit of tools. The time lost in going to town usually amounts to more than the cost of the repairs. You save both the time and the money when you have the tools. It is not necessary to be a mechanic to do your own repairing. The average farmer has ability enough to do his own work if he has the necessary tools.

We manufacture an outfit especially for farmers's and sell it to you just as cheap as we would

to the largest wholesale house in the United States. We have no agents.

During the next thirty days we wish to sell at least two thousand outlits. To influence you to purchase at this time, we realize that we must make it to your advantage to do so, hence the most liberal offer ever made in the tool line.

A STEEL FORGE — 17x24 inch hearth with an Eleven-Inch Ball-Bearing Fan

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to every person buying an outfit consisting of 1 Malleable Iron Vise, 1 Malleable Iron Drill Frame, 1 Drill Set, 1 Screw Plate, 1 Fifty-Pound Anvil and 1 Hardy. Malleable Iron makes them the strongest, best and cheapest tools made. We also make Lever Forges. We prepay the freight and ship on approval.

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Space will not permit us to describe the tools here, but write us a postal today and we will send you catalogue and full particulars. Don't neglect it, as this advertisement may not appear again. Offergood for 30 days only.

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### The Stock Interest

THOROUGHBRED STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper.

February 18, 1905—Swine Breeders' Combination ale, Fredonia, Kans. February 18, 1905—Cattle Breeders' Combination

February 17, 1905—Swine Breeders' Combination Sale, Fredonia, Kans.
February 18, 1905—Cattle Breeders' Combination Sale, Fredonia, Kans.
February 17, 1905—Combination sale of Herefords and driving mares, Chas. M. Johnston, Secretary, Caldwell, Kans.
February 18, 1905—Combination sale of Poland Chinas, Duroc Jerseys and Cheeter Whites, Chas. M. Johnston. Secretary, Caldwell, Kans.
February 20, 1905—J. F. Chandler, Frankfort, Kans., Duroc-Jersey bred sows.
February 21, 1905—John W. Jones & Co., Delphos, Kans., Duroc-Jersey bred sows.
February 21, 1905—John W. Jones & Co., Delphos, Kans., Duroc-Jersey bred-sow sale.
February 22, 1905—N. F. Shaw, Manager, Plainville, Kans., Poland-Chinas.
February 23, 1905—L. L. Vrooman and C. W. Taylor. Hope Kans., Duroc-Jerseys.
February 23, 1905—L. L. Stannard, Gudgell & Simpson, and others. Herefords, at Kansas City.
March 2 and 3, 1905—C. A. Stannard, Gudgell & Simpson, and others. Herefords, at Kansas City.
March 2 and 3, 1905—L. E. Kemp, Nardin, Okla., Poland-China and Duroc-Jersey swine.
March 7, 1905—Jacks, Jennets. and stallions, at Limestone Valley Farm. Smithton, Mo., L. M. Monsees & Sons. proprietors.
March 8, 1905—P. M. Gifford, Milford, Kans.
March, 14, 1905—F. M. Gifford, Milford, Kans.
April 19, 1905—Closing out sale of Shorthorns J. March. 14. 1905—F. M. GHOTG, MINOTG, Mans. Short-borns at Manhattan, Kans.
April 19. 1905—Closing out sale of Shorthorns J.
D. Stanley, Herton Kans
May 3, 1905—Heath Stock Ranch, Republican
City, Neb. Shorthorns.

#### Kansas Live-Stock.

H. W. M'AFEE, TOPEKA, KANS., BEFORE THE NATIONAL LIVE STOCK ASSO-CIATION, DENVER, COL.

The grassy quadrangle which geopraphers call Kansas is not only the center of the United States map, but is the hub of that great region which is the wealthiest and most prosperous portion of agricultural America. Durin the last score of years she has contributed more than a half billion dollars' worth of wheat, eight-tenths of a billion dollars' worth of corn, and more than one billion dollars' worth of livestock products to the food supply of the world. Although she has been hampered during the past season by repeated disastrous floods, which have devastated her valleys of their growing crops, she is still able to close the year 1904 with a total of \$208,290,-273.77 worth of agricultural products, and \$160,000,000 worth of live-stock. Kansas has at her door the greatest wheat market in the United States. During the year 1904, Chicago received 14,657 cars of wheat. St. Louis received 26,435 cars, while Kansas City, which is the market town of Kansas, received 43,173 cars or 2.081 cars more than was received by both Chicago and St. Louis. Of the total amount of wheat which, measured by bushels, amounts to 39,665,500 received at Kansas City, Kansas contributed her share out of the 63,438,000 bushels raised during the year. This crop of wheat is less than the usual one for Kansas, but is still twice as much as that raised by Nebraska, which is her closest competitor. During this same year of 1904, Kansas grew 176,-472,000 bushels of corn, of which she contributed her share of the 14,185,800 bushels shipped to Kansas City, and the remainder was fed to her livestock. In 1891, when statistics were first compiled for this crop, Kansas had 34,384 acres of alfalfa. In 1904 she had a total of 557,509 acres of this valuable forage and hav crop.

These facts are mentioned at this time to show the reason, in part, why Kansas has attained her reputation as a grain-and grass-growing State, and also to show that because of these grain and grass crops it was possible for her to assume the proud position which she now occupies as a producer of live stock. During the year just closed the record shows a total of \$51,-846.671 worth of animals slaughtered and sold for slaughter with \$15,425,591 worth of wool, dairy and poultry products as the receipts of cash in Kansas by Kansas farmers for these items of farm produce. At the close of the year Kansas had on hand 3,382,282 cattle, worth \$70,832,327. She also had 835.580 head of horses, worth \$63,000,-000: 104,000 mules and asses, worth over \$9,000,000; 2,127,482 hogs, worth \$15,956,115; and 167,721 sheep, worth over \$500,000.

By reason of the floods already mentioned, and the consequent reduction of the corn and other grain crops, together with the difficulties experienced

in securing farm help, Kansas has not engaged in the feeding of cattle to so great an extent as heretofore, although her hog crop has very materially increased. As an index to the cattle feeding that has been carried on dur ing the year, we may state that from the Kansas City market alone there were shipped out, to different parts of the State, 7,000 car-loads of stockers and feeders. This is the largest shipment of this class of cattle that has been made into the State in any year since 1900, and is larger than that of any other State in the Kansas City territory, except Missouri and Illinois. Kansas City is recognized as the second largest live-stock market in the world, and it is perhaps pardonable to mention the facts here given in this connection because they give an index of the live-stock business in Kansas the bulk of which is shipped to this market. Statistics show that Kansas supplies this market with 55 per cent of all the cattle rereived there and 52 per cent of all the hogs. She also sends to that market annually, nearly 400,000 head of sheep, and about 50,000 head of horses and mules. Because of the general depression of prices in live-stock, as well as the adverse agricultural conditions already mentioned, Kansas' live-stock record for the year 1904 is not quite so great in the aggregate as that for the preceding year, though it shows a notable increase in the number and value of hogs, mules and asses, horses and sheep, with a slight decrease in cattle.

In stating the statistical facts, regarding the agricultural products of any State, it should always be borne in mind that the grain and grass crops, while they assume large proportions, are really not the crops that bring the money into the State. A comparatively small proportion of grains and grasses are shipped out of the State as such, although the highest authority in Kansas City reports that six years ago that market received but two car-loads of alfalfa per day on an average, while during the past year, that market received forty car-loads per day. This, however, is only an exception to prove the rule. The great bulk of the grains and grasses harvested in this or any other State are fed to live stock within the limits of that State, so that a study of the statistical tables resulting from the work in charge of such matters, must always be made with these facts in mind. They carry with them the further and more important fact that live stock is the real wealthproducer, although that of course is dependent upon the crops mentioned.

Like all live-stock States, Kansas still suffers under the bane of the scrub. Though we are glad to note that this is rapidly diminishing in our State through the influence of good blood and the incentive inspired by success in the show- and sale-ring. This State has already won a National reputation for its pure-bred stock. Champion draft-horses, prize-winners among cattle and swine, and some of the fastest of race-horses claimed Kansas as their home.

As a strong indication of advancement away from the scrub and his influence, it may be stated that at the greatest live-stock show ever held on earth, Kansas won more prizes in proportion to number of animals exhibited, than any other State or country represented at the Louisiana Purchase Exposition. With only sixteen horses, twenty-two Shorthorns, twenty-four Herefords, fourteen Aberdeen-Angus, sixteen Holstein-Friesians, twenty-five Red Polls, thirty-two Poland-Chinas, four Duroc-Jerseys, eighteen Tamworths, and fourteen Angora goats for its total showing in this great exhibition, Kansas entered into competition with the world. Among the winnings the breeders who owned these animals received two gold medals, two silver medals, three bronze medals, two grand championships, four reserve championships, three diplomas, and a total of \$16,233 from Louisiana Purchase, Breeders' Record Associations, and State prize money.

Credit is also due to Kansas for honors received by animals which were

not owned in the State at the time of their exhibition. The Percheron stallion that won first prize in the aged stallion class, and the reserve championship, was developed from colthood to maturity by Kansas alfalfa on a Kansas farm. The Clydesdale stallion that won first in the aged class, was bred and reared in Kansas, though shown from another State. The best Tamworth boar shown in the aged ring at St. Louis, was a Kansas hog, and the majority of the prize-winning Chester Whites were of Kansas descent. The herd of Poland-Chinas that won the premier championship and numbered among its members both the grand champion sow and the grand champion boar, was raised in Kansas and exhibited by Kansas

Since the close of the World's Fair, an alfalfa-fed Kansas Shorthorn bull was exhibited at the American Royal Show at Kansas City, in competition with the world's champions of that breed, fresh from their victories at St. Louis. In this competition, this alfalfa-fed Kansas bull won third prize, and later topped the American Royal Shorthorn sale. His new owner took him home and in the thirty days intervening between the close of the American Royal and the opening of the International Live-Stock Show at Chicago, placed him in such condition that he carried off the grand championship of the breed at the latter

The victories won at St. Louis and elsewhere, were won for Kansas by only a few of her many breeders of pure-bred stock, who are daily preaching the gospel of good blood. Kansas is the home of the largest improved stock-breeders' association in the United States. She is also the home of the largest county pure-bred association in the Union, and of the largest Hereford breeding establishment as well. She feeds on her sunny plains the largest herd of Aberdeen-Angus cattle in the world, and has also the largest Berkshire breeding establishment on earth. Her climatic and soil conditions seem to be especially adapted for the production of the best in live stock, and her enormous acreage of alfalfa and other cheap feeds, makes it possible to produce them in marketable condition and cheaply at an earlier age than elsewhere. Although her breeders are under a temporary depression they are by no means discouraged. They believe in good stock and they are getting more of it. Since Kansas has been raising pure-berd and high-grade stock, her mortgages have disappeared, her farms have increased in size and value, her cities have grown, her railroads have developed, her farm equipments have increased, and her bank deposits now amount to \$75 each for every man, woman, and child living within her borders. These bank deposits are more than double those for the United States at large.

While Kansas suffered during the past year, in certain localities, from an outbreak of swine plague, due to contagion from imported animals, it is now practically subdued and the secretary of the Kansas Improved Stock-Breeders' Association, reports that recent statistics given him by about five hundred of the thousand members of that body, show that the general live-stock condition of the State is excellent. The depreciation in prices of the last two years has resulted in the shipment to market of the aged cows and the culls of the herds. The result is a prospective strong demand for breeding animals of all breeds. And the financial condition of the Kansas farmer, whose average income for the past year is shown by carefully compiled statistics to have been more than \$2,000 each, together with their realization of the fact that poor stock does not pay, makes the prospect for future business in pure-bred animals very bright.

Kansas farmers are enterprising farmers. In the early history of the State, when they emigrated from the rich corn lands of the States east of the Mississippi and brought with them their old methods of agriculture to found an empire under climatic and soil conditions experienced here for

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the first time, they were forced to be enterprising or perish. Realizing that their new home required at their hands a new agriculture to fit the new conditions, they went to work with that tireless energy which has always. characterized them, and now have their reward in the knowledge that they have builded a State that stands high as a grain and live-stock producer, although they have but barely begun. If agriculture is the foundation of all National prosperity, then livestock is its corner stone. Upon this foundation has rested the prosperity and fame already attained by Kansas and her sister States of the great central region, and upon this same foundation will rest her future prosperity and well-being.

#### The Origin of Cattle.

CHAS. W. MELICK, DAIRY HUSBANDRY DE-PARTMENT, KANSAS STATE AGRICUL-TURAL COLLEGE.

As it is necessary to go back several centuries into the geology and zoology of-prehistoric times to trace the origin of cattle, we can only make suppositions from recorded observations as far back as history dates, from bones that have been found, from what competent paleontologists maintain, from our own observations of variation in cattle and fossil remains, and then form our conclusion of their origin.

We have specimens in various museums of the small hoofs growing on the side of the large center one. The Perissodactyll or odd-toed animals, lost the digits of their feet from five to three, and from three to one, as in the case of the horse. The Artiodactyla, or even-toed animals lost theirs from four to two, and still have two parts to their hoof, as the cow, sheep, deer, and hog.

In some cases these were gradually tapered off from the hock joint downward, as in the case of the cow. In others we see the reverse, a half-aborted inverted splint.

The primitive cow can only be traced with slight degree of accuracy back to the lower Miocean age, about three or four million years ago. So that long before Noah built his ark, certain kinds of cattle had been domesticated, and were probably similar to our cattle of to-day.

In the Commentaries of Caesar we learn that the Britons possessed great numbers of cattle. He also says that Germany produced two kinds of wild cattle, one distinguished by its name and the other by its excessive strength and swiftness. Cattle are also spoken of in the seige of Troy, though no description is given of them.

The following diagram from Zittel shows the ages in which the various families branched off from the original ancestor:

Modern times	Antelope	Sheep	Cattle
Pleistocean, probably 25,000 years ago		Ovinae	Bovinae
Pliocean, probably 250,000 years ago		Ovinae	Bovinae
Upper Miocean, probably 500,000 years ago	An	telopinae	
Lower Miocean, probably 8,000,000 years ago	Ce	rvulinea	

"In almost every part of Europe, skulls evidently belonging to cattle have been found, though far exceeding in size any now known."—Youatt.

History records a species of wild cattle (Bos primigenous) from which scientists tell us our domestic cattle have descended, as having been exterminated in Poland about two and one-half centuries ago. This conclusion is rendered more likely by the discovery of the remains of the same species in a bed of turf in Scandinavia which would require about one thousand years for its formation.

According to the laws of correlation and anatomy, sometimes a single bone is enough to convey an idea not only of the size but also of the species

of the animal.

(Bos longifrons) of Northern Europe, the bones of which represent an animal at an intermediate stage between the deer and cow, is supposed to be one of the progenitors of our domestic cattle. Such animals having once lived, but now extinct, with no evidence of our present domestic animals having lived in those ages, is evidence that they must have sprung

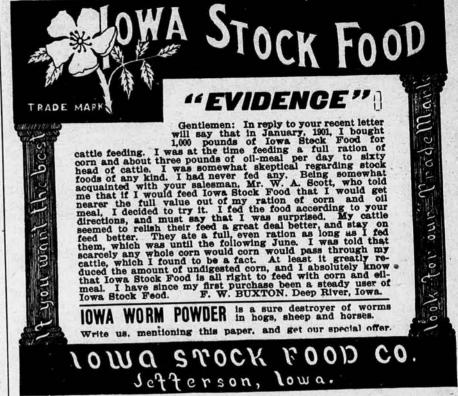
from those prehistoric races.

According to geology, hoofed mammals which are among the highest types of animals, may be traced back in their origin to the forerunners of mammals, the Prototheria, up to the living Monotremes which are so ancient in style that they lay eggs and hatch their young like birds, up through the Marsupials, or pouched animals as the opossum, whose young are born in embryonic condition, up to the highly organized division known as Ungulata (animals which have

We see evidence of the cow once having had four equal digits in her hoofs, and as the weight fell upon the axis of the two center digits the two outer gradually lessened in size, from disuse, until they were used only when the animal slipped. With our present domestic cow they are of no use at all, nothing but little stubs called dewclaws representing the remnant of what was once equal parts of the hoof. In the case of the hog these extra digits are more pronounced, and their extra metacarpel bones still remain apart from the others clear to the hock joint. In the cow it is only a little tapering splint. In the horse the splint bones are the supposed remnants of aborted digits of the foot.

There are many cau tion from the aboriginal types down to the several families, genera, and species that now exist. For instance, the rugged, barren rocks of the Shetland Isles, with only moss, heath and sea weeds, together with a cold climate, produced a small, shaggy cow. The frigid regions of the North produced the long-haired musk-ox (Ovibos moschatus). The temperate zones the bison, various species of antelope, deer and goats. The hot climate of Africa the Cape buffalo (Bos caffar), gaur (Bos gaur) of India, bush-cow (Bos brachyceros), with a small, round body, the yak of Thibet, the fleet, fineskinned gazelle of the Sahara Desert, and the gayal of Bengal. The latter belongs to the genius (Bos gauaens), and is found wild in Bengal where the bull leads the herds, and defends himself against any wild animal of the jungle. They are domesticated and used by the natives for dairy- and beef-purposes.

The color of cattle of various countries is influenced by the light, the thickness of the skin and hair, and by heat; the size is influenced by soil, abundance and kinds of food, and their habits by environment. For instance, the species of antelope whose habitat is near the jungles of Africa are very fleet, for protection against wild beasts of The rich pastures of Sussex produced cattle of superior size and weight, while the privations of Wales lessened the bulk and thickened the hide of the Welsh runt. The tawny and fawn-colored breeds, such as the Brown Swiss, Jersey, Guernsey, and some of the South American, and original Texas cattle, were probably introduced into Spain and France from Egypt in medieval times by warring tribes of these countries, who had to take large numbers of cattle with them for substinence. Obviously the reason for modern cattle coming down to us from prehistoric times as higher types of animals, is only a case of the survival of the fittest. Lord Tankerville, owner of Chillingham Park in England, says that the wild white cattle of that park engage in the most furious battles which often end in the death of the weaker. And so there is a most rigorous selection of the most vigorous bulls. As this natural selection continued for centuries, the most hardy and better class of animals survived while the weaker ones suc-





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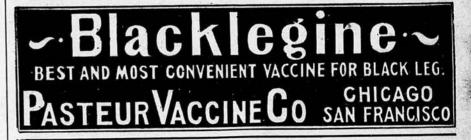
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cumbed to starvation or were killed by carniverous animals.

We see traces of primitive wildness in our domestic cattle of to-day. For instance, the common Devon cattle are similar in every respect, excepting their color, to the wild white cattle that have been preserved for curiosity in some of the parks of the nobility of England for the last four or five hundred years. The Devon cattle as far back as their history is recorded, came from Devonshire, England, and no great distance from where the wild white cattle of Chillingham, Chartley and Somerford Parks once roamed the forest unrestrained. Almost without exception domestic cows when running at large in a pasture will conceal their calves in the grass and weeds until they are several days old, only coming to them a few times each day. If anything else approaches the calf in hiding, it will put its head close to the ground and lie very still. This is a marked characteristic of the wild cattle, and indicative of primitive wildness.

The wild white cattle of the different parks of England, having been separated for several centuries, and on account of the prejudice existing between their owners, have not been allowed to mix, so they have become as different as some of the domestic breeds. They are all alike in beauty of form, having short legs, straight back, horns of fine texture, thin skin, acute sense of smell, and all have a peculiar cry, more like that of a wild beast than the bawl of ordinary cattle. The Chillingham cattle, however, differ from the other herds in having a mane on their neck and shoulders. They are also more wild than the others. They take advantage of the irregularities of the ground and glide along on the opposite side of the hills when visitors approach, so that one has to proceed with the utmost caution in order to see them at all. The herd is led by a king bull who acquires his rank by his own prowess. He maintains this right for two or three years while his strength and vigor last, then a younger and more energetic rival defeats him and takes his place, unless both are killed in the struggle.

The Chartley cattle are not so wild as the Chillingham cattle, but this is probably due to the fact that a public road runs along one side of that park, and they have become accustomed to seeing passers-by. The Chartley cattle have black ears, black muzzle, black hair around their hoofs and eyes, and the tips of their horns are black. The Chillingham cattle have similar markings but their ears and muzzles are red. The cattle of Somerford Park have no mane, but have curly hair on their neck and shoulders. They are a domesticated polled herd, but have all the peculiar features of the Chillingham and Chartley herds. They are the best example of a tame variety of originally wild cattle.

History and tradition agree in showing that the flerce gigantic Urus (Bos primogenius), though now extinct, was probably the progenitor of the wild white forest breeds of England. There are at least three cases on record of where two of the enormous skulls of the Urus were found locked together by the horns, showing that they fought until they destroyed each

The following from Sir Walter Scott will give an idea of the wild cattle of

"Mightiest of all the beasts of chase
That roam the woody Caledon,
Crashing the forest in his race,
The mountain bull comes thundering on.
Fierce, on the hunter's quiver'd band,
He rolls his eyes of swarthy glow,
Spurns, with black hoof and horn, the
sand.

And tosses high his mane of snow."

In Hungary the forces of nature have not yet been turned out of their course by action of man, so that the cattle there are large and shaggy, and have horns three to five feet long. They are supposed to be another branch from the Urus. Like all other cattle, they can be domesticated when taken sufficiently young, and many of them are used by the natives of that district. These cows hide their young calves in the bushes until they are about six weeks old.

Cattle that have been subjected to domestication readily become wild again under suitable circumstances, consequently we find large herds of half-wild cattle on the extensive plains of Paraguay and Buenos Ayres, that were introduced into South America by the Spaniards more than three centuries ago. They also brought cattle into Mexico and Texas and allowed them to run at large over those vast plains, and that was the origin of the semi-wild Texas steer of which we are all familiar. Their long, pointed horns are also indicative of primitive wildness. They were a necessary means of protection. Many Galloway and Angus cattle scarcely a century ago had horns, and even now there is an occasional Galloway with little loose stubs called "scurs," representing the remnants of horns.

The bovine races of America are all descended from those of Europe and Asia, the improved breeds coming from the British Isles, the Texas cattle from Spain; and the antelope, deer and buffalo probably crossed the Behring Strait from Asia.

It does not seem so strange that the sheep, buffalo, deer and cattle have the same remote ancestry when we examine the history of other animals. The pug dog, for instance, and the greyhound, are very dissimilar in form. and yet it is generally admitted that all dogs descended from the same species of wild dog.

The tendency to variability is itself hereditary, and it is greatly influenced by environment. In two different countries two animals of the same species may become entirely different after a few generations, on account of the different conditions, such as climate, food, soil, and because of other animals existing in these different countries which may be enemies.

There are nine genera of ruminants, the camel, llama, musk-ox, deer, giraffe, antelope, goat, sheep and cattle. The latter one represents the genus Bos. Genus and species are determined by a knowledge of the exact animal economy, or arrangements of parts.

Family Bovinae embraces domestic cattle, the bison of the new world. wild and domestic races of Indian cattle, the yak, and the old-world buffalo. They are all large, their horns are hollow, bend outward, and are round at least at the tip. So in order to classify the different animals, it became necessary to group them in the order of closest resemblance. The domestic cow has been given the following classification:

Class mammalia, animals having mammae, or teats.

Order ruminantia, animals ruminating, or those which chew the cud. Family bovidae, Latin bos, bovis.

Genus bos, Latin bos, bovis.

Species taurus.

The semi-civilized tribes of ancient times cared little for the improvement of their herds, and so they have come down to our forefathers as rough, ungainly beasts, and only in the last two hundred years have they

been successfully improved. The Hollanders who lived on the southern shore of the North Sea have raised the black and white cattle for more than two thousand years, but not in all points intelligently or successfully. They used the splendid succulent herbage that grew so well on the lowlands which have been reclaimed from the sea in producing large cows that gave large quantities of milk, without regard to quality. They had no Babcock milk-tester or any accurate means of determining the per cent of butter-fat in milk. So the Holstein-Friesian cattle originating from a cross between white cattle of Fresia, relatives of white cattle of England, and black German cattle of Hesse, have come down to us a large type of cow, giving a large quantity of milk, but somewhat deficient in qual-

The Channel Island cattle, the Jerseys and Guernseys, having come from a strain of cattle in Egypt to Normandy that had originally branched off from the Bos primigenius and had lived for centuries in that dry, hot climate, have come down to us a small, light cow, giving a moderate quantity of milk, but very rich. The fine qualities as milkers were brought out by the most scrupulous care by the people of Jersey Island. On July 16, 1763, they passed a law forbidding the importation of any foreign cattle except for purposes of slaughter.

The first historical statement of Jersey cattle that I am able to find is that of Lewis of France, 1734: "The cattle of this Island are superior to French cattle."

Both the Friesians and the people of the Channel Islands, like Jacob, who experimented with the herds of Laban in Bible times, were not far enough advanced in the scientific principles governing the feeding and breeding of cattle to gain the best re-

Not until 1750, when the English and Scotch began to take advantage of the natural laws of evolution, i. e., variation, heredity and selection, were cattle successfully improved. Robert Bakewell was the first great improver, followed by Colling Brothers, Thomas Bates, who bred for refinement and milking qualities, Thomas Booth, who bred for constitution and beef qualities, and Cruickshank, Watson, and Tompkins, who bred for early maturity and easy-keeping qualities, in the Shorthorn, Angus, and Hereford breeds respectively.

The results of their efforts are seen everywhere among live-stock communities to-day, and the enormous price paid for some individuals is evidence of their success.

So we see that the principles of selection so uncertain in nature have become potent and reliable in the hands of men.

While man does not produce variation, he can not prevent its occurrence. So he turns it into right channels to make the proper proportion of parts, and utilizes to the best advantage nature's law which is: "All organic beings tend to rise in the scale of life."

