

KANSAS FARMER

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IMPROVED STOCK BREEDERS' ASSOCIATION OF THE WHEAT-BELT.

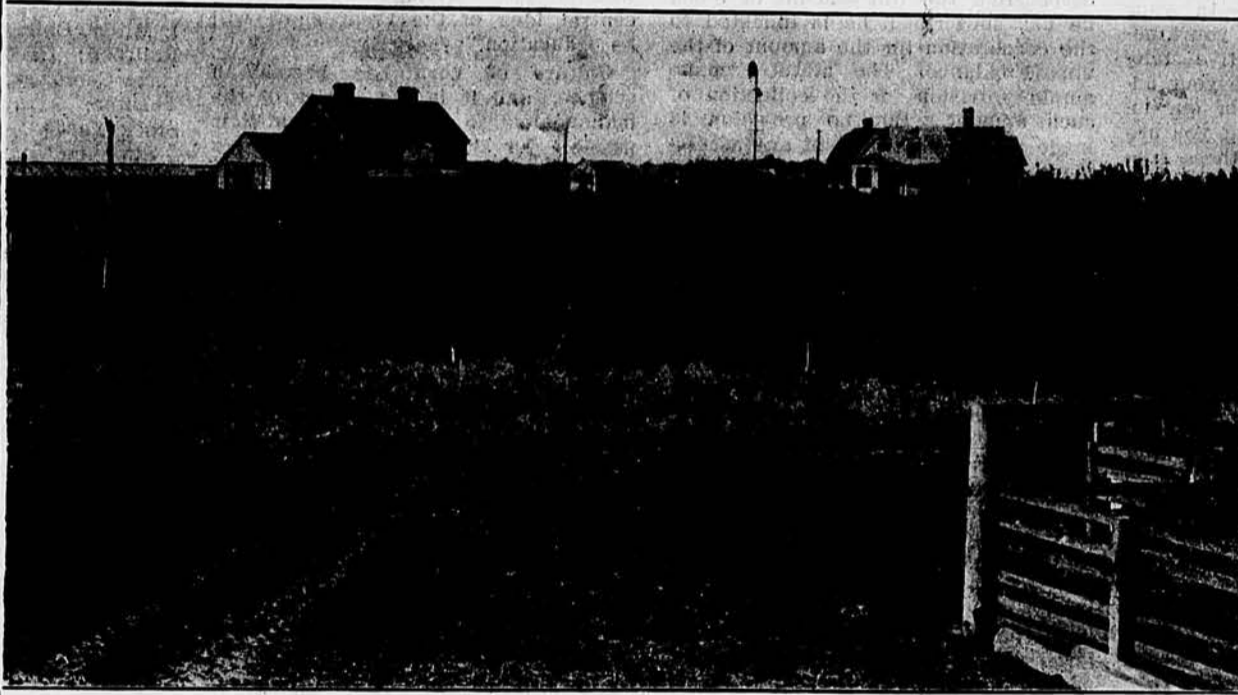
South Central Kansas and Northern Oklahoma have long been known as the great wheat-producing regions. A number of the counties embraced in this territory have held the State record for bushels of wheat produced in years passed. Wheat-growing seemed an easy and profitable way of making money, and this country became prominent as a wheat-belt. It also assumed prominence in the early days of Oklahoma as an outfitting point for the settlers moving into the new territory and the towns of South Central Kansas gained an impetus in growth partly because of this fact.

In the early eighties this region was prominent for the two reasons named. Later, as the territory to the south became settled and had towns of its own, it lost its prestige in some degree as

an outfitting point, though it still continued to raise wheat. Having been settled with a very enterprising class of farmers, it was soon learned that wheat-raising alone must prove unprofitable in the long run and an effort was made to introduce pure-bred stock. This effort was met with derision by some people who believed that success, especially with pure-bred hogs, could not be attained outside of the corn-belt. As this territory was known exclusively as a part of the wheat-belt it was then thought that corn could not be grown profitably there and consequently swine-raising at least would prove a problem.

These energetic farmers began the growing of pure-bred stock and met with such success in all its branches that they ultimately organized themselves into a general association for the promotion of the pure breeds. This association is

(Continued on page 276.)



The Home Farm of Secretary Chas. M. Johnston, of the Improved Stock Breeders' Association of the Wheat-Belt, near Caldwell, Kans.

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CORPORATION QUESTIONS.

EDITOR KANSAS FARMER:—In your issue of December 20, 1906, you kindly discussed the cooperative telephone corporation, and gave your advice, for the consideration of our local company. I am glad that you are willing to enlighten us on these subjects, and as you are a disinterested party, we can rely on the honesty of your conclusions. It is a common saying, "that ignorance of the law excuses no one," yet very little is done to teach the laws to the people. I have sometimes wondered if it would not be a good plan to have our laws taught in the common schools, especially to the boys. However, I am pleased that you are willing to give some teaching along this line for the benefit of your readers.

With reference to the telephone question, your advice was presented to the stockholders of the company, and rejected. Some of us think that they are running contrary to law.

They refuse to sell the unsubscribed stock to present members—they are the only likely purchasers—and have made no arrangements to decrease the capital stock to what has been sold. One of our members told me that if he wanted to make a test case, he would apply for some shares of stock, and if they refused him, he would notify the State officers, who would revoke the State charter, appoint a receiver, and sell the plant to the highest bidder. Could he do it? Would the State pursue that course? Can the company refuse to sell to any legal citizen, without being liable?

This company is in debt for its plant; its rental phones pay the operating expenses, but in order to make extensions, it assesses its members to avoid selling more stock to present members. In doing this, is it not denying its members the most fundamental feature of the cooperative corporation? This feature I refer to is the privilege of owning more than one share of stock, but only having one vote. If members should protest against this assessment, could the company compel them to pay?

No member that I know of is likely to make trouble. However, if some disgruntled member or the State

could take action, it ought to be known. GEO. S. SOWERS.

The law, chapter 23, section 34, which is section 1350 of the General Statutes, provides specifically that the subscription books of a corporation shall be opened for receiving subscriptions to the capital stock in case this stock has not been all subscribed, "which books shall be kept open till the whole amount of capital stock is subscribed." The plain inference is that any person desiring to subscribe for stock shall have the right to do so and that without regard to whether or not he is already a stockholder.

If the directors neglect or refuse to receive subscriptions as the law requires, the remedy would not be by calling the attention of the State officers to the matter with a view to forfeiting the charter. The State officers would probably give no attention to such information. The proper remedy is by mandamus. This is an action which may be brought in the district court. In bringing such action the services of an attorney would be necessary, but any good lawyer can bring such action and under the facts stated should not fail to secure an order requiring the directors to comply with the law by receiving subscriptions of stock until the entire amount of stock authorized by the charter shall have been subscribed. The officers of the company will then be responsible to the court for obedience to its orders, and will be in contempt of court in case of neglect or refusal. It is not to be understood that THE KANSAS FARMER advises litigation in this case. The editor is glad to be informed that no member is likely to make trouble. We have simply indicated the law in the case and the legal proceeding that would be applicable should such become necessary, in which case the parties bringing suit should be guided by the advice of their attorney.

Until a stockholder has paid to the corporation the full amount of stock he has subscribed, he is indebted to the corporation for the amount of the unpaid balance. The statutes make ample provision for the collection of such amount. But no provision is made for the collection of any assessment above the amount of such indebtedness for stock. It is doubted whether such assessment can be collected except as voluntarily paid by the stockholders. Probably any payment in excess of the amount of stock subscribed should be considered an advance to the corporation for which the corporation is indebted to the person so paying.

The directors of a Kansas corporation have very extensive powers which are conferred by the statutes. They may consult the stockholders as to important actions to be taken or they may proceed without such consultation. If in their judgment the business of the corporation should be enlarged and extended, there is no legal limitation to their authority to so enlarge and extend. They may borrow money for use of the corporation, pledging the property and income of the corporation for its payment. If in addition to these powers they may assess stockholders beyond the full amount of the stock for which they have subscribed, who can feel safe in becoming a stockholder? In the case of the telephone company under consideration it may be deemed by the directors very desirable to extend its lines to several times their present length. If the directors may assess the stockholders, they may obligate them to pay far more than they contemplated on subscribing for this stock. Some may be even driven to bankruptcy by the imposition of obligations beyond their ability to pay. Since the statute confers no such authority, and since such authority would be liable to mischievous abuse even with good intention, it should not be assumed that such authority exists.

While everybody remains good natured, while each pays his assessment, and while nobody demands the repayment of money advanced, all may be well. But it is readily seen that should any discord enter, complications may arise such as would be very detrimental to the interests of all concerned.

If the writer were a stockholder he would consider his interests safer under a strict compliance with the law than under the method pursued by the directors as outlined by this correspondent.

[Note.—To avoid danger of misapprehension it should be stated that legal questions of especial interest to farmers, when propounded to THE KANSAS FARMER, are discussed by the editor. The editor is not a lawyer. He has, however, access to the State library and to the private libraries of eminent lawyers in Topeka. His conclusions are seldom questioned. He desires here to say that the law library most convenient to THE KANSAS FARMER office, and therefore most used, is that of the firm of Valentine, Godard & Valentine. The senior member of this firm is the venerable Judge Valentine, long a justice of the Kansas Supreme Court. Ex-Attorney General Godard is the next member of the firm, and is ably supported by H. E. Valentine, son of the eminent ex-justice of the Supreme Court.]

MAMMOTH CORN EXPOSITION PLANNED.

More than a year ago, members of the Commercial Association of Chicago began working for a corn exposition to be held in Chicago. At that time more than \$50,000 was pledged for this work. It was decided to wait until the fall of 1907, at which time the first great corn exposition will open. Last week the members of the Commercial Association who have this matter most at heart met and organized the National Corn Exposition, electing officers and appointing committees. It was decided to expend something like \$150,000 on this exposition, a goodly proportion of which will be paid out in prizes. According to present plans the date of the exposition is from October 5 to 19, 1907. Adequate facilities will be secured for holding this big show. The building will be elaborately decorated but the central idea of the great show will be "education."

Culture of corn has become a science, and it is the desire of the management to demonstrate that it is possible for the average corn-grower to produce greater yields and better quality than heretofore. During the past ten years the matter of seed-selection has been worked out, and it has been shown that by this alone, it is easily possible to increase the yield from two to ten bushels per acre. It is possible to select seed properly only when the grower has become familiar with the proper type of the ear, bearing properly shaped kernels, possessing good germinating qualities and high vitality. These points will be illustrated at the great show, and the object lessons here presented will be of inestimable value to corn-growers everywhere.

It is the desire of the manage to make the corn exposition as valuable to corn-farmers as the International Stock Exposition is to stock-raisers. The worth of this latter exposition has been fully demonstrated. It is even easier for the corn-grower to improve his product than it is for the stockman. Consequently, the benefit which will come to corn-farmers through the efforts of Chicago's business men can not be calculated.

The details for awarding of premiums have not yet been worked out but in a general way are very liberal. Cash prizes will be offered and these will be so distributed that every corn section of the United States will be rewarded, provided it participates in this exposition. There will probably be State prizes, probably district prizes, and certainly prizes for the farmer, the farmer's wife, the farmer's son, the farmer's daughter, etc. If, for example, Connecticut grows good corn, prizes will be arranged for that section. It may not be possible for Connecticut growers to compete with Illinois or Iowa in certain respects, but it will be easily possible to arrange the premium list so that the New England growers will receive a just compensation for this effort.

Corn-farmers of the United States are urged to better this great show now. Let them select their seed with

that in view, picking out ears that are uniformly true to type and with a high percentage of germination. Let them select a first-class piece of land, prepare it carefully, plant the corn at just the right time, cultivate it thoroughly, and be in position to select show samples when the time comes. Every locality should bear this in mind and take a personal interest in seeing that the visitors in the great corn exposition know just what that locality can present.

The exposition will be a success. This goes without saying from the fact that Chicago push and energy is behind the movement. The men having the exposition in charge are the leaders in Chicago business enterprises. They are used to handling large propositions. They propose to make this the greatest thing on earth and this is the same as saying that it will be the greatest thing on earth.

On the recent meeting of those interested, the following officers were elected:

President, Edwin S. Conway, W. W. Kimball Company.

Vice-presidents, E. S. Furman, corn grower, El Paso, Ill.; Prof. P. G. Holden, State Agricultural College, Ames, Iowa.

Secretary, Curt M. Treat. Treasurer, Harry A. Wheeler, Chicago Credit Clearing House.

Members of the executive board, in addition to above named, are: D. R. Forgan, National City Bank; M. B. Starring, City Railway Company; J. C. Vaughn, Vaughn Seed Company; Walter M. Thompson, Kelley, Maus & Co.; George Lytton, The Hub; George E. Marcy, Armour Grain Company; Charles A. Stevens, Charles A. Stevens & Bro.; H. C. Barlow, Chicago Commercial Association; J. W. Scott, Carson, Pirie, Scott & Co.; Joseph Basch, Siegel, Cooper & Co.; C. A. Shamel, Orange Judd Farmer; James Simpson, Marshall Field & Co.; Leon Mandel, Mandel Brothers; J. Harry Selz, Selz, Schwab & Co.; H. N. Hignbotham; H. I. Miller, Chicago and Eastern Illinois Railroad; H. C. Staver, Staver Carriage Company; Will J. Davis, Illinois Theater; Arthur J. Leonard, Union Stock Yards.

Standing committees chosen at the meeting are: Location, Charles A. Stevens, chairman; H. I. Miller, Joseph Belford, E. S. Fursman, Curt M. Treat. Finance—H. C. Barlow, chairman; George W. Trout, H. A. Stillwell, A. A. Sprague 2d, James Simpson, Harry A. Wheeler. Special Railway excursions and rates—J. W. Scott, chairman; F. W. Upham, H. J. Macfarland, C. B. Cooper, A. J. White. Publicity—C. A. Shamel, chairman; W. P. Warren, John H. Wood, Oscar E. Binner, Slason Thompson, Paul Faust, William Harper. Concessions—Joseph Basch, chairman; Stewart Spalding, Nate R. Salisbury, W. C. Gunther, Joseph Belford. Special Features—Will J. Davis, chairman; Geo. Ade, Charles E. Kohl, Harry J. Powers, S. T. Kline, Sol Litt, Milward Adams, Harry Askin, George W. Lederer.

DIVISION FENCE QUESTIONS.

EDITOR KANSAS FARMER:—Please answer through THE KANSAS FARMER the following: I bought a farm here five years ago, comprising 160 acres. The quarter adjoining has always been leased since my occupancy. There was a fence about 80 rods in length, dividing the pasture-land on my farm from the adjoining land, which was also used as pasture. There was no fence dividing the cultivated portions of the farms. The tenants of the adjoining farm and myself have jointly and mutually kept this pasture fence in repair. The said fence is part hedge and balance wire. The hedge is thin and is reinforced by two barbed wires running the entire length, and in many places stapled to the hedge. The other portion is a three-wire fence. The owner's son has moved onto the farm and claims that the hedge belongs to that farm; that he (the son) constructed the

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ance of the fence at his own expense. (He had previously occupied the farm.)

He now says that he intends to remove the posts and wire as he does not intend to pasture the land this season. Can he remove the fence without my consent? The post and wire part is perhaps a little over on the adjoining farm—according to a direct line with the hedge. I do not know the exact location of the line.

If he removes the fence can I compel a lawful fence to be erected? I am willing to put in my half, and am anxious for a division of the line.

How shall I proceed? What are the specifications of a lawful division fence?

The owner of the adjoining farm is a resident of Illinois. H. ALMER, Butler County.

The General Statutes of Kansas, chapter 40, section 8, provide:

"The owners of adjoining lands shall keep up and maintain in good repair all partition fences between them in equal shares, so long as both parties continue to occupy or improve such lands, unless otherwise agreed."

This broad provision sets forth the duties of the parties. The next two sections provide remedies for neglect or refusal to comply with the above provision.

Section 11 provides for the appointment of fence-viewers in case the parties can not agree, and defines the duties of the viewers.

Section 12 provides a remedy in case either party "neglect or refuse to erect or maintain the portion of fence assigned to him by the fence-viewers."

Section 14 provides for equitable adjustment when one party has built more than his share of a division fence.

Section 22 provides that "the word owner" under the provisions of this act, shall be held to include and apply to the occupant or tenant when the owner does not reside within the county."

The enumeration and descriptions of all kinds of lawful fences would occupy too much space for insertion here. Quite likely the fence erected in this case would be of barbed wire, which, to be a lawful fence, is described in chapter 40, section 4a, as follows:

"A barbed-wire fence, of not less than three wires, with third wire from the ground not less than forty-four inches, nor more than forty-eight inches from the ground, and bottom wire not more than twenty-four inches or less than eighteen inches from the ground, with center wire equidistant, or nearly so, between upper and lower wires; said wires to be well stretched and barbed, barbs to average not more than nine inches apart; said barbed wire to be composed of two wires not smaller than No. 13, or one wire not smaller than No. 9, wires to be securely fastened to posts, which shall not be more than two rods apart and not less than twenty inches from the ground, and set in a workmanlike manner; or the posts may be not more than forty-eight feet apart, with slats placed perpendicularly, not more than twelve feet apart, between the posts, and fastened to the wires by staples, or with holes in the slats: provided, That in townships or counties where hogs are allowed to run at large, there shall be three additional barbed wires, the lower one of which shall not be more than four inches from the ground, the other two to be placed an equal distance apart, or nearly so, between this and the lower wire as required above."

Our correspondent will do well to ask the matter over fully and frankly with the neighbor. Probably an amicable agreement can be reached when the facts and the information here-given are considered. If further information of the details of the law be needed it will be well to call on any office of the peace and ask to be shown the statutes. By referring to chapter 40, above mentioned, the full procedure in case of disagreement may be ascertained.

Some dairying has not entirely given place to the creamery. F. L. Mc-

Clelland, who lives near Pauline, reports that his butter product for 1906 from thirteen cows was 3,911 pounds. His cows are of mixed breeding and five are heifers. He fed alfalfa hay and corn-chop during the winter, continuing the alfalfa once a day until the last of May. The cows were on mixed pasture during the summer. The butter was sold in Topeka at 25 cents in summer and at 30 cents in winter.

"AVENELLE, OR THE LONE TREE OF ARLINGTON."

Western Kansas is producing a full share of the writers of the State who are producing books. Just now John C. Baird, of Vesper, Lincoln County, has come to the front with a volume which bears the imprint of the Mayhew Publishing Company, Boston. The first part of the book is devoted to a story entitled "Avenelle, or the Lone Tree of Arlington." The scene is laid in the West. It is essentially a ranch story, and portrays conditions with startling vividness. The author's experience in the West is an essential element in his ability to write such a story.

The second part of the volume is devoted to the author's poems. A few of these appeared in THE KANSAS FARMER about a year ago. All will be read with absorbing interest.

The price of the book in cloth is one dollar.

LUTHER BURBANK AND SCIENTIFIC HORTICULTURE.

The March Century will publish a discussion of "Luther Burbank's Ideas on Scientific Horticulture" by Hugo de Vries, Professor of Plant Anatomy and Physiology in the University of Amsterdam. It is Professor de Vries' contention that European and American horticulture has developed, for a large part, in independent ways, whereas much work and much doubt could have been avoided if American breeders had, as a rule, made a thorough study of the German and French horticultural literature. Professor de Vries will show how these conditions have been prejudicial to the American horticultural breeder in the eyes of his European colleagues, and will present what is probably the most scientific and authoritative account of the California breeder's work yet published.

Oiled Roads.

Kansas Experiment Station Bulletin 142, by Prof. Albert Dickens, gives a plain statement of the experiments conducted by Professor Dickens, under authorization of an act of the Legislature of 1905, in the improvement of roads by the application of mineral oil. The report is encouraging. Thirteen experimental sections of road were treated. Five of these were at, or near, Manhattan, three at Hutchinson, one at Maple Hill, and four at Garden City.

Residium from oil refineries was used. This was found far better than crude oil.

The cost varied greatly. Where the soil is not very sandy, the cost, aside from the grading and bridging, may be stated to be around \$500 per mile.

While not every country highway can be improved at such cost, it is pleasing to know that by the use of oil a good road can be made at about one-third the cost of a macadam road in a country where stone is abundant. Main-traveled roads in fairly dense communities may be improved without bankrupting such communities.

Every road-officer in Kansas should address the director of the Kansas Experiment Station, Manhattan, for a copy of this bulletin.

BLOCKS OF TWO.

Every opportunity to do a favor to a friend or neighbor should be improved. The subscription price of THE KANSAS FARMER is \$1 per year. It is worth the money. But the publishers are extending the circulation rapidly by means of their blocks of two proposition. It is this:

Every old subscriber on sending his dollar for renewal is authorized to send the name and address of some one not

now taking THE KANSAS FARMER and the dollar will pay for both subscriptions for one year. Address, The Kansas Farmer Company, Topeka, Kans.

Stock Interests

Principles of Animal-Breeding.

PROF. R. J. KINZER, BEFORE THE ANGUS BREEDERS AT MANHATTAN.

Animal-breeding may be defined as the science or art which treats of the reproduction and improvement of all domestic animals. It is a science in so far as it discovers and systematically arranges the principles which relate to the improvement of live stock. It is an art in so far as it successfully uses these principles in effective improvement.

Some knowledge of the principles which govern the successful breeding of live stock have been possessed from the very earliest periods, but not until within the past two or three centuries has there been any great advancement made in scientific breeding or improvement. Our successful breeders have studied the principles and laws which govern and control, and although there have been many theories advanced, and almost an equally large number exploded, there have been many principles proven beyond a doubt, and the present generation of live-stock breeders can do far better and more scientific work toward the improvement of their herds and flocks than their forefathers were able to do.