#### For Protection Against Contagious Diseases of Animals.

EDITOR KANSAS FARMER:-The cause and prevention of disease in live stock is receiving more attention every year, and the time has come when the farmer and stockman realize that something must be done. Not only the farmer but the man who does business with him-and that means professional men, as well-realize that a farmer with an empty pocketbook is not as desirable a business acquaintance as one who is sharing the general prosperity; who is waking up to the situation and is anxious to help the movement for bettering the existing conditions. Every one who has given the subject much thought realizes that on the enactment of adequate laws depends the failure or success of the movement.

A general law placing the live stock of the State under the jurisdiction of a competent veterinarian with a competent assistant in each county, endowed with power to destroy every animal having a contagious disease, and with authority to pay for the animal out of a State fund provided for the purpose, or a law that would ansyer the purpose and cause more care to be taken by both county officials and individuals, having the expense shared equally between the State, the county. and the individual, would be an ideal law and in the end would be the means of nearly if not entirely stamping out all such disease, and the object to be gained would more than justify the expense.

At the business meeting of the State Swine-Breeders' Association the hogcholera situation was discussed with a great deal of interest, and a committee of three, consisting of M. S. Babcock, Mr. Howey, and myself were appointed to promote discussion and recommend necessary changes in the present law and plans for suppressing the disease. The committee have recommended that the law be changed so as to compel the burning of all dead hogs instead of allowing them to be buried, which generally means throw-





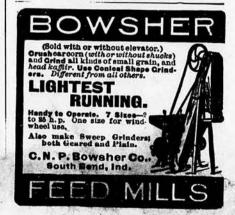




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ing them in a ditch with a little straw or dirt over them. Also, they desire a clause preventing the removal of hogs to the country from public stock yards when it is known there are sick hogs in the neighborhood.

Many men have many minds, and as there are always contending interests, legislation will be of slow growth. In the meantime, it will be necessary for us to help ourselves, and with the hope of starting a discussion that will in the end result in some practical plan that will benefit the hog industry, I would suggest that the association form auxiliary associations in each county with a fee for joining and an additional fee for each hog sold during the year, this fund to be placed in the care of a committee who shall have power to enter on the place of a member when an outbreak occurs and destroy all infected hogs, shipping the balance of the herd out of the country and sharing a portion of the loss, on the member's agreeing not to let any more hogs on the farm till all danger of infection is past. Also, to see that all parties who do not join the association observe the law in burning dead hogs and keeping infected hogs at least 100 feet from public roads and stopping the practice of hauling dead and sick hogs to market, thus spreading disease along the way. E. W. MELVILLE.

Douglas County.

#### Feeding Value of Barley.

Will you please answer the following questions through the Kansas FARMER? What is the feeding-value of barley (when ground) as a part of the ration for fattening cattle and hogs and for the production of milk? The high price of wheat bran is prohibitive as a feed. Not only so but many millers now grind up all the screenings, chaff, dirt and weeds and mix them with bran and call the mixture bran. It is almost worthless as a feed. Barley seems to be a good yielder, is almost a sure crop and is not hard on the soil while the straw is almost as good as prairie hay. It can be raised and ground on the farm much cheaper than it now costs to buy WM. RAMSEY. bran.

Dickinson County.

The use of barley as a feed for animals has been confined principally to the Pacific Slope in America where corn and oats are not successfully raised. Its value, however, is becoming apparent to the farmers of the Middle West where corn and oats are not a very sure crop; and undoubtedly the use of barley as a feed will become more common in the near future as its value and special advantages become better known. A reference to the table of digestible nutrients shows that it is somewhat lower in digestible protein than oats and somewhat higher than corn; in digestible carbohydrates it falls slightly below corn but exceeds oats. It carries less oil and fat than either oats or corn. By many, barley is regarded as one of the best cereals for feeding horses, and this grain on the Pacific Slope constitutes almost the sole feed for horses. In Europe and Denmark, especially, barley and oats ground together constitute the chief grain-ration for dairy cows. As a feed for the production of the best quality of pork it is also regarded very highly by European feeders, it being generally accepted that barley produces a higher grade of pork than corn. At American experiment stations, barley has been compared with corn and found to be somewhat less valuable, although the difference is not very great.

For the production of milk, a combination of barley and Kafir-corn for concentrates and alfalfa hay and Kafiror cane-fodder should make a most excellent ration and one which does not require the purchase of any feed whatever. It does not carry as high a proportion of protein as bran and can not exactly take its place, but where alfalfa hay is available even for part of the roughness ration there is no need of brain. Where good yields of barley can be produced with any reasonable degree of certainty there assuredly is an opening for the machine of pork,

milk, or beef and this in competition with the corn-growing sections of our G. C. WHEELEB. country.

Kansas Experiment Station.

#### Laws Regarding Dead Animals.

EDITOR KANSAS FARMER:-Will you tell me through the columns of your paper whether there is any law in regard to restricting the driving of hogs having cholera or any contagious disease on the public highway? Can it be prevented? Is the owner of such hogs that are sick and dying responsible for the infection spread while he drives them along the public highway past his neighbors' lots and pastures, especially where the road for half a mile passes through lots and pastures where healthy hogs are running?

Nemaha County. W. S. R.

Following is from Chapter 158, Sec. 336, General Statutes of Kansas: "Any person being the owner of any domestic animal or animals, or having the same in charge, who shall turn out or suffer any such domestic animal or animals having any contagious or infectious disease, knowing the same to be so diseased, to run at large upon any enclosed land, common, or highway, or shall let the same approach within one hundred feet of any highway, or shall sell or dispose of any domestic animal or animals knowing the same to be so diseased, without fully disclosing the same to the purchaser, shall be deemed guilty of a misdemeanor, and shall be punished by a fine in any amount not exceeding five hundred dollars, or imprisoned in the county jail not more than six months."

It will be noted in the above that animals so diseased must not under the law be permitted to approach within one hundred feet of any high-

#### Improved Horns-Dehorning.

EDITOR KANSAS FARMER:-I write to inquire if the horns of young cattle may be trained to grow in any particular form or direction by any process of trimming? Also, is there any reason why dehorned, pedigreed cattle should not sell as well as similar cattle L. W. STRANGE. with horns?

Wilson County.

It is a rather difficult matter to make the horns of a brute grow in any other course than that which nature intended them to. I have heard men claim that they could wire the horns and bend them to some extent but I have never known of an instance where it was done. However, the appearance of the horns may be greatly improved by cutting the ends and trimming them down, especially where the horns are very long and heavy, and where the horns are particularly heavy one can trim out the inside or front side and scrape from the back side near the point so as to make the horns appear to have some curve. In old cattle especially the horns can very often be improved by trimming.

The only reason why pure-bred dehorned cattle should not sell as well as those with horns on, is that almost all breeders of pure-breds who have horned cattle, like to see the horns on, and where they are dehorned the question at once arises as to what is the cause of their being dehorned; and one would naturally think there was some reason for it or perhaps they had been deformed in some way or had very coarse and heavy horns. Also, in the eyes of many breeders it detracts from the beauty of the animal to have the horns removed. As far as the practical utility of the animal is concerned, it should be just as useful with them off as on.

R. J. KINZER.

"The man who profits by his own mistakes makes clear gains."

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# In the Dairy

Experimenting With Dairy Cows.

Excerpts from Bulletin No. 125, Kansas
Experiment Station, by D. H. Otis.

(Continued.)

Soiling Crops.—The Kansas Station has had some experience in feeding green feeds to cows as soiling crops. In the spring of 1899 the common herd at the Agricultural College, was divided into two lots, each lot giving practically the same amount of milk, at very nearly the same test and lactation period. Each cow was given what grain she would eat at a profit, the average being a little over three pounds daily per head. The green feeds used were alfalfa, oats, corn, and Kafir-corn. The pasture was composed of both prairie and tame grasses. It should be noted in this comparison that the timely rains made the year 1899 an exceptionally good year for pasture. During the months from May to Angust the prices of butter-fat ranged from 14 to 151/2 cents per pound, and during the month of September raised to 171/2 cents. The results obtained with each of the soiling crops, together with a comparison of soiling vs. pasture, are given in the following table:

The pasture cows yielded the most milk by 6618 pounds, and the most butter-fat by 280 pounds, but consumed 1,232 pounds more grain. In the columns headed "Income less cost of grain" it will be seen that the soiling crops brought an income above the cost of grain of \$18.08 per acre, while the pasture brought only \$4.23 per Of the soiling crops, alfalfa gave the largest returns per acre, corn next, cane third, Kafir-corn fourth, and oats fifth. The average result shows that it is possible to get over four times as much per acre by soiling as by pasturing. This does not mean that soiling always pays. It will depend largely upon the cost of labor and the amount of pasture land a person may have. Not considering the amount of land used, our cows did the best on pasture.

During the month of June, 1900, which was one of the dryest Junes in many years at this station, the pastures became almost worthless, especially during the latter part of the month. On June 23 we began feeding the cows green alfalfa in the yards at night. On this date the milk yield for 22 cows was 395 pounds. On July 3, ten days later, the yield of these cows was 356.9 pounds; July 13, 360.9 pounds; and July 23, just as the pastures were beginning to recover from

TABLE XXIII.—Results in pasturing and soiling dairy cows.

No. of days	Am	Area	Gra	in.	Yield o	But	1	Value produc		ncome st of	
days fed	mount eaten, lbs	a, acres	Amount fed, lbs	Cost	d of lk, lbs	Butter-fat produced, lbs.	Butter-fat.	Skim- milk	Total	of soiling crop	Per acre
Alfalfa		2.97 1.53 1.22 .67 .72	1,623 128 1,143 687 699	\$10.65 .89 6.36 4.03 4.11	12,261 1,600 3,978 1,633 1,585	478.3 61.4 152.6 70.2 68.2	\$69.16 9.16 23.65 12.28 11.93	\$16.53 2.16 5.37 2.20 2.14	\$85.69 11.32 29.02 14.48 14.07	\$1.95 1.70 1.44 .93 1.13	\$25.26 6.81 22.79 15.60 13.83
Totals144	167,985	7.11	4,280	\$26.04	21,057	830.7	\$126.18	\$28.40	\$154.58	\$1.53	\$18.08
		Past	uring	Exper	iment-	-Eleve	n Cow	s.			
Pasture144		39.99	5.512	\$33.92	27,675	1,110.2	\$165.85	\$37.44	\$203.29		\$4.23

From this table we find that it requires an average of 116 pounds of green feed per cow per day, including what little was left as waste. It required 0.71 of an acre to support a cow on soiling crops 144 days. During the same period it required 3.63 acres to keep a cow on pasture. It will be noticed that alfalfa was fed 74 days. This was from May 10 until August 1, except nine days the fore part of June, when the oats were fed. Where alfalfa is properly managed it can be made to produce green feed during the whole summer. The corn was fed during the month of August. Cane was fed the first half of September and Kafir-corn the last half.



the effects of the dry spell, the yield was 446.2 pounds. No fresh cows were added during this period. The average for the entire period was 390.9 pounds —4.1 pounds less than was given at the beginning, making a loss of about one per cent.

A milk-hauler who was delivering milk to the Manhattan creamery at this time estimated that the decrease in the milk yield of the different herds from which he was hauling was about 25 per cent. This difference of 24 per cent between the college common herd and the herds in the surrounding community is a loss not only for the entire period of drouth, but in many cases a loss for the entire lactation period, and this loss was intensified by the fact that the price of butter-fat took a sudden jump in value.

Nearly every dairyman has experienced the shrinkage that comes in midsummer, when the pastures dry up and grass is scarce. It is at this time that soiling will pay and pay liberally. In what better way can a person realize from \$23 to \$25 per acre for his green corn or green alfalfa? When the cows look over the fence with longing eyes at the corn, the efforts usually spent keeping the cows out of the corn had better be spent in throwing the corn over to the cows. The green corn, alfalfa, or cane growing alongthe pasture will puy greater profits if marketed to cows in need of extra feed than if held and sold to the local grain dealer; and not only that, but it will keep up the flow of milk and will increase the profits derived from dairying on dry feed next fall and winter.

The acreage required in soiling crops is comparatively small in the experiment detailed above. The acreage required per cow is only one-fifth the amount required for pasture. There are some objections to the soiling practice-it takes a great deal of labor and breaks into the other work practically every day. After heavy rains it is practically impossible to get into the field to cut the soiling crops. There is less difficulty on this score on a good alfalfa-field than there is with the other crops that are usually employed for soiling purposes. On account of the difficulties involved

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in harvesting soiling crops, the silo is to be recommended as furnishing an excellent means of providing good succulent feed to tide over dry spells in summer. The convenience of the silo and the value of the ensilage is given later.

For the benefit of those who do not have silos and must rely upon soiling crops, the following dates are given showing the time when the different crops are available as green feeds under the conditions usually existing in Riley County:

Alfalfa, May 20 to September 30. Wheat, June 1 to June 15. Oats, June 15 to June 30.

Sweet corn, July 15 to July 31. Field corn, August 1 to Septem-

Sorghum, August 1 to September 30. Kafir-corn, August 1 to September 30.

Wheat and rye pasture, until the ground freezes.

Ensilage.—Ensilage is any green feed preserved in an air-tight receptacle, usually called a silo. Most any

feed can be used for this purpose, but usually a large-growing variety of corn, seeded rather thickly and having a large number of small ears, is used for this purpose. The principle in curing ensilage is the same as with canned fruits—to preserve the product in just as near nature's state as possible. When preserved in this manner, it furnishes succulence and variety as well as a large amount of nutrients, and green feed preserved in this manner is greatly relished by stock during winter months, when they have access to no other green feed.

Ensilage furnishes an excellent substitute for soiling crops, and the silo can be opened when the pastures are getting dry, and the flow of milk kept up by this means. When the rains come on and the pastures improve, the silo can be closed and reserved until the next time it is needed. It is easy to handle, and can be kept, when desired, for years. It can be confined in a small space, and thus save much room. It takes the place of roots, and can be produced at about one-half the cost. Where a corn-harvester is used, the cost of filling a silo has been reduced as low as thirty-three cents per ton for labor. The machinery used in filling the silo can be used to excellent advantage in preparing rough feed for cattle. As indicated below, there is considerable saving of rough feed by running it through an ensilagecutter.

Corn Ensilage.—This station has been using the silo for a number of years. When this college had a large herd of Shorthorn cattle, they were fed through the winter with practically no grain, receiving corn ensilage and now and then a little hay for roughness. The cattle came through in most excellent shape.

This station has also just completed a very interesting test of corn silage for steers, and, as not unfrequently the milkers of dairy cows are also feeders of beef steers, a brief statement of our experience with ensilage for these is given herewith.

Chopped alfalfa, with a grain ration of corn and Kafir-corn, was fed with this ensilage. The lot compared with this was fed the same with the ex-

ception of the ensilage. The steers with ensilage consumed 715 pounds of grain per 100 pounds gain, and those without ensilage consumed 733 pounds of grain per 100 pounds gain. The steers with ensilage were in a healthier condition and they finished off much better than those without ensilage, as is shown by the fact that they brought \$4.95 per 100 pounds while the same class of steers without ensilage brought only \$4.70 per 100 pounds. Figuring the value of the gains, and deducting the value of the grain and alfalfa fed, we find that the ensilage brought an income of \$3.29 per ton.

Ensilage has also been found to be a good feed, when given in limited quantities, to hogs and even chickens.

Average farm land in an average season will produce from twelve to fifteen tons of green corn per acre, and good bottom land much more. If it only yields ten tons per acre, and is worth as much as indicated by the steer experiment, there would be an income of \$32.90 per acre. Since ensilage is very desirable for both dairy cows and feeding steers and as an economical factor in hog and chicken production, and as the machinery used in connection with the silo is needed for other purposes, the silo would appear to be a very economical feature in successful farming.

Alfalfa Ensilage.—The Kansas Experiment Station started an interesting experiment in the spring of 1903 to determine the possibility of converting the first cutting of alfalfa into an ensilage crop. On account of the heavy rains, it was impossible to get on the fields to cut this crop of alfalfa until June 8. The alfalfa had gone too long, and consequently was rather coarse, was rusted badly, and unfortunately had a good many weeds (Leptilon canadense) in it, commonly called Canada fleabane or horseweed, and would have made very poor hay. We put the entire first crop—sixty-one tons, green weight—into the silo. This silo was opened July 16. The top two feet were

molded rather badly, but after this was taken off it was found to be in excellent shape, except around the sides, where it had molded a little. When putting this ensilage into the silo, we kept one man busy tramping around the sides and distributing the ensilage evenly in the silo. Judging from the way the alfalfa molded, we ought to have had two men in the silo instead of one, in order to thoroughly pack the outside layer. Both the moldy and slightly molded ensilage around the sides were eaten up clean by the herd when hauled out into the pasture. The dairy cows ate this ensilage exceedingly well. At least twothirds of them ate it weeds and all, and the other one-third ate it all but the weeds. We were able to keep up the flow of milk during the dry spell in the latter part of July, 1903, by feeding this alfalfa ensilage. As it comes out of the silo the ensilage does not seem to be as sour as corn ensilage, and if it is left exposed it has a tendency to dry instead of spoil, and we can take it out less rapidly than we can corn ensilage. We have had little experience with this alfalfa ensilage, but, so far as this experience goes, it is certainly a very desirable feed; and as the first cutting of alfalfa frequently comes at a season of the year when it is difficult to cure, as it is ranker and coarser than subsequent cuttings, it would appear that putting the first crop in the silo has many advantages.

A good substitute for ensilage is Mangel-wurzels are probably the best variety, and are greatly relished by stock, are appetizing, and cause the animals to eat more of other feed. They are rather costly, however, requiring nearly twice as much expense in raising them as in producing ersilage. Where one is forcing a dairy cow to make a high record they are very desirable, and under such circumstances may be used in connecton with ensilage.

(To be continued.)

Farm Dairying.

SHERMAN STEVENSON, READ AT NEMAHA COUNTY FARMER'S INSTITUTE.

Some years ago the cattle business of the country was undergoing a great and wonderful change. Companies were being formed to control vast herds which were to range unrestrained over the Western Plains, with no provisions as to feed except the seeming abundance of natural grasses, and little care except rounding up and branding. With this unprecedented expansion came the natural attendant good prices for cattle of almost any quality in the older agricultural sections, and beef-producers everywhere made enough. It mattered little in the corn-belt if a fattening steer ate half a bushel of corn a day or only a third of a bushel, for there was profit in the business; and giving attention to little details about feeding was not to be thought of in such times.

Those farmers who had advanced in dairying far enough to make fine goods, likewise found high prices awaiting their products and were satisfied to continue their feeding operations with little thought of closer economy.

But times have changed. The young stock bought from our western farms at good prices to go to the plains, proved fruitful and multiplied amazingly, and herds of their descendants have been coming back year after year

to aid in depressing the cattle market. Dairy products have kept up wonderfully well, and I do not think we can hope for higher prices at any time than have ruled the past year. We are passing through a period of falling prices, which began years ago with the manufacturers, carriers and merchants, and which is now bearing down most heavily upon our dairy in-

The advancement made in transportation facilities the world over has brought about a new set of conditions. Stock, bred thousands of miles apart and raised under the most diverse conditions of range, climate, feed and cost of production, meet at the great commercial centers, to be sold according to supply and demand, quality alone being the varying factor. problem is still further complicated

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The number of Empire Separators sold in 1903 was so great that we called it "our banner year," but the increase in 1904 made that a double-headed banner year, and the prospects for 1905 indicate that this is going to be a **triple-headed** banner year.

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Many users tell us the EMPIRE does much more than we claim

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bors that the EMPIRE was all right, or so many neighbors would not have wanted to buy the EMPIRE.

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separator made, but we do claim, and the records bear proof, that an investigation of its merits almost invariably leads to its purchase.

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We don't urge you to buy an EMPIRE, however, on the judgment of others. We don't ask you to buy an EMPIRE on our say-so; all that we ask of you is that you investigate its merits and then decide for yourself. If the machine itself does not convince you that the EMPIRE is the cream separator for you to purchase, we have nothing more to say.

The EMPIRE machine itself is the best advertiser and the best salesman on our force. Our advertising and sales organizations both bow to the EMPIRE and its merits as the one great essential feature in bringing it into such universal favor.

Send us your name, tell us how many cows you milk and we will see that the EMPIRE does the rest. We have several books on dairying for you. They are free.

Good Men Wanted. So many dairy farmers are asking about the EMPIRE that it becomes necessary for us to constantly increase our sales organization. We are always on the lookout for men of merit and integrity to accompany the EMPIRE to these numerous inquiries. We want only men, however, who will make this their life work and take it up with the idea well fixed in mind. If you are only looking for a job for three or four months to fill in, don't bother us with your application, but if you want, or know of any good man who wants, a permanent, twelve months in the year situation, write us.

Empire Cream Separator Company, Bloomfield, N. J. Branch Office, Wichita, Kansas.

by the production of meat in the distant parts of the world, now shipped as frozen carcasses to the great meatconsuming centers.

I know of but two means of successfully meeting the sharp competition which is certain to continue; the first, by making products of a higher quality, and the second by cheapening the cost of production. I can not impress too strongly the need that we stockmen and farmers shall endeavor to secure the very best machines possible for converting coarse feeds into dairy products. To have any other than the best cattle obtainable for the specific purpose in view is to start handicapped in what is sure to be a severe contest. Fifty years ago those great lights in agricultural chemistry, Liebig of Germany, Boussingault of France and Laws and Gilbert of England, began investigations of agricultural problems, many of which were immediately helpful, and all tended to awaken an interest in an art heretofore neglected. Out of this investigation came a better knowledge of animal nutrition, and of the means by which the products of our fields are manufactured into flesh, milk and oth-

er animal products. Germany leads the world in agricultural colleges, and to German chemists are we largely indebted for the knowledge in this most important field. Enormous as is the dairy industry of this country its continual growth for some time yet seems certain, for the reason that our progress has been largely in the direction of an improved product rather than an increase in gross output.

Low prices for beef cattle have been brought about in no small measure through flooding the market with lean or half-fatted steers, which must be consumed in some way, and drag down the prices of the well-fatted or finished product. The growth of the creamery business does not necessarily mean that more cows are used in the production of butter, but rather that more butter of a high quality is being made to take the place of butter, commonly made on the farm, which has a doubtful reputation.

Increased consumption naturally follows improvement in quality, and with more good butter on the market, more is consumed. But dairying will con tinue for another reason, which lies at the foundation of stock-feeding, and

this is because the cow gives a larger return for her food than does the steer. I doubt if many of us have ever reflected upon just this phase of the subject. It is one of great importance and will some day be more carefully studied. The leading question of the day in all lines of business seems to be one of financial gain. This is, be it right or wrong, a money-getting age, and not a whit behind his commercial or professional brother stands the tiller of the soil, anxiously scanning the business horizon, delving in and analyzing the elements of his soil, experimenting with the grains, grasses and fruits with a view to their more perfect development and increased fruitfulness. Also more important if possible comes the live-stock department on the farm, and herein lies one of the surest sources of income.

In the front rank for usefulness and profit stands the milch cow, for a "specialist" a dairy-bred cow, but for the average Kansas farmer, in my opinion, is the double-purpose cow, with a large frame, one of the beef breeds of a well developed milk strain. Such a cow comes nearest to filling the demands of the general farmer. With proper feed and care, she will give a large flow of rich milk and bring a calf that at the proper age can be put into the feed-lot and will make high-grade beef, with medium quality of feed, and then at the end of the cow's usefulness as milker and breeder, she may also be turned into good

She need not and does not interfere with other branches of farming and she supplies a revenue more surely and with less variation than any other source of income.

It pays to take good care of the cow. For example: A \$35.00 cow, a \$10.00 calf, and \$25.00 for milk and butter-fat per annum gives good returns for capital invested. I believe no breed of cattle can be continued as a first-class dairy breed when the calves run with the cows. There is something about hand-milking which causes a cow to give more milk and for a longer period than when it is drawn by the calf. The double-purpose cow is the cow for the man who does some dairying, patronizes the creamery, and who must raise or buy calves that will convert into marketable form the vast amount of stuff on the ordinary farm.

It was just this kind of a cow at the Wisconsin Station that made 215 pounds, first year; second year, 364 pounds; third year, 423 pounds; and her calf, when 27 months old, was slaughtered at the International Show last fall and weighed "after shrinkage 1540" and sold for \$108.20.

It is just this kind of a cow that is owned by John Lindsey in Australia that holds the world's record at 84.2 pounds milk in 24 hours, and made 4.4 pounds butter per day. It is largely due to this kind of cows that annual production of good butter has been brought up to 1,277,500,000 pounds or 3,500,000 pounds daily. This seems like an enormous amount of marketable butter, and yet we come far short of supplying the actual demands.

I have in my possession the record for one year of the income of 6 cows. There was sold 1,185 pounds butter, and counting 4 pounds a week for butter and cream for family use in a family of four, this increases the total to 1,393 pounds butter. The highest 16c, making an average of 26c a pound. The whole amount received therefrom was \$362.18, or \$60.36 per cow. These cows came in fresh in the fall (which by the way is the best time of year for both calf and mother to get best returns), so as to get a better quality and price for the butter. The cows were kept in good condition by feeding chop corn and oats and all the hay and roughness they could eat until the middle of May, then they were turned in the pasture the remainder of the summer. The best results are not obtained by turning the cow into the stock-fields in winter and letting them rustle for themselves without shelter or care, as is generally done.