The first, and I believe the greatest, requisite for the successful breeder of live stock is a true love and interest in his work, and for the animals with which he is working, no matter what class of live stock it may be. If he is an Angus breeder, the black, shiny coat and the thick, low set, blocky form of the typical, well-fed Angus cow should please his eye as nothing else in this world can do. It is a sad fact that animal-breeding on the average American farm has not received the attention which its importance demands. The opinion advanced by some, that the cultivating of grains of some sort or some other products of the soil, to be sold directly from the field, are more profitable than live stock, is not correct, in most cases at least, and those who advocate the practise of such a method will sooner or later be buying some high-priced commercial fertilizer to enable them to produce any crop at all. There might be some other reasons advanced why the live-stock industry has not received more attention, but it is not the purpose of this paper to do so.

For rules and laws to govern our breeding operations we look to the practises of our most successful breeders in the past. Bakewell, whose name is doubtless familiar to all of you, gave to the world a short road to improvement and the establishment of type, through a method of in-and-in breeding, together with intelligent and the most careful selection, and his methods can be found in use on many of the best stock farms in the country to-day. Some breeders, both of hogs and cattle, have been very successful by using his methods, while others have made an entire failure and have ruined their herds by the same system.

Such terms as close breeding, in-breeding, inter-breeding, and in-and-in breeding are frequently used as synonymous. The first three may be used in this manner when they are intended to convey the idea of breeding together of animals that are more or less closely related, or at intervals of a few years, or even in single instances, while the term in-and-in breeding should be used in cases where animals closely related are mated for a number of successive generations.

IN-AND-IN BREEDING.

If judiciously practised, in-and-in breeding may be the means of accom-

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plishing great good, but if practised without intelligent judgment the evil results are far greater than the beneficial ones, and such results may be seen in the herd of any careless breeder who has selected his males within the same herd for generation after generation, and without any particular standard or object in view. With the intelligent breeder, the object in view when practising this method of breeding usually is to more effectively secure and stamp some desirable characteristics in his herd, and to more effectively secure uniformity in the herd. In-and-in breeding has been practised more or less in the formation of nearly all of our herds of domestic animals, and has been used as a means of eliminating the undesirable characters and as a means of assuring the permanent transmission of the desirable characters.

But to secure such results, the animals which are to be mated must be selected by the most skillful breeders, and they in themselves must possess the desirable characters to a marked degree. For the production of a sire, this system of breeding has perhaps been used more than for anything else, the main object being here to so permanently stamp and ingraft the desirable characters in this sire that their transmission may be certainly depended upon in his progeny. If this system be carried too far, and without the most rigid selection, the evil results will be shown by the loss of size, weak or delicate constitution, and general deterioration of the whole animal, especially in its reproductive powers.

No rule can be laid down as to just how far or how long it is safe to practise this method of breeding, but it must be remembered that if the animals which are to be in-and-in bred possess any undesirable qualities, and it is rarely if ever that an animal is found which does not possess some undesirable features, these undesirable qualities will be transmitted and intensified in just the same proportions as the qualities which are desirable.

It may, in the hands of a judicious and scientific breeder, be the means of accomplishing great good in a very short time, while in the hands of an unscientific breeder it would prove disastrous in an equally short time.

Inbreeding, or cross-breeding, may be practised, and usually with satisfactory results, but understand the term as here used to mean the breeding together of animals distantly related, and if closely related, only mated once in several generations.

LINE-BREEDING.

Line-breeding, as practised by many of our most successful breeders, is in most cases to be commended, as its results are usually satisfactory. It may be defined as the process of breeding within the limits of one family, or possibly of a limited number of families possessing similar types and characters, the general blood lines being the same. It is in a sense only in-and-in breeding with a more distant relationship.

The two methods are very much the same, and in many cases line-bred animals are descendants from those which have been in-and-in bred. The aim of line-breeding is to secure and maintain a high degree of identity of blood and to obtain as nearly as possible exact uniformity in the herd, and the herd inbred on these principles becomes more and more reduced to a single type. Herein lies the great danger. A uniform type is desirable in any herd or flock only when it is a superior type. If this method of breeding be practised by a successful breeder who has set his ideals high, then well and good; but if the breeder contents himself with standards already attained, and makes no effort toward greater improvement or advancement, deterioration is almost sure to be the consequence.

Nature never stands still. Her laws require progress. Faults and defects are frequently more readily reproduced than are the good qualities, and unless judicious selection was made in the beginning of such a method, results are not likely to be satisfactory in that there will be a loss of size or other deterioration and weakness of constitution, only in a less degree

IMPROVED STOCK BREEDERS' ASSOCIATION OF THE WHEAT-BELT.

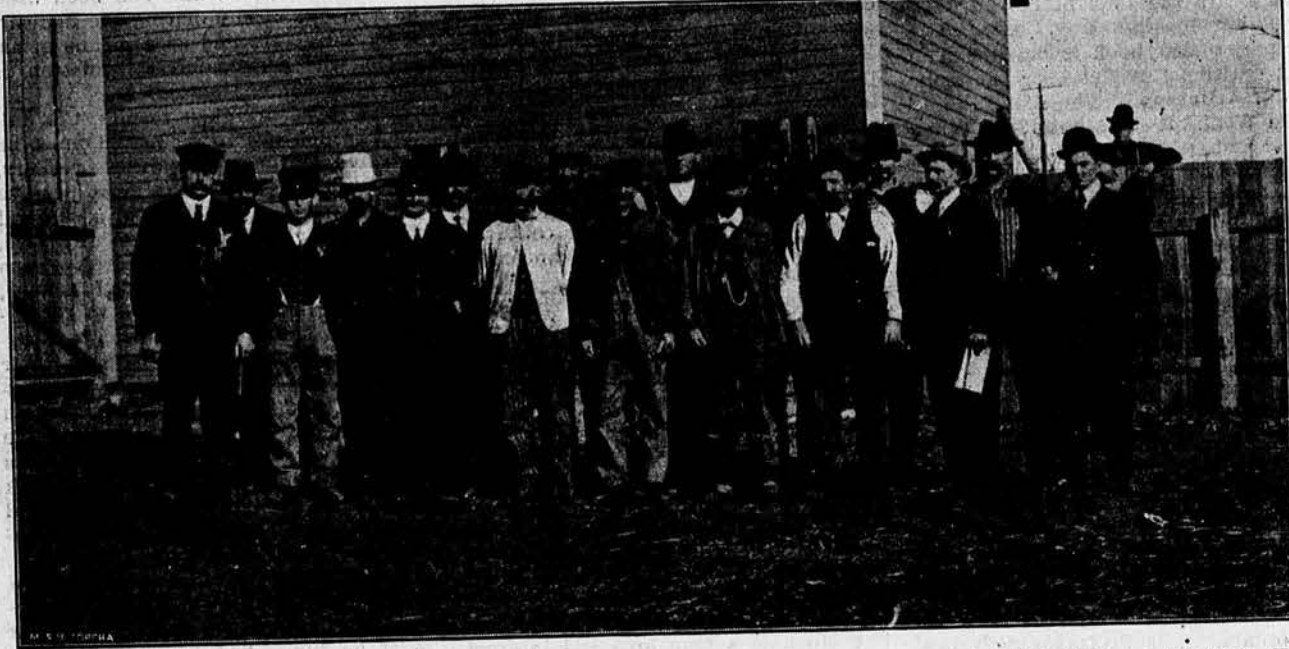
(Continued from page 273.)

known as the Improved Stock Breeders' Association of the Wheat-Belt and now numbers 240 of the most enterprising and up-to-date breeders in Kansas and Oklahoma. During the past year they have held a series of sales, as indeed they have done for several years past, and have met with success in every particular. Included in this series is the annual sale, the fourth one of which was held at Caldwell, Kans., on February 15 and 16. This sale in-

here who have accomplished these results. These men had the judgment to realize that their methods of farming for wheat alone, while profitable in the immediate present, would ultimately be disastrous, and to change their methods to live-stock farming and thus return to the soil each year at least a portion of what was taken from it.

One of the most active men in this association, and one who has been responsible, in no small degree for its success is Mr. Chas. M. Johnston, the efficient secretary, who has been re-elected at every annual meeting. As a large share of the burden and responsibility of any organization must

- Royal Star 242411, M. D. York, Caldwell. 60.00
- Consigned by Chas. M. Johnston, Caldwell.
- Virginia Queen 144749, John Atkinson, Caldwell. 52.00
- Maiden Briton 111439, John Atkinson. 50.00
- Dainty 2d 82111, Mrs. J. H. Bell Scotty, Jerry Lebeda, Caldwell. 50.00
- Consigned by Buford B. Miller, Wakita, Okla.
- Judge Dale 226857, Frank Slupecky, Caldwell. 35.00
- Principal 189146, W. H. Baum, Caldwell. 50.00
- Starlight 249051, A. M. Grimm, Caldwell. 27.50
- Emerald 226855, John Robek, Caldwell. 32.50
- St. Elmo 242149, Jas. Wilson, Caldwell. 25.00
- Consigned by E. D. VanCleave, Braman, Okla.
- Donald 215926, John Atkinson. 42.50



A group of members of the Improved Stock Breeders' Association of the Wheat-Belt: G. M. Hebbard, Peck; J. F. Stodder, Burden; Secretary Chas. M. Johnston, Caldwell; President P. D. VanCleave, Braman, Okla.; A. L. Barner, Belle Plaine; Henry Berline, Caldwell; J. H. Croft, Nardin, Okla.; E. Forward, Bayneville; Josiah Lockhart, Nardin, Okla.; O. R. Smith, Belle Plaine; B. D. Miller, Wakita, Okla.; W. I. Phillips, Lamont; A. J. Richardson, Belle Plaine; J. E. Moore, Maple City; J. E. Webb, Oxford; J. R. Roberts, Deer Creek, Okla.; H. D. Burchell, Clearwater.

cluded standard-bred horses, Short-horn and Hereford cattle, and Duroc-Jersey hogs, the details of which are given in this issue of THE KANSAS FARMER.

The influence of this association in this territory has been a powerful one. Previous to its organization this was an ordinary farming country with no special community of interest and no particular prosperity more than that



Mr. P. D. VanCleave, Braman, Okla., President of the Improved Stock Breeders' Association of the Wheat-Belt.

enjoyed by other like sections. Now it is an unusually prosperous district with well-improved farms, prosperous and rapidly growing towns, and the farmers working together for their mutual interests. Progress is written on the face of the country in many ways. Evidences of thrift abound and what was once regarded as merely a grazing country, inhabited largely by cowboys, cayuses, and range cattle, has now become one of the best-improved sections and all classes of people have participated in its prosperity.

These results have been attained through live stock. Not only is this true but most of it has been accomplished through pure-bred live stock. It had its beginnings as a range country, and is now a pure-bred center.

Pure-bred live stock alone has not done all this. It is the men who live

fall upon its secretary, and its success will depend in no small degree on his efficiency, the members have pleased themselves and at the same time showed their wisdom in re-electing him at the last annual meeting over his earnest protest. It is a pleasure to present his picture and that of his home farm to our readers this week.

No association can live and succeed without an executive head, and this one seems to have picked one of its biggest men, both physically and mentally, as its president. It showed its appreciation of his work and its vindication of its former judgment by re-electing Mr. P. D. VanCleave, of Braman, Okla., to its highest office. It is likewise a pleasure to show Mr. VanCleave's picture to our readers.

Our representative succeeded in persuading the breeders who were consignors to the sale to line up and get their pictures "took" during the time when they were busy in the care of the animals in the sale barns. Some protested because they did not have "their other clothes on," but they were told that it was not a picture of their clothes that was desired. As a bunch of hustling Western breeders who have attained a fair measure of success and who are studying their business diligently that they may attain greater success in the future, this picture is submitted as representative of the great Southwest.

The sales were conducted by John D. Snyder, of Winfield, in a highly satisfactory manner, and were as follows:

- HEREFORDS.**
- Consigned by G. M. Hebbard, Peck, Kans.
 - May Blossom 3d 231084, Chas. Kublick, Caldwell. \$37.50
 - Carnation 2d 189751, I. M. Horton, Caldwell. 25.00
 - Artie 2d 231033, I. E. Knox, Norton. 37.50
 - Red Peach 3d 147255, I. E. Knox, Lillie J. 199469, Geo. S. Hill, Caldwell. 40.00
 - May Blossom 2d 199470, Geo. S. Hill. 40.00
 - Flossie 238356, Chas. M. Johnston, Caldwell. 30.00
 - Consigned by S. T. Tuttle, Wichita.
 - Alvah, Lizzie Schrader, Hunnewell. 47.00
 - May 127323, Mrs. J. H. Bell, Caldwell. 60.00
 - Consigned by Josiah Lockhart, Nardin, Okla.
 - Royal L. 247410, Geo. E. Lucas, Caldwell. 67.00

- Opal 122824, W. I. Mamela, Caldwell. 45.00
 - Diamond 170490, Mrs. J. H. Bell, Okla. 67.50
 - Consigned by W. A. Shipley, Deer Creek, Okla.
 - Headlight 2d 242064, W. M. Summey, Deer Creek, Okla. 32.50
- SHORTHORNS.**
- Consigned by J. A. Alderson, Pond Creek, Okla.
 - Royal Boy, T. M. Coulter, Wakita, Okla. 100.00
 - Consigned by J. E. Moore, Maple City, Kans.
 - Red Prince, Albert Moss, Caldwell. 47.50
 - Prince Wellington, C. W. Vanderver, Corbin. 25.00



Chas. M. Johnston, Caldwell, Kans., Secretary of the Improved Stock Breeders' Association of the Wheat-Belt.

- Moore's Favorite, T. H. Longman, Medford, Okla. 45.50
- Pride of Kansas, D. M. Wilson, Renfrow, Okla. 42.50
- Consigned by J. E. Webb, Oxford, Kans.
- Baron Thistle 196431, J. H. Atkinson, Caldwell. 60.00
- Pearl, P. M. Drake, Caldwell. 45.00
- Wichita Duchess 2d, P. M. Drake. 42.50
- Consigned by E. Forward & Son, Baineville, Kans.
- Prince Wellington, John Bullita, Caldwell. 100.00
- Duke's Queen, O. S. Rusher, Caldwell. 80.00
- Duke Frances, John Falkenberg, Caldwell. 75.00
- Consigned by J. H. Croft, Nardin, Okla.
- Fifth Daisy Dean of Jefferson, Dave Cowder, Caldwell. 125.00
- Cardinal Gem 2d, Jim Counsel, Caldwell. 42.50

HORSE OWNERS! USE

GOMBAULT'S
CAUSTIC BALSAM.
A safe, speedy and positive cure. The safest, most BLISTER ever used. Removes all bunches from horses. Impossible to produce scar or blemish. Send for descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Cleveland, O.

Tame the Wildest Horse in One Minute!

YOU can do this by using the mysterious and wonderful Arabian Method. You can tame and subdue instantly the most vicious and ill tempered horse and without the possibility of failure. Send us \$2 and we will teach you the Arabian Method, as used in Arabia for centuries. In ONE LESSON, giving you the secret and full and complete instructions. Easy to understand and extremely simple in operation. YOU CANNOT FAIL. You will excite the wonder of your friends who will consider you a wizard and you can MAKE MONEY by giving exhibitions or treating valuable horses with bad tempers. We make a BUSINESS of furnishing information on ANY SUBJECT. If you want to know ANYTHING and can't find it in any book, catalogue or list, send us \$2 and we will TELL you or RETURN YOUR MONEY.

North American Information Bureau,
3802 Ellis Ave. Chicago, U. S. A.

Horse Owners

Do not let your horses work with sore shoulders. Harness, Saddle or Collar Galls positively cured with three or four applications of Beardslee's Gall Cure. Also a sure preventive for soft or green horses from becoming galled just when you need them to do your heavy spring and summer work. I will send a full pint of Beardslee's Guaranteed Gall Cure postpaid to any part of the United States for 50 cents, with a guarantee to cure or money returned. Also other valuable information to horse owners free.

—Address—
The Beardslee Co.
37 Belden St., Boston, Mass.
Agents Wanted in Every Locality

Save your temper, your cows, your milk, by investing 50 cts. for an Anti-Kicker. You have needed it many times. You will need it again. Does not excite the cow nor disturb the flow of milk. It is indispensable for breaking heifers, cows with sore teats, or vicious kickers. Can not wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely, as a hopple for cow, horse or mule. Send for it today, when you need it you want have time.
A. B. SMITH, Topeka, Kans.

ALFALFA
EVERY-DAY Egg-PRODUCER, an alfalfa mash for laying hens. ALFALFA POULTRY FOOD, in 2 1/2 lb. packages, best and cheapest egg producer in the world. ALFALFA HOG CHOLERA CUBE, the best preventive and only cure for hog cholera. Largest alfalfa mill in the world. All kinds of Poultry Supplies. Send for free circular.

The Otto Weiss Alfalfa Stock Food Co.
221-227 So. Santa Fe, Wichita, Kans., U. S. A.

THOS. OWEN, 2801 West Euclid Avenue, Ind. Phone 6306, is Topeka agent for these goods.

TOP PRICES Established 1882
Bicos and Koeh
HIDES, TALLOW, GREASE, FELTS & FURS.
Quick Returns
If you want your shipments to bring you good returns—money-making returns—returns that will give you satisfaction in every way, with full weights and fair selections, good prices and no delays, you will send your goods to us. BIGGS & KOEH, 1408 St. Louis Ave. Kansas City, Mo.

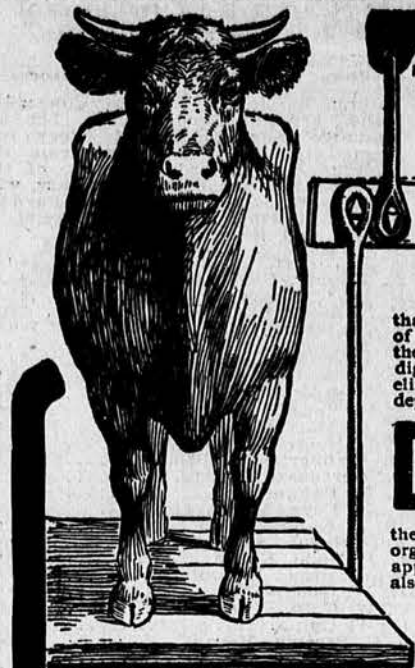
VETERINARY COURSE AT HOME
\$1200 year and upwards can be made taking our Veterinary Course at home during spare time; taught in simple English; Diploma granted, positions obtained successful; send us your name and we will send you our course free. **ONTARIO VETERINARY COLLEGE** PO BOX 1000, GENEVA SCHOOL, Dept. 17, London, Ontario.

Table listing various livestock items and their prices, including 'Cardinal Gem, P. M. Drake' for \$67.50 and 'Roan Gauntlet 237033, O. H. Walters, Caldwell' for \$37.50.

Table listing 'POLAND-CHINAS' with items like 'J. B. Brown, Perth' for \$35.00 and 'W. L. Rarrick, Caldwell' for \$46.00.

Table listing 'DURCO-JERSEYS' with items like 'Colonel Russell, Winfield' for \$40.00 and 'Mrs. A. W. Cortelyou, Caldwell' for \$34.00.

General Farm Power. In the general way there has been a great deal written on this class, but every farmer differs in his requirements...



The FINISHING PERIOD

It requires more feed to produce 100 pounds gain on a fattening steer the second six months than it does the first, and more each month thereafter than the month previous.

DR HESS STOCK FOOD

The prescription of Dr. Hess (M. D., D. V. S.) contains bitter tonics which act upon the digestive organs, strengthening and improving them so that the largest possible amount of nutrition is appropriated to building bone, muscle, milk fat, etc.

100 lbs. \$5.00
25 lb. pail \$1.60
Smaller quantities at a slight advance

Except in Canada and extreme West and South

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound.

FREE from the 1st to the 10th of Each Month—Dr. Hess (M. D., D. V. S.) will prescribe for your ailing animals.

DR. HESS & CLARK, Ashland, Ohio.

Also manufacturers of Dr. Hess Poultry Pan-a-ce-a and Instant Louse Killer.

Instant Louse Killer Kills Lice.

connected to the engine so, when placed over the pump, it takes the place of a wind-mill and is a complete pumping rig in itself.

The Witte Iron Works Co., of Kansas City, Mo., manufacturers of the Witte gas and gasoline engines, have been building farm engines in all the above styles for many years and their success is entirely attributed to the fitness of their engines for farm, dairy and irrigation work.

Cement Block Machine.

We call the attention of the readers of THE KANSAS FARMER to the advertisement on page 280 of the Eclipse Cement Block Machine handled by J. H. Turner, Wichita, Kans.

creased production of this valuable product within our State, the price of cement has been very much reduced, and it can be economically employed for all building purposes.

An Idea of Recent Development.

Back in the 80's when the Wheeler & Wilson Sewing Machine Company in a frantic effort to regain a foothold in England, began their offering of "shipment on approval," it created something of a stir in the commercial world.

Since that time, this idea has been developing until to-day, it is applied to most every conceivable business transaction. For many years, all of the better class retail stores have maintained this policy, and it is interesting, indeed, in looking over farm papers and magazines to note what a large percentage of advertisers are offering to make shipments on approval and agreeing to refund the purchase price together with transportation both ways in case entire satisfaction is not given.