Do not think for a minute that breed alone puts a mark of nobility upon all the animals that are registered. It is simply an indication of merit. Individuality alone counts, and the sire, as I truly believe, transmits more of the good qualities to his offspring than does the dam. You must see to it that the sire has behind him a good mother, and a good grandmother. The calf owes more to its grandmother than to any of its ancestors. In a very large per cent of cases, there is more in the dairy man than in breed, silage, patent churns, and all other things combined. Regularity, cleanliness, and common sense in this business count for a great deal.

## Miscellany

Crops Sultable to Precede Alfalfa.

I sowed seven acres to alfalfa last spring and got a fine stand, but owing to sand-burs and other weeds I lost it. What is the best spring crop to plant on this piece of land to prepare it for fall seeding? Would peas smother out the grass and at the same time improve the land. I have a fine bunch of pigs. Could I pasture the pigs on the peas to advantage? If so, at what stage of the growth of the crop should the peas be pastured? Peas are said to be as good as corn for fattening hogs, but in order to get much advantage from the ripe peas would I not have to keep the hogs off until so late in the season that little little time would be left for grazing and still leave time to prepare the ground for early fall sowing to alfalfa? R. O. STEWART.

Rice County. Cow-peas are a suitable crop with which to precede alfalfa, but the crop, as you suggest, will hardly mature early enough so that hogs may feed upon the ripe peas, and still leave time to prepare a suitable seed-bed for early fall seeding of alfalfa. Last season the Whippoorwill cow-peas, a medium early variety, planted June 7, were about matured September 26, and would have done to pasture two or three weeks before that time. The New Era variety was about matured September 1, while such varieties as the Clay, Iron, etc., were not fully matured when killed by frost October 15. It would, however, be practicable to plant cow-peas and use them as green pasture early in the season, and cowpeas make excellent green pasture for hogs or cattle. Another plan would be to sow some early spring grain as oats or barley, plow the land soon after harvest, and by occasional cultivation with the harrow and disk prepare a suitable seed-bed for alfalfa by about September 1. Another plan is to plant soy-beans in rows and cultivate throughout the season. This will clear the land of weeds and leave the soil in a good condition of moisture and fertility. The Early Yellow soy-beans mature in about ninety days, and it will be possible to remove this crop by September 1, and by the use of the disk and harrow prepare a suitable seed-bed for alfalfa.

I presume that you refer to cow-peas in your letter, but it may be a practical plan to plant common field-peas and pasture them. Field-peas may not be so valuable a crop in your locality as cow-peas but they are used for pasture, and have this advantage, that they may be planted earlier and mature earlier than cow-peas. At this station field-peas have succeeded fairly well and produced two tons per acre of cured hay in 1904.

A. M. TENEYCK.

#### Weeds in Fences and Roads.

EDITOR KANSAS FARMER: — Every farmer and land-owner has been more or less annoyed by the weeds growing in the turn-rows, by the fences and public roads connected with his farm. In these places the weeds are cut, or they are not cut. If they are cut, it requires much work each year with the bare result of destroying some of the weeds; generally there remain by the fences enough weeks to seed the adjacent roads and fields the next year, thus making the cutting an an-

Where the weeds are not cut in these places they are apt to keep the

nual necessity.

Don't you want to know what it will cost you to own a perfect skimming, easy running, easy-to-clean Cream Separator? Doyou know that the Cleveland Cream Separator operates 200 per cent easier than any other make because it is the only Separator that has ball-bearings throughout? Do you know that the Cleveland, because of the aluminum used in the skimming device, and because of the simplicity of its construction, is the easiest to clean of any Cream Separator made? Do you know that because we ship direct to you from our factory, and because none of your money goes into the pockets of high-priced traveling men or agents, we can save you from \$20 to \$30 on your machine?

Clove and Cream Separators
Want to know Do you believe

Don't you believe our plan of shipping you a Cleveland to try it for 30 days on your own farm is a square and fair offer? Don't you believe that the Cleveland, shipped on free trial, working on your own farm, with no agent or expert to talk you over and win your confidence, is the Separator you want? Let us send you our catalogue, written in a plain, simple way. It tells you exactly how the Cleveland is made, and what it will cost you, and it fully explains our free trial plan. Book is free.

The Cleveland Cream Separator Co. Cleveland, Ohio.

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No expense to you to receive, try and return the Separator. We pay the freight both ways.

road warm and muddy during the summer, and snow-blockaded during the winter; and the jungle of weeds will endanger the entire farm if they do not actually overrun it. The above methods of handling weeds are not practical from an economical standpoint. There is a much better method in practice in some of the older States. It is common in Eastern States to find such a growth of grasses in the roads and by the fences that no weeds can survive; and besides the good pasture, hay is oftentimes made therefrom. This proves what tame grasses will do for us in the battle with weeds.

Then, let us sow by our fences, turnrows, and roads, alfalfa, timothy, English blue-grass, etc. In a short time these will reclaim these tracts from the weeds and yield a valuable crop of feed besides.

If this space, extending around a farm of 160 acres, and along the division fences be but one rod wide, it will make from six to seven acres which may produce grass instead of weeds. Now let us suppose that such space be sown to alfalfa, and this cut even but three times a year, what a handsome amount of excellent feed this ordinarily waste land may be made to yield.

The space under the fences where the grass necessarily remains uncut, insures the permanence of the grasses in the turn-rows and roads, and should these grasses not be cut they would furnish good pasture and prevent the obstruction of the roads by a wilderness of sunflowers. The farmer who cuts the weeds by the fences, turn-rows and roads deserves praise. Still, if he follows out the same principle on his farm, he will kill all the weeds, but never sow a crop of grain or plant an acre of corn.

JNO. ELLENBECKER.
Marshall County.

#### A Question of Taxation.

EDITOR KANSAS FARMER:—I believe farm improvements ought to be exempt from taxation. My reason is because city people own a good many farms in the country and most of them will not put any improvements on their farms. They want every foot of it under cultivation; therefore they get more off their land than those who live on their land. And if they buy a farm with a poor house on it they move it away so no family can live on the farm, then rent the land to some near-by farmer who has land enough of his own.

We that have and keep up good improvements have to pay more taxes than the nonresident, and we necessarily have more waste land. A good \$25\frac{.00}{Separator}\$

TOR \$3.00 we sell the celebrated DUNDEE CREAM SEPARA-TOR.capacity, 900 pounds per hour, 500 pounds capacity per hour for \$29.00; 500 pounds capacity per hour for \$24.00. Guaranteed the qual of Separators that retail everywhere at from \$75.00

OUR OFFER. We will ship plan, with the binding understanding and agreement if you do not ind by comparison, test and use that it will skim closer, skim ind by comparison, test and use that it will skim closer, skim easler, run lighter and skim one-halfmore milk than any other Cream Beparator made, you can return the Separator to us atour expense and we will immediately return any money you

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deal more might be said about a country being too thinly populated.

B. REICHERT.

McPherson County.

#### Big Farm Operators.

Recent dispatches from Tarkio, Mo., state that the largest farm in the world, which until recently was in Missouri, has been extended into Iowa.

It is owned by David Barkin and his

It is owned by David Rankin and his son, W. F. Rankin, of Tarkio, Mo.

The elder Rankin is worth a million, and has made it by farming. He owns 23,500 acres in Atchison County, and, being still afflicted with the desire to own more land, had to reach into Fremont County, Iowa, the other day, when he bought 3,500 acres more.

Rankin never sells. He is a cattle king, a corn king, a land king, a philanthropist, and a captain of industry. He employs about 300 persons, representing 1,500 population; owns his own elevators in the towns where he does business, sets of buildings on the subdivisions of his lands, a trolley line to take produce to the railroad, and lives in Tarkio, to which town he has given a library, manual training school and other benefits.

#### Facts About Honey.

There are as many varieties of honey as there are nectar-producing flowers, and each variety has its own peculiar flavor.

Comb honey and eggs have never been produced without the aid of the bees and the hen.

The best test for pure extracted honey is the name of the beekeeper that produced it.

Honey is the most wholesome sweet in existence.

Colorado.

A. A. P.

#### SPEAKER CANNON OPPOSES THE ADAMS BILL.

(Continued from page 170.)

and the bolts shot to with a click. There is lavish expenditure for means of destruction of human life and property, but a skimping hand to dole out funds for the encouragement of agricultural production and economical transportation. The latest illustrativa of this contrasting policy is found in the attitude of opposition assumed by Speaker Cannon to the Experiment Station Bill introduced and pushed by Representative H. C. Adams, formerly Dairy and Food Commissioner of Wisconsin. This bill increases the annual appropriation for each State Experi ment Station from \$15,000 to \$20,000, and provides for a subsequent annual increase of \$2,000 until the total amount for each State reaches \$30,000. Mr. Adams has conducted an aggressive and intelligent campaign among the members of the House until it is telieved that they are ready to pass the bill, but Speaker Cannon refuses to extend recognition to Mr. Adams to call up his bill for passage.

"Mr. Cannon has earned some reputation as the 'watch-dog of the Treasury.' It is well, so long as the eye of the watch-dog is not held too closely to the point from which the political wind is supposed to blow. Mr. Cannon is popularly represented as opposing large appropriations, and some other forms of legislation, lest it have an unfavorable effect upon his party's chances at the fall congressional elections. Just why the opinion of one man, governed allegedly by such considerations, should be allowed to override the will of a majority of the representatives of the people is a proposition that we pass up for the digestion of our readers. Its discussion is somewhat outside the field of this journal. Economics in public appropriations are commendable. It is a matter of opinion as to the best direction in which to economize. And it is really singular how easy our Legislators find it to economize by lopping off appropriations for the benefit of agriculture. A study of the history of legislation will show that economies are often effected in this way. And the farmer stands it meekly. Some day he will not. Revolt in some States has already been carried to successful termination, and the sooner this lesson is taught to National Legislators the better it will be for all concerned.

"Press dispatches announce that the President and members of his cabinet have assured Mr. Adams of their cordial support of this measure, and thus fortified, he has set to work to bring pressure to bear on Speaker Cannon to secure recognition for his bill. Many of our readers can help in this matter. Those who happen to know the Speaker can write him briefly but plainly. Others can reach his ear through their own Representatives. When the vast value to agriculture of our experiment stations is considered it seems incomprehensible that the few thousands needed for the further development and extension of their work should be denied by the will of merely one man whose life work has not been such as to qualify him especially to form sound opinion as to the National needs of agriculture."

#### THE CENTRAL SHORTHORN BREEDERS' ASSOCIATION.

The annual meeting of the Central Shorthorn Breeders' Association was held at Sioux City, Iowa, last week. While the weather conditions were such that the attendance was greatly diminished, the visitors were given so warm a welcome that they did not mind the weather and all unite in saying that this was the most interesting and profitable meeting ever held by this association. Among the papers of note, was an address by A. H. Saunders, of the Breeder's Gazette, who paid a handsome compliment to the great empire of which Sioux City is the center by saying that if all of the cattle of the State of Iowa were purebred Shorthorns, their value would be from \$300,000,000 to \$500,000,000. As the matter now stands, they are worth some \$20,000,000 more than are the herds of Texas, which are the most

numerous of any State in the Union. Mr. Saunders stated that if it were within the province of the c'ty council to purchase five thousand purebred Shorthorn bulls and send them out into this great Northwestern country, in five years they would return to the Sioux City stock yards, the Sioux City banks, and the various commercial interests of the city more than any other investment of a like amount could do.

Among the resolutions passed were the following:

Resolved, That we earnestly urge and recommend that the American Shorthorn Breeders' Association extend and create, where necessary, classes for Shorthorn steers, and also for cows in milk by the increase of appropriate prizes in order to encourage improvement in these directions.

Resolved, That we fully endorse President Roosevelt in his efforts to secure greatly needed reforms in the matter of railroad rate legislation.

Resolved, That we favor and urge upon Congress an amendment to the Interstate Commerce Law, giving the Interstate Commerce Commission the power to prescribe a reasonable rate in lieu of a rate found to be unreasonable; such order to go into immediate effect pending an appeal to the courts. That we believe the owner of the improved highway should own and con trol all forms of transportation and that we regard the private car-line proposition as an injury to the stockholders of railroads and a means of robbery to the public.

Resolved, That we recommend the extension of foreign markets for American meats, and we solicit the cooperation of all live-stock associations in exerting every influence to this end.

The officers elected for the ensuing year were as follows: President, L. C. Lawson, Clark, Nebr.; first vice president, E. B. Mitchell, Clinton, Mo.; second vice president, Jno. R. Tomson, Dover, Kansas; secretary, B. O. Cowan, Chicago; treasurer, H. P. Clay, Plattsburg, Mo.; vice presidents by States: Kansas, T. B. Babst; Nebraska, O. P. Hendershot; Wisconsin, F. W. Harding; Illinois, Col. W. A. Harris; Texas, V. O. Hildrith; Missouri, F. M. Marshall; Minnesota, H. F. Brown; Indiana, S. F. Lockridge; Iowa, C. A. Saunders.

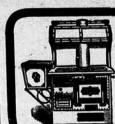
The meeting wound up with a grand banquet with toasts as follows: "The market-the measure of values," F. L. Eaton; "Theory vs. practice, or how shall the farmer and the professor get together?" Prof. C. F. Curtis; "The effect of the weekly sermon as a means of grace," Alvin H. Saunders; "The relation of stock interests to the commercial club," O. J. Moore; "The Interstate Breeders' association," A. C. Binnie; "Confessions of an advertising rustler," F. D. Tomson; "The breeder from the commission man's point of view," Frank E. Scott; "Can we breed up men?" Prof. H. R. Smith; "Long hauls and other hauls," L. C. Lawson; "Value of sentiment," A. L. Bixby; "Imitations," The Other Fellows.

#### STANDARD POLAND-CHINA REC-ORD ASSOCIATION.

The meeting of the Standard Poland-China Record Association was held in the rooms of the Live Stock Exchange, at South St. Joseph, on the 8th inst. There were about 35 stockholders present in person and who held proxies for the majority of the stock of the association. This meeting was one of the best and most harmonious held for several years.

President Wood, of the St. Joseph Live-Stock Exchange, gave a very cordial address of welcome and called their attention to the fact that St. Joseph hog market was the best in the world, and stated that he had during his business experience handled millions of hogs of all classes and that the Poland-China breed was a prime favorite in the market as a profitable hog. He expressed the hope that the Standard Association would make St. Joseph its permanent headquarters.

Mr. M. B. Irwin, manager of the stock yards, announced that his company were erecting a new sale pavilion at South St. Joseph for the purpose



servoirs, from \$8 up, warranted for 25 years. Cash or easy monthly payments. honest people located in all parts of the world. Write for free catalogue.

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of holding breeders' combination sales of swine and other live stock.

The annual report of the secretary and the executive committee showed that the financial affairs of the association were in the most flourishing condition, and that the cash in the treasury amounts to \$6,273.97. The increase of business during the last year was a little less than forty per cent. During the past year two hundred additional shares of stock have been authorized, eighty of which have been sold. At the present time there are 582 stockholders in the association.

The officers and stockholders feel confident that the year 1905 has every promise of being the most prosperous in the history of the association. It was decided that the next annual meeting be held at St. Joseph during February, 1906.

W. P. Hayzlett, of Marysville, Mo., was elected president for the ensuing year and the new board of directors are as follows: W. F. Garret, Marysville, Mo.; C. F. Hutchinson, Bellaire, Kans.; J. D. Gates, Oak Grove, Mo.; E. E. Axline, Oak Grove, Mo.; E. R. Woodford, Shenandoah, Neb.; John Blain, Pawnee City, Neb.; S. McKelvie, Fairfield, Neb.

A committee was appointed to meet with a similar committee from the American Association to uniform the changes and rules for registration.

#### BLOCKS OF TWO.

The regular subscription price of the Kansas Farmer is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to receive the paper at half price. While the subscription price will remain at one dollar per year, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year and one dollar to pay for both. In like manner two new subscribers will be entered, both for one year, for one dollar. Address, Kansas Farmer Company, Topeka, Kans.

#### Special to Our Old Subscribers Only.

Any of our old subscribers who will send us two NEW SUBSCRIPTIONS at the introductory rate of fifty cents each, will receive any one of the following publications as the old subscribers may choose, viz., "Woman's Magazine," "Western Swine Breeder," "Vicke's Family Magazine," "Blooded Stock," "Poultry Gazette," "Dairy and Creamery," or "Wool Markets and Sheep."

### READ A CHICAGO DAILY.

By special arrangement with the Chicago Daily Journal, we can offer that leader of the newspapers in Chicago six days a week and the Kansas FARMER, both one year for \$3.00. The Chicago Daily Journal has full associated press reports, besides its special service, and its financial and market news is accurate and complete. Address all orders to Kansas Farmer Company, Topeka, Kansas.

#### THE FOURTEENTH BIENNIAL RE-PORT.

The Kansas Farmer has received numerous requests for a copy of the fourteenth biennial report of the State Board of Agriculture, which requests we have forwarded to Hon, F. D. Coburn, Secretary, Topeka, Kans., to whom all such requests should be addressed and not to this paper.

Every stockman in Kansas should urge his representative in the Legislature to support the bill introduced to provide \$1,000 for the publication

and distribution of the annual reports of the Kansas Improved Stock Breeders' Association. This report will be worth money to every stock-raiser in Kansas.

#### PROSPECT FOR A STATE FAIR.

The Ways and Means Comittee of the Senate has favorably recommended a State Fair measure which provides a modest start for a State Fair with a contingent appropriation. The bill will probably pass the Senate this week and be considered by the House

Every friend of the State-Fair measure should write at once to his representative asking his support of the State-Fair bill.

#### Ald for Good Roads.

On the third day of the present session of Congress Senator Latimer, from the Committee on Agriculture and Forestry, reported favorably the bill known as "the Latimer Good Roads Bill." It carries an appropriation of \$24,000,000 to be available in three annual installments of \$8,000,000 for road-building in the States. Under the provisions of the bill the States are to do the work of construction and pay one-half of the cost, the National Government paying the other half.

The report contains a discussion of the power of Congress to make appropriations for roads, and cites numerous authorities and precedents in support of the proposition. It also deals with the duty of the Government to aid in road-building.

#### Good Roads Axioms.

Good roads make even trade the year round.

Good roads are to a community what good clothes are to a man.

Your town will prosper in proportion to the improvement of your country road.

Tarring the roads in France is becoming the vogue, and road engineers are busy testing this system of dustlaying.

It is estimated that of all the roads in the United States there are only 9 per cent good, 10 per cent fairly passable and 81 per cent bad, execrable, indescribable, welters of mud in wet weather and the origin and creators of insufferable dust-storms in dry weath-

### Fistula Cured by Soothing, Balmy Oils.

Pistula Cured by Soothing, Balmy Oils.

Dr. D. M. Bye Co., Indianapolis, Ind.
Dear Sirs—Yours of 20th inst. at hand.
In answer to your question about my
case—I am cured. I have not felt any
more of my fistula for over one year
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The Dr. D. M. Bye Co., of Indianapolis,
have perfected a combination of oils
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#### One-Way Rates.

One-Way Rates.

Every day from March 1 to May 15, 1905, the Union Pacific will sell One-way Colonist tickets at the following rates, from Missouri River terminals, Council Bluffs, to Kansas City, inclusive:
\$20.00 to Ogden and Salt Lake City.
\$20.00 to Butte, Anaconda and Helena.
\$22.50 to Spokane and Wenatchee, Wash.
\$25.00 to Everett, Fairhaven, Whatcom, Vancouver, and Victoria, via Huntington and Spokane.
\$25.00 to Tacoma and Seattle, via Huntington and Portland or via Huntington and Spokane.
\$25.00 to Tacoma and Astoria, or Ashland, Roseburg, Eugene, Albany and Salem via Portland.
\$25.00 to San Francisco, Los Angeles and San Diego.

Correspondingly low rates to many other California. Oregon, Washington, Montana, Utah, and Idaho points.

Through Tourist cars run every day on Union Pacific between Missouri River and Pacific Coast; double berth \$5.75. Fo. full information call on or address nearest Union Pacific agent.

### Brange Department &

"For the good of our order, our country, and mankind."

Conducted by E. W. Westgate, Manhattan, to rhom all correspondence for this department should e addressed. Papers from Kansas Granges are es-edally solicited. The Kansas Farmer is the official paper of the

#### NATIONAL GRANGE.

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STATE ORGANIZER.

W. G. Obryhim.....Overbrook

#### Grange Notes.

Communications from all granges are cordially solicited.

Oak Grange has decided by resolution to stand in favor of a State oil refinery. A copy of the resolution was forwarded to our Representative and Senator in the Legislature.

A resolution was also passed in favor of the parcels post and has been sent to our Congressmen at Washington, urging their support of the

It is the duty of the lecturer to lay plans and lead; but if the lecturer's hour is to be made interesting and a promising feature of the Grange meetings it requires the hearty cooperation of the members.-Grange

Would it not be the part of wisdom for the lecturers of subordinate granges in this county to confer with the lecturer of Pomona Grange as to the method of systematizing a program for lecturer's hour, that uniform work may be accomplished. This department solicits the best work of the lecturer's hour for publication. It will, no doubt. prove a "helping hand" to lately organized granges or those isolated and struggling to preserve an organization.

It is to be hoped that the subject of the local Parcels Post will enlist the attention of the granges in Shawnee County, and elsewhere in the State. Concentrate your energies on this measure and carry it to a successful issue. At a late meeting of Oak grange a resolution in favor of its enactment was unanimously passed, to which was attached the signatures of its members, and the secretary was instructed to forward the same to our Representative and Senator in Congress, asking their support.

Sister Granges, have you a Grange Library? If not, set about procuring one for the benefit of the young people of your grange.

One of the supplementary questions suggested by the National Lecturer is "Is it important to have ritual work well rendered?" It is a pleasure to have this neglected part of grange work receive attention, and an endeavor should be made to correct slack and inefficient rendering of ritualistic work. It is of untold benefit to those participating and must have a wholesome influence on the candidates. First impressions may decide his opinion of the worth of the grange. This alone makes it important that every step should be faultless.

We shall advance the cause of education among ourselves, and for our children by all just means within our power. We especially advocate, for our agricultural and industrial colleges that practical agriculture, domestic science, and all the arts which adorn the home be taught in their course of study.—Declaration of Purposes.

#### Ritual Work in the Grange.

[The following article from a grange sister is to the point and will be heartily appreciated by all lovers of perfection in ritual work.]

Every secret organization is largely indebted to the ritual work for the interest and faithfulness of its members. The ritual work of the Grange is not only terse, logical, and true, but it is also grand, beautiful, and at times very impressive. The lessons taught in each degree are practical and beneficial. How necessary it is, then, for each and every officer to master the words and the thought expressed, before trying to impart the same to new candidates.

There is not, as a general thing, enough respect paid to ritual work in subordinate granges, but I am sure if every officer will take the manual, sit quietly down and carefully read and study the work, he will readily see that the great lessons found there need the best work that can be given.

Many granges who pride themselves upon the perfect initiation work, have a special team of officers to officiate. The different parts are memorized and intelligently interpreted, and initiation becomes a dignified proceeding as well as a beautiful, impressive ceremony.

Music is an essential feature of grange work, and every grange should own and use the "Grange Melodies." Instrumental music, piano, organ, or violin, is really necessary, and every effort should be made to provide it in every grange hall.

Regalia, badges, buttons, and all necessary paraphernalia should be owned by each grange and kept in good repair and always used. One can readily see why the steward and his assistant should be carefully chosen. They hold responsible positions. Every officer should have a manual, and once a quarter at least, it has always seemed to me that it would be very wise and very helpful to have the constitution read aloud, the secret work demonstrated, fees and dues and insurance fully explained for the benefit of all new members.

Our order is growing rapidly and it lies within the power of each subordinate grange, through its effort or lack of effort, to assist in its rise or fall. If we obey the ritualistic work of the Grange we will obey the "First and highest object of our Order: To develope a better and higher manhood and womanhood among ourselves."

MRS. JOHN B. SIMS.

#### Report From Osage County.

Mrs. Jennie Heberling, Secretary of Hurricane Grange No. 359 at Overbrook, sends the following report of her grange and of the Pomona grange in Osage County. Such reports as this are just what we want from every grange in the State.

The officers of Hurricane Grange No. 359 at Overbrook, Kans., are: Master, L. F. Karnes; overseer, Bert Radcliff; lecturer, Mrs. Nannie Badsky; steward, David Talley; assistant steward, J. H. Coleman; chaplain, Mrs. Cora Karnes; treasurer, Mrs. Maria Cooper; secretary, Mrs. Jennie Heberling; gate-keeper, Wm. Cooper; Pomona, Mrs. Amanda Greenfield; Flora, Mrs. Nettie Fairchild; Ceres, Mrs. Lottie Heberling; L. A. S., Mrs. Lola Rad-

Osage County Pomona Grange met Jan. 14 at Burlingame. Notwithstand. ing the extremely cold weather there were over thirty delegates present and quite a number of visitors.

The following named officers were elected and installed: Master, Bert Radcliff; overseer, J. P. Lyon; lecturer, E. J. Lewis; steward, H. E. Hultz; assistant steward, Harvey Wilds; chaplain, Mrs. Clarissa Dickson; treasurer, Wm. Deitrich; secretary, H. N. Hills; gate-keeper, J. W. Davis; Ceres, Belva Worral; Pomona, Carrie Anderson; Flora, Etta Allison; L. A. S., Mrs. Anna Stowe.

The lecture-work topic was to have been "Grange Resolutions for the New Year;" but what with election and installation of officers, reports of committees both standing and special, and the discussions accompanying them, the time was fully occupied without lecture work.







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New Year's resolutions are generally made the subject of jest; but if we never resolve to do anything we will accomplish little. My resolutions concerning the Grange for this year are:

1. That I will attend every meeting of my own grange, the Pomona and the State Grange unless prevented by circumstances over which I have no control. If every patron in Kansas would do this, what grand meetings we

2. That I will strive at all times to remember and live up to the obligations given when joining the order; not the least of which is that I will "aid my brothers and sisters in doing the same."