The particular thing which has called this matter to our attention is the present instance is the advertisement of the Western Harness and Supply Company. Mr. E. M. Knox, president of this concern, began by making an offer of this kind and we infer from the largely increased size of his advertisements this year, that he has been successful.

We would suggest that any who are contemplating the purchase of harness this year, write the Western Harness and Supply Co., for a catalogue. We understand that they manufacture a full line of high grade harness and the catalogue would doubtless serve as an excellent basis for comparison of prices with those of your local dealers.

Painting Time Draws Near.

It's only a hop, skip, and a jump, till springtime now—the time when you want to be cleaning up the yard—trimming up the trees—and giving the house a new coat of paint.

What kind of paint to buy—that's the question.

O. L. Chase, The Paint Man of St. Louis, has about as liberal a selling offer on his made-to-order paint that we have ever seen. He advertises to make fresh paint to order—dating each can the day it's made—and he sells it under a one hundred dollar cash guarantee as to purity and freshness.

Such an offer as this makes one believe that Chase must be making pretty good point or he would not dare to sell it on this plan. He issues a fine paint book—showing big, handsome color cards, and before you decide to buy somewhere else we believe you ought to write for this book.

To farm to the best advantage every farmer in Kansas should take THE KANSAS FARMER.

SHAVE YOURSELF!

Have you ever realized how much it means for you to shave yourself? Were you to go to the barber and get a 10 cent shave every day, it would cost \$36.50 a year, or at 15 cents a shave, it would cost \$54.75.

At this rate the man who began to go to the barber when he was 15 years old, and lived to be only 70 years old, would actually pay the barber from \$2000 to \$5000 for being shaved once a day during his life.

Here's Your Opportunity

Be Your Own Barber \$3 RAZOR AND \$1 STROP for 98c



We are making this remarkable offer simply to introduce our new mail order catalog of useful household articles. We are a new firm, but we're going to demonstrate to you that we can undersell any other reliable mail order house in America.

BRADLEY PIANO

Is the one you want.

Why not have a piano which is built on scientific principles throughout? Everybody speaks highly of the BRADLEY PIANO. It is put up in neat Artistic Cases. It is made to produce fine pure musical tones for many years of constant usage—

One style we sell at \$175 and One style at \$190—Sent out on Approval—Write us to-day—

E. B. GUILD MUSIC CO., Dept. F Topeka, Kans

MAMMOTH RICE POP CORN



Ears often 7 to 9 inches long with 22 rows. One ear has produced 5 bushels. The result of continued and patient breeding for over 30 years by one man, Mammoth Rice Pop Corn excels all others in quality and yield.

BIG TENDER ASPARAGUS A leaflet telling how to grow great crops of big tender Asparagus will be sent free to any address. Write for one to-day.

100,000 ASPARAGUS PLANTS, the finest you ever saw, at bottom prices. Write for prices.

HENRY JEFFRIES, Ottawa, Kans.

When writing advertisers please mention this paper.

Stock Interests

LIVE STOCK REPRESENTATIVES.

C. E. SHAFER.....Northern Territory
L. K. LEWIS.....Southern Territory

PURE-BRED STOCK SALES.

March 5, 1907—Semi-annual sale of Limestone jacks and jennets, L. M. Monsees & Sons, Smithton Mo.
March 5, 1907—L. M. Monsees & Sons, Smithton, Mo., Jacks.
March 8, 1907—T. F. Guthrie, Strong City, Kansas, Berkshire bred sow sale.
March 14, 1907—Horses, Hereford cattle, and Duroc-Jersey swine, G. B. Little, Olathe, Kans.
March 15, 1907—Herefords, G. B. Little, Olathe, Kans.
March 15, 1907—Dispersion sale of Poland-Chinas, Russell French, Salem, Neb.
March 21, 1907—Kilderlawn Shorthorns at Manhattan, Kans., T. K. Tomson & Sons, Dover, Kans.
March 25-27, 1907—Herefords at Kansas City, D. R. Mills, Manager, Des Moines, Iowa.
March 28-29, 1907—Shorthorns at Kansas City, D. R. Mills, Manager, Des Moines, Iowa.
April 3, 4 and 5, 1907—Herefords, Aberdeen-Angus and Shorthorns, Kansas City, Mo., W. C. McGavock, Mgr., Springfield, Ill.
April 16, 17, 18, 1907—All beef breeds at South Omaha, Neb., D. R. Mills, Mgr., Des Moines, Iowa.
April 19, 1907—John McCoy & Son, Seneca, Kans., Shorthorns.
May 1, 2 and 3, 1907—Aberdeen-Angus, Shorthorns and Herefords, South Omaha, Neb., W. C. McGavock, Mgr., Springfield, Ill.
May 14, 15, 16, 1907—All beef breeds at Sioux City, Iowa, D. R. Mills, Mgr., Des Moines, Iowa.
October 16, 1907—Ford Skeen, Auburn, Nebraska Duroc-Jerseys

The Burgess Sale of Stallions.

Large sales of imported stallions are not of common occurrence, and the one made by Robert Burgess & Son, Wichita, Ill., and Wichita, Kans., at the new fair grounds' pavilion at Wichita on February 22, was by long odds the most noted one ever made in this country.

The Wichita branch of this large importing firm is managed by Roseberry & Coon, who had direct charge of the sale arrangements, although Mr. Burgess himself was present. A total of twenty-nine head was disposed of at an average price of \$1,220. These included Percheron, French Draft, Hackney, Shire, Belgian, and German Coach stallions, and to Col. L. R. Brady, of Manhattan, who conducted this sale, belongs the distinction of having made the greatest sale of stallions ever made in America. Colonel Brady is a graduate veterinarian, and he stated that the twenty-nine horses disposed of by Robert Burgess & Son on this occasion were the soundest lot of horses of the same number that he had ever seen in the sale ring. He was assisted in the sale by Col. John D. Snyder, of Winfield.

PERCHERONS.

Table listing Percheron horses with names, numbers, and prices. Includes Amoreux 45601 (52241), G. H. Fornwalt, Penalosa, \$2,000.

FRENCH DRAFT.

Table listing French Draft horses with names, numbers, and prices. Includes Kaiser 12735, Thompson Bros., \$1,100.

Whitewater Falls Percheron Sale.

The greatest sale of American-bred Percheron horses ever held in this country was that made by J. W. & J. C. Robison, owners of the Whitewater Falls Stock Farm, at the Wichita Sale Pavilion, Wichita, Kans., on February 19. In all, 65 head were sold at a small average price above that of last year.

The Robison sale was the first of a series of live-stock sales held at Wichita during the week, and served to attract a large crowd of people, about 2,000 of whom occupied the seats in the sale pavilion. Buyers were present from a number of different States, and

the sale was a very satisfactory one in every particular.

This same firm of horse-breeders broke the United States record for Percheron horses at auction by exceeding any preceding sale average by \$38 per head. This year the average price was \$4 per head greater than that of last year.

There is no better-known firm of Percheron breeders in the Central West than J. W. & J. C. Robison, of Towanda, Kans., and it was the quality of their horses, together with their reputation for square dealing and honesty which served to bring them the pleasure of beating all previous sales.

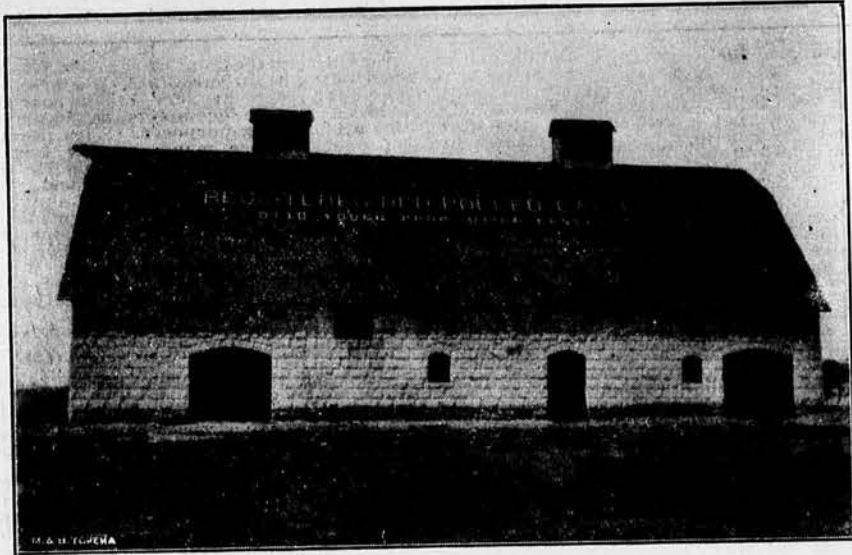
Table listing Percheron horses with names, numbers, and prices. Includes Corona 46776, L. E. Fife, Newton, \$200.

to Martin Bros., Nebraska City, Neb., and No. 63 brought \$900 from M. S. Thomas, of Kansas City, Mo.

John W. Jones's Sale of Durocs.

John W. Jones's sale at Concordia, Kans., brought good prices. The attendance was good, and every one seemed to want an animal from the Famous Fancy Herd. The top of the sale was \$505 for Topnotcher Lass, who went to W. L. Addy & Son, of Parnell, Mo. Following is a complete list of buyers and prices:

Table listing Duroc horses with names, numbers, and prices. Includes A. B. Gillett, Looka, Okla., \$40.00.



Improvements shown on a Ness County farm offered for sale. See page 206.

Table listing farm improvements with names, numbers, and prices. Includes Corona 46776, L. E. Fife, Newton, \$200.

John Joines's Sale of Durocs.

John Joines, of Clyde, Kans., held one of the most successful Duroc-Jersey sales that has occurred in Kansas this year. A large crowd of breeders was in attendance, and the entire lot of 33 head were quickly sold. The top of the sale was \$506 for Lodon's Bird. She went to the herd of J. B. McDermott, of Elk Falls, Kans.

Following is a complete list of buyers and prices paid:

Table listing Duroc horses with names, numbers, and prices. Includes J. B. McDermott, Elk Falls, \$506.00.

Taylor's Duroc Sale.

The annual sale of Duroc-Jersey bred sows and gilts held at Abilene, the 18th instant, by C. W. Taylor, Enterprise, Kans., was a very even and sprightly sale, the result of which was highly creditable for so new a herd. The offering was mainly of spring gilts, and but few fall yearlings were included in

Before You Buy Your Next Lot of Stock Food, do these Two Things:

1st—Examine several different kinds—smell them and taste them; 2nd—Read carefully the feeding directions and figure out how long a dollar's worth of each kind will last. You will find that

Standard Stock Food



looks better, smells better, tastes better and is better than any other, because it is richer, purer and more concentrated.

You will also find that because it is so much better, you need use but a very little of it at each feeding, so that a dollar's worth of it lasts longer, goes farther and does more good than a dollar's worth of any other. Not only the best, but also costs you the least. Sold on our square-deal, money-back guaranty.

Go to Your Dealer

and ask him to supply you. If he cannot, do not take a substitute but send us direct.

We will ship immediately and protect you with our square-deal, money-back guaranty.

Free to You.

Our big book, "The Standard Feeder," 160 pages, 200 illustrations, 12 chapters on the feeding, care and handling of all kinds of live stock. Regular price 50 cents, and you could not buy its equal at several times the price. But free to you if you give us the name of your dealer and tell us how much stock you keep.

STANDARD STOCK FOOD CO., 1517 Howard St., Omaha, Neb.

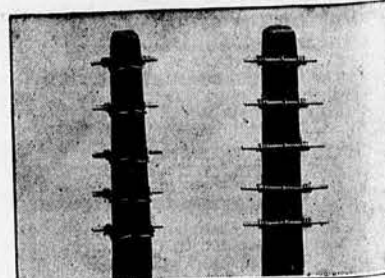
A BOOK ON SILAGE FREE

"Modern Silage Methods" is reliable—used as a standard text book by many State Agricultural Colleges. Contains a vast amount of knowledge on the subject of Ensilage in plain, practical language you can easily understand, boiled down to 216 pages, library size.

Covers the silage subject completely—silo building, silage crops, cutting, filling, feeding, complete and valuable feeding tables. Book answers every question you've been wanting to know. Copyrighted 1906. Over 40 illustrations.

Why We Send It Free—We manufacture the "OHIO" Ensilage Cutter and believe after reading the book that you will remember our firm and write for price when ready to buy. Nothing mysterious about it—simply a business proposition. Mention this paper please.

SILVER MFG. CO., SALEM, OHIO



The Banner Cement Post

A Post for the Future as Well as the Present. (Patented)

Adapted to and covering every possible requirement of farm, ranch, railroad, or wherever posts are needed. The best, cheapest, most convenient, most practical wire fastener, and the most durable post ever made. For particulars write

GEO. HASS, Lyons, Kans.

SHIP YOUR FURS

HIDES AND PELTS TO McMillan Fur & Wool Co.

MINNEAPOLIS, MINN. WRITE FOR CIRCULARS

ILLUSTRATED TRAPPERS' GUIDE FREE TO THOSE WHO SHIP

No More Blind Horses For Specific Ophthalmic or Sore Eyes, BARRY CO., Iowa City, Ia., have a

the sale. The top price was for a fall sow, sired by Wichita Prince and bred to Nancy Improver, which sold to John to Nancy, Clyde, Kans., for \$65. Another Johnes, Clyde, Kans., for \$65. Another fall sow, sired by Cherry Boy and bred to Pearl Wonder, sold for \$62 to L. S. Boyle.

The auctioneers were Lafe Burger, J. N. Burton, and C. W. Curphey, of Lindsey, Kans. Forty-two gilts and sows sold for \$1,612.50, an average of \$38.40. The complete list of buyers is as follows: John Compton, Junction City; E. O. Famer, Abilene; Estes & Ball, J. H. Ingall, E. S. Ingall, Abilene; L. E. Boyle, Lindsey; John Johnes, Clyde; I. E. Loyd, Ellsworth; Clarence Taylor, Pearl; Jacob Steelesmith, Abilene; A. S. Bowers, Manhattan; E. H. Shire, Gypsum; J. E. Landis, Thomas, Okla.; J. Teiters, Hays; J. W. Andrews, Abilene; F. L. McClelland, Berryton; L. Lowe, Chapman; N. S. Wolverson, Abilene; C. L. Harris, Bavaria; H. J. Hesselback, Pearl.

Guthrie Ranch Berkshire Sale.

T. F. Guthrie's sale at Strong City, Kans., March 6, 1907, will be of great interest to Berkshire breeders throughout the country, on account of the quality and breeding of his offering. Mr. Guthrie has bred Berkshires for a great many years, and he likes the breed so well that he has improved his herd until it is one of the best in the country.

Mr. Guthrie has made a great record in prize-winnings. He has won every time he has showed, and 80 per cent of his awards have been blue ribbons. His famous boar, Ivanhoe 92184, won the grand championship at the American Royal 1906, in the keenest competition in Berkshire history, winning against Hood Farm Rex (who won all over the East) and Lord Premier's Rival, the \$3,200 son of Lord Premier.

Mr. Guthrie and his father before him have a record for square dealing and business integrity, and everything in his offering will be in accord with these principals. Mr. Berkshire Breeder, come to this sale and buy some of this good stuff and improve your herd. Write for a catalogue, which may be had for the asking.



F. Hutchinson, Bellaire, Kans., who holds his next Poland-China sale at Norton, Kans., March 9, 1906.

Gossip About Stock.

John McCoy & Son, owners of the Rock Spring Herd of Shorthorns and Poland-Chinas, at Morill, Kans., announce a public sale of Shorthorns to be held at Seneca, Kans., on April 19. Further announcements will appear in this paper.

We are in receipt of an announcement from Trumen's Pioneer Stud farm, announcing a great sale of 30 imported Shire and Percheron stallions to be sold at auction, at Kansas City, on March 27, which they believe to be the best lot ever offered at auction. Watch this paper for further announcements.

The Republic County Herd of Poland-China swine, owned by O. B. Smith & Son, start their regular breeding card this week. They breed the kind that is popular and profitable, big-boned, quick-maturing type. They have a number of fall boars for sale; also a number of 250-pound gilts bred in April and May farrow. Write them and mention this paper.

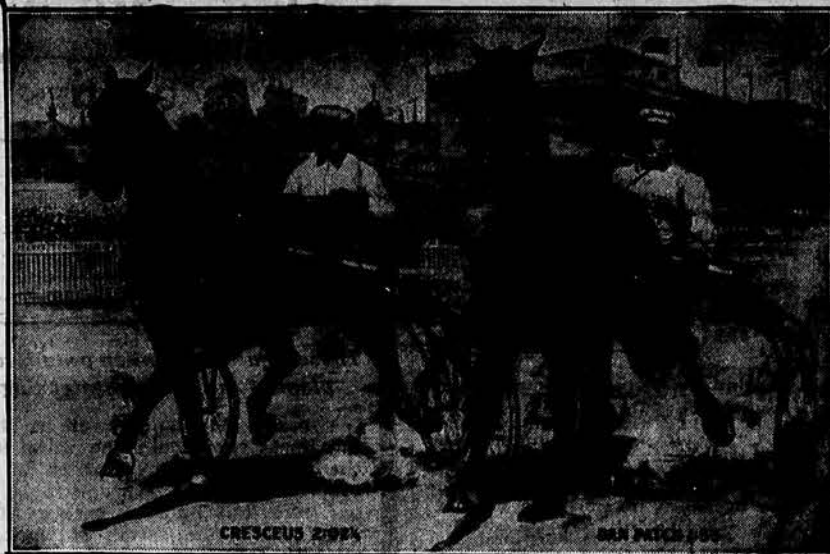
At the Improved Stock Breeders' Association of the Wheat-Belt sale, a young Poland-China gilt was disposed of for \$500 that is worthy of special mention. This is Corrector Chief Gem, Corrector Chief 38663, out of Lady Paddler by Meddler by Mischief Mak. She was bred by Harry E. Lunt, of Garden, Kans., and sold by I. E. Knox, Nardin, Okla., to C. B. Scott, Centerville, Kans. This is the class of gilts they raise in the wheat-belt.

The sale of E. D. Morris, Bern, Kans., February 21, was a very good one considering the size of the crowd. Mr. Morris disposed of 35 head of bred Poland-China sows for a total of \$1,219, an average of \$35 per head. Mr. J. Triggs, of Dawson, Neb., topped the sale at \$81. Other buyers were: Albois, Neb.; Chas. Parr, Sabetha; Gugelmann, Bern; T. J. Misner, Aeschlieman, W. E. Johnson, and C.

IMPROVED SALES NEXT WEEK.

- March 4. Poland-Chinas, E. E. Axline, Oak Grove, Mo.
- March 5. Jacks and Jennets, L. M. Monsees & Sons, Smithton, Mo.
- March 5. Percheron Horses, O. P. Hendershot, Hebron, Neb.
- March 8. Berkshires, T. F. Guthrie, Strong City, Kans.
- March 9. Poland-Chinas, C. F. Hutchinson, Norton, Kans.

CAN DAN PATCH PACE A MILE IN 1:54?



This Beautiful Picture In 6 Brilliant Colors Mailed to You Free.

A MARVELOUS PICTURE OF TWO WORLD CHAMPIONS.

Dan Patch 1:55, The Pacing King, Cresceus 2:02 1/4, The Trotting King.

We have Large Colored Lithographs of our World Famous Champion Stallions, Dan Patch 1:55 and Cresceus 2:02 1/4, in an exciting Speed Contest. It is 21 by 21 inches and shows both horses as life-like as if you saw them racing. You can have one of these Large and Beautiful Colored Pictures of the Two Most Valuable Harness Horse Stallions and Champions of the World, Absolutely Free. We Prepay Postage.

WRITE AT ONCE 1st. Name the paper in which you saw this offer. 2nd. State how much live stock you own.

INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN., U. S. A.

HIS TRAINER SAYS DAN WILL ASTONISH THE WORLD IN 1907. WATCH LEADING FAIRS. THE WORLD'S MOST FAMOUS HARNESS HORSE FARM.

International Stock Food Farm of seven hundred acres, owned by M. W. Savage, is generally acknowledged to be the most famous harness horse farm in the world because it owns the Four World Champion Stallions, Dan Patch 1:55, Champion Pacer and Fastest Harness Horse in the world; Cresceus 2:02 1/4, the champion trotting stallion of the world; Arden 2:07 3/4, the champion 2 and 3-year-old trotting stallion to high wheel sulky; Directum 2:05 3/4, the champion 4-year-old trotting stallion. Also May Wilkes 2:02 1/4, the first stallion to beat 2:10 and world's champion for four years. All of these stallions and the one hundred brood mares and their colts are fed "International Stock Food" every day. You are specially invited to visit this farm at Savage, 10 miles from Minneapolis, and see the every day, practical results of feeding International Stock Food. Write for One Cent. We always welcome visitors.

W. Biddle, of Sabetha; D. W. Lehman, H. D. Germain, J. D. Meyer, Frank Andrews, A. L. Ramsey, Louis Schlupp, Bern; and John E. Nofsger, T. F. Emigh, DuBois, Neb.

"You know the kind" of Poland-Chinas that are in demand by the best breeders are always to be had at the annual Poland-China brood-sow sale of E. E. Axline, Oak Grove, Mo., which occurs Monday next, March 5. This year his offering is better than ever for the reason that he is reducing the size of his herd, hence this sale will be the breeders' opportunity of the season. Get catalogue at once and see for yourself.

We call special attention to the advertisement of field- and grass-seed by J. G. Peppard, of Kansas City. This is one of the largest and best-conducted establishments in America. This is evidenced by the fact that they have built up a tremendous business. Their buildings are veritable sky-scrapers, especially their elevators. The secret of their success is that they send out field- and grass-seeds that are what they are represented to be, and they seldom if ever lose a customer. Their alfalfa-seed trade is very large, for the reason that they make a specialty of pure native-grown seed. They are prepared to fill any sized order by mail or in carlots as may be desired.

One of the series of sales held at Wichita was a combination sale made by Jas. Atkins, Eldorado; D. Fox & Son, Atlanta; J. T. Smith, Florence; A. Johnson, Clearwater; R. F. Plumber, Wellington; and A. E. Metzger, Lone Star, in which a total of forty-six Herefords were disposed of at an average of \$63. The buyers were: Nelson & Ocher, Kechi; Geo. Johnson, Clearwater; T. F. Ledigh, Hutchinson; J. L. Hunt, Eldorado; Will Henn, Kansas City; M. Lehman, Halstead; W. S. Smith, Rozell; Andrew Lehman, Castleton; Fred Combs, Cheney; W. J. Welland, Chase; F. P. Jordan, Severy; J. H. Wilson, Anderson; H. H. Ferry, Anness; H. P. Baldock, Valley Center; G. L. Rhinehart, Hunnewell; E. Perra, Wichita.

The Shorthorn sale at Wichita was a success in every respect, and the general average reached was very much larger than that of any other Shorthorn sale made in this section of the State this winter. The consignors were J. F. Stodder, Burden; S. C. Hanna, Howard; and Marshall Brothers, Burden. The general average was \$127. The average made by Mr. Stodder, who practically made the sale, was \$125.60. The buyers were: H. M. Hill, Lafontaine; O. R. Smith, Belle Plaine; C. Kincaid, Wichita; J. D. Brewster, Belle Plaine; C. Casement, Sedan; E. C. Brewster, Belle Plaine; A. L. Barner, Belle Plaine; F. C. Kringle, Augusta; J. D. Riggs, Matfield Green; O. H. & A. W. Roberts, Ponca City, Okla.; J. T. Schermerhorn, Rifle, Colo.; J. R. Ebert, Caldwell; N. J. Beeles, Reece; G. A. Wilson, Wichita; Will Henn, Kansas City; Ed Stout, Udall; F. J. Hardesty, Hazelton; John Koesie, Eldorado; A. Erlinger, Augusta.

A dispersion sale of registered Scotch and Scotch-topped Shorthorns will be held at Hiawatha, Kans., on Saturday, March 16, 1907, in which the property of D. E. Reber, of Morrill, Kans., will be the attraction. It will be one of the greatest sales of its kind held in that part of the State. The quality of the cattle and their breeding as shown by the sample pedigrees shown in short form in the advertisement in this paper on page 299, are evidence of the class of stuff that will go into this sale. It will be a dispersion sale, and will include the herd-bull, Imp. Royal Pride 149651, one of the grandest and greatest breeders to be found anywhere. His impress upon his get is most wonderful, and his conformation and thoroughly healthy breeding qualities will make him one of the great attractions of the sale. The best breed-

DAIN'S MOWER

The Dain Vertical Lift Mower combines great strength with light draft and ease of management. It is correctly designed and substantially constructed along new and improved lines. It is sufficiently strong to stand any strain to which it will ever be subject in the field or meadow. Like all Dain Tools it's built "a little better than is necessary."

The cutting apparatus, by means of an adjustable coil spring, is carried on the wheels, thus avoiding all friction on the ground and utilizing for power all the weight of the machine not required to keep the cutter bar down to its work. The main frame is one solid, unyielding piece of iron, assuring perfect mesh of the gears and holding all parts solidly and securely in place. The drive wheels are high with broad-faced rims, aiding traction and insuring light draft. The long wood pitman gives us a powerful stroke—no energy wasted in friction. There is no jerking on the knife head as in mowers using a short pitman. The vertical lift on the Dain Mower is all that its name implies. A coil spring working in combination with the lifting device carries the cutter bar lightly over the ground, insuring the draft and increasing the cutting power of the knife. It makes control of the cutter bar either by hand or foot lever, very simple and easy. No other mower on the market has so many good features as the Dain.

DAIN MFG. CO.
Ottawa, Ia.
or **JOHN DEERE PLOW CO.**
General Agents
Kansas City, Mo.

Don't buy until you see our mower circular describing them all.

We are Complete Outfitters for Hay Makers

A STRONGER FENCE

Can be made of whole wire than of cut wire. That's why Advance is the strongest fence. Our stay wire is NEVER cut, but runs continuously up and down across the fence for many rods without an end. Thus we preserve ALL the strength of the wire, fully half of which is wasted in cut stay fences—sacrificed to convenience and speed in manufacture.

30 DAYS APPROVAL. Let us ship you what fence, etc. you need, on approval. After careful examination and comparison with other makes, if you don't like it, return it at our expense and get your money back. We have sufficient confidence in Advance Fence to make this offer.

WE PREPAY FREIGHT and guarantee safe delivery of your shipment. Write today for our Fence Book and Freight Paid Prices.

ADVANCE FENCE CO.,
37 Old St., Peoria, Ill.

J.G. PEPPARD BUYS AND SELLS
MILLET, CANE, KAFFIR, POPCORN, SEED CORN, ALFALFA, TIMOTHY, CLOVER AND ALL KINDS OF **FIELD AND GRASS SEEDS**
1101 to 1117 West 8th, Near Santa Fe St., KANSAS CITY, MO

\$300 PRIZE SUNFLOWER CORN

An enthusiastic corn man in Clay County, Mo., offered last year \$300 for best seed corn grown in the county. "Kansas Sunflower" won the prize. Large, early, yellow, ears average 12 in. long, 2 in. diameter, weigh a pound and up. Cob very small. Matures in 90 days. Stalks 8 ft. high, leafy, furnish plenty rich fodder. We ship promptly in bags or carload lots. Every lot graded and cleaned. Sample free to test. Write for free catalog of grass and Kansas alfalfa seed, field, vegetable, flower seeds, tools, etc. Missouri Seed Co., 1434 St. Louis Ave., Kansas City, Mo.

REPUBLIC COUNTY HERD OF POLANDS

The big-boned, quick-maturing type. A nice lot of crackerjack boars for sale; the useful kind. Also a few 250 pound gilts, bred for April and May farrow. Breeding up-to-date. Write O. B. Smith & Son, Cuba, Kans., and mention The Kansas Farmer.

Percheron Stallions.

One imported stallion, weight 2000 pounds. A few 2 and 3-year-old registered stallion colts will make fine individuals; are bred right. Will sell cheap. Buy a colt now and next year you will have a horse for half price. For information address

G. L. APP, Adrain, Mo. or **D. A. ZOOK,** Eight Mile, Mo.

Agriculture

To Reclaim Gumbo Land.

EDITOR KANSAS FARMER:—I want to give L. B. Phillips, of Woodson County, a little advice about reclaiming hardpan in Kansas. What I write is the result of experience. There is no guesswork about it. If he will seed that gumbo land, that he writes about in THE KANSAS FARMER, down to sweet clover (*Mellilotus alba*) and let it have its own way for a few years, he can then grow sixty bushels of corn per acre or immense crops of alfalfa, equal to the average bottom-land in Kansas. It will beat alfalfa out of sight in loosening up the soil and subsoil and preparing it for growing great crops of corn and alfalfa. It is a biennial. The second year its roots penetrate deep. The third year they die and decay, and every succeeding year there will be an immense growth of roots going down again, the growth of the previous year decaying. It is an enormous absorbent of nitrogen from the atmosphere. The bacteria of the sweet clover and alfalfa are identical, and while alfalfa sometimes fails for want of bacteria, the sweet clover has a cinch on the bacteria as they are always present where it grows. After a few years the plow will go right down to the beam in that land which was gumbo once but is gumbo no longer. The sweet clover will fix it in less time than it will take by the method proposed by Professor TenEyck, and fix it more completely, doing a much better job. Mr. Phillips can then use the manure on other soil where it will do much more good and expend his energies to a better purpose. In the meantime his now worthless gumbo soil will become as valuable as the very best of other land, measured by the crops it will produce. Joseph Wing, the greatest agricultural writer of the present day, has stated that land that will produce large crops of alfalfa is worth \$200 per acre. If we discount this one-half, it is plenty good enough, and the sweet clover will surely convert any gumbo soil in Kansas into such land if you give it time enough. I am not prepared to state with certainty the exact time necessary, but will guarantee it in eight or ten years. Suppose it will take ten years. That will show a profit less taxes of \$10 per acre every year. Perhaps while the sweet clover is doing the work, an income might be obtained from the crop of seed, leaving enough seed for next crop on the ground. There ought to be a great demand for the seed from owners of gumbo land in Kansas. If any person doubts the truth of what I have written, it can be substantiated by proof. In conclusion, as jokes are always in order, let me say that Brother Coburn and Joseph Wing, as the great apostles of alfalfa, had better look to their laurels or their fame may be eclipsed by the new apostle of sweet clover. Morris County. D. P. NORTON.

Where Does the Silk Fasten to the Grain?

A dispute arose in the botany class school as to where the silk was fastened to a grain of corn. Some said it was fastened to the heart near the cob and some said that it was fastened on the top of the grain, after which the teacher said some of us had been misled in the city, and that it fastened to the top of the grain. I did not see, and thought I would write you and be sure. RUSSELL BRACEWELL, Anderson County.

The teacher is correct. The silk is really an elongated style which is attached to the top of the ovary, containing one ovule, which, after fertilization, becomes the kernel. The pollen grains fall on the exposed ends of the silks and sprout or germinate, sending a branch down inside the silk which is hollow like a hair, and when its growth reaches the ovule fertilization takes place.

Often in examining corn it appears that the silks are attached to the ker-



HARVEST IS COMING AGAIN ARE YOU READY?

To be sure, it's some time yet before the grain will be ready, but it won't be long before you'll be so busy with spring work that you will have no time to get ready for harvest.

Now is the time to give this important matter serious consideration.

How did you get along last year? Were there any delays or any break-downs? Did you lose any grain?

Were you able to begin harvesting when your grain was just ready, and finish before it got too ripe?

How did your horses stand the work?

Think back now, and you can easily tell about how you are fixed for this year. If you are not prepared to harvest your grain quickly and easily, without danger of delay, it is time right now to take steps to prepare yourself. Now is when you have time to give the selection of a machine the consideration you ought to give it.

When you buy a new harvesting or haying machine, you want to buy the right one. If you wait until Spring work is upon you, this important matter will be put off until the very last week before harvest, and you will have no time to investigate—no time to consider. You may even be forced to buy what you don't want. It is the part of wisdom to do this investigating now.

You know the International Harvester lines—

Champion, McCormick, Osborne, Deering, Milwaukee, Plano— with any one of these you can do your harvesting right.

Four things are prominent in good farm machines of any kind: The principle is right; The materials are right; The workmanship is right; The record is right.

Now let us look into these things in connection with the International lines of harvesting and haying machines.

Since the invention of the self-binder, a great many different makes have been put on the market. Most of these failed to receive the approval of the American farmer. They were not built along right lines. Years ago the Champion, Deering, McCormick, Milwaukee, Osborne and Plano began to stand out from other harvesting machines, because of the correct principle back of them.

Time and experience have demonstrated that they were right; they embody all that is good that

has been developed in 30 years, and there's no feature about them that is in any way untried.

So you are safe enough as to the underlying mechanical principle of any of these machines.

Now as to materials. The farmer buying an International machine may be sure that the material is **always the best**. Every bit of material—wood, steel, iron, malleables, paint, etc., is subject to the most rigid test and experiment before being used. Only large capital and a strong organization make these things possible, for in addition to the superior out-put of their own coal and iron mines, iron and steel mills, timber lands and saw mills, they give at all times a first choice from all the other material manufacturers of the entire country. The International Harvester Company affords a known market to every material manufacturer in the land if his product comes up to the high International standard. These are but a few of the many advantages which insure to the farmer the best of quality in every International machine he buys.

Next comes workmanship. The enormous demand for these six leading makes of harvesting machines enables the International Harvester Company to maintain manufacturing plants of the highest efficiency and to employ workmen of the highest skill—factories and workmen that could not possibly be maintained to supply the small demand that would come to an individual manufacturer.

Now comes the record. Practically every farmer in the United States knows of the satisfactory record of these machines. He knows that for the harvesting of all varieties of grain, light, heavy, standing, down or tangled, these machines have never faltered—have never left him in the lurch. He knows that they have stood up to the work well and have endured season after season. He has gone to the harvest always with the perfect assurance of success. When in rare cases the unavoidable accident has occurred, he remembers that the repair parts are near at hand and that **they always fit**. Another advantage in purchasing International machines is that repair parts may be had at any time and any where.

Any one of these machines will do your harvesting right. Visit an International dealer and get whichever catalogue you want. If you don't know an International dealer, write us and we will give you the name of the one nearest you.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, ILL
(INCORPORATED)

International Line:—Binders, Reapers, Headers, Header Binders, Corn Binders, Corn Shockers, Corn Pickers, Huskers and Shredders, Corn Shellers, Mowers, Hay Tedders, Hay Rakes, Sweep Rakes, Hay Loaders, Hay Stackers, Hay Balers, Feed Grinders, Knife Grinders, Cream Separators, Gasoline Engines, Pumping Jacks, Manure Spreaders, Weber Wagons, Columbus Wagons, Bettendorf Wagons and Binder Twine.



nels at the tip or near the tip, but this is evidently due to the fact that the long silk hairs are caught between the growing kernels. If you will carefully examine the kernels of an ear of corn, you may see the small circular spots at the very top of the crown of the kernels where the silks were attached. A. M. TENEYCK.

Rotation Questions.

Your recommendation in regard to my rotation has caused me to call for more light. I have just four fields in cultivation and to let the clover stand

two years would cause an off year all the time. Under these conditions would you prefer to let the clover stand two years or one? I have a piece of good land that is now in native prairie-grass used for pasture that I could break out and make the fifth field. I can manage the pasture question without this field, but my neighbors are about all cattlemen and tell me not to break out any more native grass now. I would like to have your opinion in regard to breaking out this native grass, which would make the rotation complete with two years

in clover. The rotation is clover, corn, oats, and wheat.

Bourbon County. J. W. JORDAN.

You may carry on a two-year rotation with clover very nicely on four fields by using the three crops, corn, oats, and wheat, in a three-year rotation on the three remaining fields. The plan would be this: Seed the clover in the wheat early in the spring, harrowing or not to cover the seed as you may think best. Allow this field to remain in clover for the two succeeding years. Meanwhile on the three remaining fields practise the ro-

tation with corn, oats, and wheat two years in succession. In the spring of the second year seed the wheat-field again to clover, and in the fall of that year or early in the spring of the succeeding year break up the clover-field, planting again to corn. The wheat-field being seeded to clover will now go out of the rotation for two years, while the old clover-field will become one of the regular fields to be used in the three-year rotation with corn, oats, and wheat.

In circular No. 5, which has been mailed you, a simple rotation has been worked out on four fields with alfalfa, corn, oats, and wheat. By carefully studying the circular you will clearly understand the method of rotation which I am proposing with clover, corn, oats, and wheat on your four fields.

I should advise in your section of the State to break up prairie sod which was not giving good results, provided this same land can be successfully used in the growing of other crops, such as corn, wheat, and other small grains, and seed to grass some of the land which you have been farming for several years. A combination of clover, English blue-grass, Bromus inermis, and orchard-grass, well set, will produce far more pasture than native prairie-grass. Of course the domestic grasses will gradually become less productive and it will be necessary to break up the pastures and meadows, reseeding other fields to grass. If this plan were practised and corn and small grain were made to follow grasses and clover, much larger yields of the latter crops might be secured than will result by continually cropping the land to grain-crops.

In Western Kansas the objection urged against breaking up the native prairie-grass is more reasonable, since in that part of the State it is much more difficult to reseed land to grass than in your section of the State. I might suggest here, also, that I would consider it preferable to sow a little grass with the clover, for meadow. Probably timothy would give good results, although you could use English blue-grass or Bromus inermis.

A. M. TENEYCK.

Oats For Southern Kansas.

Will you please tell me what kind of oats of the white variety you think will do the best here? I do not like the Texas Red. Has the Kansas State Agricultural College any of the Sixty-Day or Kherson for sale and at what price?

H. M. GRIFFITH.

Cowley County.

There is no true white oats which I can recommend for growing in your section of the State. The Kherson and Sixty-Day oats are light yellow in color, although possibly they would class as white oats on the market. Either one of these varieties would succeed well with you; perhaps no better, however, than the Red Texas oats. Our supply of Kherson oats is nearly exhausted, but we have several hundred bushels of Sixty-Day oats which we are now selling at \$1.00 per bushel or 75 cents per bushel in ten-bushel lots. This variety has given the highest average yield per acre in the trials of the last four seasons. It has succeeded well also at Ft. Hays Branch Station in Ellis County, and I can recommend it as a variety well adapted for growing in Central and Southwestern Kansas.

A. M. TENEYCK.

Planting Questions.

What time would you advise planting Macaroni wheat and barley in Western Kansas? Will the wheat fill all right if it should get frozen in the ground? Some say it will not fill if frosted. Would you advise planting the last of February or the first of March?

B. H. PALLISTER.

Logan County.

I would advise to plant Macaroni or Durum wheat as early in the spring as a proper seed-bed can be prepared. During a period of warm weather last February we seeded a plot of Durum wheat; and a little larger crop was secured from this winter seeding than from the earliest spring seeding. There is some danger, of course, that should the seed sprout in the winter it may be destroyed by hard freezing. Our experiments and the general ex-



That's a lot of fence. But it takes that much—50,000 miles a month—to fill the American farmers' orders for American Fence. And 50,000 miles of fence is more than 80% of all the wire fence made every month by all the fencemakers put together. Tell you why we have been able to merit over 80% of all the wire fence business.

We have always been the largest makers of wire fence. The cost of working out the improvements we have made in wire fence has been more than a smaller business would stand. But by keeping

Drop me a postal and tell me how much fence you will need this year. I will write you a personal letter about American Fence and send you this combination key-ring, screw-driver and bottle-opener.



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in the lead, we have kept this organization at all times the best market in the world for fence brains. We have made the greatest advance in wire-fence building, and by keeping our output large, we have been able to keep the price low and still not hesitate at the cost of improvements. Recent improvement—better galvanizing—means longer life in fence that costs you no more than it did before.

NOTE—I want to send you the combination key-ring, shown in the corner, with our compliments, as a continual reminder of American Fence. We register your name and number on our books, and return keys, without cost, if found and sent us.

FRANK BAACKES

Vice-President and General Sales Agent
American Steel & Wire Co., Chicago, U. S. A.

perience of farmers is that very early spring seeding is preferable to later seeding.

With barley it is also true that early seeding usually gives the beset results. However, there is a greater range of dates for sowing barley, when the grain may be expected to grow well and make a fair crop. I would not advise to sow barley in the winter, but sow as soon as spring opens and the soil is in fit condition to cultivate. With reference to your question regarding the freezing of grain in the ground, freezing will do no harm provided the grain is not sprouted. If the grain is sprouted, it is apt to be destroyed by the freezing, but if it is not injured so badly as to prevent a proper growth of plant, then wheat or barley sown in the winter will fill just as well and make just as plump grain as that sown in the spring. This was proved by the experiment carried on last winter, already referred to. Barley was also sown in February and made a very good crop of grain, practically equaling the yield and quality of grain produced from seedings made the last of March. As to whether you should plant the last of February or the first of March will depend upon the weather and soil conditions. As a rule, at this station, we do not expect to seed the small grains before the middle of March, although occasionally the spring opens early and we are permitted to sow the first week in March.

A. M. TENEYCK.

Value of First-Year Grass-crop.

Referring to my inquiry of last spring, concerning grasses for sandy bottom-land, which you answered under the date of May 3, 1906, will you kindly inform me what returns a field so planted could be expected to yield the first year in an average season, either in hay or pasture?

Lawton, Okla. H. BUCKINGHAM.

Possibly in the latter part of the summer and early fall new seeded grass might furnish some pasture, provided, of course, it makes good stand and a good start. As a rule, one could not afford simply to do the work of preparing the seed-bed and seed the grass for the return which would be secured that season. I presume that fifty cents to a dollar per acre would be a good value to place on what little pasturage might be secured the first season. This is provided, of course, that the grass is sown in the spring. If the grass is seeded in the fall and makes a good start and stand, then a fair crop of hay

should be secured the next year, or the grass would furnish pasture for a considerable portion of the year. It would not be advisable, however, to pasture very early in the spring nor too closely any time during the first season. If the grass was seeded in the fall, the return the first year should be equal to one-half or two-thirds the value of the hay or pasture which would be furnished in succeeding years.

At this station we usually prefer to sow alfalfa and grasses early in the fall, about the last of August or the first of September. I would advise to sow early in the spring, choosing the earliest time possible to prepare the seed-bed properly. We have the best success from early spring seeding on land which is relatively free from weeds, but on weedy, foul land the early fall seeding is preferable.

A. M. TENEYCK.

Grasses For Permanent Pasture.

I have recently acquired a piece of ground which I wish to make into a permanent hog and cattle pasture. The greater portion of it (12 acres) is in scrub oak and hickory timber. This I am thinning and wish to seed it as fast as thinned, without plowing. The ground is a loose clay with a good coating of leaf-mould, and is practically free from weeds. What would you suggest as the best grasses for permanent pasture? I am thinking of using 8 pounds of Kentucky blue-grass, 6 pounds of clover, and 6 pounds of timothy or Bromus inermis. In this same prospective pasture is a 4-acre tract completely cleared. This has been cultivated for several years, but poorly. It grew Kafir-corn last year, also a fairly good crop of cockle-burs and crab-grass.