3. That I will endeavor to cheerfully perform, to the best of my ability, whatever duties are assigned me.

I do wish so much that all the granges in the State would write sometimes to the KANSAS FARMER Grange Department is always the first thing I look for when a new paper comes.

The next meeting of Osage County Pomona will be April 8, at Overbrook. Visitors are cordially invited.

#### The Lecturer's Hour.

What of lecture work in your grange? Is it up to the standard in point of efficiency?

A special duty of the lecturer is to prepare a well regulated program at the beginning of the year, suited to the special needs and capacity of the

It should be prepared, subject to revision or enlargement as circumstances demand.

CHICAGO, ILL.

Members to whom parts are assigned will be more observant of time-

A departure from the beaten path in lecture work is sometimes beneficial: a change to some lighter subject will awaken interest and create enthusiasm. Variety is the spice of the lecturer's hour.

The master, who is the business manager of the grange, should see that this hour is not crowded out by other work. The time devoted to this part, however, should be observed and not vary. This hour stretched out to two would endanger the interest and become tiresome.

Continued discussion of the parcels post should be carried through this month. March will bring a supplementary subject of interest to all.

#### Two New Granges.

State Organizer W. G. Obryhim reports two new grangs organized in Miami County: Mound Valley Grange No. 184, C. P. Shelton, Master; address, Paola; Walnut Creek Grange No. 1294, E. B. Hartz, master, address, Paola.

Mr. Obryhim is now at work in Marshall County.

Character, good or bad has a tendency to perpetuate itself .- Professor

## Žicecoccoccoccoccoccoccoccoccoccocco The Houng Folks

CONDUCTED BY RUTH COWGILL.

#### The Uncovered Flower.

I stoop down to flowers that strive 'neath the sod
As man strives through cold world-thoughts to God.
With impatient hands I tear the lace of grass-roots and rushes, unveiling its

face; So tenderly yearned it beneath the dank What generous pleasure to end its dark toll! My heart yearned, too, for it, where it was hid—
I called it to come forth and it quickly did!

I thank thee, thou tender and delicate flower, Thou didst patiently die in that bitter hour: Else had I gone on, that same ruthless

way;
Else had I gone on, that same retrieval.

Else had I, perchance, misled man some foul day!
So tenderly we yearn; and ever so slow The life-pace that leads us on whither we go!

The good flower that hides in nook and dark place,
Will sometime in sunshine lift up its bright face.

—Claude C. Adams. -Claude C. Adams.

#### Miss Dean Gives a Little Talk on "the Blues."

Dear Dorothy: -Blue again? Well, dear, the blues are an expensive luxury. If you are the brave girl I think you are, you will one of these days, soon, begin to face these blue devils, and tell them to get them behind you. People very often encourage them, and revel in them. It is such a pleasure to be melancholy, to pity one's self, and to feel that one is misunderstood and not appreciated. Perhaps you have not thought of it in this way, but in truth, my dear little girl, the blues are a sinful self-indulgence. They are a dissipation, and instead of making you interesting they are making you weak. Instead of a mark of distinction or superiority, as perhaps you consider them, they are really the sign of selfishness and littleness. You do not believe me, do you? I know yon will not. You think I do not know whereof I speak. Well, my dear, I used to have the blues. I used to sit around in patient sorrow, wondering if any one in the world could understand the greatness of my soul's sadness. Sometimes I would go off and weep and weep. At what? That, my dear, was immaterial. It might be the dishes to wash, or the want of a new dress, or a rebuke from mother or father; or it might be a sentimental story I had read, or it might be just nothing at all. The main fact was the blues, not the cause of them. Having once acquired them, I would proceed to enjoy them. I went about in dismal dignity. I sighed like a furnace! I thought of all the heartrending things in my catalogue of experience. A favorite diversion was to think how sad my mother would feel if I were dead; sometimes I propounded deep metaphysical questions to my own mind, such as, why were people ever created? and is life worth living? It was all very ridiculous but I did not know that, until I met a certain man who had this disease of the mind (for so, indeed, it is, my dear) in a much aggravated form, and when I saw how he patted himself on the back for what I could see in another was a weakness, I grew disgusted, and turned over a new leaf. And that is just what I want you to do. Turn over a new leaf. Abandon this selfish way of thinking. Resolve to be wholesome and happy and helpful. If you really resolve to do this, you will accomplish it at last. There is nothing like making up your mind to a thing. Do I seem unsympathetic? I know, dear, that there are unpleasant things in your life, and that you even know something of sorrow, young as you are. And I know that you are often weary with real hard work, and often lonely for the things you think you care the most for. But the blues do not come from real sorrow. Suffering that is genuine makes you sweeter and truer, and hence cheerier. Sorrow that is morbid and melancholy is selfish. Show your grit, my dear, Resolve that sadness shall not rule you, nor the blues be your master. Be sappy, anyhow,

in spite of fate. There is nothing this old world needs so much as happiness. I think if there were no unhappiness there would be no sin. You know Stevenson says we can not hope to make men good—the best we can do is to make them happy. When the world learns how to be happy, I think it will be the millennium. For, I admit, to be happy is no easy thing; it is a task-a real struggle-and the girl who achieves it is a heroine, and if my niece accomplishes it, I shall consider her an honor to our name and family. You know the panacea for these disorders of the mind, do you "Do something for somebodynot? quick."

I read the sweetest little story the other day, and I am going to tell it to you-"just because."

"A Scotch laundress standing one hot day at her ironing-table was sympathized with by a church visitor and 'poor deared' in the well-meaning way of some people. 'A weel, I dinna ken aboot that,' was the patient answer. 'There's times I think it's worth the backache to understand how the Lord felt mony's the time, a-warkin' and a-wanderin' round the toons o' Gal-Lovingly your aunt, DOBOTHY DEAN.

To Make a Compass of Your Watch.

Get the number of hours from midnight, divide by two and point the hour at the sun so that the shadow of a match or lead pencil falls directly across the center of the watch; 12 o'clock will be north, 6 south, 9 west, and 3 east. Suppose it is 9 a. m.; number of hours from midnight is 9; onehalf is 41/2; point 4:30 at the sun so the shadow of a match or lead pencil falls across the center of watch, and 12 is north, 6 south, 3 east, and 9 west. Suppose it is 6 p. m. Number of hours from midnight 18; one-half, 9; point 9 at sun and 12 is north, 6 south, 3 east, and 9 west.-Ex.

## For the Little Ones

Little Pink Mice.

Rosy and fresh from his noon-tide nap, Baby coos upon mamma's lap. And she counts his fingers twice and thrice While she tells the tale of the little, pink

mice. This little mouse says, "Come, let's play."
This little mouse says, "I'll point the way."
This little mouse says, "Where's the place?"
This little mouse says, "Mamma's face!"
And the wee little mouse cries, "Wait for I'm coming with you, quee, quee, quee!" This little mouse says, "Now we'll rest."
This little mouse says, "There's our nest."
This little mouse says, "Where, oh, where?" This little mouse says, "Mamma's hair!"
And the wee little mouse cries, "Look,
how sleek!
Come, let us hide in it, quick, quick,
quick!"

So mamma lovingly names them o'er,
And tells the queer little rhyme once
more;
And then she turns to the wash-bowl And the little pink mice must all go a swim.

-Eudora S. Bumstead, in Youth's Companion.

#### Tumble Bugs.

"O, Tom, come here and see these funny bugs! They're trying to roll a little ball and they're doing it the queerest way you ever saw. Do come and look," called George White, who was spending his first summer in country with his cousin Tom. "Just see! One of them climbs up on top of the ball and pulls it along with his hind feet and the other stands on his head and kicks it. What do you suppose they are trying to do?'

"O, I don't know," replied Tom.
"They're tumblebugs. I've often seen them. It's lots of fun to knock the ball away and see them run for it. Look now!" and Tom hit the round ball and sent it spinning several feet away, the poor bug on top hanging on for dear life. The other bug hurried quickly after his mate, evidently in

great distress. "My! how mad they are!" said George. "They don't sting or anything, do they?"

"O, no, Goosie! They won't hurt you," replied Tom, who put on a great many airs because he knew more

about country life than George did.

After a good deal of difficulty, the queer bugs got things straightened out to their satisfaction and started once more on their difficult journey. Again Tom sent the ball flying, making the poor, shining, black beetles more distracted than ever.

"Do you know what is in that little brown ball, boys?" said a voice close beside them, and the boys looked up to see a wise-looking man who had evidently been watching them.

"I was just wondering," said George, "and wishing I knew why they care so much about it. It looks to me like nothing but manure."

"Yes, it is manure," he answered, "but it contains something very precious to them. If you had begun watching them sooner, you might have seen an egg deposited in the manure and watched them roll it up into this hard ball."

"But why do they make such hard work of rolling it?" asked George. "It would be lots easier if they would both get behind and push it with their

"I've often wondered myself," replied the gentleman, "why these curious beetles make themselves so much unnecessary work, and wished that I could give them a few points. But no doubt they have some reason for their ways if we could only find it out."

"But why do they roll the ball anyway?" persisted George. "What are they going to do with it?"

"If you watch them long enough, you will see them bury it in the ground, but why they roll it so far, I'm sure I don't know. I've sometimes seen them roll it for two hours before they buried it. So you see they have to work hard enough without your making them any extra trouble," and he looked at Tom.

"I never supposed 'twas anything," said he, "or that it made any difference where it went."

"You'll find, my boy," was the reply, "that there's usually a reason for everything in nature, and you can learn a great deal by watching the bugs and birds and other creatures that you see every day about you."

"Does it take long for the egg to hatch?" asked George.

"Not very, and the manure with which it is surrounded furnishes food for the baby beetle which soon finds itself strong enough to dig its way out and before long is as big a tumblebug as his father;" and the stranger passed on while the boys continued to watch the beetles.

After they had pushed and tugged their burden over many hard places, one of them got right under it and began to burrow and dig, and pulled the ball after him till both beetle and ball were out of sight. It was some time before he came up again, so the boys judged that he had made the hole still deeper.

"I can't see why animals are so queer!" said Tom. "I could most always pick out better places than the birds do for their nests, and now these old tumblebugs have taken the worst place they could find to bury their

"'Tis funny," returned George, "but I suppose we think so because we don't know their reasons. But wasn't it lucky that man happened to come along just then?"

"Mighty lucky for the tumblebugs! And now that I know how hard they have to work, I shan't bother them again."-Martha C. Rankin, in Congregationalist.

In 1861, when the stricken country cried for men to save her, the note of war came to the island, and the great-grandson of the first Quaker was drafted.

"But it will be no use," he said. "I shall never fight. My mother taught me it is a sin. It is her religion and my father's and their fathers'. I shall never raise my hand to kill any one."

The recruiting officer took little no-"We'll see about that later," he commented carelessly.

The regiment went to Washington and the Quaker boy drilled placidly and shot straight. "But I shall never fight," he reiterated.

Word went out that there was a

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traitor with the ranks. The lieutenant conferred with the captain, and all the forms of punishment devised for refractory soldiers were visited on him. He went through them without flinching, and there was only one thing left. He was taken before the colonel.

"What does this mean?" demanded "Don't you know you will the office.

The Quaker was a nice boy with steady eyes and a square chin, and he smiled a little. "That is nothing," he said. "Thee didn't think I was afraid, did thee?'

The prisoner went back to the guardhouse and the colonel went to the President, to Lincoln, who was great because he knew the hearts of men. The case was put before him-of the mutinous Quaker who talked of his religion, the soldier who refused to fight, who defied pain and laughed at the fear of death.

Lincoln listened and looked relieved. "Why, that is plain enough," he answered. "There is only one thing to do. Trump up some excuse and send him home. You can't kill a boy like that, you know. The country needs all her brave men wherever they are.

Send him home." So the Quaker went back to the island, to life and duty as he saw them, and his children tell the story. -February Lippincott's.

### The Some Circle \$

<del>გალითათათათათათათათათათათა</del>გ CONDUCTED BY RUTH COWGILL

#### Life's Scare.

They say the world is round, and yet I often think it square, so many little hurts we set. From corners here and there. But one great truth in life I've found, While journeying to the West—The only folks who really wound Are those we love the best.

The man you thoroughly despise
Can rouse your wrath, 'tis true;
Annoyance in your heart will rise
At things mere strangers do;
But those are only passing ills.
This rule all lives will prove—
The rankling wound which aches and
thrills thrills
Is dealt by hands we love.

The choicest garb, the sweetest grace Are oft to strangers shown;
The careless mien, the frowning face Are given to our own.
We flatter those we scarcely know;
We please the fleeting guest;
And deal full many a thoughtless blow
To those who love us best.

Love does not grow on every tree,
Nor true hearts yearly bloom.
Alas for those who only see
This truth across a tomb.
But, soon or late, the fact grows plain
To all through sorrow's test—
The only folks who give us pain
Are those we love the best. -Ella Wheeler Wilcox.

#### Talk and Conversation.

I received the other day a printed slip containing what was called a "special offer" to sell me, for the modest price of one dollar, a book which would reveal the secret of how to converse with fluency and fascination. As the author remarks in his advertisement "to be able to converse gives one the only key with which to unlock the gate which leads to every avenue of social success." "The familiar errors of bluntness, over-familiarity and rude questioning are earmarks of the unsuccessful ones."

I did not buy this book; for personally, I do not want to learn how to "converse." I would much rather talk. The age of conversation has gone by, with many other old, forgotten, far-off things. When I think of conversation, it reminds me of Macauley, Coleridge, and sundry other very eminent bores who used to hold forth for hours at a time in what were really monologues or essays or harangues, but which had none of the pleasant, friendly give-and-take which is the characteristic of good talk as distinct from "conversation."

Our own time is one in which talk has supplanted conversation. Booklanguage is getting to be less and less appreciated, and our modern literature is written very largely as we talk. The formal style of Addison and the ponderousness of Johnson would be equally impossible to-day. We have discarded them just as we have discarded knee-breeches and wigs and ruffles. Nor is this to be regretted, for it does not mean a difference in merit, but only a difference in method. The swift, pungent vividness of a Kipling is just as good in its way as the solemn stateliness of Gibbon, and it is far better adapted to win readers, who do not like to find too great a gulf between what they read and what they say and hear. Talk has, in fact, invaded literature, and the result is most commendable, making for vivacity, ease and spontaniety. For the best of all good talk is very good indeed.

This is perhaps most often found when men are by themselves, and not when they have women as their fellow talkers. And there are good reasons for this. The talk of men not only is freer, but takes a wider range and touches upon topics of which the majority of women have no experience and in which they in consequence feel little interest. And hence many things may be taken for granted which it is not necessary to stop and explain as one goes along. Moreover, when men are talking to men alone, they have none of the self-consciousness of sex. Men seldom talk to women precisely as they talk to one another, no matter how entertaining they may be. They are always, even though unconsciously, picking and choosing the things which they imagine women wish to hear. And they do not frank**ROYAL** 

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ly utter the other things which they themselves would best prefer to say. This causes a certain feeling of restraint, and it is inimical to a high degree of excellence in talk. Finally, the subjects usually become personal or else they are wholly frivolous, and in either case, the outgiving is only

froth and nonsense.

Women are less entertaining talkers than men, though this is not because they are less clever. It is rather due to the habit which they acquire as young girls of substituting chaff and banter and flippancy for anything more serious. This is all very well up to a certain point, but it gets monotonous and boresome after one has grown beyond one's teens. If women are really gifted with good minds, they can cultivate a truly marvelous command of repartee. If they are commonplace, then they resort to a sort of slangy pertness of the shop-girl order, which makes them far from agreeable companions. In all this, however, they are usually encouraged by the men they meet, who come down to the selfsame level, in the belief that women are capable of nothing better than this cackling, snapping, staccato kind of talk. The women, on their side, think that this is just what men prefer; and this is why we hear so much of it wherever we happen to go. This is a pity. Women would really be complimented by being taken with more seriousness, while men would find the sensible talk of a sensible girl extremely charming; for such a one would be quick to take his points and would have a sympathetic and instinctive understanding of what he says. which would give the two much genuine pleasure in their talk. The most interesting talk is that which is natural, simple and sincere-not the talk of a pedant, yet not the talk of a chattering magpie. To be always trying to produce effects is fatal to good talk, and belongs to "conversation."

The essence of good talk lies in a sense of mental contentment which enables those who talk to learn at once whether they are congenial. If they are and if they have no nervous anxiety for "showing off," they can enjoy each other thoroughly, exchanging what is best in each with unforced humor and a natural and easy grace. This is the sort of talk which makes time fly unheeded. When it ends it is ended with mutual regret, and it leaves behind a recollection of lasting pleasure.-Rafford Pyke, in Ex-

### Further Discovery.

I have learned by actual experience that whatever finds its way into the Home pages of the Kansas Farmer, is read from Dan to Beersheba, east, north, south and west, not even limited by the boundary lines of Kansas. Now here is a proposition, i. e., let some of the thousands of home women

in ear glorious State, who manifest their interest privately, respond to the editor's invitation to contribute to the club topies presented weekly, and thus be doubly benefitted, by giving as well as receiving. It is helpful to one's development, to keep in touch with domestic thinkers, speakers and writers; and the many deprived of social intercourse with kindred spirits, may thus satisfy inward craving for a place with

the progressive crowd.

I am one of them, so know whereof I speak. The little "pieces" of mine sent to the KANSAS FARMER'S household pages have returned by the basketful in the shape of letters from congenial spirits, causing genuine pleasure that lightens the monotonous round of daily toil. Comparatively few of the farmer's wives of our State have club privileges as yet, but here is a way open for every reader of our own farm paper to "jine" and be a real club woman. Mrs. Alice E. Wells. Princeton, Kans.

The editor of the home page very heartily endorses what Mrs. Wells has said. We have this week two articles on the club subject, one on the important and very practical theme of floor covering, the other on the Sabbath. One comes from Oklahoma, and the other from Kansas. We would like to hear from Missouri, and Nebraska, and Illinois, and from many different parts of Kansas. The next topic on the Household program is "Reading and Self-culture." On the Kansas History program, it is, "Famous Kansans, Past

#### On the Subject of Floor Furnishings.

and Present."

Having just returned from a short holiday excursion to the old home and friends of my childhood, where I received an idea, with which I deemedit right to acquaint my sister readers. It is a scheme for carpeting a small bedroom, which I observed in the home of a very intimate friend. First, carpet the room with muslin (a cheap grade will do); then paper over the muslin with common wall-paper, with a border to match, just as you would a ceiling. Finish with two coats of varnish. It then resembles oil carpet and can be cleaned in the same way. Three ordinary sized rugs completed the carpeting in this room of which I speak, one for the door, one in front of the bed and one for the dressing-

My friend's rugs were made from black eider-down with saw-teeth edges of red flannel. Fancy flowers and leaves were cut from large-figured calico and stitched in the center with the machine.

Let us see if some other lady can invent something else which will settle the question of furnishing our homes in such a way that we all can afford it. MRS. E. D. D.

Byron, O. T.

#### Sunday.

"The Lord never did a better thing, than to make Sunday and command its observance," wrote my friend, a busy farmers' wife. Sure enough, this "day was made for man," but in our greed, santimonious notions, or preconceived scruples, many of us fail to grasp its significance and thus miss its precious benefits. How do we approach our Monday morning's With fresh vigor, cleared intellect, and a cheerful acceptance of homely daily toil? If so, our Sabbath has been a real one, and its mission to us a success. On the contrary, if Monday is "blue," the prospective week's routine irksome, the mind critical and irritable, rest assured the day was profaned in some way, and we are the

How should the Sabbath be observed in our farm homes? Its object is twofold at least: Physical rest, when needed, and always a spiritual uplifting-a renewing of our acquaintance with God, "Whom to know aright is Life eternal." If church-going helps in this direction, by all means attend church. If the gathering of dear friends around our dining-table, or in our parlors is mutually helpful-by all. means throw open wide the door, and extend hospitality. For myself, as a

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ness, faintness, indigestion, or nervous prostration may be restored to perfect health and strength by taking Lydia E. Pinkham's Vegetable Compound.

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rule, Sunday visiting at home or abroad is not encouraged, although I can see great possibilities for good to others in this way. But oh! we do so need Sunday quiet in these days of strenuous living.

People nowadays think for themselves much more than in days of yore -and are not so dependent on the preacher for ideas of Christian living. I suppose this is the reason why in some localities, good people are not so imperative in their church-going rules as "once upon a time."

Above all things let Sunday be a cheerful, happy day with a pervading atmosphere of love-a day looked forward to by young and old. A little three-year-old brother of mine was once singing at the top of his voice,

"That awful day will surely come, The appointed hour makes haste." "What day is that Frankie?" queried

"I don't know. Sunday, isn't it?" RUTH RUSTIC.

Princeton, Kans.

mother.

#### Feared the Worst.

Friday Vizer, a familiar negro about town in a certain part of Mississippi, had been found dead, and he being a member of no church or lodge-very unusual for a negro-there was no one to pray for his soul in the great beyond. A few old intimates, however, carried the body to the cemetery in a rude pine coffin, and Bob McRaven, one of the number, an old "befo'-dewah darky," was called upon for a few remarks. Bob removed his hat and stepped reverently and sadly toward the open grave, and in solemn, funereal tones said:

"Friday Vizer, you is gone. We hopes you is gone whar we spects you ain't!"-February Lippincott's.

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Mutual Improvement Club, Carbondale, Osage County (1896). Give and Get Good Club, Berryton, Shawnee County (1902). Woman's Literary Club, Osborne, Osborne County

Woman's Club, Logan, Phillips County (18w2).
Woman's Club, Logan, Phillips County (18w2).
Domestic Science Club, Osage, Osage County (1888).
Ladies' Crescent Club, Tully, Rawlins County (1902).
Ladies' Social Society No. 1, Minneapolis, Ottawa ounty (1888) Chalitso Club, Highland Park, Shawnee County

Change Cub, Additional County (1902).
Cultus Club, Phillipsburg, Phillips County (1902).
Literatae Club, Ford, Ford County (1908).
Sabean Club, Mission Center, Shawnee County,
Route 2 (1899).
Star Valley Woman's Club, Iola, Allen County

Star Valley Woman's Citib, 101a, Analogue (1992).
West Side Forestry Club, Topeka, Shawnes County, Route 8, (1903).
Foringht Club, Grant Township, Reno County (1903).
Progressive Society, Rosalia, Butler County (1903).
Priessant Hour Club, Wakarusa Township, Douglas County (1899).
The Lady Farmers' Institute, Marysville, Marshall County (1902).
The Woman's Progressive Club, Anthony, Harper County.

County, Taka Embroidery Club, Madison, Greenwood

Taka Embroidery Cub, Madison, Greenwood County (1902). Mutual Improvement Club, Vermillion, Marshall County (1903). [All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.]

#### AMERICAN LITERATURE PROGRAM

#### James Russell Lowell.

Roll-call-Quotations from "Hosea Biglow."

I. Lowell, the "Representative of American Manhood." II. The Poet-Humorist and His Ser-

vice to His Country. III. Reading, "The Doughface's

Creed." IV. Humor vs. Dignity-which is the stronger weapon?

James Russell Lowell has been called "Our strongest poet, our greatest critic, one of our greatest scholars, and the representative of American manhood." This is a sweeping tribute, and to deserve it all should be a great glory. But the latest praise surely is embodied in the last phrase. Strong, generous, noble, clean of life and kind of mind, such should be the representative of American manhood; and such, indeed, he seems to have been. Holmes, Longtoney, Emerson,

the cultured men of his time and country, speak of him with the deepest affection. I doubt if there was another man who had truer or more admiring friends. Abroad, also, in England where he was sent as our Minister-he was accorded sincere esteem and honor. He did much by the mere charm of his personality and the purity of his character to raise the English idea of Americans, and to win us the respect of our cousins across the water. He came to England, as he himself said, as a distant cousin but returned as a brother. The writer of the first paper has a large but pleasant task to study the character which everywhere commanded this affection, and to point out wherein he does represent our American manhood. Lowell was not merely a charming man. He did good and great work for his country. As a humorist he dealt telling blows at slavery and National corruption. The Biglow papers should be read by the one who is to write the second paper, for there is to be found our hero, a humorist, yet a strong and courageous fighter for what is right.

The reading of "The Doughface's Creed,"-any other of the poems from the Biglow papers may be substituted -will be an illustration of the points made in the previous paper, as well as a good preparation for the following one.

"Humor vs. Dignity," as a weapon against evil, is a subject fruitful of ideas. There is many a good man who will not condescend from his dignity to use the tool of humor,-even supposing he knew the use of it. Study the Biglow papers, and read what was their influence at the time of turmoil and crises, at which they were written, and arguments on the subject will come of their own accord.

#### INTERNATIONAL SUNDAY. SCHOOL LESSON.

(Copywright Davis W. Clark.) First Quarter. Les on VIII. John 5:1-15 Feb uary 19, 1-05

#### Jesus at the Pool of Bethesda.

Purim was a rollicking, boisterous festival, the Jewish carnival. Jesus showed his humanness by attending it. He believed that the Hebrews' escape from Haman "should never be forgot." Putting Himself in sympathetic touch with the joyousness of the hour gave Him golden opportunity to declare Himself and His message. No doubt He went to those places where the people most congregated, but he also visited one place most neglected and shunned, the lazar-house of Jerusalem. He exchanged the chatter of merrymakers for the low, endless, pitiful wail of the congregation of cripples in the five porches of Bethesda. His errand was to both the joyous and jejune.