In this clearing I expect to use the same grass-seeds that I use in the timber-land. I also expect to drill in five pecks of oats to the acre, the oats being to keep down the weeds.

Please criticize my plan freely. Any suggestions will be welcome, as I am an amateur farmer.

Please send me a copy of press bulletin No. 129 on Bromus inermis.

Johnson County. CHAS. E. ELLIS.

The combination of grasses which you propose to seed would make a good permanent pasture. I would advise, however, to sow a couple of pounds of white clover with the balance red or Alsike clover in preference to all red or all Alsike clover. Under the trees sow orchard-grass instead of timothy or Bromus inermis,

\$5.95
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Is all I ask for the
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Bike
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Orders From Farmers Only Accepted

That's less than your dealer pays for the cart he handles. I was about to say "the cart he sells" but I'm not sure he sells any. He won't sell you one if you read this advertisement through to the end.

And I'll tell you why. In the first place he can't sell you as good a cart, for I do not sell my cart to dealers. Dealers can't get them. I know all about this dealer business and how every farmer has to pay from 30% to 70% more for his goods, as I was a dealer myself once. But before I was a dealer I was a farmer and so I stick to the farmers. Many's the day I've walked behind a harrow with tired legs and my mouth full of dust. I guess that's the reason I'm so enthusiastic about my harrow cart.

Another reason is that I can save you money. I am going to save you from \$2.00 to \$4.00 on the best harrow cart made. That means that 30% to 70%. I can't help feeling that you will appreciate my doing this.

Wait a minute now. Don't take my word for anything but send for my book, "The Proof of the Pudding." In that book farmers who have used my harrow cart answer these questions.

- Is it good value?
 - Does it save time and labor?
 - Can you do more and better work?
 - Is the draft light?
 - Is it strong?
 - Does it work properly on hillsides?
 - Does it follow the harrow all right in turning?
- All these questions are answered, not by me, but by men I never saw, and who never saw me,—men who have used my Bike Harrow cart, and know just how good it is.

Now about my price. \$5.95—that's it, five ninety five, freight paid. I have to laugh.

When I hear this talk about the implement trust and the dealers,—and those fellows selling harrow carts for \$8.00 and \$10.00 I just chuckle to myself.

Talk about forcing me to do this or that—they can't force me to do anything.

I am dealing direct with the farmers and they are the fellows who have the money. But to get back to the harrow cart. Send me \$5.95 and I'll send you the cart, freight prepaid. Try it—at my expense. If you don't want to keep it send it back at my expense and I'll refund you \$6.00—that's what you paid and 5c for postage.

Write today, send an order. If you're not quite sure send for my booklet. A postal will bring it.

Don't go through another summer's work without one of my New Galloway Bike Harrow Carts.

Wm Galloway

President of William Galloway Company
385 Commercial St., Waterloo, Iowa.

When writing advertisers please mention this paper.

A HEART TO HEART TALK

With the Man Who Makes the

BUCKEYE GRAIN DRILLS



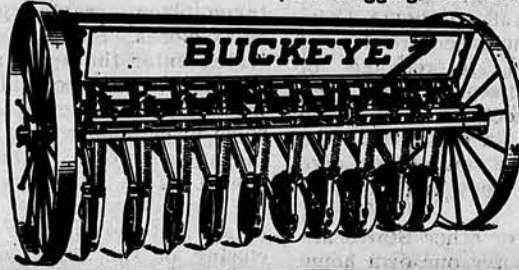
Mr. Farmers—Let's have a few minutes chat about that drill you'll need for this season's seeding. I know I can tell you some things about Buckeye drills that will be valuable to you. Something familiar about that name? No wonder, it's been going on farm tools for over 50 years. We have made this name famous simply by making farm tools that do better work; that last longer; that meet the farmers needs better than any other.

There are reasons for this, and I want to tell you just what these reasons are. I'm going to begin with the Buckeye frame, because, like the frame to a house, the life of a drill depends very largely upon the strength and build of the frame. You see it's the part that gets the wear and tear—the strain and jar—the part that carries the load. If it weakens, gets out of true—gives out in any part, your drill troubles multiply.

That's why we put so much brain and brawn into the Buckeye frame. It's made of square steel tubing without riveted joints or malleable corner pieces. It can't weave, rack, loosen or get out of true. Weather can't harm it and there's nothing to give out.

Ask the Buckeye Man to show it to you and your own eyes will do the rest.

The next vital part is the driving and feeding mechanism. The Cone Gear on the Buckeye is a marvel. Absolutely accurate in regulating the feed; easy to change; powerful in driving; economical in



wear. Its construction does away with all interchangeable gears and annoyances common with other styles. It's always there when wanted and the saving it effects in repairs is a big item. Should breakage occur in the Buckeye feed from obstructions, it requires the replacing of the broken cone section only, while on others it means replacing the entire feeding device.

Be sure to ask the Buckeye Man about this. It's been imitated by many, but never equaled. There's nothing "just as good." Next is our Double Run Force Feed—a positive and perfect feed that can't skip, choke or bunch. It has two compartments—one for sowing large grains—one for small grains.

Now, we come to the seeding device. On our Disc Drills the seeder is one of the triumphs of grain drill making. It is so constructed there is no chance for clogging either from trash, stubble or mud. Discs turn on their own spindles just like a wagon wheel, and our hard oiler forms a bearing that is absolutely dust proof. Bearing is chilled and guaranteed not to wear out.

Ask the Buckeye Man to show you this ideal seeder—it's well worth looking up. We also make a Combined Grain and Fertilizer Disc Drill that's a winner. It has the only fertilizer distributor that can't and don't corrode. It's made of glass.

Now, Mr. Farmer these are some of the many reasons why the Buckeye Drills are so popular. They are reasons why you should buy Buckeye Drills. P. P. MAST & COMPANY, Dept. H1, Springfield, Ohio.

sowing some 12 pounds of the orchard-grass seed per acre. Orchard-grass is one of the best grasses for growing in the shade and will furnish an abundance of feed the year after seeding. Kentucky blue-grass starts very slowly and might not furnish a great amount of feed the first year after seeding. It will thicken up and run out the other grasses except in the shaddest places, where the orchard-grass will continue to thrive.

For the cleared land, the combination of grass which you name could not be improved upon, unless English blue-grass shall be substituted in place of timothy, sowing about ten pounds of the English blue-grass with eight pounds of Bromus inermis with the amount of Kentucky blue-grass and clover which you have mentioned.

It may be a good plan to sow the oats as you have suggested, since the ground is apt to be weedy and the weeds would doubtless check the growth of the grass worse than the oats. I would advise, however, to cut the oats for hay rather than to let them fully mature. This is especially desirable if the season should become dry before harvest.

I am mailing you copies of press bulletins Nos. 125 and 129 regarding English blue-grass and Bromus inermis, and have also sent a circular discussing the seeding of Bromus inermis.

A. M. TENEYOK.

A Matter of Justice.

EDITOR KANSAS FARMER:—Water from the Colorado River is no longer flowing into Salton Sink, but has been effectually turned back to its old course leading to the Gulf of California. This task was accomplished by the force of men and machinery provided by the Southern Pacific Railroad Company.

And now that an episode of National interest is passed, it may be well briefly to point the line between the truth and fiction that has appeared in print regarding the operations of the rebel river during the last two years.

The Colorado Desert, like Palestine, lies below sea-level. In climate and soil it is a duplicate of Egypt. Like Egypt, ancient Chaldea, and Babylon, it is barren without the artificial application of water through irrigation, and like those countries it is wonderfully productive when irrigated. Alfalfa is cut from eight to ten times a year. Grapes are picked any time from June to January.

This country found in the Colorado River all that the Nile is to Egypt, and colonization was begun here in 1901. Development was rapid, and to-day ten thousand people reside in that part of the former desert known as Imperial Valley.

Two years ago through faulty engineering the river broke from control, flowing through what had been dry channels known as New and Alamo Rivers to Salton Sink and forming Salton Sea.

In their course the rivers widened, and about 1,000 acres of cultivated land, with three farm-cottages were destroyed, with several thousand more acres of unoccupied public land which would have been of value at some time.

The lowest farm in Imperial Valley is 124 feet below sea-level. The present level of Salton Sea is 200 feet below sea-level. It would have been necessary for the water to rise 76 feet more, requiring five or six years of uninterrupted flow, to cover the lowest farm.

Statements that farms and towns have been submerged are untrue. One farm-cottage remote from other settlements on undeveloped land was submerged, and that is the only case of the kind.

It was not what the water did, but what it threatened to do, that made the need for the control of the river imperative. There was danger that it would cut a channel so deep that irrigation water could not be obtained. That danger fortunately was at an end.

Though President Roosevelt in his special message says these lands will eventually be worth from \$500 to \$1,500 an acre, they are now selling for from \$30 to \$75, and colonization is now proceeding rapidly through subdivision, there being no land now within reach of water but that is already filed on under the homestead and desert land acts.

January 1 of this year there was under irrigation and cultivation in Imperial Valley 127,400 acres, an increase of 16,000 acres over the preceding year, despite the loss of 1,000 acres by water.

The annual output of the valley, now rising rapidly, amounts to \$450,000 in grain, \$50,000 in hay, \$1,200,000 in beef and pork, \$200,000 in cantaloupes, \$30,000 in butter and cream, and lesser amounts for other products, which is considered a fair showing for a country where there was not a foot of tilled land, not an irrigation ditch, not a human being, six and a half years ago.

Wide publicity of the story of the rebellious river is doing the hardy pioneers who are redeeming the desert an injustice, and in fairness to them it is hoped that this brief statement of actual conditions will be given wide publicity, to offset the exaggerated reports.

EDGAR F. HOWE,

Publisher Imperial, California, Daily Standard.

A PERFECTION

Insures Bigger Crops and Better Crops

It will clean, separate and grade your corn, clover, alfalfa, kafir corn, oats, wheat and any other kind of grass seed or grain you raise.

We will ship you a Machine on trial, with freight prepaid, and you can convince yourself that it is just what you need to produce better crops.

Lincolnville, Kans., March 22, 1906.

Dear Sirs:—We received mill all right and have tried it and find that it does the work better than anything I ever saw. Please find enclosed a money order for machine, for which please send receipt. I think that I can sell another mill for you a little later on. Please write me and advise.

ADOLPH FROBENIUS.

Our separate corn grading machines will grade corn 98 per cent perfect and will insure a **BUMPER CORN CROP.**

Write us today and we will tell you all about our machines. Tell us what kind of grain you raise and we will send samples cleaned on the

Perfection.

THE LEWIS-TUTTLE MFG. CO.,

305 A Kansas Ave., Topeka, Kans.



Plasa Bird

Double Lift

New for 1907

\$32.50 Complete

2 BIG REASONS WHY WE SHOULD HAVE YOUR ORDER

If You are Going to Buy a SULKY or GANG PLOW

First—We absolutely guarantee this plow equal in every respect to any plow on earth, and refund your money if not entirely satisfactory to you.

Second—We save you the middleman's profit of from \$10 to \$20 as we are the only Plow Factory in the world selling its goods direct to the consumer at wholesale prices.

\$47.50

These plows are made of iron and steel throughout, are perfect in construction, ingenious in design, simplicity in handling, perfection in work and light draft. Every part is backed by our thirty-six years' of successful experience in this business. Write us before buying. Secure our big free catalogue of Implements, Buggies, Harness, Steel Range, etc.

14 inch Double Shin Plows, \$8.65; 12-16 Champion Disc Harrows only \$14.95. Tell us what you want when you write. Address

Haggood Plow Company, 1233 Front Street, Alton, Ill.

The only Plow Factory in the United States selling direct to the consumer at wholesale prices.



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[STATIONARY AND PORTABLE, 3 TO 25 H. P.]

NEW PLAN FOR COOLING CYLINDER

Reduces Water Tank to a Few Gallons
Send for Catalog.—Special Farm Engines

KANSAS CITY HAY PRESS CO., 129 Mill St., Kansas City, Mo.



When writing Advertisers please mention this paper

STARK NURSERIES sell Direct pay freight, give FULL value Founded 1825. Large NEW Fruit Book free. **STARK BRO'S**, Louisiana, Mo.

HEALTHY TREES HONEST IN QUALITY WE PAY FREIGHT Grafted apple 4c, budded peach 4c, budded cherry 15c. Concord grapes \$2 per 100. Black Locust \$1 per 1000. Complete colored cat. free. Galbraith Nurseries, Box 22, Fairbury, Neb.

20 CONCORD GRAPE VINES All healthy, vigorous, true to name. 25 Grafted Apple Trees \$1.00 250 due-bill and cat. 25 Budded Peach Trees \$1.00 log free. Freight paid 25 Concord Grape Vines \$1.00 on \$10.00 orders. **FAIRBURY NURSERIES**, Box 1, Fairbury, Neb.

400 STRAWBERRY PLANTS \$1.00 In three choice sorts. Fruit Trees and Small Fruits at Fair Prices. Lists Free. **J. F. DAYTON, WAUKON, IA.**

TREES THAT GROW Apples 4c, Peach 5c, Plums 15c, Cherries 15c. Best quality good bearers, grafted stock, not seedlings. Concord Grapes 1c. Forest Tree Seedlings \$1.00 per 1,000 up. We pay the freight. **GERMAN NURSERIES & SEED HOUSE** We have a complete line of vegetable, flower and farm seeds. Our large illustrated catalog free. **GERMAN NURSERIES**, Box 9, Beatrice, Neb.

50 BULBS 25 CENTS Will grow in the house or out of doors. Tulips, Crocuses, Yuccas, Daffodils, Dewey Lily, Tuberoses, Gladioli, Chinese Lily, Begonia, Gloriosa, Lilies of the Valley—all postpaid, 25c. in stamps or coin. As a premium with these bulbs we will send FREE a giant collection of flower seeds—over 200 varieties. **NATIONAL NURSERY, Dept. E1 Boston, Mass.**

LET US FURNISH YOU our very low prices on grafted apple, budded peach, plum and cherry in all sizes; also evergreens, roses and ornamentals of all kinds. Catalogue free. **Gage County Nurseries, Box A, Beatrice, Neb.**

The World's Fair Prize Winning Corn Just WON FIRST PREMIUM at the Corn Breeders' State Show at Manhattan. Heaviest yield 118 1-16 bu. per acre. A grand lot of the 4 best corn's grown to-day. Sample and Catalog tells how to raise corn every year FREE. **JOHN D. ZILLER, Hiawatha, Kans. HE RAISES CORN.**

RED, RUST PROOF TEXAS OATS, pure red clover, timothy and alfalfa seed, white kafir corn and sweet corn all reselected and fancy of quality. A grand lot of Barred Rock cockerels; Poland-China males and gilts, the great big kind, an extra growthy lot of fall pigs. John D. Ziller, (he raises corn), Hiawatha, Kans.

Flower Garden Seeds Selected list. Varieties especially suited for attractive yard gardens and cut flowers. Good seeds. Popular prices. Price list free. **S. C. Piggott, Dept. D, Quincy, Ill.**

SEED CORN Ear or Shelled at Farmers' Prices. Selected, Butted, Graded, Tested. **GRAIN, GRASS, VEGETABLE SEEDS** **J. B. Armstrong & Son,** Originators of the Seed Corn Business. Catalog Free. **Shenandoah, Iowa.**

PLANT JACK PINE On sandy land in Kansas, Nebraska and northward. Jack Pine from Minnesota is most rapid evergreen for profit. As I supplied the very successful Jack Pine for the Government plantation in Holt County, Nebraska, in 1890, I probably know how to pack. I have a million vigorous seedlings. **H. R. AYRES, Aitken, Minn.**

FIELD'S SEED CORN Sold ear or shelled. All graded, tested, proven—then guaranteed. No better at any price. Test it in your sprouting box. If you don't like it—fire it back. You'll get your money back double quick. Guaranteed—pure Clover seed. Garden seeds that will really grow. Catalogue and samples free. **HENRY FIELD, SEEDSMAN, Box 55, Shenandoah, Iowa.**

Make More MONEY on Fruit Everyone who grows fruit should be interested in getting MORE PROFIT from his FRUIT CROPS **THE FRUIT-GROWER** ST. JOSEPH, MO. is a handsomely illustrated, 76-p. monthly. Treats of fruit growing, gardening, poultry raising, on a large or small scale. Every farmer needs it. \$1 a year, but will be sent 3 months FREE on trial if you will notify us to stop or subscribe after trial. **The Fruit-Grower, Box 105, St. Joseph, Mo.**

Horticulture
Orchard Spraying.
E. F. STEPHENS, CRETE, NEBRASKA.
SECTION I.

Fifty to one hundred years ago orchards large or small were planted without thought as to whether they should be sprayed for codling-moth or fungus diseases. But little had been heard about such difficulties. The country was comparatively new. Orchards were planted on virgin soil, filled with plant-food. Trees grew with health and vigor. The chief considerations at that time were the questions of varieties, transportation, and markets.

The rapid expansion of our present system of transportation enables the orchardist to select the better markets and to send his fruit to them. Coincident with this increased freedom of transportation and interchange of products, fungus diseases have been introduced and insect enemies have multiplied to such an extent that the successful orchardist must now give his work scientific study and judicious care.

The orchardists of other States are competing with us for our own home markets. In Colorado, Idaho, Oregon, and Washington the orchardist sprays from early spring until late summer. It is not unusual for them to spray from five to nine times, with the result that they succeed in saving 90 per cent of their fruit. The orchardists of New York and Michigan, aided by freight rates more favorable than those given to us, ship their product to our markets. The commercial orchardists of these States recognize the importance of thorough and judicious spraying. If we hope to retain our own home markets, we must study the problems which beset us with the same intelligence, and must be as diligent in guarding our orchards from insect enemies and fungus diseases as our competitors.

In all of the older districts of the State, unsprayed orchards have a large percentage of wormy fruit and many of them are subject to fungus diseases. We are now compelled to face the problem of how best to guard against the codling-moth and the equally difficult question of how to combat and control fungus diseases. This increasing humidity of our climate favors the production and rapid dissemination of fungus spores. Fortunately Bordeaux mixture, used in combating fungus diseases, may be combined with the arsenical poisons used in destroying the larvae of the codling-moth. Labor is saved by combining both in one application.

CODLING-MOTH. In order intelligently to direct our attempt to destroy the larvae of the codling-moth, we must know something of its life history. This insect winters in a pupa form in a silken cocoon or covering. It usually seeks shelter under the rough scales of bark on the older trees and in numerous other places. The time of development of the moth the following spring varies greatly with the warmth of the weather and the nature of its hiding place. Nature teaches the moth to remain dormant until the warmth of the spring has brought orchards into bloom.

Researches made at our Nebraska Experiment Station indicate that the moths deposit their eggs chiefly upon the upper side of the leaves; occasionally on the apples themselves. These eggs hatch in from eight to ten days, according to the weather. The larva when it emerges is about an eighth of an inch in length, its head being its most prominent part. It soon begins to seek for an apple on which to feed and for a hiding place in which to protect itself from its enemies.

The examination of a large number of apples by Prof. F. W. Card while connected with our State University, indicates that 80 per cent of the larvae enter the apple at the base of the calyx lobes which have already closed,

thus affording a convenient cover until it can work its way into the fruit. The larva soon reaches the center of the apple, attaining full growth in ten to fourteen days. It then hunts for a convenient hiding place in which to spin its cocoon. This habit leads to the banding of trunks of trees, which will be explained later.

WHEN TO SPRAY. Since the eggs of the codling-moth are not deposited until a considerable period after the bloom has fallen, it is unwise to spray while the trees are in bloom. There is nothing to be gained by spraying while the trees are in full bloom, since that is a number of days in advance of the appearance of the codling-moth and is dangerous to bees working in the blossoms.

Carefully conducted tests at the Illinois Experiment Station also show that to spray while the apple is in bloom interferes with pollination. Hence it is better to wait until the petals have fallen and pollination has taken place, spraying just before the calyx closes. Since 80 per cent of the larvae enter the apple at the base of the calyx, our opportunity for destroying this percentage lies in placing some insecticide within the calyx of the apple before it has completely closed. This allows us from four to six days between the falling of the petals and the more or less complete closing of the calyx which prevents the lodging of the poison therein.

As all varieties do not bloom at the same time, commence by spraying the early-blooming varieties and close with those which bloom later than the early-blooming varieties. The success of this spraying depends on its thoroughness, it being by far the most important of the entire season, since all the larvae which escape at this period pupate and produce the second brood of moths, which is much more difficult to control than the first.

The next spraying should be done within seven days, thus serving as a check to overcome the defects of the first application and also to destroy the later larvae of the first brood.

The third spraying for the latitude of Lincoln should commence from July 20 to 25, aiming at this time to destroy some portion of the second brood. Should rainy weather intervene or the codling-moth be very abundant, it is well to spray the fourth time the first days of August.

Should the orchard be suffering from canker-worm or bud-moth, it may be necessary to make an earlier spraying just as the blossoms are showing a tinge of pink and before they open.

WHAT TO USE. Within the last few years our most careful scientists and successful orchardists have been experimenting with arsenate of lead and disparene. These two poisons are said to be nearly alike in their composition. Disparene is composed of sugar of lead and soda arsenate. Very careful tests in Colorado have shown three sprayings with arsenate of lead to be more effective than four or five applications of Paris green. Arsenate of lead and disparene in appearance are very much like white lead. Their adhesive qualities make them superior to Paris green and all other insecticides so far used. These poisons have the further advantage that they are not likely to burn the foliage. Three pounds of arsenate of lead, or of disparene, used with fifty gallons of water are considered more effective than the usual application of Paris green, London purple, or arsenate of soda.

BANDING THE TRUNKS. After attaining its full growth in the apple the larva either falls to the ground with the apple and seeks some hiding place in which to pupate, or if the apple remains on the tree, the larva crawls down the limbs and trunk, seeking some possible shelter from the birds. Many of them hide under loose scales of bark or in crevices. The orchardist, taking advantage of this effort to hide, bands the trunk of the tree, using either burlap or paper. These bands should be eight to ten inches in width and should encircle the trunk midway between the ground and the main limbs. These

A BIG GARDEN
The year of 1906 was one of prodigious plenty on our seed farms. Never before did vegetable and farm seeds return such enormous yields. Now we wish to gain 200,000 new customers this year and hence offer for 12c postpaid:
1 pkg. Garden City Beet . . . 10c
1 " Earliest Rippe Cabbage . . . 10c
1 " Earl's Emerald Cucumber . . . 10c
1 " La Crosse Market Lettuce . . . 10c
1 " 18 Day Radish . . . 10c
1 " Blue Blood Tomato . . . 10c
1 " July Turnip . . . 10c
1000 kernels gloriously beautiful flower seeds . . . 15c
Total \$1.70
All for 12c postpaid in order to introduce our warranted seeds, and if you will send 12c we will add one package of Berliner Earliest Cauliflower, together with our mammoth plant, nursery stock, vegetable and farm seed and tool catalog.
This catalog is mailed free to all intending purchasers. Write to-day.
JOHN A. SALZER SEED CO.,
La Crosse, Wis.

GOLDEN YELLOW CALLA LILY, 5 Bulbs.
50 KINDS FLOWER SEEDS 10c.
Asters, Balsam, Canna, Calliopais, Nasturtium, Morning Glory, Fanny, Larkspur, Job's Tears, Poppy, Golden Glow, Snapdragon, Cosmos, Pink, Zinnia, Verbena, Monkey Plant, Sweet Pea, Rocket, Primrose, Ice Plant, Petunia, Castor Oil Beans, Portulaca, Candytuft, Sweet Peas.
5 CHAMPION BULBS.
The Summer Hyacinth, Golden Lily, Humming Bird, Gladioli, Giant Crocus, Baby Breath, Oxalis, all this beautiful collection of seeds and bulbs only 10c. in silver or 5 2-c. stamps to pay the cost for packing and postage and be sure of this grand offer—only 10 cents.
NEW ENGLAND NURSERY, E1 BOSTON, MASS.

SEEDS Mo. Valley Seed Co.
Established 1870.
The kind that produce results. Reliable northern grown, thoroughly tested and true to name. Field, Flower and Garden. Our specialties, Alfalfa, Clover and Timothy. Write for prices. Special Chick feed, Incubators, Poultry Supplies, all kinds. Write for big catalog free.
HORTICULTURAL SUPPLIES—We are the largest Horticultural Supply House in the west. **Target Brand Arsenate of Lead and Disparene**, a guaranteed exterminator of all leaf eating insects.
Target Brand Quick Bordeaux, **Target Brand Scale Destroyer**, **Meyers Celebrated Spray Pumps**, **Empire King Spray Pumps**, **Chemicals**, all kinds for spraying. Write for free catalog, telling how and when to spray.
110 S. 4th St., St. Joseph, Missouri

Red Tag Trees
RED TAG TREES PHOENIX NURSERY CO. BLOOMINGTON, ILL. TRADE MARK
The Red Tag is the identification mark on all genuine **PHOENIX TREES and PLANTS**
The sturdiest and best nursery stock experience and good soil can produce. Look for the Red Tag on all trees you buy. Send to-day for free catalogue.
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GOOD SEEDS CHEAP BEST EVER GROWN
A wonderful big catalog FREE Full of engravings of every variety, with prices lower than other dealers'. Oldest reliable seed grower in America. No old seed. All fresh. They will grow or will refund money. Big Lot Extra Packages Free with Every Order. Send yours and your neighbor's address.
R. H. SHUMWAY, Rockford, Illinois

50 KINDS FLOWER SEEDS FOR 10c And Collection Flowering BULBS FREE
FREE SEEDS Aster, Balsam, Fanny, Sweet Pea, Pink, Cosmos, Verbena, Nasturtium, Cypress, Vine, Heliotrope, Mignonette, and 89 other kinds.
DIRECTIONS—Write name and address plainly, enclose 10c. coin or stamps, for postage, etc., and you will receive at once 50 varieties best flower seeds and a collection of Flowering Bulbs FREE. Sent postpaid.
STATE NURSERY, Dept. E1, BOSTON, MASS.

4 HARDY EVERGREENS To prove they are healthy and vigorous we will send Four Trees 3 yrs. old free to property owners. Mail in your name and our catalog with 4 colored plates. Write today.
THE GARDNER NURSERY CO., Box 740, Oaage, Iowa.

Oats

Largest Growers of Oats, Farm and Vegetable Seeds in America.

FREE

Our mammoth 148-page Plant and Tool Catalogue is mailed free to all intending buyers, or send 6c. in stamps and receive free samples of new Two Foot Long Oats and other cereals and Big Seed Catalogue Free.

JOHN A. SALZER SEED CO.
La Crosse, Wis.

Work When You Work

Double Action - Cutaway Harrow



enables you to double results over the ordinary disk. Especially adapted for orchards and alfalfa fields, but equally as advantageous for general purposes. Alfalfa sod chopped every 3 inches instead of 6. Orchards left level instead of ridged. The above cut shows machine extended for orchard work. For further information write

J. C. CONLEY, Gen. Agt.,
Wichita, - - - Kansas

GREGORY'S SEEDS

FREE

Our catalog is rich with information for the guidance of farmers and gardeners. It has been a great help to thousands—has been the means of turning many a failure into success.

The great variety of vegetable and flower seeds include the best of the old standard and such new kinds as have proved of value by actual test.

J. J. H. GREGORY & SON,
Marblehead, Mass.

FERRY'S SEEDS

Ferry Seeds are not an experiment, but with proper cultivation they assure success from the start. Users have no doubts at planting nor disappointments at harvest. Get

FERRY'S SEEDS

for biggest, surest, best crops—at all dealers. Famous for over 50 years. 1907 Seed Annual free on request.

D. M. FERRY & CO.,
Detroit, Mich.

GOLDEN NUGGET TOMATO

THIS grand novelty is a real gold nugget in value. Wonderfully prolific; each plant bears 150 to 200 fruits. Rich golden yellow color, delicious flavor and very solid. We are offering:

\$25.00 IN CASH PRIZES

to the persons growing the greatest number of fruits on a single plant. Seed sells at 20 cents a packet, but if you mention this paper, we will send a Prize Competitor's package of 25 seeds for two 2-cent stamps, with privilege of competing for prizes. Large, illustrated catalogue of

Vegetable, Flower and Farm Seeds, FREE.

IOWA SEED CO.,
Des Moines, Iowa.



SEED CORN—C. E. HILDRETH, Atamont, Kans. Originator, breeder and grower of Hildreth Yellow Dent corn. First prize at fairs and corn shows. First prize acre yield, 103 bushels, 1905. First prize, acre yield, home county, 103 bushels, 1906.

Strawberry Plants that Pay to Plant are Kind We Grow

Our acreage this year is very large and we have a large quantity of first-class plants. Our fields were all under mulch early and we are sure we can furnish our customers with the very best plants possible. We also grow large quantities of other small fruit plants. Our new catalog is different from any catalog you have ever read. It contains valuable information to the fruit grower. It will pay every fruit grower to have a copy. It is free.

Address **F. W. DIXON, Holton, Kans.**

bands may be fastened with a couple of tacks.

Since the pupa changes to a perfect moth in about eight days, the bands must be examined and the larvae and pupae destroyed as often as once in seven days until September 1. The bands must be replaced after each examination. The first application of bands should be made as early as the middle of June and continued the year through. Since it is not possible to destroy all of the larvae by spraying for the first brood, it seems wise to make an effort to entrap the small percentage that have escaped, and thus lessen the number of the second brood.

An examination of the burlap bands on the trunks of our orchard trees this winter shows great numbers of the late autumnal pupae gathered under these burlap bands. We will open these bands the last of March and destroy the pupae. It seems to us to be a decided advantage to supply an easily accessible shelter in which the larvae may pupate where they may be readily found and destroyed.

FUNGUS DISEASE.

As long as our climate was comparatively dry we had little trouble with fungus diseases. At this time in Eastern Nebraska the humidity of the atmosphere has changed and is similar to that of Missouri and Illinois. Many of our orchards are now seriously troubled with apple-scab. This fungus disease affects the foliage, weakens the stems, and sometimes seriously impairs the apple-crop. This is checked by the use of Bordeaux.

The spores of the apple-scab winter over in the fallen leaves and attack the foliage in early spring. After the fruit has formed the scab may fasten itself on the apple. Effectiveness in spraying for fungus diseases depends upon keeping the foliage covered with a fungicide.

We make the first application of Bordeaux just before the blossoms when the forth-coming bloom shows just a tinge of pink. The Bordeaux solution may be combined at this time with an insecticide in case the orchard is troubled with the canker-worm or bud-moth.

The second spraying should be done just after the blossoms fall and is combined with the principal effort in spraying against the codling-moth. These two applications of Bordeaux are usually sufficient. Should the season, however, be very wet, it may be wise to combine another application of Bordeaux with the late July sprayings against the codling-moth. Wet seasons and humid climates require a greater number of applications than dry seasons and semi-arid conditions.

BORDEAUX MIXTURE.

Bordeaux mixture is usually composed of four pounds of sulfate of copper and five pounds of caustic lime to fifty gallons of water. The amount of sulfate of copper used in July should be lessened to two and a half or three pounds with five pounds of lime to fifty gallons of water.

In our experience when Bordeaux is applied in full strength and the weather is, and remains, dry, varieties of apples like Ben Davis and Utter's Red are russeted and their size impaired.

CONCLUSION.

In combating the codling-moth and fungus diseases it is necessary to spray at least four times. The first spray is applied just before the blossom buds open, using Bordeaux with the addition of an insecticide to destroy the bud-moth and canker-worm.

The second spraying, using Bordeaux and insecticides combined, is doubtless the most important of all and is applied just after the petals have fallen and before the calyx closes. This application should be most thorough.

The third spraying, of the same composition as the second, should be a week later and is chiefly to remedy the defects of the previous application. It, however, furnishes an additional supply of poison for the later larvae just hatching. Where codling-moths are abundant, it seems wise to

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Iowa stands at the head as a corn growing state. The soil and climate here are specially adapted to it and practically all the best varieties have originated with us. Seed corn has been our great specialty for over 20 years, and we are the largest dealers in the U. S. It will pay you to try our

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New Golden West. The nearest perfection of any corn ever offered. Notice cut showing depth of grain, smallness of cob and how well it rounds out over both tip and butt. Ears large and solid; bright golden yellow. Matures in 100 days. Per pk. 65c; bushel, \$2.00; 10 bushels, \$17.50.

Iowa Silver Mine. Has the reputation of being the most productive of all. Yielded 215 bushels per acre in the great corn contest. Per peck, 60c; bushel, \$1.80; 10 bushels, \$14.00.

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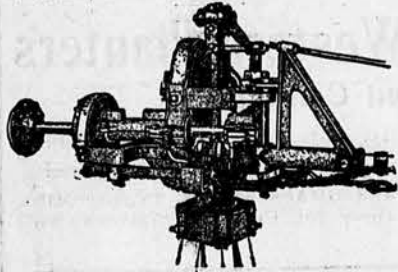
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 "Blue Label" Quality with our tag. 50 lb. bags guaranteed average length of 500 feet to the pound; guaranteed for evenness, tensile strength and the equal of any on the market. Send for sample and our "No-money-with-order" proposition. Very liberal, very safe and a good saving for you. Delivered prices named to 500 towns. Write today for our Twine Book and Special Offer. **MONTGOMERY WARD & CO.** Chicago and Kansas City

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That's what the windmill head is to the windmill—"the brains;" and that's why we make it so good. It is compact, strong, down close to the work, and has but few wearing parts. See that outer bearing for wheel shaft, you know that's good. Note the Center lift crank with Double bearings. It's good, too.



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Large Oil Boxes,
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MORE CORN MONEY
 INCREASE Your CORN PROFIT
 By Planting Sorted Corn



No idle ground; no missing hills; big yield sure when you sort your seed with this machine.

It all depends upon the stand

We want to show you how you can make more money out of your next season's corn crop. All you have to do is to make sure of a perfect stand—get a uniform number of grains in every hill.

We manufacture the ONLY machine that will sort your seed corn so evenly that your planter MUST DROP a given number of grains every time.

"Morecorn" Seed Sorter does the work. It was put through the most critical tests at Iowa, Illinois and other state fairs. Thousands of corn growers sorted seed with it so perfectly that an edge-drop planter dropped 99 per cent PERFECT three kernels at each drop.

If you can get your corn fields planted like that next year won't it give you the biggest crop of corn that you ever raised? You can do it if you sort your seed corn with the "Morecorn" sorter. It can be done no other way.

No planter has ever been, or ever will be made that can drop an even number of kernels at a drop without the kernels being uniform in size. You cannot get uniform kernels without sorting your corn.

Don't think of planting corn again without investigating the work of the "Morecorn." It will pay for itself twice over every year and last a lifetime if taken care of.

Let us tell you more about it. Write us today.

THE MONARCH SELF-FEEDER CO.,
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SCALES ALL STYLES
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make the fourth, and oftentimes the fifth application. The copper sulfate, however, should be reduced in quantity, the arsenical poisons remaining the same as before. This is intended to check the second brood of codling-moth and to assist in checking fungus diseases. Banding the trunks has proven very helpful in lessening the second and third brood.

It is of the utmost importance that the work should be thoroughly done and at the proper time. Do not miss even a small branch. Remember that one moth lays three hundred eggs and that a small area of fungus spores will, under favorable conditions, give off spores enough to infect a large area.

Miscellany

Will a Fanning-Mill Pay?

EDITOR KANSAS FARMER:—Until late years it has been thought that labor alone was essential to good farming. At the present time, however, people are awakening to the fact that to be a successful farmer requires more ability and better judgment than any other business or profession. It is true that any one can farm. It is equally true that any one can speculate in stocks. But the same success attends the novice in both cases. A very important factor in successful farming lies in sowing nothing but good, large, heavy seed. The kernels being all of a uniform size allow the crop to ripen evenly, thereby doing away with nearly all the light grain. When selling or feeding, the farmer wants the weight not the bulk. Out of all the small and split seed that is sown, very little grows. Some small kernels may, but they bring forth only a small, delicate stock, with a correspondingly small head, and as their more robust companions start out in life under more favorable conditions they soon leave the weaklings far behind; consequently, a considerable percentage must necessarily be cut green, so that part of the crop will be little better than chaff, besides the strength is taken from the soil to nourish the poor which the good seed should have.

Now we would like every farmer who reads these pages to consider if it will not pay him to have a fanning-mill. We will only touch on a few of the different ways whereby this machine will earn extra profits for you. Not many of you are farming for your health and in any case each and every one is anxious to get the largest possible returns for his labor. If, after due consideration, you decide that it does not much matter what kind of seed you sow, that all other things being equal, inferior seed will produce just as good a crop as the best seed obtainable; that it is not worth a small expenditure to help keep your farm clean and assure extra profits for years to come; then we say—do not bother with a fanning-mill, because we ourselves would not buy anything which we did not think would pay and certainly would not advise any one else to do so. To produce bigger returns is what the fanning-mill is for. It's purely and simply an investment, not a luxury.

The chief aim of managers of all experimental farms is to procure the very best seed for the farm. They claim that sowing small or inferior seed-grain is identical with and gives the same results as breeding from small horses or cattle. That everything in that line has a tendency to degenerate is an established fact and a law of nature, and it reasonably seems very unwise for a farmer to invest money in land, go to the labor and expense of enriching and cultivating the soil, buying implements to cultivate and harvest the crop, and then not sow the choicest of his grain for seed. It requires about the same amount of labor and expense in sowing poor seed and harvesting a poor crop as in sowing good seed and harvesting a correspondingly good crop.

The thrashing-machines may seem to make a good job of cleaning grain,

but their main object is to secure for the farmer all the grain or seed. Now in order to obtain the best results it is necessary to grade out the small, leaving nothing but the large plump grains for seed, and, having to thrash quickly irrespective of the condition of the grain, and having straw, chaff, dust, wind, etc., to contend with, renders this work for the thrashing-machine not only impracticable but impossible. By passing grain through an improved fanning-mill it will be found that after having come through the thrashing-machine, there yet remains about one-fourth of it which is unfit for seed. Therefore, in sowing sixty bushels the farmer throws away in seed alone about fifteen bushels which could otherwise have been utilized for feed; and were he to sow fifteen bushels of good seed instead, the improvements in his next crop should more than pay for a fanning-mill. Then, considering that the life time of a fanning-mill is thirty to forty years, there should be no question as to the purchasing of one being a good investment. Again, very often a farmer can realize from ten to fifty cents extra on every bushel of his grain by grading it in first-class style and selling it for seed. I am quite safe in saying that there is not one single acre of grain grown in the United States but what contains a large percentage of kernels which it does not pay to sow. Much of it contains different kinds of weed seeds, but we here state positively, that even the samples which are free from foreign matter are far from being fit for seed until put through the fanning-mill. To thoroughly satisfy yourself and prove that what we say is correct it will only be necessary for you to extract the kernels from the side of a head of wheat, placing them on a board, each kernel in its respective place as it comes from the head. This will also do more to convince you of the necessity of grading your seed than all the talking we can do. It will also prove that no matter how good the crop is the seed requires to be graded each year. You do not realize the fact that you sow with your seed every year several bushels, which, if graded out by itself, would prove to be so inferior that we venture to say you would not accept one dollar a bushel and agree to sow it on your land, and it would not pay you to do it.

It is recognized fact that "like begets like" in the case of all domestic animals, and the exceptions that occasionally occur go to prove the rule. It is only reasonable to conclude that the same rule prevails in regard to vegetable life, and that we can not expect to reap other than what we sow.

It has been proved that where large seed-oats were sown the average yield was usually ten or twelve bushels per acre better than the average from small seed. In barley, too, the plump seed has always given the best results; while in the case of wheat, peas, and potatoes, the best seed generally gave 20 per cent better yield than that from medium or inferior seed.

The superior seed must have an advantage, not only because like produces like, but also because a plump seed can nourish the first blade better and longer than a thin one, thus giving the infant plant a better start and a better hold of the soil ere it loses the nourishment afforded by the kernel. This can be seen by putting large and small seed into pots of clean, sharp sand or sterilized soil, and noting the time which elapses before each plant dies. Moisture and heat will cause germination and sustain life so long as the blade can live upon the seed, but when that is sucked dry, and the tiny roots fail to find sustenance in the sand, the plant dies.

There is no place where a farmer can get his seed or grain cleaned without paying for it, and no way in which it can be as conveniently and cheaply done as by having a fanning-mill at his own place, where he can grade it on wet days. He saves the price he would otherwise have to pay for grading, and has all his screenings, etc., at home for feed. All grain



The man who has saved up money for a big game trip—who has traveled miles—endured hardships and finally gets a misfire instead of a moose, is one who does not use U. M. C. Big Game Cartridges. U. M. C. Ammunition is sure fire. **THE UNION METALLIC CARTRIDGE COMPANY** BRIDGEPORT, CONN. Agency, 313 Broadway, New York City. Sales Office, San Francisco, Cal.

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He Knows the kind of Waterproof Oiled Clothing that stands the hardest service Do You Know? **TOWER'S FISH BRAND** Made for all kinds of wet work or sport. **SOLD EVERYWHERE** TOWER CO. BOSTON, U.S.A. TOWER CANADIAN CO. LTD. TORONTO, CAN.

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WELL DRILLING MACHINES Over 70 sizes and styles for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on sills. With engine or horse power. Strong, simple and durable. Any mechanic can operate them easily. Send for catalog. **WILLIAMS BROS., Ithaca, N. Y.**

Well Drills and Drillers' Supplies The best on the market. Manufactured by **THATCHER & SONS, Stillwater, Oklahoma.** Write for circulars and prices.

should be cleaned; not only the seed, but grain you feed should be cleaned. It prevents the fowl seed in it from going back to the ground with the manure, where it will cost more than the price of a mill to get rid of it. Besides, the time one would lose in driving after a fanning-mill and returning it would, long before the machine was worn out, amount to more than the price of it. A great many farmers believe it is a good idea to grade their seed and they promise themselves that before they sow any more seed they will take it to the elevator or some other place and have it graded, but when the rush of spring work is on, well the seed goes into the ground without any cleaning or grading of any kind.

We wish to draw your attention to the advantage in having one entirely your own. We don't think you can get any one to take the same pains in grading your seed that you would yourself. Its the other man's object to get through as much as he can, while its your object to produce as good a sample of seed as possible. Besides, consider the trouble in carting your grain backwards and forwards. Wouldn't it be better to apply this money on your own machine than to help pay for the other fellow's? If you have not at all times one in your barn but on the contrary have to drive after one, then you will often neglect to clean grain or seed that should be cleaned and this neglect in one season's crop would amount to more than the price of a mill.