With the practiced eye of a connoisseur of misery he parceled out the most abject, helpless, and hopeless case—one bedridden thirty-eight years. The mind sharing the paralysis of the body must be roused from its inane torpor by the electric shock of a surprising question. "Wilt thou be made whole?" is an electric volt. The startled man begins to apologize to his Interlocutor as if he were being found fault with for letting his opportunities pass. His answer reveals his extremity. He is not only sick, but friendless.

"Rise!" "Take up thy bed." "Walk!" are the imperatives of infinite power. The feeble human will is strangely energized. See a marvel! The withered limbs move. The soles of the feet are planted upon the ground. The man rises. He stoops, rolls up his mat. He walks!

The Pharisaical objection to the healed man carrying his bed on the Sabbath comes in like a burlesque. Unwittingly the cured paralytic sounds the note of contest between the young, reforming Rabbi and the venerable ecclesiastical establishment—a three years' battle-terminating in the bloody scene of Calvary.

Jesus had come to this feast with the set purpose to honor the ordinances of religion. But not less so was it His set purpose to break the traditions of the elders and the commandments of men. The scribes and Pharisees had taken the ceremonial

### Why not

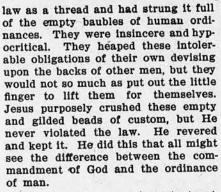


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Jesus was after more important matters than the tithing of mint, annice, and cummin. He sought the weightier matters of the law—the evolution of moral and spiritual qualities in the human soul by means of which men deal justly, love mercy, and walk humbly-the evolution of the kingdom of heaven within, whose essence is righteousness and whose concomitants are peace and joy.

#### The Teacher's Lantern.

The classics are full of legends about fountains, but the Hebrew tradition of the "Fount of Miriam" surpasses them all in spiritual significance. The story is that this is the fountain from which the Jews drank in the wilderness. After they occupied Canaan its waters flowed into the Sea of Galilee, and at the end of every Sabbath these same waters flowed out and mingled with the waters of all fountains.

It matters little what feast this was. The important truth is that Jesus went up to every feast. He might have claimed exemption. On the contrary he could challenge his critics, "Which of you convicteth me of the sin of omitting a ceremony of the law?" Absentees from public worship find no encouragement in the example of Jesus.

On the other hand, extreme literalists, sticklers for technicalities, find no encouragement. Jesus was after substance, not shadow; spirit, not letter.

There is no lack of genuine sympathy with the individuals upon whom or for whom miracles were wrought. Yet the average reader can plainly see the symbolism of this and also the following miracle. They are scenic, pictorial, designed to show Jesus' relation to the soul. In the one instance he makes Himself a Bethesda, a fountain of mercy for cleansing, and causes a well of water to spring up within. In the other He shows Himself the Bread of Life, while at the same time He feeds the hungry.

This miracle marks the beginning of official hostility to Jesus. Of set purpose He continues His benign work of healing on the Sabbath-day. There are six recorded instances and probably many unrecorded.

It seems like irony to ask a man to stand on legs unused for thirty-eight years, and to carry a bed on which he was always carried himself. But this is an instance of impartation of power to the powerless.

"Wilt thou be made whole?" The question was needful. Miserable, not always willing to be healed. Mendicants trade on their sores. Invalids traffic with the pity of their relatives. There are also "spiritual valetudinarians."



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Homer Pigeons.

Editor Kansas Farmer:-I have been hearing much about the Homer pigeon, and would like to know, through your paper, if any have been raised in this part of the State. Also where they can be procured, and the method of handling them. Is quality of meat better than the common pigeon? L. C. WARD.

Marion County.

Answer.—Topeka is a great pigeon town, and Homers as well as other varieties of fancy pigeons are raised in great numbers. Homers are admired for their flying qualities and not for meat. Other varieties are more valuable for eating-purposes. Mr. Isaac Sheetz, North Topeka, Kans., breeds Homers and a dozen other varieties of pigeons and will gladly give you information as to breeding and handling

#### Poultry Awards at Emporia.

EDITOR KANSAS FARMER:-The Fanciers' Club held their third annual exhibition at Emporia, Kans., January 24 to 28, 1905. The weather was very cold the first and second days, but it seems the breeders of fancy poultry do not stop for cold weather as there were more birds on exhibition than last year, and the quality, as remarked by different visitors, was better. C. A. Emery, of Carthage, Mo., did the scoring and gave entire satisfaction. The attendance was better and doorreceipts more than last year.

H. D. Nutting, Walnut Grove Farm, Emporia, had a large display of Barred Plymouth Rocks and Scotch Collie dogs which were admired by all visitors. He won first on pullet and second on hen. Peter Reber, Neosho Rapids, won first and second on B. P. Rock cock, first and second on cockerel, second on hen, second on pullet, and first and second on pen.

White Wyandottes .- T. F. Brazeller, Neosho Rapids, won three beautiful silk ribbons offered by the National White Wyandotte Club for the best cockerel, hen, and pullet. He also won first and second on cockerel, first and second on hen, first and second on pullet, and first and second on pen. Also, grand prize of \$5 for best pen in American class.

Golden Wyandottes.-A. B. Grant, Emporia, won first and second on hen and second on pen. J. Golden, Emporia, won second on cockerels, and specials.

Light Brahmas.-Wm. Hammond, Emporia, won first on hen and second on pen. L. R. Hinshaw, Emporia, won second on hen, and specials.

Dark Brahmas.-Fred W. Ritcher. Emporia, won first and second on cockerel, and first and second on hen, first and second on pullets, first and second on pen, and tie for grand prize on Asiatic class.

S. C. B. Leghorns.—Mr. Ritchie also won in this class first on cockerel, first on pullet, and first and second on hen and first on pen. Also, grand prize of \$5 for best pen in Mediterranean class.

R. C. B. Leghorns.—R. Bigler, Neosho Rapids, won first and second on pullets, and specials.

S. C. White Leghorns.-W. Ingram Forde, Emporia, won first on cock, first and second on cockerel, and first and second on pen.

Buff Orpingtons.-C. L. Lane, Neosho Rapids, won first and second on cockerel and first and second on pen. J. W. Swartz, Americus, won first and second on pullets and second on hen.

R. I. Reds.-H. P. Thomas, Emporia, won first and second on pullets, second on cockerel, and first on pen. Mrs. M. A. Reed, Emporia, won first and second on cock, first on hen, and second on pen. J. W. Swartz won first on cockerel and second on hen.

Blue Andalusians.-Mrs. P. B. Martin, Neosho Rapids, won first and second on pullet and first and second on

the sea

Partridge Cochins.-J. J. Atherton,

Emporia, won first on cock and first, and second on cockerel, first and second on pullet, and first and second on pen. Also, tie for grand prize in Asiatic class.

B. B. R. Games .- H. Stock, Emporia, won first on cockerel, first and second on hen, also first on B. B. R. Game Bantam hen, first on pen, and grand prize of \$5 for best pen in game class.

Bronze Turkeys.-A. B. Grant, Emporia, won first on cock, first on pullet and first on pair.

Toulouse Geese.-J. P. Sierer, Emporia, won first and second on old pair, first and second on young pair, and specials.

Pekin Ducks.-J. P. Sierer won first and second on young pair and first and second on old pair.

D. M. MAY, Secretary.

The Improvement of the Scrub Hen.

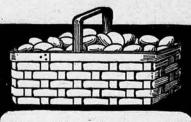
The "scrub hen' is a mongrel. Her breeding is as uncertain as it is difficult to trace, and she can safely claim relationship with a dozen different breeds, as her markings plainly attest. She may be spotted or speckled, or she may be blue, gray, or drab, and she is rarely normal in size. In fact, her appearance indicates that she has had to hustle for a living. In summer, when food is plentiful and easily secured, she lays a good many eggs; but when winter comes on, all her energies are directed toward maintenance and it is little wonder that during this season of the year she lays no eggs. Such a hen lays, possibly, fifty eggs a year but lays these during the season when eggs are the most plentiful and the cheapest. To change such a hen into one that will lay from 150 to 200 eggs a year would seem to be a difficult undertaking, and, for one who takes no interest in the matter and who follows no system whatsoever, it would not only be difficult, but utterly impossible.

In order to secure a flock of which each hen will lay from 150 to 200 eggs a year, some people prefer the simple method of killing or selling off all the scrub flock and starting with a few dozen thoroughbreds of known productive capability. But only a few can afford to take such a step and the majority must, therefore, follow a less costly system of improvement, and yet one which will ultimately arrive at practically the same results-although requiring a longer time and more trouble. Such a system follows:

Begin by killing every rooster on the place. Now decide upon some breed which will best meet the requirements, and purchase from a reliable breeder roosters of this breed, getting one rooster for every 15 to 20 hens in the flock. Then buy a setting of eggs of this same breed, being careful, however, to see that the resulting chicks from these are unrelated to the roosters purchased. Set these eggs under a good mother hen, and at the end of a year kill or sell off all the original roosters, replacing them with the roosters resulting from the setting of eggs. At the end of the second year kill or sell these roosters, and repeat the operation each year, never keeping a rooster more than one year and never buying a rooster that is related to the hens. Do not forget to kill or dispose of the pullets that are hatched from the settings of thoroughbred eggs, as they are, of course, related to the roosters of the same hatch, and their retention would defeat the end sought. As rapidly as possible, kill or sell off all of the original scrub hens, and, thereafter, always dispose of the older members of the flock. Provide food when needed and a warm, clean roost, especially in winter.

Another system differs from the above only in providing a few cheap lots, selecting about twenty of the best among the scrub hens to be placed with a thoroughbred rooster in these lots, and thereafter setting all hens with eggs from these lots. Otherwise proceed as before. This method involves more labor and expense, but results are more speedily obtained and the returns will be greater.—Bulletin New Mexico Experiment Station.

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them. It's really an encyclopedia of chickendom. You need it. Price only 15c.
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## 40 DAYS FREE TRIAL



This Great Western 100-Bgg Incubator is sold on 40 days free trial for \$10, to be paid for when satisfied. Pos-itively the best Incubator made; obtains most success-ful hatches. Best for the am-atour as well as expert poultry raiser. Large Catalog free. Great Western Incubator Go. 920 Liberty St. Kansas City, Mo

## **ICUBATOR**

pus with high prices. Don't get fooled. Put your trust in



The training he got making 50,000 other incubators enabled him to make "Old Trusty" right. Every user says it's right. No other incubator ever got in first rank the first year. You should get Johnson's Free Catalog and Advice Book. He wrote it. Makes his success your success. M. M. Johnson Co., Clay Center, Neb.

#### POULTRY BREEDERS' DIRECTORY.

S. C. BROWN LEGHORNS—Exclusively. Pure-bred cockerels, \$1. Eggs, 15 for \$1; 100 for \$4. Poor hatch replaced at half price. Frank T. Thomas, Irving, Kans.

FOR BUFF P1.YMOUTH ROCK eggs, from best stock, send to Gem Poultry Farm; 15, \$2; 30, \$3.50. Pure M. Hronze turkey eggs, 11, \$3. C. W. Peckham, Haven, Kaus.

## "PARTRIDGE COCHINS"

A few extra nice cockerels for sale. Pure-bred, and only \$1 each. R. J. CONNEWAY, - Elk City, Kansas



## A Nine Times Winner"

Bates Fedigreed Strain of White Plymouth Rocks have been shown in nine poultry shows the past two years and

wor in Every One of Them
If they win for us, there offspring ought to win
for you. Eggs, \$1.50 per 15. Elmwo d str in of
White Wya dottes also hold their own in the showroom. Eggs, \$1 per 15.

W. L. BATES, Topeka, Ks.

### Our Belle City **INCUBATOR**

is the newest incubator. It misses all the weak points in incubation and hits all the good ones. It is so made that you can't make a mistake. Light the lamp—put in the eggs—the regulator does the rest. Double walls and dead air space all around. Big nursery—copper tank. The double walled brooder raises every chick. Our book tells all about them. Write for it. Mailed free. We pay the freight.

Belle City Incubator Co., Box 18 Racine, Wis.





## The Racine ncubator



Built by the man who devoted 23 years to its present perfect development.

Can be operated by anyone, anywhere. Automatic regulator, copper tank, white pine case, double walled, nursery. Built to last 20 years. Don't buy until you read our remarkable Incubator Book, written by the man who made the Racine. When you learn what he knows, you will want his machine, we think. made the Kacine. When you learn what he knows, you will want his machine, we think. The book is free. Write for it. Warehouses, Buffalo, Kansas City, St. Paul. Address Racine Hatcher Co. Box 88 Racine, Wis.



1

All our Fine Breeders of this season, also Spring Chicks for sale after the firstof June. Barred

firstof June. Barred Rocks, White Rocks, Buff Cochins, Partridge Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs. Black Minorcas, S. C. Brown Leghorns, and Belgian Hares. Buy the best now at the lowest prices. Write your wants. Circulars free. Choice Breeders and Show Birds.

A. H. DUFF, Larned, Kan. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Poultry Notes.

N. J. SHEPHERD, ELDON, MO.

When new blood is to be introduced whatever males are needed should be secured in good season in order that they may be well accustomed to their new quarters before the eggs from the hens are sold for hatching.

When turkey pullets are kept they must be watched as they will often commence to lay early, and unless care be taken, the eggs will lay out and become so chilled as to have their vitality destroyed. So far as can be done, the early-laid eggs should be gathered as soon as laid.

While young ducks drink water very often and should be frequently supplied with all they can drink, and especially so while eating, they should not be exposed to rains or allowed on ponds until they are reasonably well feathered. Their quarters should be always kept dry.

Where large flocks are kept on a limited space, constant vigilance is required to keep the flocks free from contagious diseases. The quarters must be kept clean, pure water given, and only sound, nutritious food in good quantities supplied.

Where dairying is carried on in a limited way and butter supplied to regular customers, poultry can in a variety of cases be combined with it to a good advantage, as the majority of those who purchase their butter in this way would be glad of a supply of eggs in the same way.

The drinking vessels require thor-They ough cleaning occasionally. should be scalded and then thoroughly washed out with soap suds. A filthy drinking vessel will breed disease sooner than almost anything else; and where a large number of fowls drink from it, it soon becomes foul.

A hen fed exclusively on corn will not lay as many eggs as one fed on wheat, and one fed on a mixture of both will lay more than she would on an exclusive diet of either. To produce egg-laying it is necessary that the hens be fed largely on albuminous foods, and in this is the value of wheat; while milk, sweet or sour, is one of the best.egg-producing foods known.

Fumigating the poultry-house is a most effectual method of cleaning it of red mites. Close up the cracks about the house tight. Take an old pot or vessel and put in a small quantity of sulfur, pour in some coal-oil or turpentine, set on fire, go outside and close the door. Keep it closed several hours, only opening in the evening in sufficient time to air thoroughly before turning in the fowls at night.

Each year there are many chicks that seem to live all right until they are fully formed in the shell and then die without hatching. It is really one of the hardest tasks of life for the little chick to break the hard shell that encases it and come forth into the land of the living. On this account, if the chick is not perfectly well formed and from healthy, vigorous stock it will not be able to accomplish this task, and as a natural consequence will die without hatching.

Good News for Poultry Raisers.



The Cyphers Incubator Company, of Buffalo, N. Y., are now sending out their new 1905 catalogue, which is the finest and most complete poultry catalogue ever issued. That is because their 1905 lines of incubators, brooders, and poultry specialties are better than ever before, and



Standard Cyphers Incubators

CYPHERS INCUBATOR CO., Buffalo, Boston, Chloago, New York,

POULTRY PAYS

When you have good stock. Eggs for Hatching, extra fine Barred and White Plymouth Rocks, S. C. White Leghorns at a special low price. Sixteen years a breeder of Fancy Birds. Write for free Art Folder of the largest Fancy Poultry Farm in this country. J. C. Heath's Imperial Poultry Farm Valley Junction, Ia. Dpt. S.

this company's goods have always been the best on the market.

All their old patterns have been greatly improved and these most valuable features are patented so that they are found on no other machines.

Standard Cyphers Incubators won the highest award at St. Louis World's Fair, which means that the judges pronounced them "practically perfect incubators." The Cyphers Company have reduced the prices of their Standard incubators, even with all these improvements added. This was made possible by reducing the cost of production. They increased their capital in order to buy closer and added new labor-saving machinery to their factory. Having accomplished a big saving in this way, they are going to give their customers the benefit and take this saving off the prices of their machines. For the coming season they positively will share their profits with their customers.

Don't fail to send for their 1905 catalogue, a book of 228 pages, 8 by 11 inches, with six special chapters on profitable poultry-keeping. There are more than 450 illustrations in the book, including portraits of best-known authors, judges, fanciers, and the owners and managers of some of the largest and most successful poultry-plants in the world. It is a good guide to successful poultry-raising.

The Cyphers people are offering the book free to every one sending his name and the names and addresses of two friends who are interested in poultry for profit. Kindly name this paper when writing and address your letter to the Cyphers Incubator Co., Buffalo, N. Y.

#### Why the Gold Medal Was Awarded to the Reliable Incubartor.



the Reliable Incubartor.

It isn't at all surprising to those who are familiar with incubators and brooders that the gold medal—the highest award—of the great St. Louis World's Fair was given to the Reliable Incubators and Brooders. The jurors who made the awards were experts on artificial incubation, and they readily recognized the superiority of the Reliable machines. Their award was for an incubator of highest hatching efficiency. The double-heating, double-ventilating features of the Reliable are such pronounced improvements that the judges could do nothing else but award the Gold Medal as they did.

Twenty years of experience in the building of incubators and brooders are crystallized in the Reliable of to-day. The secret of their success is that the builders have kept "results" ever in mind. They have no "hobbles" to overcome. They have improved here and discarded there until they have attained very near to perfection. As a result the Reliable is universally known as "The World's Favorite."

In buying an incubator you don't care to buy a lot of theories; what you want

In buying an incubator you don't care to buy a lot of theories; what you want is a reliable, sensible hatching machine that will hatch the highest percentage of strong, healthy, vigorous chicks that will live and grow into money with the least trouble and expense to you.

Reliable Incubators and Brooders are so simple and the directions so comprehensive that any one with the least bit of "gumption" can operate them and make money from the start; while the expert who examines them, and finds all that advanced science can suggest for effectiveness, simplicity, and economy embodied in Reliable machines.

The Reliable Incubator and Brooder Co.



and economy embodied in Reliable ma-chines.

The Reliable Incubator and Brooder Co.,

Box B-62, Quincy, Ill., have issed an exceptionally valuable catalogue of their wares. It also contains a lot of poultry hints—a book easily worth 25c. They will be glad to send you a copy on receipt of 5c in stamps to pay postage.

#### Karsolene.

Down in Kansas City, the second largest stock market in the world, there is a concern that manufactures a stock dip, which they claim is the best dip on the market. They have been making it for a long time and selling it to the thousands of stockmen who visit Kansas City. In this way they have built up a wonderful business on their dip, and the success it has attained at home is a recommendation on which they feel justified in branching out into new territory and seeking new trade.

on which they feel justified in branching out into new territory and seeking new trade.

They are anxious that the readers of this paper shall become as well acquainted with Karsolene Dip as the men who have used it for years and who recommend it so highly. So they are offering our readers, through an advertisement in another column of this paper, a free sample of this famous dip and ask you to try it before you buy it. The Stockman's Mercantile Co., of Kansas City, Mo., who make this efficient proparation, report that they did a very good business through their advertising with us last year and that they anticipate even better returns this year, as those of our readers who have used Karsolene have nothing but good words for the results they obtained with it.

If you have any use whatever for a stock dip it will pay you to look their advertisement up and ask them te send you the free sample.

ANDY LEE Incubators and Brooders have nine brand new improvements, which make them the latest and greatest INCUBATORS and brooders now on the market. Free catalog gives full details— proves they're best. Bend for copy. GEO. H. LEE CO., OMAHA, NEBRASKA

## POULTRY SUPPLIES

Thanolice (lice powder)......25c Cree-carbo (lice killer)......50c Egg Maker.....250 STURTEVANT'S Conkey's Roup Cure .....50c Buckeye Cholera Cure......850

OWEN & COMPANY 520 Kansas Ave., Topeka, Kans.

JUST ISSUED

## **POULTRY FEEDING** AND FATTENING

A handbook for poultry keepers on the standard and improved methods of feeding and marketing all kinds of poultry. The subject of feeding and fattening poultry is prepared largely from the side of the best practice and experience here and abroad, although the underlying science of feeding is explained as fully as needful. The subject covers all branches, including chickens, broilers, capons, turkeys and waterfowl; how to feed under various conditions and feedifferent purposes. The whole subject of capons and caponizing is treated in detail. A great mass of practical information and experience not readily obtainable elsewhere is given, with full and explicit directions for fattening and preparing for market. The broad scope of the book is shown in the following

TABLE OF CONTENTS

TABLE OF CONTENTS

Thrifty Growth, Expert Chicken Feeding, Broiler Raising, Nutrition for Layers, Special Foods, To Finish and Dress Capons, The Art of Poultry Fattening, Lessons from Foreign Experts, American Fattening Methods, At Killing Time, Fattening Methods, At Killing Time, Proparing for Market, Marketing Turkeys and Waterfowl, Finish and Shaping.

Profusely illustrated, 160 pages, 5x7 1-2 inches, cloth. Price 50 cents postpaid.

Kansas Farmer Company Topeka, Kansas

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\$25.00 to San Francisco, Los Angeles, San Diego, and many other California points.

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\$25.00 to Portland, Astoria, Ta-

to Ashland, Roseberg, \$25.00 Eugene, Albany and Salem, including branch lines in Oregon.

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to Butte, Anaconda, \$20.00 Helena, and all intermediate main points.

to Ogden and Salt Lake City, and intermediate main line points. \$20.00

For fuller information call or address nearest Union Pacific Agent.

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## The Stock Interest

#### Calhoun's Poland-China Sale.

On Tuesday, February 7, at Atchison, Kans., Leon Calhoun, of Potter, Kans., held his second public sale of 50 head of bred sows and glits, and despite the wintry weather there was a splendid attendance and Colonel Sparks, the auctioneer, succeeded in making a spirited sale with good prices.

The offering was an exceptionally good lot of uniform animals and owing to the superior line of breeding represented in many cases, better prices should have been realized; however, Mr. Calhoun under the circumstances was well satisfied as the fifty animals sold brought \$1,568, an average of \$31.36. The sales in detail were as follows:

as	Tollows:	
1.	E. E. Axline, Oak Grove,	Mo
2.	Ed. High, Effingham	
3.	H. J. Barber, Atchison J. E. Perrin, Huron J. H. Perrin	
4.	T E Porrin Huron	
	J. E. Perrin, Huron	
5.	J. H. Perrin	
6.	W. M. Martin, Atchison W. M. Martin	
7.	W. M. Martin	
8.	Gus Adams,	
9.	J. L. Dorris, Huron	
	J. L. Dorris, Huron	
10.	J. L. Darst, Huron	4
11.	W. M. Martin	
12.	Jos. Havden, Trov	
13	John Bollin, Leavenworth Gus Aaron, Leavenworth.	
14	Com Asses Tosses	
14.	Gus Aaron, Leavenworth.	
15.	H. N. Graves, Atchison	2
16.	Gus Aaron	
17.	Jos. Hayden. H. L. Haiger, Troy	
18.	H I. Heiger Troy	
19.	Honey Cobules Clifton	
	Henry Schuler, Clifton	
20.	Gus Aaron	
21.	A. W. Heminger, Potter	5
22.	A. W. Heminger, Potter J. G. Cummings, Atchison T. J. Dawe, Troy Jas. Martin, Atchison	2
23.	T. J. Dawe Trov	9
24.	Tee Martin Atchicon	
25.	Robert Christian, Atchison	
	B. T. Demistran, Atemson	2
20.	P. J. Dawe A. M. Ashcraft & Son, Atcl	2
21.	A. M. Ashcraft & Son, Atc.	nison 2
28.	Frank Haugue, Atchison	2
29.	Robt. Christian	2
30.	Frank Glimly, Atchison	9
31.	Roht Christian	
32.	J. G. Cummings	
33.	II M Kinken stately III-lea	::
	H. M. Kirkpatrick, Walco	tt 2
34.	J. E. Perrin	8
35.	J. E. Perrin. J. M. Lane, Atchison	
36.	John Bollin,	2
37.	Robt Christian	
38.	Henry Schuler	
39.	John Bollin	
40.	Deter Funt Detter	4
	Henry Schuler. John Bollin. Peter Funk, Potter. A. C. Witrock, Falls City	
41.	A. C. Witrock, Falls City	, Neb 4
42.	John Price, Atchison	
43.	H. G. Zahn, Atchison	1
44.	J. T. Hothan, Atchison	2
45.	Ed. High, Effingham	4
46.	Gus Aaron	9
47.	K G Gigstad Lancaster	
48.	Gus Aaron.  K. G. Gigstad, Lancaster.  Tom Berry, Atchison  Jas. Mains, Oskaloosa	
49.	Ton Maine Onkalage	2
50.	Abo Tong Francis	2
00.	Abe Long, Everest	2

#### The Kansas City Hereford Sale.

Undoubtedly the best lot of cattle that has yet been offered in any combination sale will be offered at the Gudgell-Stannard combination sale to be held in Kansas City March 2 and 3.

sas City March 2 and 3.

When such breeders as Mr. C. A. Stannard, Messrs. Gudgell & Simpson, Messrs. Benton Gabbert & Son, Dr. Jas. E. Logan, Messrs. Steward & Hutcheon, Mr. A. F. Corthon, Mr. Jas. A. Larson, Mr. L. P. Larson, Mrs. K. W. Cross, and Miss Lou Goodwin combine to make a sale, that should be guarantee sufficient as to what the quality of the cattle will be.

be.