We sometimes hear a farmer say that it does not pay to clean grain. We admit that there it not very much to be made in cleaning grain before selling it, but what we do claim is that by grading your seed you can increase the yield to the extent of from 10 to 20 bushels per acre. The corn crop of this country has been increased millions of bushels by selecting and grading the seed-corn. Now all the other field grains can be increased by the same method, namely, plant nothing but the large plump grains free from all fowl seeds. By the use of a fanning-mill, as made today, this condition is easily accomplished, because the up-to-date mills are so constructed that they will clean and grade any kind of grain desired. They will take cockle out of wheat, kale out of oats, buckhorn out of clover, in fact, they are arranged so as to handle all kinds of grain and seeds.

In all lines of business it is the small details that require attention to insure profit. All good business men strive to have the product of their labor on the market superior to that of their competitors unquestionably it

pays, and is it not equally as necessary for the individual farmer to strive to place on the market a superior sample of seed or grain to that of his neighbor, or the farmers as a whole of any country to strive to make their products outshine those of other countries? Anything that it pays to do at all it pays to do well, and it certainly seems an unwise policy for the farmers of any country to allow their chief branch in industry or produce to acquire a poor reputation in outside markets.

To produce bigger returns is what the fanning-mill is for. It's purely and simply an investment, not a luxury. After you buy land, you must buy horses to work it, implements and machinery to cultivate and harvest it, hire labor or work hard yourself to plow and cultivate the ground. Now after going to all that labor and expense, is there anything that could possibly appeal more to your reason, than the fact that you should at least take a little trouble to get good seed to sow? Is it not pretty much the same as though you invested say \$100 or \$200 in a fine mare? You wouldn't think of using some little scrub horse with her, if you get the use of him for nothing. It would be the same if you had a nice flock of ewes or a fine herd of cattle. You would have a lot of money in them, and to make them pay you must get the best out of them. Yet, you have much more money invested in the seed-bed, and do you think it's going to pay you to sow inferior seed, as you have been doing, and must continue to do unless you have a fanning-mill? If, however, you decide that it will pay to sow good seed, that it will pay to prevent any more weeds getting on your farm either through the manure or the seed, that it will pay to make that farm yield you the fullest possible returns for each cent of capital invested and labor expended, then we say that the fanning-mill is an absolute necessity on your farm; and to satisfy yourself on this point, we suggest that you immediately write to some of the manufacturers of fanning-mills and get all the necessary information.

FANNING-MILL MAN.

We often do more good by our sympathy than by our labors, and render to the world a more lasting service by absence of jealousy and recognition of merit than we could ever render by the straining efforts of personal ambition.—Archdeacon Farrar.

Courage is a sort of armor to the mind, and keeps an unwelcome impression from driving too deep into perception.—Elmes.



"True Temper Tools Mean Good Tempered Gardeners"

THE right tool for each kind of work is *real economy* in the garden.

A saving in time and labor. It wouldn't take much argument to prove that the man who tries to do it all with a spade and hoe works a good deal harder and accomplishes far less than his neighbor with a complete supply of Garden Tools.

And he thereby loses money, too.

Ask the garden maker. He will tell you that the man who can go to his toolhouse and get just the tool he needs for each kind of work, will soon save enough time at 15 cents an hour to pay for a good outfit.

Think of the pleasure of doing things right, too.

You not only want the *right kind* but the *best kind* of tools. That's the True Temper line—"The best tools you have ever bought at the same prices you have always paid."

Not a tool is allowed to receive a True Temper label at our factories until it has shown under the most severe tests that it is *true* in quality, construction, "hang" and temper.

A tool for every requirement—Forks, Hoes, Rakes, Hooks, Weeders, Cultivators, Garden Tools, Floral Tools, etc.

Write today for **FREE BOOK**, "Tools and Their Uses." Gives valuable pointers on the advantages of special-purpose tools. A postal card will do.

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THE BANNER RIDING ATTACHMENT

Will fit on any right or left hand wood or steel beam walking plow, lister, sod breaker, middle breaker or harrow. ALL OF THIS WITH THE SAME ATTACHMENT. A wrench all the tool for attaching. Is regulated by levers, same as a regular riding plow. Plow or lister may be adjusted to depth from 1 to 12 inches, and from 8 to 24 inches width. Lifts point out of the ground for moving. Made of malleable iron and steel; no wood or hard castings. 26-inch wheel with removable box, 2-inch oval tire, 1 1/2-inch solid steel axles, steel levers, pressed steel seat—the best of material used throughout. Weight complete 110 lbs., and will cause plow or lister to stay in as hard ground and do as good work as any riding plow or lister. 15.00 now in use. WE GUARANTEE EVERY ONE. Only \$15 from your dealer, or delivered by us to your nearest station. We want an agent in every locality and we prefer men who use plows. Write for terms and full descriptions. THE IMPLEMENT AND MFG. CO., Coffeyville, Kans.

HART-PARR Gasoline Traction Engine

Oil Cooled--Frost Proof, Fire Proof.

Most Economical Engine for Plowing, Thrashing, Shelling, Grinding, Shredding, Road Work.

Uses Gasoline or Kerosene.

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Best Baker Built

SOLD DIRECT from FACTORY at WHOLESALE PRICE

We save you from \$15 to \$40 when we sell you a Hand-Made Steel Range direct from our factory at our low wholesale price, besides we give you the best range on the market. The Tolman Steel Range is the "best baker built," is very economical in fuel consumption, constructed of the best materials money can buy and will give you splendid satisfaction and years of service. We ship any style range we make on a strong, binding ten year guarantee and give you one year free decision trial. We prove to you in your own home, at our risk, by actual test, that Tolman Ranges are superior to any range made, and that our way of selling direct at wholesale prices actually saves you money. Don't buy until you get our complete catalog of stoves and ranges. A moment's time and a postal card will bring it to you and save you money. Write for it today—ask for catalog "G."

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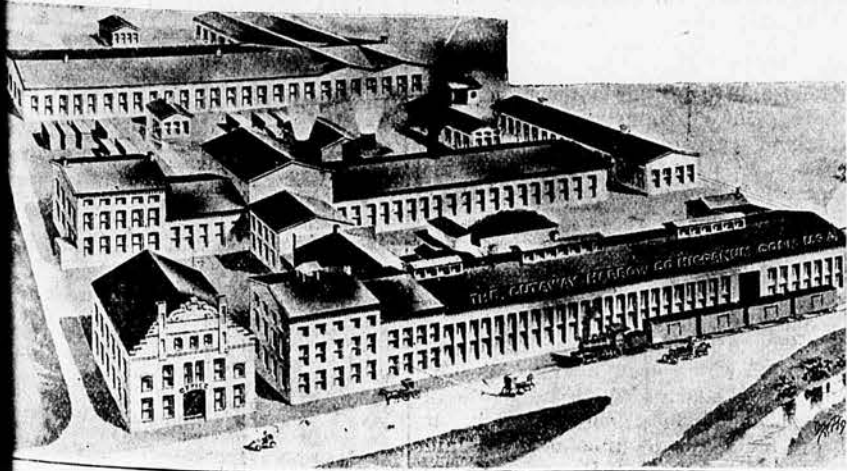
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The Farmer's Alliance Insurance Company of McPherson, Kansas

We furnish insurance at cost; 18 years of successful business. Why carry your insurance with others when you can get it in this company at much less cost. Write for full particulars of our plan.

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WHEN WRITING OUR ADVERTISERS PLEASE MENTION THIS PAPER.



Plant of Cutaway Harrow Co., at Higganum, Conn., covering 5 acres. More than 300,000 harrows now in use. J. C. Conley, Wichita, Kans., General Agent for the Southwest.

We call special attention to the advertisement of the Cutaway Harrow Company, which starts in this issue of THE KANSAS FARMER on page 285. The company have established permanent headquarters for the Southwest trade in Wichita, Kans., and appointed J. C. Conley general agent for this territory, with headquarters at Wichita. The Cutaway harrow is one of the most useful pieces of machinery on the market. Only the very best material is used in its construction. The main boxes are made of hardwood and are lined with oil which will wear any soil. The disks are cutlery steel and are made with six light points and will reduce the toughest ground or toughest sod to a seed-bed without the aid of a

That the disk-pulverizer is a prime necessity for the thorough preparation of a seed-bed is no longer a question, but a settled fact. Intense cultivation not only destroys weeds and trash, but puts new life into the soil, which acts as a fertilizer.

For orchard use the cutaway is unexcelled. With its cutaway disk it reduces the surface of the ground to a perfect mulch, destroying all weeds without injuring tender roots of the trees and leaving the ground not ridged but level.

It is also one of the best tools in the market for disking alfalfa-fields. Write J. C. Conley, Wichita, Kans., for full particulars. Mention THE KANSAS FARMER.

Home Departments

CONDUCTED BY RUTH COWGILL.

The Golden Mile-Stone.

Leafless are the trees; their purple branches
Spread themselves abroad, like reefs of coral,
Rising silent
In the Red Sea of the Winter sunset.
From the hundred chimneys of the village,
Like the Afreet in the Arabian story,
Smoky columns
Tower aloft into the air of amber.
At the window winks the flickering firelight;
Here and there the lamps of evening glimmer
Social watch-fires,
Answering one another through the darkness.
On the hearth the lighted logs are glowing,
And like Ariel in the cloven pine-tree
Groans and signs the air imprisoned in them.
By the fireside there are old men seated,
Seeing ruined cities in the ashes,
Asking sadly
Of the Past what it can ne'er restore them.
By the fireside there are youthful dreamers,
Building castles fair, with stately stairways,
Asking blindly
Of the Future what it can not give them.
By the fireside tragedies are acted
In whose scenes appear two actors only,
Wife and husband,
And above them God the sole spectator.
By the fireside there are peace and comfort,
Wives and children, with fair, thoughtful faces,
Waiting, watching,
For a well-known footstep in the passage.
Each man's chimney is his Golden Mile-stone;
Is the central point, from which he measures
Every distance
Through the gateways of the world around him.
In his farthest wanderings still he sees it,
Hears the talking flame, the answering night-wind,
As he heard them
When he sat with those who were, but are not.
Happy he whom neither wealth nor fashion,
Nor the march of the encroaching city,
Drives an exile
From the hearth of his ancestral homestead.
We may build more splendid habitations,
Fill our rooms with paintings and with sculptures,
But we can not
Buy with gold the old associations!
Henry W. Longfellow.

To-day.

"To-day
Unsuited comes to thee, new born;
To-morrow is not thine.
The sun may cease to shine
For these ere earth shall greet its morn.
Be earnest then in thought and deed,
Nor fear approaching night;
Calm comes with evening light
And hope and peace. Thy duty heed—
To-day."

When work comes crowding up before you making demands, and duties stand making a long procession, each waiting till its turn, just leave them there and look away to the beautiful stanza by John Ruskin, above quoted. Read it and reread it till you can resolutely shut out of mind everything but the thing that comes first. Much energy is wasted and time consumed in worrying over the work of to-morrow or next week. The very thought of it when viewed as a whole is wearisome, but when each task is looked at singly and done in its turn without hurry and confusion, there is real enjoyment in its accomplishment, and one will be surprised how much may be done without becoming weary.

Each day brings its work. There is no getting around it, and if in health one will not want to avoid it. Winter with its duties is about to say farewell. There may be a little leisure, a little less strenuous time before the spring work begins, and one must plan for the coming work in order to have the best results. House-cleaning and sewing for indoor work and garden-making, yard-cleaning, etc. outside will soon claim the attention. By planning to do each at the proper time

better results will be forthcoming and less energy will be expended than if one goes at it haphazard. But when the worked is mapped out, leave it where it belongs and do not keep going over it again and again in the mind using the strength needed to accomplish it. The mind has such a wonderful effect upon the body that it is worry more often than physical exercise that breaks down the health. Mentally, one may carry her work of to-morrow and next day and for weeks ahead, thus keeping it continually with her—a burden night and day. It is no wonder that lines creep into the face; that the eyes lose the hopeful expression, and that the shoulders become stooped from carrying this imaginary burden. Let us then live only one day at a time, and live it as though it was the last.

Yesterday is gone and the mistakes and failures are irrevocable. No amount of worry or remorse can change it. Turn from it and devote your energies to living aright to-day, to making it the best day you ever lived and the brightest one for every one else around you. To-morrow is not yours and "The sun may cease to shine for thee, ere earth shall greet its morn." If it does come to you, you will be better able to enjoy its pleasures if it be a to-morrow of pleasure; better able to endure its pains and disappointments if such are in store; better able to bear its burdens whatever they may be if to-day is lived well and wisely. I heard an old lady remark only a few days ago, "This is a new day—a beautiful new day," and I thought by the way it was said that it meant much to her. I read in her face thoughts like these: "I am thankful for this new day. Thankful that I can have another day's trial of life, that I may make it a better one than yesterday. I am weary of looking back, weary of the mistakes and failures. These I can not change, but I am thankful for this another day that I may make it one that may in a measure compensate for the past." May we accept each day as a gift, one from our Heavenly Father and remember these words: "Take therefore no thought for the morrow, for the morrow shall take thought for the things of itself."

The "Booze" Handicap.

A few weeks ago the Kansas City Journal contained the following article under the above title. It is an evidence of advancement in favor of temperance:

"Many railroad companies and other large corporations refuse to take men into their service who drink intoxicat-

ing liquors. They can not afford, they say, to have their business depending on men who are unreliable, and men who habitually or occasionally drink too much are properly regarded as unreliable. The only safe way is to employ men who are sober all the time, and to discharge them when they cease to be so, and this is the basis upon which the world's important business is now being conducted. The man who has the alcohol habit may keep sober for weeks or perhaps months, but his employer never knows, and usually he never knows himself what day he may fall to show up at the shop or office on account of being in an unfit condition to appear there. The victim of such habits is deserving of pity or sympathy, perhaps, but he is an unsatisfactory employe and few business concerns nowadays will tolerate him. "In the case of public servants the rule is not so strict, though the drunken government clerk is speedily dropped, as a rule, and the elective officeholder who neglects his duties from too much drinking usually finds when he asks for re-election that the voters prefer some one who can keep "straight" and keep their official business straight. It would naturally be expected that a State like Kansas, which has outlawed the liquor traffic and planted prohibition in its constitution, would make a practise of putting only sober men into important offices, and that is precisely what Kansas does. Not all of the Kansas Congressmen and State officials are teetotalers, probably, but there are no drunkards among them. Governor Hoch is a very earnest prohibitionist, theoretically and practically. Neither of the Kansas Senators, Long or Curtis, drinks a drop. Friends of Curtis says it would be as easy to get him to take a dose of strychnine as to induce him to swallow a glass of whisky. These abstemious habits are not newly acquired for political effect, but are of long standing and no doubt have been factors in promoting both these men to their present high positions in public confidence and esteem. "The time has passed when the man who befuddles his brains with liquor and neglects his work for conviviality can hope to retain employment in the service of any important business concern or attain a position of public trust and usefulness."

The Children's Post.

The young folks are aware perhaps that H. W. Longfellow was born February 27, 1807, but most of you may need to be reminded that it has been one hundred years since that time, and that if he were alive now he would be a centenarian. He was a grand man and the much-loved poet of America. He was fond of young folks and they in turn admired and loved him. He traveled much in the old world, where he made many friends and to-day his name is honored there. On Westminster Abbey, where England's greatest men are buried, they have erected a monument to his memory in the poets' corner.

He lived many years in Cambridge, Mass., and was a professor in Harvard College. The children of Cambridge celebrated his seventy-second birthday and presented him with a chair made from the "spreading chestnut tree" which grew near to his boyhood home and of which he wrote in one of his poems. The tree was cut down and the wood carefully laid away and dried; then it was made into a beautiful arm-chair and a loving message was carved upon it. The poet was greatly pleased with this token of their love and wrote a poem called "From My Arm-Chair," and when the children came to see him each was given a copy of the poem and was allowed to sit in the chair. When Longfellow was a boy he spent much of his time on his grandfather's farm. He loved to listen to the tales his grandfather told of the Indians and their customs and ways of living. When he grew up he wrote a wonderful and beautiful poem and wove these stories into it. You have all read "Hiawatha," that most wonderful story of Indian life. I hope each of the

Do it Now! Don't Wait Until It's Too Late!

KEEP your body clean!
Most people are very neat and clean in their outward appearance, but how about the inside?

Are you clean inside?
And if not, how can you face the world with clean thoughts, clear intelligence, a fair, just, bright mind and get your full share of capacity for work and enjoyment?

Neglect of exercise, rich over-feeding and carelessness about stools, often leave the delicate internal mechanism in a nasty mess.

The small intestine is compelled to absorb the poison of decaying matter instead of wholesome nourishment.

The liver gets inactive; the bile doesn't "work off"; the eyes get yellow; the skin gets dead like putty and pale like dough, disfigured with boils, pimples, blackheads and liver-spots.

There's only one solution to the problem: Keep clean inside all the time. That's the answer.

If you can not diet, or keep your mechanism going by proper exercise, take Cascarets, the sweet, fragrant, harmless little vegetable tablets, that "act like exercise" on your bowels, and gently but powerfully clean out and disinfect the whole digestive canal.

A Cascaret every night before going to bed will "work while you sleep" and make you "feel fine in the morning."

If you have been neglecting yourself for some time, take a Cascaret night and morning and break up the "constipated habit" without acquiring a "cathartic habit."

Cascarets are sold by all druggists, 10c, 25c and 50c. The 10c size trial box is a neat fit for the vest pocket or lady's purse.

Be sure to get the genuine with the "long-tailed C" on the box and the letters "CCC" on each tablet. They are never sold in bulk.



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Price 25c and 50c

Housekeepers must be watchful, for great efforts are made to sell the alum baking powders which every physician will inform you are poisonous to the human system.

The Government Report shows Royal Baking Powder to be an absolutely pure and healthful cream of tartar baking powder, and consumers who are prudent will make sure that no other enters into their food.

young folks who has not already done so will make Henry Wadsworth Longfellow one of his friends by reading his works and becoming familiar with his writings.

The Young Folks

Young Women's Christian Association. Any Young Woman who is planning to come to Topeka will find peculiar advantages at the rooms of the Young Women's Christian Association, 628 Jackson Street. Rest rooms, reading room and lunch room are at the disposal of all women at any time. A boarding house directory is kept at the rooms, and also an employment bureau, free of charge. On each Sunday afternoon, at 4:15, a gospel meeting held to which all women are invited. The first week of October is the time set for the opening of the club work, and the classes in Bible Study, in English, Parliamentary Law, Sewing, Water Color and Travel. The Gymnasium also opens then, with classes in Physical Training under a competent instructor. The printed announcements will be mailed on application to the General Secretary. A cordial invitation is extended to out-of-town women, especially to make use of the rooms.

Towser Shan't Be Tied To-Night.
(Published by request.)

Slow the Kansas sun was setting
O'er the wheat-fields far away,
Streaking all the air with cobwebs,
At the close of one hot day,
And its last rays kissed the foreheads
Of a man and maiden fair,
He with whiskers short and frowzy,
She with red and glist'ning hair,
He with shut jaws stern and silent,
She with lips all cold and white,
Struggled to keep back the murmur,
"Towser must be tied to-night."

"Papa," slowly spoke the maiden,
"I am almost seventeen,
And I've got a real lover,
Though he's rather young and green.
But he has a horse and buggy,
And a cow and thirty hens,
Boys that start out poor, dear papa,
Make the best of honest men.
But if Towser sees and bites him,
Fills his heart with sudden fright,
He will never come again, pa;
Towser must be tied to-night."

"Daughter," firmly spoke the farmer,
Every word pierced her young heart
Like a carving knife through chicken
As it hunts a tender part.
"I've a patch of early melons,
Two of them are ripe to-day,
Towser must be loose to watch them,
Or they'll all be stole away.
I have hoed them late and early,
In dim morn and evening light,
Now they are grown I must not lose them,
Towser'll not be tied to-night."

Then the old man ambled forward,
Opened wide the kennel door,
Towser bounded forth to meet him,
As he oft had done before,
And the farmer stooped and loosed him
From the dog-chain short and stout,
To himself he softly chuckled,
"Bessie's feller must look out."
But the maiden at the window
Saw the cruel teeth show white,
In an undertone she murmured,
"Towser must be tied to-night."

Then the maiden's brow grew thoughtful,
And her breath came short and thick,
Till she spied the famly clothes-line,
And she whispered, "That's the trick."
From the kitchen door she gilded
With a plate of meat and bread,
Towser wagged his tail in greeting,
Knowing well he would be fed.
In his well-worn leathern collar
Tied she then the clothes-line tight
All the time her white lips saying,
"Towser must be tied to-night."

"There, old doggie," spoke the maiden,
"You can watch the melon-patch,
But the front gate's free and open,
When John Henry lifts the latch,
For the clothes-line tight is fastened
To the harvest apple-tree.
You can run and watch the melons,

But the front gate you can't see."
Then her glad ears hear a buggy,
And her eyes grow big and bright,
While her young heart says in gladness,
"Towser, dog, is tied to-night."

Up the path the young man saunters,
With his eye and cheek a-glow,
For he loves the red-haired maiden,
And he aims to tell her so.
Bessie's roughish little brothers,
In a fit of boyish glee,
Had untied the slender clothes-line
From the harvest apple-tree.
Then old Towser hears the footsteps,
Raised his bristles fixed for fight,
"Bark away," the maiden whispers,
"Towser, you are tied to-night."