Every animal that will be offered in this sale will be first class, both as to breeding and individuality, and all will be of a desirable age. There will be young bulls good enough to go to the best herds and there will be cows and heifers that the best old established herds would be proud to own.

For several years Messrs. Gudgell & Stannard have held a sale in Kansas City, every year about the same time as this, but they think that the cattle to be offered this time is the best lot ever yet offered.

Catalogues are now ready and can be

Catalogues are now ready and can be had by either applying to C. A. Stannard, Emporia, Kans., or C. R. Thomas, secretary, Kansas City, Mo.

#### The Central Kansas Circuit.

The Central Kansas bred-sow sale cir-

The Central Kansas Circuit.

The Central Kansas bred-sow sale circuit of 180 Duroc-Jerseys include the tops selected from five great herds as advertised in this issue, a notice of which appears in these columns. These sales begin at Frankfort, Kans., Monday, February 20, when J. F. Chandler will sell 40 head. The other sales follow in regular order Tuesday, Wednesday, and Thursday of next week. It will certainly be a great opportunity to get a representative Duroc-Jersey bred sow or gilt.

At Concordia, Kans., Tuesday, February 21, John W. Jones & Co., Delphos, Kans., will sell 50 head of choice, high-class, fashionably bred sows and gilts, selected from their great herd known as the "Famous Fancy Herd." In this offering will be found a very superior lot of sows and gilts—those possessing great size, large, heavy bone, best of feet, nicely arched backs, with fine style and finish. They are bred to six great herd boars for early farrow, carry their own guarantee. No better breeding can be found in the country. They are rich in the World's Fair prize-winning blood, representing Ohio Chief 8727; the top-notcher. Kantbeatme; Orion; Orion 2d; Chief of Ohio; Long John; Pilot Wonder; Improver 2d; Advance; Proud Advance. Where can you find a greater variety of blood lines, or a more superb and grand lot of sires? We invite you to attend this great sale. Write for catalogue. It tells all about them. Send mail bids to H. A. Heath, Topeka, Kans., and remember that this sale is only one of four—the others being J. F. Chandler, Frankfort, Kans., February 20; C. W. Taylor and L. E. Vrooman, at Hope, Kans., February 23.

H. W. Steinmeyer, referring to his offering, says;

"I have selected 40 head of sows from the Egypt Valley Herd for my sale, Feb-

ing, says:
"I have selected 40 head of sows from
the Egypt Valley Herd for my sale, Feb-

ruary 23, that are tops. Twelve tried, 8 fall yearlings and 20 spring gilts. This stuff is bred in the very purple. It carries the blood lines of such sires as Union Chief 18841, Golden King 15461, Iowa's Chief 18835, and bred to these grand boars: Sir Bunceton 22311, Royal Lad 21671 and Egypt Lad, this young fellow by Fancy Chief 24923; and such dams as Valley Queen's Best 45306, Susan's Choice 45314, Lucy S. 45312, Perfect 45310, Lora Lea 32248, Volland Fairy 33624, Ferndale Lady 88626, and many others of equal breeding. Brother breeder and stock-raiser, look at these blood lines, then remember my sale, February 23, 1905. It will be the offering of tops from the Egypt Valley Herd. It is with pleasure that I can offer this stock at auction. My herd is in the pink, never lost a single pig from disease. Sir Bunceton will be 2 years old March 2, and weighs 600 pounds in breeding shape, can easy make an 800 or 900 pound hog of him, with great finish. I think he has the largest bone of any hog of his age. I took a string and measured his front leg, where it is smallest. It measures 9% inches. He is the shortest in pasture of any hog I ever saw, and on the best of feet. He was a blue ribbon hog at Bunceton, Mo., in 1903."

#### Polled Jersey Breeders.

Polled Jersey Breeders.

President H. N. Coe, Vice President J. E. Johnson, Treasurer J. S. Brown and Secretary Chas. S. Hatfield were all reelected at the annual meeting of the American Polled Jersey Cattle Company at Cedarville, Ohio, on Jan. 18, and J. E. Johnson and W. H. Forbes were elected members of the board of directors to serve for three years.

The report of the secretary showed a steady growth in membership and an increase in the number of animals recorded over all former years.

Louis Boolman, Selma, Ohio.; O. E. Fulghum, Richmond, Ind.; Harrison County Infirmery, Cynthiana, Ky.; Z. W. Lee, Cynthiana, Ky.; John Martin, Yellow Springs, Ohio; E. J. McCullough, Clifton, Ohio, and W. O. Paden became members of the organization during the year.

T. J. Kerr of Ava, Ill., advocated a change in the rules, making the minimum for recording animals six months instead of one year. After some discussion a motion to postpone action upon the question until the next annual meeting was carried.

#### FRANK IAMS' FRENZIED FINANCE.

#### Imported Stallions, "the Best Ever," That He Sells at \$1,000 and \$1,500 -He is a Money Saver to Stockmen.

He is a Money Saver to Stockmen.

Mr. Stallion buyer, come out from under the "financial charm" of Madam Chadwick. This is Frank Iams' "matinee out" with an illustration of one of his "topnotchers." "The Home of the Winners," at St. Paul, Nebr., is noted (the world over) as the largest establishment of first-class draft and coach stallions owned by one man in the United States. Everybody knows Iams and his stallions, and that he is "loaded to the roof" with big, thick, wide-as-a-wagon "drafters" and flash, high-acting coach stallions that he is selling at \$1,000 and \$1,500. Positively guaranteed better than stallions sold to Farmer Stock Companies at \$2,500 to \$5,000 by "gold-brick artists." If you visit Iams and do not find this true, and every statement in catalog or ad as stated,—Iams will pay you \$100.

Mr. Farmer,—it's up to you. Visit Iams; he sells stallions at his home barn only at 50 cents on the dollar. The "peaches and cream" kind. You will throw your hats in the air, for you will have bought a stallion of Iams and saved \$1,000 or more; and the good wife will meet you at home with a "smile that won't come off." (She will wear the diamond—not the "gold-brick salesman" or "branchbarn man.")

Our illustration is "Iams Dominant" (52228) black Percheron stallion, 4 years old, weight 2180 pounds, 2d prize winner at Nebraska State Fair, 1904. This famous "Black boy" is one of "Iams' kind"—A real drafter—an every day good one. One that turns the heads of your competitors and makes the wheels of business go round. He will make you \$1,000 clear the first year. This is only a model of 140 "Rippers" to be seen at Iams' barns. They must positively be sold—Iams' 23 years of succssful business, his importing stallions at "live and let live prices"—His making every statement good.—His saving "all commissions," "gold-brick salesman's salaries," interpreters' and buyers' commissions. Mr. Money Saver—Here is the milk in the cocoanut. Why you should buy your stallions of Frank Iams, St. Paul, Nebr.

Paul, Nebr.
Write for eye opener and greatest horse catalog on earth. It will show you—how Iams is "squeezing" the life out of High priced stallions and forcing the "goldbrick artist" to the wall.

#### Chandler's Duroc-Jersey Sale

The first day's sale of the Central Kansas sale circuit, will be held at the farm of J. F. Chandler, Frankfort, Kans., Mon-

sas sale circuit, will be held at the farm of J. F. Chandler, Frankfort, Kans., Monday, February 20, 1905. Mr. Chandler's offering consists of forty head of matured sows, fall yearlings and spring gilts, the tops of the Richdale herd.

These sows are all well bred as Mr. Chandler has always been a good buyer of fashionable blood and keeps his herd right up to the times. The sows and fall yearlings of this offering are bred to Chief Perfection 20609, one of the best sons of Van's Perfection, the boar that won first and sweepstakes at three State fairs in 1902, and his dam is Trixey, a sow that Mr. G. Van Patten showed for three years and never drove her out of the ring without a ribbon. The gilts are mostly sired by him and are bred to Improver 3d 28361 by Improved 2d, also a sweepstakes prize-winner, Dandy Orion 338879, a son of the great show and breeding boar, Old Orion 5293. An excellent feature in the sale will be one fall yearling and three spring gilts whose dam is Huns't Model 34652, a full sister to Bessie H, the sow that won first in class and sweepstakes at Nebraska State Fair in 1903.

1903.

Do not forget the date, Monday, Febru-

ary 20. Come and bring your friends. Free entertainment. Mail bids sent to either auctioneer in Chandler's care will be fairly and honorably treated. Cols. Lafe Burger, of Wellington, Kans., and J. T. McCulloch, of Frankfort, Kans., auctioneers. Be sure and write for catalogue.

#### Gossip About Stock.

Don't overlook the important sale advertised for Washington's birthday, Februtary 22, by D. A. Zook, of Eight Mile, Mo., who holds a combination sale of twenty-five head of registered Percheron and other desirable horse stock. The sale to be held at Harrisonville, Mo. Write for catalogue at once.

One of the most successful breeders of jacks and jennets in Kansas is Philip Walker, of Moline, Kans. Mr. Walker at the present time has thirty head of jacks, 3 to 7 years old, 14½ to 16½ hands high, a very desirable lot. Also forty-five head of jennets and five draft stallions, for which he will make attractive prices to buyers.

Mr. and Mrs. W. R. Crow, breeders of Duroc-Jersey hogs, Hutchinson, Kans., are rejoicing in the success they are having with their stock which is doing finely. They report that one of the Dandy Boy gilts farrowed eleven pigs on the 9th inst. and saved them all, but their proudest accomplishment is a red-headed baby girl which arrived at the establishment on February 5.

At the recent sale of Duroc-Jerseys held by C. E. Prait, Frankfort, Kans., \$100 was paid for a daughter of Kansas Queen 47498, which went to H. H. Drake, of Frankfort, Kans., a young breeder, who proposes to have the right sort of foun-dation stock. Twenty-five head of bred sows and glits made an average of \$33, despite the arctic weather which pre-vailed at the time.

Breeders who contemplate holding public sales can ill afford to overlook the use of liberal space in the Kansas Farmer. In evidence of this fact we quote the following from J. C. Robison, who managed the combination sale at Wichita: "We traced some of our very best buyers at the sale to the Kansas Farmer and wish to thank you for the manner in which you handled the announcements before the sale."

The second annual combination sale of the Harvey County Breeders' Association will be held at Newton, Kans., on February 21 and 22. The offering will consist of pure-bred cattle and swine. The cattle offering comprise Herefords, Galloways, and Shorthorns. The pure-bred swine include mainly bred sows and gilts of the Duroc-Jersey, Poland-China, and O. I. C. White breeds. For catalogue or other information, address C. A. Seaman, Sedgwick, Kans.

The Buffalo Valley Stock Farm of Concordia, Kans., Robert Hanson, proprietor, topped the Kansas City hog market one day last week, according to the Telegram, with four loads of the best hogs that have been seen here in many months. These hogs are known as Flint Bone Poland-Chinas; averaged 392 pounds, and were remarkably uniform in size and quality. Mr. Hanson is probably the most successful hog-raiser in Kansas to-day, and has succeeded in building up a remarkably fine hog from a killing standpoint. It was particularly noticeable, despite the extreme weight and the long distance they were shipped, that these hogs came through without a cripple.

George Drummond, of Elmdale, Kans., proprietor of the Evergreen Stock Farm, Aberdeen-Angus cattle, has a very desirable lot of bulls and helfers for ready sale. The bulls at the head of this herd are Neil of Lakeside 25645, closely related to Newbie 27909, sire of Clearlake Jute 2d, the champion sieer at the International Live Stock Exposition at Chicago last year. The other herd bull is Heather Lad Pride 41030, sire by Heather Lad of Emerson 2d 19049, the noted and undefeated show bull who was never beaten except by his own son. The cows, which are dams of the young stock offered for sale, are descendents from the stock imported by J. H. Rhea & Son, Carrollton, Mo. Mr. Drummond would be glad to have prospective buyers call and see him or write for what they want.

#### Farmers' Institutes.

February 17, Lincoln, Lincoln County, R. W. Greene, Lincoln, Kans. Profs. H. F. Roberts and Albert Dickens. February 18, Paxico, Wabaunsee County, A. M. Jordan, Alma, Kans. Assistants G. C. Wheeler and R. E. Eastman. February 20, Belleville, Republic County, C. F. Daggett, Belleville, Kans. Prof. Oscar Erf and Assistant V. M. Shoesmith.

Oscar Erf and Assistant V. Ha.
smith.
February 22-23, Oneida, Nemaha County, Sherman E. Stevenson, Oneida, Kans.
Prof. A. M. TenEyck.
February 27-28, Randolph, Riley County,
J. J. Wiesendanger, Randolph, Kans.
Prof. J. T. Willard and Asst. G. C.
Wheeler.
March 1, Bucklin, Ford County, Frank
Bailey, Bucklin, Kans. Profs. A. M. TenEyck and Oscar Erf.
March 3, Sedan, Chautauqua County, J.
O. Tulloss, Sedan, Kans. Prof. A. M.
TenEyck.

March 3, Sedan, Chautauqua County, J. O. Tulloss, Sedan, Kans. Prof. A. M. TenEyck. March 7, Frankfort, Marshall County, Andrew Shearer, Frankfort, Kans. Prof. J. D. Walters and Asst. V. M. Shoesmith.

#### A Valuable Suggestion.

The man who drives a team will be interested in knowing that there is a neck-yoke center on the market which is absolutely safe. We refer to the Ziegler Automatic Lock neck-yoke center which is manufactured at Coffeyville, Kans.

is manufactured at Coffeyville, Kans.

The Ziegler center is made of malleable iron, neatly Japanned and withal a very practical center. It is composed of two rings, in case of the harness tug coming unhooked or the singletree breaking, the outer ring slips back and automatically locks on the pole tip flange. The center is locked only when the necessity is at hand—a great safety, as oftentimes the driver wishes to disconnect his team from the vehicle at a moment's notice.

## Allen's Lung Balsam

Oures deep seated Coughs and Colds, Croup and all Bronchial Troubles. \$1.00, 50c. and 25c. per bottle.

VARICOCELE
SAFE, PAINLESS, PERMANENT GURE GUARANTEED
5 years' experience. No money accepted until patient is well CONSULTATION AND VALUABLE
CONFEDER by mell or a toffice. We to to DR.C.M.COE, 915-B Walnut St., Kansas City, Mo.

a Day Sure Bend us your address and w -- 111 show you and w -- 111 show you farmed the work and teach you from you work in y where you live. Send us your address and we will

PAGE

HIGH CARBON STEEL Page-Wire is such High Carbon Steel it makes good Paring Knives. Write for knife and be convinced. Page Woven Wire Fence Co., Box7815, Adrian, Mich.





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THE INVESTOR PUBLISHING COMPANY, Topeka, Kans.



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## Learn About **Pacific Northwest**

Our new and handsomely illustrated 88-page book (with map) tells you about the leading industries in Oregon Washington and Idaho, where the best of everything grows and where there are more openings for the man with small means or the man with thousands, than anywhere else in the Union. Four cents in postage will bring it to you. Write today.

A. L. CRAIG, GENERAL PASSENGER AGENT THE OREGON RAILROAD & NAVIGATION CO.
PORTLAND, OREGON

Don't forget the Great Lewis A Clark Exposition, Portland, Oregon, June 1, to October 15, 1905

#### Electric Wheel Co.

Every farmer who has had the occasion to take hogs to market knaws that it is not by any means an easy job to lead them into the ordinary farm wagon. When hogs are ready for market they are fat, sluggish and not in condition to stand any amount of driving or handling. It's a mighty difficult task to handle a fat hog without injuring him. That is one of many reasons why it's a big job to load him into the hind end of a high wagon. It is not convenient or desirable to build a permanent loading chute for the reason that modern practice and efforts for the prevention of disease demand that the feeding-lot shall be frequently changed. It is not desirable or practicable to dig great trenches into which to back the hind wheels of the wagon in order to get it down to the proper level. It is next to impossible to catch the hogs and force them up an inclined plane into the wagon. The writer of this article can remember vividly how, in the old days we boys delighted to assist in loading hogs. Many a stubborn fellow had to be elevated into the wagon with a rope about his hind legs. His ears were nearly pulled from his head in the operation. It made the



hogs pretty hot and it did not improve father's disposition to any appreciable extent but it was fun for us boys.

There is a better, easier, more humane way now and one which does not worry the hogs in the least. The first requirement is a Low Down Handy Wagon; a right incline plant well cleated, with stalled sides and a few light handles. See illustration. The wagon may be driven into any feed-lot anywhere and after the cleated incline is placed upon the rear end of the wagon the hogs may be gently directed to it with the handles. The operation is so easy and so natural that the hogs are literally loaded and the rack closed before they know it.

The Low Down Wagon is so close to the ground to begin with that the incline is very gradual and easy. What has been said above as to the advantages of easy loading of the Low Down Handy Wagon does not apply to the loading of hogs only. It is the easiest and most convenient thing in the world for loading and hauling manure, corn-fodder, hay, grain, stones, wood, logs, etc. The mention above was merely used as an apt illustration.

The comparison shown in the above

The comparison shown in the above cut was drawn by the Electric Wheel Company, of Quincy, Ill., who are the manufacturers of the Electric Low Down Handy Wagon, and Electric Steel Wheels. They will send you an illustrated catalogue if you ask them for it, which will fully describe these goods and prove to you their worth and advantage. Write for the book to-day.

#### FROM FACTORY TO USER.

#### How the Columbus Carriage Company Deals Direct at a Saving of Cost to the Consumer.

The Columbus Carriage and Harness Company, Columbus, Ohlo, formerly, sold exclusively to dealers. Some years ago, as a sort of experiment, they advertised to sell direct to the used at dealers prices. So well was the idea received by people in all parts of the country that now and for several years past they have sold only by mail direct to the customer. This is the only house in the State of Ohlo selling direct to the consumer who manufacture the vehicles and harness they offer for sale.

The plan has many advantages, among

The plan has many advantages, among them being the fact that the company guarantee is direct and means much to the man who is willing to pay cash for a good carriage, buggy or harness. As the saving is from \$10 to \$40 on an order, and as the quality of the work and materials as the quality of the work and materials used are of the best, it is more than worth while to secure their elegant catalogue, which may be had free upon application. It contains illustrations and exact reproductions of all carriages, buggies, harness and horse goods sold by them, as well as testimonials from customers all over the country.

#### LATEST FROM COLORADO.

#### A Million Dollar Corporation of that State Apparently Throws Money Away.

Corporations as a rule are not expected of throw money away recklessly but out a Colorado such seems to be an actual act.

Recently several well-known capitalists of Colorado joined forces and organized an immense publishing company with a million dollars capital, all paid up. One of the first acts of the new company was to invest \$100,000 in the purchase of that wonderfully successful publication, the Rocky Mountain Magasine, now in its third year with a circulation world-wide. By some of its readers the magazine is considered worth \$3 per year. It publishes dozens of fine views of scenery, stories of love and adventure, and sketches of how great riches are often

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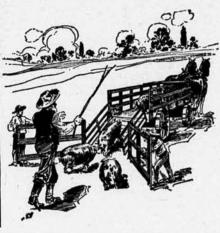
acquired so quickly. To cap the climax, dividend shares in the company are issued to subscribers, the latter sharing in the profits. Last year the company paid 20 per cent and will likely pay much more this year.

this year.

The company has appropriated ample cash with the object of securing a million new readers this year. To accomplish their object they are offering to send the magazine each month for a whole year for the nominal sum of ten cents, three years for twenty-five cents; or, clubs of six names for fifty cents, postage stamps taken. As this is a limited offer there's no time to waste, so send at once and tell all your friends. Money promptly refunded if you are not more than pleased. Mention the Kansas Farmer when you write. Send all subscriptions to the Rocky Mountain Magazine, Station 78, Denver, Colo.

#### Roofing and Paint for Farmers.

We call the attention of our readers to the advertisement of the Asbestos Manu-facturing & Roofing Co., of St. Louis, Mo., who are advertising Micanoid Ready Roofing, Security Asphalt Roofing, and



Iron Fiber Roof and Barn Paints. This is a company of great financial responsibility and is worthy of patronage in every way. Their roofing and paint is spoken of in the highest terms and the fact that in each instance they guarantee everything they sell to give satisfaction, is proof sufficient to every buyer that he will get what he expects or have his money refunded. They are rated as among the solid houses of St. Louis and have built their reputation by giving a man his money's worth every time and by never permitting a customer to be displeased or dissatisfied by any reason of theirs.

As the spring and summer season approaches, farmers and builders generally will have need for paints and roofing, and we suggest that before making their purchases they write the Asbestos Manufacturing and Roofing Co., and learn their prices and also learn fully about the excellent goods they manufacture.

#### A Growing Industry.

A Growing Industry.

Your attention is called to the advertisement in our columns of the Wichita Nursery, one of the most reliable firms doing, business in the Western States They make a specialty of selling trees of all kinds direct to the planter which saves them all agents' commission and about 40 per cent difference to the planter. Another important feature, they endeavor at all times to furnish trees true to name. Your chances by buying direct from the nursery is far better in procuring what you order than through agents. The proprietor of this nursery, W. F. Schell, is the well-known horticulturist not only in Kansas but in the West. He was superintendent of the Kansas Horticultural Exhibit at the World's Fair the past season and made a big success of it, and is also vice president of the State Horticultural Society, and owing to his prominence in horticulture can not do otherwise but make good his guarantee that all orders will be filled with choice stock of the grade you buy. Being personally acquainted with him and the nursery we have no hesitancy in recommending the Wichita Nursery.

#### Publisher's Paragraphs.

Publisher's Paragraphs.

The A. A. Berry Seed Company, whose advertisement appears in our columns, are having a warm time these days filling orders for their popular brands of seed corn, garden and field seeds. The new assistant to Mr. Berry, Mr. W. C. Affeld, is finding ample scope for his fine business ability in helping to keep even with the avalanche of new orders that are already upon them. Good seeds, fair dealing and prompt shipments are appreciated by our farmers who are no longer hayseeds but modern business men. Write for their new free catalogue. It's one of the very best and has a few extra features that every seed-buyer ought to know. Address A. A. Berry Seed Co., Box 50, Clarinda, Iowa.

In this age of enlightenment, there is no excuse for the land-owner who does not grow fruit. Eating fruit tends to preserve health and to prolong life; fruit is not a luxury but a necessity. The man who purchases directly from the nurseryman, thus saving the agent's commission, can procure an ample supply of trees and plants at small expense. There is always a profitable market for any surplus fruit which may be produced, and no business yields greater returns from the amount invested than that of fruit-growing. We desire to call attention to the advertisement of J. F. Dayton, Waukon, Iowa, who has for thirty years carried on the Highland Nursery at that place. He has never employed any agents but sells directly to the planter, and is hence enabled to offer standard varieties of strawberry plants at two dollars a thousand, furnishing only strong, vigorous plants from new beds. In addition Mr. Dayton also carries a full line of hardy fruit trees and small-fruit trees which he

prices at rates which are equally reasonable. Write to him for his twenty-fifth annual catalogue—it is free.

annual catalogue—it is free.

Mr. Henry Ross, of the firm of Ross & Ferrell, Farragut, Iowa, won the sweep-stakes prize for the best ear of corn at the late session of the Iowa Corn-Growers' Association, at Ames, Iowa. This prize ear was later sold at auction for nearly \$12. This is a big card for the firm and for Fremont County, Iowa. Ross & Ferrell have the habit of getting these prizes whenever they enter a prize seed-corn contest. Last fall Ora Hopkins, the world's champion corn-husker, husked 217 bushels of corn in ten hours in a field of their corn. Ross & Ferrell handle five special varieties of seed-corn. Their Iowa Silver Mine, White Rose, Early Yellow, Early Reed and Ross & Ferrell Special are almost the limit of sturdy big croppers. Their seed-corn stands every test of sure growth, quality and name. A letter of inquiry or order to them will receive prompt attention. With a fine reputation at home and abroad, and their famous brands of seed-corn, they are a safe firm 'to deal with. Send for their free catalogue. Ross & Ferrell, Farragut, Iowa.

#### The Chicago Daily Journal.

The chicago Daily Journal.

The new Chicago Daily Journal is a much better paper than the old Chicago Journal. During April, 1904, the Journal was sold to its present owner, John C. Eastman, who has enlarged and greatly improved every department of the paper. It stands for decency and prints the news honestly and without being sensational, and the edition which would reach subscribers in this territory will have the complete market reports. We will furnish the Chicago Daily Journal, six days a week for one year, and the Kansas Farmer, one year, both for \$2.50. Address, Kansas Farmer, Topeka, Kans.

# The Hurner Commonwearth City Live-Stock Market.

Kansas City Live-Stock Market.

Kansas City, February 13, 1905.

Official receipts of cattle for the week ending Saturday were 21,358, last week 31,839, last year 36,571. Choice beeves remained steady throughout the week; others declined 10@20c. Cows and helfers advanced 16@25c for the same time; bulls were firm, and good to choice calves of both veal and stock kind advanced fully 25c. In the stocker and feeder division both the demand and supply were limited, the bad weather accounting for this. Values as a rule were unchanged. Receipts to-day are 1,400, mostly beef steers. Prices were 10@15c higher for them. Cows and helfers also advanced 10@15c and bulls 10@15c. Stockers and feeders were steady to strong for all grades and weights. Indications are the bad weather will cause light receipts the balance of the week and prospects are for a satisfatory trade.

Receipts of hogs for the week ending Saturday were 53,907, last week 48,891, last year 47,948. The week closed with quotations a shade higher than the week before. Receipts to-day were 2,200. Other markets were also lightly supplied and salesmen had a chance to elevate quotations 5@15c. Bulk of sales were from \$4.85@5.12½, which is the highest of the winter.

Sheep receipts for the week ending Saturday were 20,201 last week 31,508 last

tions 5@15c. Bulk of sales were from \$4.85@5.12½, which is the highest of the winter.

Sheep receipts for the week ending Saturday were 29.431, last week 31.528, last year 16.809. The week closed strong with prices irregularly higher. Receipts today were 3,500 and the market 10@15c higher. Top lambs brought \$7.75. Top wethers, \$5.80. Top yearlings are quotable at \$6.75; top ewes, \$5.25.

The following are the prices now ruling: Extra prime corn-fed steers, \$5.25@5.70; good, \$4.85@5.10; ordinary, \$4.94.50; choice corn-fed heifers, \$4.94.35; good, 3.25@4; medium, \$2.75@3.25; choice corn-fed cows, \$3.50@4; good, \$3.25; choice stags, \$3.75@4.25; choice fed bulls, \$3.25@3.75; good, \$3.83.25; choice fed bulls, \$3.25@3.75; yead calves, \$5.66.50; good to choice native or Western stockers, \$3.75@4.4; fair, \$3.50@3.75; common, \$2.75@3.25; good to choice heavy native feeders, \$4.20@4.40; fair, \$3.50@3.75; common, \$2.75@3.25; fair, \$3.25@3.50; common, \$2.75@3.25; good to choice stock heifers, \$2.25@2.75; fair, \$1.75@2.25; good to choice stock calves, steers, \$4.42.5; fair, \$3.50@3.75; good, 3.75; fair, \$3.50@3.75; good to choice stock calves, steers, \$4.42.5; fair, \$3.50@3.75; good to choice stock calves, steers, \$4.42.5; fair, \$3.50@3.75; good to choice stock calves, steers, \$4.42.5; fair, \$3.50@3.75; good to choice stock calves, steers, \$4.42.5; fair, \$3.50@3.75; good to choice stock calves, steers, \$4.75.80; good to choice stock calves, heifers, \$2.35.80; common, \$2.75.80; fair, \$2.75.8

#### South St. Joseph Live-Stock Market.

South St. Joseph, Mo., February 13, 1905. Severe storms and extreme cold of the past few days has effectually shut off supplies of cattle, and should a warm spell follow which would enable shippers to get in, there would probably be a favirable reaction over the low prices prevailing last week. Last week the market was depressed 15@20c but all kinds of weightw steers of the little light butcher kinds met a strong demand at fully steady prices. The demand at present is very strong for good to choice heavy steers at prices ranging from \$565.50, while plain, weighty fat steers would sell largely at \$4.60@4.90; light butcher kinds are questioned. while plain, weighty fat steers would sell largely at \$4.60@4.90; light butcher kinds are quotable at \$4@4.60 according to quality, and very few full load lots of any kind of steers are selling under \$4. The market on cows and helfers shows no material change from the past two weeks. Best helfers are still quotable at \$4@4.85 with desirable killers selling at \$3.25@3.75. The fat corn-fed cows will sell at \$3.75@4.15; fairly good stockers are selling largely at \$3@3.50; veals are steady at \$3.50@6.75 and bulls and stags are unchanged at \$2.25@4. There has been practically nothing doing in the stocker and feeder line for the past week because of the extreme cold and the prevalence of severe storms throughout the feeding district. For the same reason supplies have been very light and all the yard traders are anxious to stock up with a good class of cattle preparatory for a liberal country inquiry when the weather moderates. Choice to fancy yearlings and calves

No. of the

#### SPÉCIAL SALE FOR NEXT 30 DAYS

A few choice sows bred to Harmonizer, Also a few young boars. M. S. Babcock, Nortonville, Kans

#### FAIR ACRES FARM

Offers a choice lot of pure-bred Berk-shires, descendants of Lord Premier and Black Robinhood. Pairs not related. Also Black Langshans and White Rocks.

Mrs. C. S. Cross, Emporia, Kans.

## FOR SALE

Agricultural College Live Stock

Agricultural College Live Stock
Thirty head of imported and home-bred
Shropshire ewes, 1 to 3 years old. Strong,
healthy and safe in lamb. Also the Galloway herd bull, First King of Avondale
19420, calved April 9, 1900. Sire, King Hensol 9967, dam, Maid of Bellewood 12334.
The Ayrshire bull, Marquis of Woodroffe
12946, calved September 27, 1900. Sire, Glencairn of Maple Grove 6973. Three young
Ayrshire bulls, one yearling Red Polled
bull, one Jersey bull calf, and a few Ayrshire and Galloway cows. All in geod
condition, well bred and sold for no fault.
Prices very reasonable. Visitors always
welcome. Address,

PROF. R. J. KINZER,
Kansas State Agricultural College,
Manhattan, Kans.

## GRAND ISLAND ROUTE

DOUBLE DAILY SERVICE, with new 80-foot Acetylene Gas-lighted Pullman Chair Cars (seats free) on night trains and Pullman High-back seat Coaches on day trains.

Direct Line between Kansas City and St. Joseph, Mo., Hiawatha, Sabetha, Seneca, Marysville, Kan.; Fairbury, Hastings and Grand Island, Neb.

QUICK TIME TO CALIFORNIA AND THE PACIFIC NORTHWEST. S. M. ADSIT, Gen'l Pass. Agent, St. Joseph, Mo.



With its Own Rails From

KANSAS CITY

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St. Louis, Detroit, Toledo, Pittsburg and Buffalo.

Makes the Best Time, with Best Accommodations.

Train No. 8 saves a day to New York

L. S. McCLELLAN, Western Pass. Agent, 903 Main St., Kansas City, Mo.

## NICKEL PLATE. Melical Jork. Chicago & St. Louis R.R.

EXCESS. FARE ON ANY

Three Express Trains East Every Day in the Year. Pullman Drawing Room Sleeping Cars on all Trains. Trans-Continental Tourist Cars leave Chicago Tri-2:30 p. m. and Wednesdays at 10:35 a. m.



Modern Dining Cars serving meals on Individual Club Plan, ranging in price from 35 cents to \$1.00, also service a la Carte. Coffee and Sandwiches, at popular prices, served to passengers in their seats by waiters. Direct line to Fort Wayne, Findlay, Cleveland, Erie, Buffalo, Rochester, Syracuse, Binghamton, Scranton.

NEW YORK CITY, BOSTON AND ALL POINTS EAST.

Rates Always The Lowest.

Colored Porters in uniform in attendance on all Coach Passengers. If you contemplate a trip East call on any convenient Ticket Agent, or address,

JOHN Y. CALAHAN, Gen. Agt. 118 Adams St., Chicago, III. would sell at \$3.50@3.75 and fair to good qualities would sell largely at \$3@3.50. The low prices prevailing on finished steers had the effect of checking the demand for heavy feeders to some extent and prices are quotable same as a week ago, good to choice weighty kinds being salable at \$3.75@4.10, fair to pretty good kinds at \$3.25@3.50.

The hog market is at the high point of

able at \$3.75@4.10, fair to pretty good kinds at \$3.25@3.50.

The hog market is at the high point of the year. The market to-day under light receipts was fat 10c higher with prices ranging from \$4.80@5.10, bulk selling at \$4.00.

This advance was caused by the normal offerings but it is quite apparent that receipts will be materially increased at all points with more favorable weather, when it is more than probable values will recede as much as they have gained in the past few days. The local demand is especially strong for all offerings and while receipts last week aggregated only 50,000, packers could still have used more without impairing the healthy tone of the market.

The market on sheep and lambs is at the left proint of the winter, and very

market. The market on sheep and lambs is at the high point of the winter, and very few are being offered, prime lambs are quotable at \$7.25@7.75, yearlings at \$6.65, wethers at \$5.65, and ewes at \$5.35.

WARRICK.

To Whom It May Concern: The stockholders of the Topeka Independent Telephone Company have thought best to incorporate as a Kansas corporation, the organization having been originally made under the laws of West Virginia. With this end in view and in order to enlarge their capital the business has been transferred to the Independent Telephone Company, organized under the laws of Kansas. There will be no change in management or in the conduct of the business. At a meeting of the stockholders of said company held at 519 Kansas Avenue, Topeka, Kans., on Tuesday, January 3, 1905, the following resolution was adopted for the purpose of securing the dissolution of the old company:

"Be it resolved by the stockholders of the Topeka Independent Telephone Company, in general meeting assembled, that all business of this corporation be discontinued and that no further business be transacted by its officers and directors save and except such as may be necessary to wind up its affairs and conclude its operations, and to this end the president of thir company is hereby authorized to cause public notice of this resolution to be made in the Kansas Farmer, a weekly newspaper published at the City of Topeka, Shawnee County, Kansas, near the principal office or place of business of this corporation once a week for six weeks, and he shall also forthwith forward a certified copy of this resolution under his hand and the seal of the corporation to the Secretary of State of the State of West Virginia."

B. F. PANKEY, President.

## Special Mant Column

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time will be inserted in this column without display for 10 cents per line of seven words or less per week. Initials or a number counted as one word. No order accepted for less than \$1.00.

FOR SALE - A 2-year-old solid red Shorthorn bull, Guardsman 206476, by Charming 4th; also 2 Thistle-t p cows. Address J. P. Engle, Alden, Kice County, Kans.

FOR SALE—Shorthorns—Our herd bull, Greenwood 165865 and 3 young bulls, ail Scotch-topped. Brookover Bros., Eureka, Kans.

FOR SALE—Ten head of red Shorthorn bulls, 1 and 2 year olds; one red Cruicksnank yearling bull good enough to head a herd. Will also sell my aged herd bull or will trade him for another as good; a fine breeder, and a large fellow. White Holland turkeys, avd Barred Plymouth Rock cockerels; cockerels for sale, \$1 each. Will be pleased to hear from any one wanting any of the above. Visitors welcome. A. F. Huse, Manhattan, Kans.

FOR SALE—A registered Red Polled buil. 30 months old, weight 1 500 pounds, in good condition, will guarantee him a breeder; price, \$100. For pedigree or other information address W. E. Brockelsly, \$15 E. Hancock, Lawrence, Kans.

FOUR GOOD HEMEFORD BULLS, 15 to 20 months, at reduced prices if taken at once; also a few younger ones. A. Johnson, Clearwater, Kans.

FOR SALE OR EXCHANGE for another of the same kind, a double standard Polled Durham bull, 3 years old last October. First-class in every respect. I have 35 caives from him and all hornless. R. T. VanDoventer, Mankato. Kans.

FOR SALE—Guernsey bulls from best registered stock. J. W. Perkins, 423 Altman Building, Kansas City, Mo.

FOR SALE—Shorthorn bulls, 11 to 18 months old, sired by Godoy Butterfly 142556; two are Rose of Sharons, one Wild Eyed and one Lydia Languish; none better bred aed few better individuals; each one out of an extra good big cow; will sell my herd bull, Godoy Butterfly, having used him 4 years. E. S. Myers, Chanute, Kaus

FOR SALE—Eight good, registered Shorthorn bulls, four straight Cruickshank, good ones, and prices right. H. W. McAfee, eta. C. Topeka, Kans.

FOR SALE—A 8-year-old Shorthorn bull, sired by Royal Bates. Address Dr. N. J. Taylor, Berryton, Kans.

#### HORSES AND MULES.

FOR SALE—George Novar 46579, dark brown or mshogany hav stall on, foaled 1993 Sire Novar 26434, by Norval 2:14½ by Electioneer; dam by Damo, son of Jerome Kedy 2:16½, second dam by ratchen Wilkes, sire of Joe Patchen 2:01¾. This is a promising colt, good size, good bone and muscle, kind a d gentle, good Investment for either stud or track. The Wilkes-Electioneer is the acme of fastion. Will sell at a bargain as I have no place for a stud. Address W. J. Flintom, Lawrence, Kans

FOR SALE OR LEASE—The aged registered trotting stallons Honor 6694, by Red Wilkes, and Senator Updegraff 8471. by Simmons, but harge, bay stallons, sure foal getters and sires of speed and high-class colts Will lease on very reasonable terms or sel so that thelr exprings will pay for the stallons; also FOR SALE—True Honor, standard and registered 4 year-old, will make a 16 hand, 1200 pound horse, sound with exception of wir- cut; will sell so that his earnings will pay for himself in two years. These ho see must be disposed of, as I am not home enough to give them my at ention. O. P. Updegraff, 616 Van Buren Strees, Topeka, Kans.

EIGHT JACKS FOR SALE — Running from 14 to 15 hands, by standard measure, white points, four years old, to be headed with a jack. Don't write, but some and see therm—still if you can't come, write, James M. Olive, Hume, Bates Co., Mo.

#### HORSES AND MULES.

FOR SALE OR TRADE—One imported black french Draft stallion, 4 years old weight 1,900 bounds. K. C. Berry, Es ridge, Kans.

FOR SALE OR TRADE—French draft stallion, black in color, 12 years old, registered, weight 1,800 pounds, sound One imported black Percheron, 12 years old, 16,00 pounds, sound. One steel gray lack, 7 years old, 15-1 hands in height, sound and good performer. One unbroken 3-year-old black lack, 15-1 hands high. ('olts to show; prefer young lacks, Jennets or registered Draft mares. No land wanted. Am quitting the business. J. A. Marshall, Gardner, Johnson County, Kans.

FOR SALE—The Giant, a large brown stallion, trotting-bred and Coachy built; stands seventeen hands high, weighs 1500 pounds, coming 6 years old, sound, sure foal-getter and good breeder; has fine style and plenty of bone and substance. For price and pedigree address the undersigned, S. Lehman, Newton, Kans.

FOR SALE—Seven jacks; five stallions; Percheron saddle, coach or trotters. All under 6 years; ready for servi e At low prices. Al. E. Smith, Route 1, Lawrence, Kans.

FOR SALE—A Registered Percheron stallion. Alli nce. A splendid sire, manogany bay, easy terms Address, J. H. Pennick. Menoken, Kans.

I WANT TO BUY a good jack. William Tomb, Wichita, Kans.

FOR SALE—One 4-year- ld lack, he is black, with white points. One registered Cieveland Bay stallion, weight 1,300 pounds. These both are good individuals, and good breeders. Will sell or trade for stock, or western land. I. L. Feasel, Talmo, Republic Co., Kans.

LEAVENWORTH COUNTY JACK FARM.
5 miles north of Easton; 20 Jacks and jennets for sale. O. J. Corson, Potter, Kans.

EIGHT REGISTERED PERCHERON and French Coach staillon and one large black jack, cheap for cash, to close them out by April 1. H. C. Staley, breeder, Rose Hill, Butler County, Kans.

FOR SALE—Black Mammoth jack, with white points, 8 years old, good breeder, can show colts, easy handled, quick service. \$175 if taken at once. A. E. Cooper. Route 1, Miami, Indian Ter.

FOR SALE—A registered black Norman stallion, weight 1,800, coming 5 years old; also a three-quarter grade, coming 5 years old, weight 1,500, a good individual and breeder. R. E. Casad, Ocheltree, Kans.

STRAY MARE—A black mare came to Wm. Cook's residence, one-half mile east of the city of Downs, Kans., on or about the 10th day of October, 1904, weight about 900 pounds, age about 3 years, worth, \$40: branded on the left shoulder, owner or owners will please come prove property and pay expenses.

FOR SALE—Poland-China boars for immediate use. Sons of Proud Perfection second, out of Black Missouri Chief sows. Fall glits, \$5 each. W. H. Peck, Garnett, Kans.

FOR SALE—Say! I have some fine, big-boned, proad-backed Berkshires, brood sows or pigs Wantsome? Write me; turkeys all sold. E. M. Melville, some? Write I Eudora, Kans.

CENTRAL Kansas Stock Farm has for sale cheap, splendid Poland-Uhina boars and g lts, May and June farrow, sired by Corrector Woodburn, and K. O. Periection, out of Sunshine and Tecums-h sows. E. J. Knowlton, Prop., Alden, Rice Co., Kans

FOR SALE—Boars for immediate use. Sons of Perfect I Know, out of daughter of Ideal Sunshine. Geo. W. Maffet, Lawrence, Kans.

WANTED—Farmers to use the latest patended husking hook. You can husk more corn with it than any other. Sent by mail, price 35 cents. Address A. W. Toole, 809 North Fourth Street, St. Joseph, Mo.

FOR SALE—2 choice Hereford bulls, 22 months old; something good. Call on or address A. Johnson, Route 2, Clearwater, Sedgewick Co., Kansas.

#### SHEEP.

FOR SALE—400 wethers coming 2 and 3 years old, mostly French grades, all smooth, weight about 75 pounds; \$3 per head. One deck of lambs, same grade; \$2.25 each. All eat grain; must sell; short of feed. E. H. Boyer, Meade, Kans.

#### SEEDS AND PLANTS.

ALFALFA SEED, \$7. J. Glenn, Wallace. Kans.

FOR SALE—Good speltz (emmer) seed, in sacks at 60 cents a bushel. A. C. Axtell, Bigelow, Kans.

FOR SALE—Pure Kubanka macaroni seed wheat, \$1 per bushel. Hayes Moyer, Ludell, Kans.

FOR SALE—Speltz 60cts, per bushel, sacked. L. G. Patterson, or M. Arnott, Blue Rapids, Kans.

FOR SALE—Success Beardless Barley, 90c per bu, Macaroni Wheat \$1.40. Sacks free. Address, W. C. Campbell, Ames, Kans.

WANTED—Cane, kafir-corn, millet, alfalfa. clo-er, English blue grass and other se ds. If any to ffer send samples and write us. Missouri Seed Co., Kansas City, Mo.

SEED · CORN—"Hildreth Yellow Dent easi'y ranked first as the best producing variety." Bulletin 123. Write C. E. Hildreth, Altamont, Kans.

50,000 TREES AT HALF PRICE—First-class apple, plum, cherry, Plants, shrubs at wholesale, Peach trees, \$10 per thousand. Freight prepaid anywhere. Catalog free. Seneca Nursery, Seneca, Kas.

FOR SALE—Speltz, 70c bushel; macaroni wheat, \$1, f. o. b. Wheeler & Baldwin, Delphos, Kans.; or S. B. Wheeler, Ada, Kans.

ENGLISH BLUE GRASS SEED FOR SALE, Reference First National Bank, Address J. G. Hinish, Eureka, Kans.

#### AGENTS.

EASY MONEY is made by agents selling our novelties. Write at once for catalogue and special prices. The Fox River Mail Order House, Dept X., Batavia, Ill.

AGENTS—Here is a corker; only pancake griddle in world that bakes square cakes and turns tuem; bakes six each time; 100 per cent profit. Canton Griddle Co., Canton, Ohlo.

-Auth

#### FARMS AND RANCHES.

GOOD bottom farm for cash or grain rent. 147 acres, 7 miles from Emporia. Address J. M. Rhodes, Emporia, Kans.

TWO SNAPS-160 acres, 130 acres cultivated, 65 acres wheat, one half goes, 5-room house, other farm buildings. Price \$2,800; \$500 d wn, balance in payments 160 acres all first botto u land, splendid 5-room house, 65 acres whe it, all goes. Price, \$25 per acre. Write us w en you come to see these. Gar ison & Stud-bayer, Minneapolis, Kans.; also office at Florence, Kans.

FORTY ACRE FARMS -25 m les from Houston, Texas - rich soil, delightful climate, general farming, cotton, stock poultry, especially adapted for raising vegetables, berries, fruits for early Northern markets, two crops a year of most grains and vegetables. On two railroads. \$7.50 per acre cash, balance ten years time. Booklet free. Address Herbert D. Hurd, 224 Temple Block, Kausas City, Mo.

FOR SALE—Kansas Land. I have sold it for 20 years; wheat land, \$3 to \$5 per acre. Selling fast and makes you money. 160 acres all fine \$\*00: 640 acres, plow ever foot, \$1.800: 1,600 acres choice wheat and corn land. \$4,000: 14000 acres, \$35,000. Folder tells ho v 40 busnel wheat is raised per ac e under new metho' & f. Spencer, 115 S. Lawrence Avenue, Wichita, Kans.

FOR TRADE—200-acres improved near county seat, central Tennessee; fine. Als : Franklin county, Kensas farms to sell. Buckeye Agency, Koute 2, Williams urg, Kans.

280-ACRE DAIRY FARM in Central Kansas, two miles from town, good improvements; \$35 per acre. Address F. W. C., care Kansas Farmer.

FOR RENT—A good second bottom farm, 80 acres, good ouse, barn, out-buildings and orchard, 6 miles from T peka Call at or address, Room 6, Office Block, Topeka.

FOR RENT-Stock ranch, chicken or dairy farm, both for term of years; al o 160 acre stock and grain farm. Buckeye Agency, Route 2, Williamsburg, Ks

SOME GOOD BARGAINS—160 acres, 40 acres bottom, fine orchard. 43,500; 220 acres. \$4,400 worth of improvements, \$6,500; 320 acres. 70 acres bottom, well improved, \$6,200; 240 acres nice sn ooth land, good improvements, \$3,600; 400 acres, 170 acres of first and second bottom in cultivation, \$1,500: 444 acres, 110 acres in cultivation, \$1,500: 444 acres, 110 acres in cultivation, \$1 per acre. one-fourth cash, balance to s it. Grass land n any sized tract from 160 to 4,000 acres. from \$10 to \$12.50 per acre Try us. Garrison & Studebaser, Florence, Kas Office at Minneapolis, Kaus., also.

IMPROVED FARMS, ranches alfalfa farms, pasture lands,—Osborne, Russell, and Rooks Counties, Kansas. Mercantile stocks to sell or trade. Correspondence solicited. Write to-day. Otls & Smith, Natoma, Osborn County, Kans.

FOR SALE-200 acres fine pasture land, 175 acres of it is mow land, two miles from Alma, living water that never falls, all fenced. This is a bargain if taken soon. Call on or address Mrs. M. A. Watts,

MARION COUNTY BARGAINS—160 acres, 5½ miles from county seat, 4-room house, barn 44 by 18 feet, with shed addition, 11 acres alfalfa, 40 acres pasture with spring, balance all good farm land, part bottom. Price, \$5,200. 400 acres, finely improved, all good land except 20 acres, which is a little stony, will sell on easy terms, or will take smaller farm as part payment. All kind and sized farms for s le. Let me know what you want to buy, sell or trade. A. S. Quisenbury, Marion, Kans.

#### MARION COUNTY REAL ESTATE.

MARION COUNTY REAL ESTATE.

80 acres; 50 acres in cultivation, 10 acres alfalfa and orchard: frame house of three rooms, all kinds of outbu.ldings; handy to school and near to market. Price, \$2,100.

160 acres; 80 in cultivation, nearly all under fence, 20 acres alfalfa; house, stable, granaries and all kinds of outbuildings; 8 miles from Marion, and is a bargain at \$20 per acre.

\$20 acres of magnificent grass land near this city for \$4,500. Write for descriptive folder.

W. P. MORRIS, Marion, Kans.

LAND FOR SALE.

In western part of the great wheat state. H. V Gilbert, Wallace, Kans.

VIRGINIA FARMS—\$5 per acre and up with improvements. Address Farm Dept., N. & W. Ry., Roanoke, Va.

FARMS For rich gardening and fruit-growing Write J. D. S. Hanson, Hart, Mich.

## FARMS FOR SALE on crop J. MULHALL, Sloux (Sty In

## "WE CAN SELL"

Or trade your farm, merchandise, or other proper Write description and price of what you have sell. Tell us what you want to buy or trade for. SOUTHERN KANSAS REALTY CO., Elk City, Kans.

## " HOW TO GET A F&RM."

FOR TEN CENTS
Send your name and address to SETTLERS
INFORMATION BUREAU, P. O. Box 88.
Portland, Ore., inclosing 10 cents in coin.

#### Fine Farm For Sale.

Located in Anderson County, Kansas, 90 miles phalia, on main line Missouri Pacific Railway. lay of 320 acres with very comfortable house and good barn. Lowest cash price, \$22.50 per acre, worth \$30. For full particulars, address L. A. B. care of Kansas Farmer, Topeka, Kans.

#### LAND IN THE OIL DISTRICT

We have land from \$5 to \$50 per acre in tracts of 160 to 1.500 acres. List your property with us. We sell or trade everything. Money loaned. Farms rented and rents

ENLOW & CO., Elmdale, Kansas.

1 CAN SELL YOUR FARM, RANCH OR BUSINESS, no matter where located.



Properties and bus ness of all kinds sold quickly for eash in all parts of the United States. Don't wait. Write to-day, describing what you have to sell and give cash price on same. A. P. TONE WILSON, Jr. Real Estate Specialist

FARMS AND RANCHES.

#### FOR SALE OR LEASE

The McCaskii ranch. 1,920 acres, lecated 7 miles southeast of Cottonwood Falls, Chase County, Kans. All fenced and coss-lenc d 2 miles of creek, 8 houses, 450 acres bott m under cultivation, 60 acres thuber, fine apple orchard of 800 tre-a, cattle and hog corrais, sheds etc. It is sone of the best and most desired le cattle ranches and farms in Chase County. I will lease to the high-st bidder for cash, one to five years Addre s

County. I will lease to be some to five years Addres & CRAWFORD, W. E. CRAWFORD, St. Louis, Mo.

### We Can Sell Your Farm

OR OTHER REAL ESTATE.

no matter where it is or what it is worth. Send de scription, state price and learn our wonderfully suc cessful plan. Address

Southern Minnesota Valley Land Co., MADELIA, MINN.

### **FARM LOANS**

Made direct to farmers in Shawnee and anjoining counties at a low rate of interest. Money ready. No delay in closing loan when a good title is furnished and security is satisfactory. Please write or call.

DAVIS, WELLCOME & CO., Stormont Bidg., 107 West 6th, Topeka, Ks



CASH For Your Real Estate
or Business Anywhere I Can Sell It; I MEAN IT Send me Description and LOWEST CASH PRICE today

W. E. MINTON. New England Bldg. Kansas City. Mo.

### IN THE HEART OF THE CELEBRATED PECOS VALLEY

Come to the Artesian District of the Pecos Valley.

Government lands, assignments, relinquish-ments, deeded lands. Alfalfa, apples; cattle range, town lots, etc.

WM. E. CLARK, Artesia. N. M. (On Pecos Valley Branch of A. T. & S. F. R. R.)

MISCELLANEOUS.

FOR EXTHANGE—Printing press and type-writer for pure-bred poultry or hogs. Madsen Bros , Atwood, Kans.

LADIE3-Send 10 cents in silver and one 2 c'nt postage stamp for one stemped collar and material. Full set. 35 cents. Ideal Stamping Co., 878 North 4th Street. Columbus, Ohio.

NOTICE—Is hereby given, that the name of the Farmers Mutual Hail Insurance Association, having its principal office and place of business in the City of Topeka, to unity of Shawnee, and state of Kansas, has neen duly changed, according to the provisions of the Statute in such cases made and provided, to the Grin Growers Hall Insurance Company. W. F. Bagley, President of said Corporation.

FOR SALE—Reliance well drill, good as new, brand new power, 6, 8, 10 and 12-inch bits, new cable drill mounted on heavy trucks, spools, 750 feet of cable Price, f. o. b. \$300. Grant Ewing, Blue Rapids, Kans.

W G. HAWORTH, Stock Auctioneer, Eudora, Kans. Choice Galloway cattle and a farm for sale.

HONEY—New crop, water white, 8 cents per pound. Special prices on quantity. A. S. Parson, Rocky Ford, Colo.

WANTED -Young men to learn Telegraphy and Railway Business. W. J. Skeiton, Salina, Kans.

FOR SALE—Second-hand engines, all kinds and all prices; also separators for farmers own use. Address The Geiser Mfg. Co., Kansas City, Mo.

PALATKA—For reliable information, booklets and other literature, address Board of Trade, Palat-ka, Florida. FOR SALE — 12-horse gas engine, nearly new. Guaranteed to work or no pay. A bargain. Address F. C. Purdy, Sterling. Rice Co. Kans.

WANTED—Right away; a girl to assist with house-work; good home, wages, and school if desired. Ad-dress at once Langley Stock Farm, Morland, Kans.

WANTED—Good strong country girl for housework, one that can do plain cooking and that is willing to learn; good wages, private family. Address Mrs. A. B. Quinton, 1243 Topeka Ave., Tope ka, Kans.

HONEY—Old-fashioned, hest white, such \*s you used to get "back East." 60 lb. can, \$4.80; two, \$9.50. C. A. Hatch, Richland Center, Wis.

FOUR GREAT MARCHES FOR PIANO OR ORGAN—"Odd Fellows Grand March," "Doles Twostep March," "California Commandery March," and "St. George Commandery March, 'I S cents each or the four for 50 cents. If you are not pleased I will return stamps on receipt of music. Offer good for sixty days. Mention Kansas Farmer, Address Isaac Doles, Indianapolis, Ind.

## The Stray List

Week Ending February 2.

Harper County -R. P. Chevraux, Clerk.
MULE-Taken up by J. F. Prouse, in Banner tp.,
Jan. 9, 1905, one dark drab or brown mule 4 years
old, welcht about 1,100 pounds, collar mark on top
of neck and is breachy; valued at \$125.

PATENTS.

J. A. ROSEN, PATENT ATTORNEY

THIRD TERM JONES' National School of Cratory and Auction or Ing.
DAVENPORT, IA., opens April 3, 1905. All branches of the work taught. Write for catalogue.
CAREY M. JONES, President.

The same of the sa

#### A Pacific Coast Kansan.

All the old settlers of Kansas will be glad to hear of the successful career upon the Pacific Coast of une of the bod did so more than the pacific Coast of une of the bod did so much to hasten its settlement and development; and it will be to hund friend our readers, and the busten its settlement and development; and it will be to hund friend our readers and the counter of the chosen home of his later years, the counter of the counter of the chosen home of his later years, it is settled to the counter of the co

During the coming summer Colorado will be brought closer to the east than ever. This means that a trip through the Rockies will come within the reach of all. If you are interested, write C. H. Speers, General Passenger Agent, Colorado Midland Ry., Denver. land Ry., Denver.

#### Used Flint's Powders Twenty Years.

Boyd, Wis., June 13, 1904.
Dr. B. J. Kendall Co., Enosburg Falls, Vt.
Gentlemen:—I have used Prof. Flints
Powders for twenty years and I have sold
hundreds, of packages by telling people
about it to try it once and they always
use it. Yours respectfully,
CHARLES EAGLES.

Market Sec. Sec.





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via

## Santa Fe

On February 21st and March 7th and 21st Special Homeseekers' tickets will be sold to Ft. Worth, Dallas, Galveston, Houston, San Antonio and other Texas points at the extremely low rate of \$15.00 for the round trip. Points in Pecos Vailey and return \$20.00. El Paso and return \$26.50. Rate of one fare plus \$2.00 to points in Oklahoma, Indian Territory, Arizona, New Mexico, Arkansas and Texas, tickets limited to 21 days from date of sale and stop-overs allowed on the going trip within 15 days.

For full information, literature, etc., address

T. L. KING, C. P. & T. A., Topeka, Kan.



## Are You Going West or Northwest?

This is the time to make up your mind. March 1st the cheap rates begin, practically only half the regular fare. For instance

\$25.00 to Pacific Coast.

\$22.50 to Idaho and Eastern Washington.

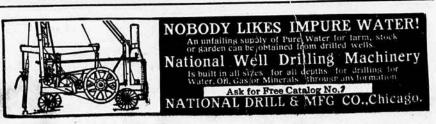
\$20.00 to Utah and Montana.

There are thousands of acres of good land in the Northwest waiting for good people. Round-trip rates are also in effect on certain dates for those desiring to look over the country before settling.

Cut out this advertisement and send to address below and full information together with free advertising matter will be sent.

F. C. SHARON, , Kansas City, Mo.





Attended

## Nerve Fag.

If You Waste Your Nerve Energy, After Awhile You Will Suffer For It.

You can waste nerve force by excess,

over-work, worry, anxiety, etc.
You can weaken yourself by not eating proper food or securing sufficient rest to renew the nerve energy you use up.

The proper treatment, in addition to good phosphatic food, such as whole meal bread, prepared cereals, etc., is Dr. Miles' Restorative Nervine.

This is as truly a brain and nerve food as any food you could eat, and be-sides, furnishes strength and tone of its own, which goes to the weakened nerve system, and sets it to rights.

Dr. Miles' Restorative Nervi 9 is a re-

freshing, revitalizing tonic food-medicine for the brain and nerves. It reconstructs worn-out nerve tissue, and fills your languid brain with new life and vigor.

Dr. Miles' Nervine has made so many marvelous cures, of people so sick the doctors thought they were incurable, that it is today the standard medicine in many thousands of American homes.

The first bottle is guaranteed to help you, or druggist returns your money. you, or druggist returns your money.

"The extreme heat, close confinement and intense mental strain incident to the banking business, has caused me to suffer with nervousness and insemnia. It gives me pleasure to say that I have used Dr. Miles' Nervine with very satisfactory results in the treatment of these affections. I am new on my fifth bottle, and eat and sleep well, in fact have almost forgotten that I possess nerves."—R. L. DALBY, Asst. Cashier, State Bank, Texarcana, Ark.

FREE Write to us for Free Trial Package of Dr. Miles' Anti-Paln Pills, the New Scientific Remedy for Pain. Also Symptom Blank. Our Specialist will diagnose your case, tell you what is wrong, and how to right it. Free. DR. MILES MEDICAL CO. LABORATORIES, ELKHART, IND.

Cured to stay cured. My TRUE METHOD kills the deadly germ which causes Cancer. No knife! No pain! Longest established, most reliable cancer specialist. 16 years in this location. Igive a WRITTEN LEGAL GUARANTEE. My fee depends on my success. Send for free 100-p. book and positive proofs DR. E. O. SMITH, KANSAS CITY, MO.

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DUROC-JERSEY SWINE.

D. M. TROTT ABILENE, KAS., famous Du-

COUNTY SEAT HERD DUROC-JERSEY SWINE. Geo. Briggs & Son, Clay Center, Neb. Young stock for sale.

Registered Stock, DUROC-JERSEYS, contains breeders of the leading strains.
N. B. SAWYER, CHERRYVALE, KANSAS.

DUROC-JERSEYS—Large-boned and long-bodied kind. A fine lot of fall pigs (either sex) for sale. Prices regsonable. E. S. COWEE, R. F. D. 2, Scranton, Kans.

Duroc-Jerseys J. U. Howe, Wichita. Kansas Farm two miles west of city on Maple Avenue

**FAIRVIEW HERD DUROC-JERSEYS** Now numbers 150; all head for our two sales, Ooto-ber 25, 1904, and January 31, 1905. J. B. DAVIS, Fairview, Brown Co., Kans.

THE OLD RELIABLE KLONDYKE HERD.
For Sale—One April and four September males
wo June and eight Sept. gilts. Choice of 80 head. Two June and eight Sept. gilts. Choice of 80 head.

Prices right. Quality right Newton Bros., Whiting. Ke

PEARL DUROC-JERSEY HERD. Write C. W. TAYLOR, Pearl, Dickinson Co., Kans., for prices on Duroc-Jersey hogs. He has them. Can ship on four roads. Rock Island, Union Pacific, Santa Fe and Missouri Pacific.



FOR SALE
Forty head of pedigreed DurocJersey hoars or bred glits; weigh
from 125 to 175 pounds; at farm-

ers' prices. \$9 to \$12 each. CHAS. DORR, Route 6, Osage City, Kans

The Famous Fancy Herd DUROC JERSEY SWINE few gilts and 7 fine young boars for sale. sed sow sale at (oncordia, Feb. 21, 1905. JNO. W. JONES & CO., R. F. D. 3, Delphos, Kan.

Some Fine August and September Pigs-Duroc-Jerseys
Either sex, as want d. Price \$10 each. 1 hey are of good red color, good ear, back and feet; also some bred s ws at low prices. All stock registered. Brood sows to farrow in March. Mr. & Mrs. Henry Shrader, Route 1, Wauneta, Kans.

**DUROC-JERSEY BRED SOWS** 

Fifteen choice bred sows and gilts and two young male pigs for sale. Write for prices, breeding, etc.

R. F. NORTON, - Clay Center, Kans.

**DUROC-JERSEY HOGS.** 

All stock registered. Pigs for sale weighing 150 to 200 pounds, both sexes. Will have sows for early farrowing at \$20 each. Spring males and gilts, \$10 to \$15. Address

Mr. & Mrs. Henry Shrader, Wauneta, Kans PLAINVILLE HERD

PLAINVILLE HERD
DUR OC-JERSEYS

For sale, an extra fine lot of young boars large enough for service. Bronze turkeys, Barred Plymouth Rocks and Brown Leghorn chickens for sale.

J. M. YOUNG, Plainville, Kans.

DUROC-JERSEYS A few very superior boars out of Gold Dust 20401, our premier herd boar, now ready for sale.

BUCHANAN STOCK FARM, Sedalia, Mo.

Rockdale Herd Duroc · Jerseys All reserved for bred sow sale Feb. 20, 1905. 40 head of tried sows, fall yearlings and spring gilts, the tops of my heid. Rememble date.

Route 2. J. F. Chandler, Frankfort, Kansas.

MINNEOLA HERD DUROC-JERSEY SWINE Prince 17799 and Red Rover 27665 at head of herd. Young boars and bred and open gitts for sale. • A. KERLER, Route 7, Phone S91 G, Ottawa, Kans.

Rose Lawn Herd Duroc-Jerseys

Now offering males only. Bred sows and glits reserved for Feb 22, 1905 sale. Visitors welcome and prices right. Can ship on Santa Fe, Mo. Pacific and Rock Island railroads.

L. L. Vrooman, Hope, Dickinson Co., Kans.

Maple Grove Stock Farm **DUROC-JERSEY SWINE** 

Twenty-five glits bred to farrrow in March and Apill. A few boars and the herd boar Royal Top-Notcher 28075-12329, for sale at reasonable prices. Also a nice lot of yearling pigs. **DULANEY & DE BROT, Route 1, Wichita, Kas** 

Walnut Oak Durocs FOR SALE.

Ten yearling fows including our World's Fair premium sows sired by Furprise 1817, champlen at Kansas (ity ko.al 1982, and bred to a sen of Bell's Chie and Bis op's Chiec. Fiftee Jule Losis, including our World's Fair fifth prize boar unier 1 year. All the very best of the breed. Our motto is

Powell & Rudy, Smithton, Mo.

BERKSHIRE SWINE.

Ridgeview Berkshires

Are all O. K. in breeding and quality. One yearling boar and four boars, April farrow, for sale, besides fall pigs. MANWARING BROS..

Route 1, Lawrence, Kans.

SUTTON'S BERKSHIRES Imported Blood

30 extra choice Boars, 100 to 150 pounds. 40 extra choice Gilts, 100 to 150 pouds. Fancy heads, strong bone and all-around good ones. Bargains at \$15 to \$25 to close quick. CHAS. E SUTTON, Russell, Kans. POLAND-CHINA SWINE.

FOR SALE Poland-China Hogs, Hol-ether sex. Best strains represented. H. N. HOL-DEMAN, Rural Route No. 2, GIRARD, KANSAS.

SHADY NOOK HERD.

Poland-Chinas, Up-to-date breeding. Correspondence solicited, inspection in vited.

Wm. Plummer, Barclay, Kans.

MAPLE VALLEY STOCK FARM Pure-bred Poland-Chinas from leading trains. Visitors welcome and correspondence solicited. Satisfaction guaranteed. C. P. Brown, R. 2, Whiting, Ks

Pure Bred Poland-Chinas. of the Chief Tecumseh 2d, Black U. S., Wilkes, Free Trade, Corwin and Short Stop strains. Address E. E. WAIT, Altoona, Wilson County, Kans.

Pecan Herd of Poland-Chinas Model Tecumseh 64188, American Royal (8) 80788, and Best Perfection 81507 at head of herd. Write us your wants.

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A. L. SULLIVAN, Secretary and Manager.



WHEN WRITING OUR ADVERTISERS PLEASE MENTION THIS PAPER

## The Plainville **Breeders' Association**

## **40 REGISTERED SHORTHORNS**

At Plainville, Kans., Thursday, February 23, 1905

30 Good Young Bulls and 10 Cows will be contributed to this sale by the following breeders: J. A. Lesher, Codell; Wm. Mellott, Plainville; A. W. Hall, Plainville; R. L. Ordway, Plainville; Tucker & Gaunt, Natoma; Arthur Cooper, Natoma; C. G. Cochran & Sons, Plainville; N. F. Shaw, Plainvile, C. C. Slason, Plainville.

In this sale will be included my herd bull Strawberry Baron 149498. He is a fine individual, a good breeder and is being sold for no fault, but simply because I cannot use him longer to advantage. He is quite gentle and well broken, and should be at the head of a good herd. He was bred by Hornsby Bros., of Eminence, Ky., weighs 2250 in only breeding condition and will be five years old on day of sale. He has never been injured in any way and will be a bargain.

The cattle in this sale are a good well bred lot that are sure to sell within the reach of all. This will be the place for the breeder, the beginner, the ranchman and the farmer to secure the right kind at their own price. Catalogue will be ready February 1st. Write me for one.

> N. F. SHAW, Plainville, Rooks County, Kansas

Auctioneers Col Jas. W. Spa ks, Marshal, Mo.
Cols J. W. Travis and E A Kramer, Plainville, Kans.

# DISPERSION SALE

## POLAND = CHINAS

At Bennington, Ottawa Co., Kansas, February, 22, 1905.

## 40 Bred Sows and Gilts 40

My entire breeding herd of 20 tried sows and 20 selected gilts. Sows are daughters of Hadley I Know 21402, Kansas Chief 28250, Black Tecumseh 25116 and Hard to Beat 29612. The entire herd bred to Bright Sunshine 83543, a grandson of Ideal Sunshine, and Hard To Beat, Jr. This is a choice offering—you get the tops.

HEREFORDS ED RICE, of Vine, Kansas, consigns 6 choice bulls, 10 to 14 months old. They are of richest breeding from the best western herds.

Free transportation from Bennington to farm. Write for catalogue. Send bids to either auctioneer or L. D. Arnold of the Kansas Farmer.

C. N. WHITE,

COL. JOHN BRENNAN, COL. GEO. W. BARKER, Auctioneers

BENNINGTON, KANS.

Few lines of business are adequately represented. There are openings for minis and manufacturing plants, small stores, banks, newspapers and lumber yards. The oil and gas fields of Kansas, indian Territory and Oklahoma, are p actically new and offer wonderful opportunities for development along commercial lines.

THE OPPORTUNITY IS NOW. The M. K. & T. has no lands for sale, we are simply interested in the upbuilding of the country. We believe in the southwest, and know that with its present needs and opportunities, the prospects are brighter and the future more hopeful than in the older and more densely populated states. We want you to investigate conditions and satisfy yourself of tae truthfulness of this.

On February 21st and March 21st, he M. K. & T. Ry. will sell excursion lekets from St. Louis, Haunibal and kansas City to Indian Territory, Okla-loma and Central and Eastern Texas at

For the Round Trip

One way second class **COLONIST** tickets will be sold on the same dates at one-half the standard one-way rate, plus \$2.00.
You should take advantage of this opportunity to see the Southwest for yourself.

We are in possession of all sorts of information valuable alike to the investor and homeseeker. If you are interested, tell us what you want, how much you have to invest, and we will gladly furnish the information.

Write today for a copy of our book "Business Chance." It's free. Address

"KATY," ST. LOUIS, MO.

## CLEAR CREEK HERD

## **POLAND-CHINAS**

Grand Closing Out Sale at Farm, One and One-half Miles South of Wilder. Kansas.

## Tuesday, February 14, 1905

This offering comprises 24 Royally Bred tried Brood Sows, 13 bred Gilts and 13 September Gilts, also 4 Great Herd Boars, 8 young Boars ready for service, and 8 September Boars. Free transportation to and from Wilder, Holliday and Bonner Springs. Sale will be held under cover. Free lunch will be served at noon. Come whether you wish to buy or not. If you can't come, send bids to either auctioneer, or I. D. Graham, of this paper, in my care. Write for catalogue.

> E. P. SHERMAN, Route I, Wilder, Kans.

Cols. Jas. W. Sparks and J. N. Harshberger, Auctioneers. E. H. Haskin, Clerk.

## BREEDERS' SALE



On Wednesday Feb. 22, 1905, at Harrisonville, Missouri.

At I o'clock p. m.

We will sell 25 head of registered Percheron stallions, colts, mares and facks, including one Belgian and one Clydesbest stock Missouri affords, some prize-winning stallions, some registered Percheron colts that will make good ones. Also some good young jacks. This is not a cash sale. Anyone can buy that can give a bankable note. Everything sold must be just as represented or no sale. We will protect the buyer as well as the seller. Parties from a distance wishing to settle by note should bring bank reference with them.

TERMS: A credit of 12 months will be given with apple security.

TERMS: A credit of 12 months will be given with ample security, notes bearing 8 per cent interest from date; 8 per cent discount for cash. For further particulars and catalogue send to

D. A. ZOOK, Manager, Eight Mile, Mo.

## STOCK SALE Second Annual Sale of the Harvey Co. Breeders' Association

Be Held at Newton, Kans., Feb. 21-22, 1905

50 CATTLE 50-100 HOGS 100

Sale will be under cover. Write the undersigned for catalogue.

C. A. SEAMAN, Sedgwick, Kans.



## California



During March and April tickets will be sold to Los Angeles, San Francisco, Portland, Seattle, Tacoma, and other points in California and the Northwest.

Through tourist car service at slight additional cost. Free chair cars all the way and only 3 nights out to above points.

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SANTA FE ALL THE WAY.

# THE CENTRAL KANSAS BRED SOW SALE CIRCUIT **DUROC-JERSEYS**

180 HEAD---TOPS SELECTED FROM FIVE GREAT HERDS---180

## Chandler's Offering of **Duroc-Jersey Bred Sows**

Sale at Farm, Frankfort, Kans, Monday, Feb. 20, 1905

Start with us on Monday and buy good stuff. We sell 40 good roomy sows and gilts. Tops of the herd and bred to Chief Perfection 20609, Improver 3d 28361, and Dandy Orion 33879. All sired by State Fair first prize winners. Write for catalogue.

J. F. CHANDLER, Frankfort, Kans.

Auctioneers: Cols. Lafe Burger and Jas. T. McCulloch.

#### Richly Bred Duroc-Jersey Hogs 50 50 46 Boars and 4 Sows

At the New Sale Pavillon.

#### Hope, Kans., Wednesday, February 22, 1905

This will be the opportunity of the season to fit your herds out with the money-making Durocs at your own door. They are the prolific kind and are in good condition to go right ahead and make you money. Sale begins at I o'clock sharp. For catalogues, address

C. W. TAYLOR, Pearl, Kans. L. L. VROOMAN, Hope, Kans.

Auctioneers: Cols. Lafe Burger, E. E. Hoffman, H. R. Little. | Auctioneers: Cols. Lafe Burger and Jas. T. McCulloch.

### "The Famous Fancy Herd" Bred Sow Sale of DUROC-JERSEYS

At Concordia, Kans., Tuesday, February 21, 1905

Consisting of 13 Tried Brood Sows, 3 Fall Yearlings, 34 large. high-class, royal-blooded, smooth, heavy-boned Gilts with plenty of style and finish. Sired by 12 great sires. Bred to 6 grand boars, Kantbebeat, Orion, Improver 2d, FANCY CHIEF, Topnotcher, Fancy Jumbo. Each have tried to outdo the other in producing this great offering. Come to this sale. Free entertainment at Exchange and Colson's Hotel. H. A. Heath, of the Kansas Farmer, will be with us, and Cols. Lafe Burger, G. B. Vanlandingham and T. E. Gordon will do the selling. Mail bids to either in our care honorably treated. Write for catalogue.

JNO. W. JONES & CO., Route 3, Delphos, Kans.

### From the Egypt Valley Herd of **DUROC-JERSEYS**

40 Head Bred Sows and Gilts to be Sold at Public Auction at Alma, Kans., Thursday, Feb. 23, 1905, at 2 o'clock p. m.

Sale will be held in large barn. Write for catalogue; it will tell you all about it. Prize-winning blood and grand individuals. Attend this sale if possible. Free hotel. Write or wire bids to either auctioneer, in my care.

H. W. STEINMYER, Route 3, Volland, Kans.

## GREATEST HEREFORD OFFERING OF

# Gudgell-Stannard Annual Sa

85 HEAD carefully selected Hereford breeding cattle from the leading herds of the Middle West go in this annual auction. Absolutely the best bred and best lot of Herefords individually that has been offered or will be offered in a combination sale in a long time. Only cattle of rare breeding and high quality have been accepted. Sale in Live Stock Pavilion, Stock Yards.

## Kansas City, Mo., Thursday and Friday, Mar. 2-3

The offering comprises 85 head-40 bulls and 45 females-all of good breeding ages, supplied by the following herds: Gudgell & Simpson, Independence, Mo.; C. A. Stannard, Emporia, Kans.; Dr. J. E. Logan, Kansas City; C. G. Comstock & Son, Albany, Mo.; Steward & Hutcheon, Bolckow, Mo.; Benton Gabbert & Son, Dearborn, Mo.; A. F. Corthon, Ottumwa, Iowa; J. A. Larson, Everest, Kans.; Mrs. C. S. Cross, Emporia, Kans.; L. P. Larson, Powhattan, Kans.; and Miss Lou Goodwin, Blue Rapids, Kans.

> This Sale is Made to Supply the Growing Demand for Better Cattle. No Culls. Everyone a Good One . . . . .

> > For Free Catalogue Address Either

C. R. THOMAS, Secretary, 225 W. 12th St., Kansas City, Mo.

C. A. STANNARD, Sunny Slope Farm, Emporia, Kans

#### Remember

The 26th semi-annual and greatest Jack and Jennet Sale ever held in the United States wi'l take place at

LIMESTONE VALLEY FARM Six miles east of Sedalia and two miles north of Smithton. Pettis County, Missouri,

Tuesday, March 7th, 1905 65 HEAD of all black registered Jacks and Jennets, including 24 head of World's Fair prize-winners; also a few Saddle Stallions. We sell nothing but saddle Stallions. We sell nothing but our own stock, and every animal guar-anteed as represented. We will show you the best herd in the United States or pay all your railroad fare. Nothing priced or sold privately. Write for catalogue.



## L. M. MONSEES & SONS Smithton, Missouri.

Auctioneers: Cols. E. W. Stevens, R. L. Harriman, Jas. W. Sparks, J. Z. Wells, C. J. Hieronymus

## Poland-China Bred Sow Sale

At Asherville, Kans., Tuesday, Feb. 21, 1905.

## **42 SELECT INDIVIDUALS 42**

10 tried and recorded sows, 14 fall and winter yearlings, and 18 spring gilts, sired by Hadley I Know 21402, P. W. K. 24441, Black Perfection 28241, Kansas Lad 31301.

These will be bred to First Choice 34181, the highest-priced hog sold at F. M. Lail's fall sale, B. B. Perfection 24779 by Chief Perfection 2d, King Victor by Victor X. L., who won second at the World's Fair.

Breeders from a distance stop at Commercial Hotel at Simpson or Pennsylvania or Oxford Hotels at Beloit. There will be no postponement. Auctioneers: John Brennen, R. E. Martin, and J. V. Thompson.

W. A. PREWETT, Asherville, Kans. Send for catalogues to F. P. Cooke will sell Shorthorns at Belott on Wednesday, February 22.