Then old Towser bounded forward,
Passed the open kitchen door,
Bessie screamed and quickly followed,
But John Henry's gone before.
Down the path he speeds most swiftly,
For old Towser sets the pace,
And the maiden close behind them
Shows them she is in the race.
Then the clothes-line—can she get it?
And her eyes grow big and bright,
And she springs and grasps it firmly,
"Towser shall be tied to-night."

Oftentimes a little minute
Forms the destiny of men,
You can change the fate of nations
By the stroke of one small pen.
Towser made one last long effort,
Caught John Henry by his pants,
But John Henry kept on running,
For he thought that his last chance,
But the maiden held on firmly,
And the rope was drawn up tight,
But old Towser kept the garments,
For he was not tied to-night.

Then the father hears the racket,
With long stride he soon is there,
Where John Henry and the maiden
Crouching for the worst prepare.
At his feet John tells his story,
Shows his clothing soiled and torn,
And his face so sad and pleading,
Yet so white and scared and worn,
Touched the old man's heart with pity,
Filled his eyes with misty light,
"Take her boy, and make her happy,
Towser shall be tied to-night."

—Duroc Bill.

Longfellow's Cambridge Home.

With singularly good fortune, within about a year after he came to Cambridge, Longfellow secured lodging in Craigie House—then and still, in its aspects, its surroundings, and its outlook, the most beautiful house in the town. That he obtained this coign of vantage at all is creditable to his tact and address; for to the solitary and somewhat eccentric mistress of the house, Madame Craigie, the society of most persons was quite unwelcome. This young professor, however, with his pleasing aspect and manners, was welcomed as soon as he disclosed his identity, and was given the very room that had been occupied by Washington in 1775, shortly after he took command of the Continental Army. After Madame Craigie's death, and the poet's marriage to Miss Appleton, this house which, in addition to its other advantages, commanded a wide and pleasant view, became the poet's home for the rest of his life.

In this happy home and in these pleasant surroundings he enjoyed high fellowship with kindred souls—Felton, Sumner, Lowell, Emerson, Hawthorne, and all the others, distinguished in so many and varied fields of science, letters, and poesy. One has but to name them to feel something of the impulse they must have given his expanding powers.—From "The Longfellow Centenary," by Frank Gaylord Cook, in the American Monthly Review of Reviews for February.

To Be a Lady.

Cultivate a low voice and one without a whining tone.

Never speak ill of your girl associates to the boys of your acquaintance. Do not wear loud colors in dress, even though all the fashion books announce their popularity.

Show a modest, lady-like manner everywhere, and especially in public places.

Avoid slang of every form. The lady avoids them always.

Never leave your room in the morning until your hair is properly combed; a sloven, only, wears untrained locks.

Never be guilty of the evil practise of flirting. It may sound rather blunt, but the lady never flirts. Men who follow this practise are not worthy of your acquaintance and have only evil intentions.

Never recline or lie down when entertaining friends. If you are too tired to sit upright and talk sensibly, ask to be excused, go to your room and rest body and mind for a half hour. It would be more courteous and lady-like than to show a lounging tendency.

Speak kindly to all the family, and most especially to your mother. She,



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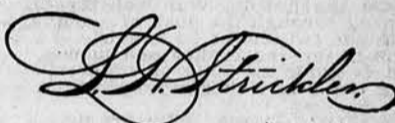
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T. C. Davis, Benedict, Kansas

of all your friends, deserves your best treatment, and many a girl has lost a friend when overheard abusing her mother.

Never inquire into the private or family affairs of your friends. If they wish you to know why Ellen became so reckless, or why father failed in business, they will not wait until you inquire. If they need your suggestions, advice, or sympathy, they will be free to ask you for it.—The Farmer's Guide.

A Young Girl's Triumph.

To write, and even to sew, by means of the lips and tongue alone would seem a sheer impossibility, and yet Dr. Rubinstein, of Wertheim-on-Maine, a medical expert of reputation in Germany, according to the London Globe, vouches for having himself seen an authentic instance. The case was that of a young girl, paralyzed in all her limbs from the age of seven to fourteen years, when she died, some months ago. This afflicted little creature, by a triumph of will and patience, than which, in its own way, few finer achievements have been recorded, trained lips and tongue to do the work of the hand, and to do it well, for she could not only sew, but could do it with neatness and speed, even arranging pieces of light stuff in their places by the same means. In three weeks she embroidered designs in silk on a piece of canvas some yards long.

The Little Ones

Little Hiawatha.

At the door on summer evenings
Sat the little Hiawatha;
Heard the whispering of the pine-trees,
Heard the lapping of the water,
Sounds of music, words of wonder;
"Minne-wawa!" said the pine-trees,
"Mudway-aushka!" said the water.

Saw the fire-fly, Wah-wah-taysee,
Flitting through the dusk of evening,
With the twinkle of its candle
Lighting up the brakes and bushes.
And he sang the song of children,
Sang the song Nokomis taught him:

"Wah-wah-taysee, little fire-fly,
Little, flitting, white-fire insect,
Little, dancing, white-fire creature,
Light me with your little candle,
Ere upon my bed I lay me,
Ere in sleep I close my eyelids!"
—H. W. Longfellow.

Jean's Party.

ANNA DEMING GRAY.

Jean was going to a party. She looked very fresh and sweet in her little red school dress, and her white apron.

"For you see, its just a sensible kind of a party, mother," she said, tipping from one foot to the other in her eagerness, until her curls bobbed in every direction, and I could hardly manage to tie the red ribbon bow.

"We will all wear our school clothes, so's we can play, and not a best thing to be careful of will be there." And she kissed me and fluttered off, looking back with a pitying glance, that I, being so far past 'seven' could not be invited to valentine parties.

In ten minutes I heard her coming very slowly up the stairs, and there she stood in the doorway. Such a very different, queer-looking little girl! She was crying softly, and the white apron was covered with mud. Even the pretty red dress had suffered, and the tilting red bow had lost all its jaunty stiffness, and hung limply, a big spot of mud on the highest loop.

"I slipped," she said, "and I fell right into the dirty, horrid mud, and I hate this earth any how—all covered with dirt and getting it all over people! And the party is most ready to begin—and likely there'll be ice-cream, and I'm not there." And the crying began again. She looked very funny, but I did not feel in the least like laughing. Mothers don't ever, when little girls are in real trouble.

I took the muddy little hand and led her into the bath-room. "Stop crying," I said, "I am going to get all your muddy things off, and fresh ones on in fifteen minutes, Jean, and if you cry your eyes will be red for the party."

"Oh, am I going?" she said.
"Why of course" I answered. "You can't miss such a lovely valentine party, when you never went to one in

your life—for a little Kansas mud. And while I dress you again, I am going to tell you something that will keep you from ever again saying that you hate the earth. 'Hate' is not a nice word anyway. To lose your temper was a lot worse than to lose your clean apron.

"I wonder if you know why people sometimes call the ground 'Mother Earth.' It is because she gives us so many good gifts. From the ground we get most of our food. Beans and corn are seeds. We owe them to the earth. Then think of the roots we eat; things like potatoes and turnips and beets. The earth gives them to us. We get the leaves we like for food from plants that grow in this good earth."

"But I don't eat leaves," said Jean. "That's like a cow."

"What about cabbage and lettuce? And then there is sugar; it is made out of a plant. Coffee is the seed of a plant. Our flour is from wheat and that is a seed, too. You have seen it growing on grandfather's farm. All the fruit-trees are plants too, and the earth makes them grow. The things we wear, the animals that furnish us meat, the houses we live in—everything we need for our daily use we in some way owe to old Mother Earth. So you can see you have no right to do anything but love the earth. It is one of our best friends and while I dress you to-morrow I'll tell you some more about it."

"There—you are all clean again and I expect you have learned more than if you had spent this fifteen minutes at the party. Run along, and don't forget that if it were not for Mother Earth, you would not even have the ice-cream."

Jean paused in the doorway. "Goodness me, Mother" she said, "Is there dirt in the ice-cream too?"

"No, not just that," I said. "But if it were not for this kind old earth, you could not have the ice-cream."

"I'll tell you why, sometime."

Our grand business is not to see what lies dimly in the distance, but to do what lies clearly at hand.—Carlyle.

Relief for Catarrh.—A Free Distribution of New Discovery to Combat Catarrh and Asthma.
In an endeavor to give wider publicity, to the new discovery, Toxico, which is effecting so many marvelous cures in catarrh and asthma, a sample treatment will be sent free by mail to any sufferer addressing the Toxico Laboratory, 1269 Broadway, New York City. Chronic cases, diagnosed beyond recovery, have been conquered in thirty days, and it is evident that medical science has at last found a remedy that will successfully combat these diseases. What is most startling is the fact that Toxico conquers asthma and catarrh under the most trying climatic conditions.

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THIS IS THE RECORD

FRUIT RAISING and MELON GROWING upon these irrigated lands make the following AVERAGE profits—in individual cases these figures have been largely exceeded:

Apples	\$500 to \$700 per acre each year
Peaches	250 to 600 per acre each year
Pears	250 to 600 per acre each year
Grapes	250 to 800 per acre each year
Apricots	200 to 400 per acre each year
Cherries	250 to 1000 per acre each year
Prunes	150 to 300 per acre each year
English walnuts	250 to 600 per acre each year
Nectarines	150 to 400 per acre each year
Almonds	150 to 500 per acre each year
Watermelons	150 to 300 per acre each year
Muskmelons	150 to 300 per acre each year
Strawberries	250 to 700 per acre each year

You clear \$150 to \$1000 per acre each year from your fruit, and in addition your land rises in value \$100 to \$200 per acre per year, two sources of large profits.

AND THE CLIMATE

Why not live where you can be comfortable all the time, where delicate fruits and flowers flourish and you can carry on farmwork practically every day in the year?

32,000 acres being placed under irrigation and divided in five, ten, twenty, and forty acre tracts. Five or ten acres will make you more than 160 or 320 acres where you now are, and with far more certainty. Great hydraulic waterpower works now building at Priest Rapids on the Columbia River to supply irrigation for your land and heat, power, and light for your dwelling.

Our "Question and Answer" circular tells all about it; sent free. Address

Hanford Irrigation & Power Company
E. C. HANFORD, Manager.

Dept. 12, Seattle National Bank Bldg. SEATTLE, WASHINGTON
(Ten acres enough)

STANNARD'S PROCESSED CRUDE OIL Kills Lice and Cures Mange. There is no Remedy on the Market as Good or as Cheap. It not only kills all lice on cattle and hogs, but all nits, and one application does the work. Does not injure hair or skin. Can be used in vats or with brush. Also kills lice or mites on chickens. Put up in new 52-gallon barrels and sold for \$5 per barrel. I have used nearly all dips on the market and I say to you, from experience, this oil is better and more effective than any of them. Why pay \$50 per barrel when you can get a better article for \$5? I also sell a heavy Pure Crude Oil as it comes from the well that is a good lubricating oil, 52 gallons for \$8.50; an excellent grease to keep plow-shares and cultivating-shovels from rusting. Try these oils and you will always use them. When ordering, state plainly whether you want the Processed Oil or the Pure Crude. Send remittance with order. C. A. STANNARD, Emporia, Kansas, Sunny Slope Farm. Please mention Kansas Farmer.

Mrs. Cora B. Miller Makes a Fortune

...ted a Few Years Ago With No Capital, and Now Employs Nearly One Hundred Clerks and Stenographers.

Until a few years ago Mrs. Cora B. Miller lived in a manner similar to that of thousands of other very poor women in the average small town and village. She now resides in her own palatial new-stone residence, and is considered one of the most successful business women in the United States.



Miller's New Residence Earned In Less Than One Year.

Several years ago Mrs. Miller learned the mild and simple preparation that she herself and several friends of female weakness and piles. She was bedeviled by so many women needing treatment that she decided to furnish it to those who might call for it. She started with only a few dollars' capital, the remedy, possessing true and wonderful merit, producing many cures in doctors and other remedies failed. Demand grew so rapidly she was several times compelled to seek larger quarters. She now occupies one of the city's largest office buildings, which she has, and almost one hundred clerks and stenographers are required to assist in this great business.

Million Women Use It. More than a million women have used Mrs. Miller's remedy, and no matter where you live, she can refer you to a lady in your own locality who can tell you a sufferer that this marvelous remedy really cures women. Despite the fact that Mrs. Miller's business is very sensitive, she is always willing to give advice to every suffering woman who writes to her. She is a generous, good woman and has decided to give away to women who have never used her medicine \$10,000.00 worth absolutely FREE.

Every woman suffering with pains in the head, back and bowels, bearing-down feelings, nervousness, creeping sensations up the spine, melancholy, dizziness, hot flashes, weariness, or from any cause, should sit right down and send her name and address to Mrs. Cora B. Miller, Box 5471 Kokomo, Ind., and receive by mail (free of charge in plain wrapper) a 50-cent box of her marvelous medicine; also her valuable book, which every woman should have. Remember this offer will not last for thousands and thousands of women who are suffering will take advantage of this generous means of getting cured. So if you are ailing, do not wait another day, but send your name and address to Mrs. Miller for the book and medicine before the \$10,000.00 worth is gone.

TAPE-WORM Expelled alive in 60 minutes. HEAD or no charge. No fasting, no sickness, no pain. Medicine pleasant and perfectly harmless. Medicine sent to any part of the country. Large booklet containing valuable information free. Illustration shows segments (joints) of common tapeworm in different stages of contraction and expansion, these joints pass in the stool, also crawl away from one troubled with tapeworm.

R. M. NEY SMITH, SPECIALIST, 809 Pine Street, ST. LOUIS, MO.

Don't Eat Glucose. Use our Percolator (the family size and with the simple use of granulated sugar and cold water, make the purest and best syrup in the world, at a much less cost than you are paying for glucose or corn syrup. Operation perfectly automatic. Syrup cannot sour or crystallize. No waste. Price \$2.50. Write for full information. Ever-Ready Syrup Percolator Co., 183 C. Monroe St. Chicago Agents wanted.

BEES SUPPLIES

We can furnish you bee and all kinds of bee-keepers' supplies cheaper than you can get elsewhere, and save you freight. Send for our catalogue with discount sheet for early orders. **Topeka Supply House** 7th and Quincy, Topeka, Kans.

Established 1880. **Howard & Johnston** Dealers in—

Saddles, Wool, Furs, Pelts. **WICHITA, KANS.**

Country houses—Lyons, Kans., Guthrie, Okla. Catalogs and price lists free on application. Write us, and mention The Kansas Farmer.

Club Department

OFFICERS OF THE STATE FEDERATION OF WOMEN'S CLUBS.

President.....Mrs. May Belleville Brown, Salina
Vice-Presidents.....Mrs. L. E. Wishard, Iola
Cor. Secretary.....Mrs. R. I. McDowell, Salina
Rec. Secretary.....Mrs. W. D. Atkinson, Parsons
Treasurer.....Mrs. E. B. Asher, Lawrence
Auditor.....Mrs. Grace L. Snyder, Cawker City

Our Club Roll.

- Excelsior Club, Fortwa, Kansas, (1903).
- Women's Literary Club, Osborn, Osborn County, (1903).
- Women's Club, Logan, Phillips County (1903).
- Domestic Science Club, Oage, Oage County (1903).
- Ladies' Social Society No. 1, Minneapolis, (Ottawa County) (1903).
- Chalisco Club, Highland Park, Shawnee County (1903).
- Cactus Club, Phillipsburg, Phillips County (1903).
- Livestock Club, Ford, Ford County (1904).
- Star Valley Women's Club, Iola, Allen County (1903).
- West Side Forestry Club, Topeka, Shawnee County, Route 8 (1903).
- Fortnight Club, Grant Township, Reno County (1903).
- Progressive Society, Rosalia, Butler County (1903).
- Pleasant Hour Club, Wakarusa Township, Douglas County (1903).
- The Lady Farmer's Institute, Marysville, Marshall County (1903).
- Women's Country Club, Anthony, Harper County.
- Richardson Embroidery Club, Madison, Greenwood County (1903).
- Prentiss Reading Club, Cawker City, Mitchell County (1903).
- Coosmo Club, Russell, Kansas.
- The Sunflower Club, Perry, [Jefferson County] (1903).
- Chalidean Club, Sterling, Rice County (1904).
- Jewell Reading Club, Oage County.
- The Mutual Helpers, Madison, Kansas (1903).
- West Side Study Club, Delphos (1904).
- Domestic Science Club, Berryton, Shawnee County (1903).
- Mutual Improvement Club, Vermillion, Marshall County (1903).
- Centralia Reading Circle, Nemaha County.

(All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.)

Program.

"Nature doth teach us all to have aspiring minds."

Roll-call.—My favorite flower.

I. Artistic arrangement of flowers and shrubs.

II. Flower culture.

III. The vegetable garden.

I. As spring approaches one naturally begins to take thought for the planting and arranging of the yard. The discussion of this subject will prove a mutual benefit and can not help resulting in the better arrangement and more beautiful appearance of the whole neighborhood.

II. The exchange of ideas on the subject of flower culture is good, but if one be appointed to make a study of the subject and present it and then it be discussed, more benefit will be received.

III. This topic may just be talked over, informally, each giving her own experience in garden-making, the best seeds to use, when and how to plant, etc.

A New Year-Book.


The Mutual Helpers' Club, of Madison, may well be proud of its first year-book. It is in green and white—the club colors. The club was organized a year ago and has for its watchword, "Kindness. The motto is, "Have you had a kindness shown, pass it on." On the first page is a beautiful prayer, and on the next one is the 23d Psalm. It is unique in having for its officers honored helper, assistant helper, and recording helper, instead of the usual president, vice-president, and secretary. The programs begin with January and extend through the entire year and they are such that they can not fail to make better, wiser, and happier lives for those who participate. They will be "golden milestones" in the way of life.

The Youth's Companion's Portraits of Washington.

The Washington's Birthday Number of The Youth's Companion reproduces eight different portraits of George Washington out of the list of more than eight hundred which are in existence. Besides the familiar drawing from Houdon's bust and the portrait by Gilbert Stuart, The Companion presents six which are not so well known. One of these, from a painting by Charles W. Peale, is the earliest known representation of Washington's features. He was at the time about forty years old. A still more interesting portrait is the reproduction of the drawing made by Fevret de Saint Memin, a young French artist, in 1798—the last portrait from life that we have. Saint Memin in producing it used an instrument that he called a physionotrace. It enabled him to trace on paper an exact reproduction of the outlines of the face. He afterwards filled in the details with crayons. This portrait shows how the first President looked the year before his death.

TIRED AND SICK YET MUST WORK

"Man may work from sun to sun but woman's work is never done."
In order to keep the home neat and pretty, the children well dressed and tidy, women overdo and often suffer in silence, drifting along from bad to worse, knowing well that they ought to have help to overcome the pains and aches which daily make life a burden.
It is to these women that Lydia E. Pinkham's Vegetable Compound, made from native roots and herbs, comes as a blessing. When the spirits are depressed, the head and back aches, there are dragging-down pains, nervousness, sleeplessness, and reluctance to go anywhere, these are only symptoms which unless heeded, are soon followed by the worst forms of Female Complaints.
Lydia E. Pinkham's Vegetable Compound keeps the feminine organism in a strong and healthy condition. It cures Inflammation, Ulceration, displacements, and organic troubles. In preparing for child-birth and to carry women safely through the Change of Life it is most efficient.
Mrs. Augustus Lyon, of East Earl, Pa., writes:—Dear Mrs. Pinkham:—"For a long time I suffered from female troubles and had all kinds of aches and pains in the lower part of back and sides, I could not sleep and had no appetite. Since taking Lydia E. Pinkham's Vegetable Compound and following the advice which you gave me I feel like a new woman and I cannot praise your medicine too highly."
Mrs. Pinkham's Invitation to Women
Women suffering from any form of female weakness are invited to write Mrs. Pinkham, at Lynn, Mass. Out of her vast volume of experience she probably has the very knowledge that will help your case. Her advice is free and always helpful.



MRS. AUG. LYON

C. W. PECKHAM, President, Haven, Kans. R. R. BEALL, Manager, Kansas City, Mo.

The National Grain & Elevator Co.

Receivers and Shippers of Grain.

This Company is conducted on the cooperative plan by the Independent Cooperative Elevators. We are the terminal for Farmers and Independent Elevators and solicit your membership and patronage.

ARE YOU POSTED

on the recent development in the Grain Trust investigation by the Interstate Commerce Commission? IF NOT, ASK US. Why don't you farmers fight the Trust? We will help you, if you will help yourselves.

DO YOU KNOW

that the President of the Kansas City Board of Trade admitted in his testimony at the hearing of the Interstate Commerce Commission that they had boycotted The Independent Farmers' Terminal Co.?

The National Grain & Elevator Co.

Kansas City, Mo.

References—The Editor of this paper.

GRADE YOUR GRAIN FOR BIGGER CROPS



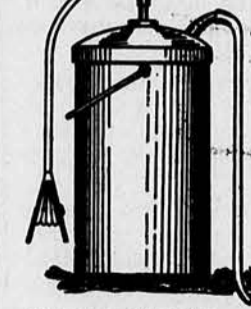
Actual results prove that graded grain yields from 5 to 15 bushels more per acre. It is more proof against rust and smut, of better quality and brings higher prices. No farmer should be without the

LITTLE STAR COMBINED CORN SORTER, GRAIN GRADER AND GRASS SEED CLEANER

It has 7 riddles, 4 double wire screens, making double the screen surface for its size of any other machine of its kind. It does the work of three machines but sells for the price of one. It cleans, separates and grades any kind of seed or mixture of any 4 similar seeds all at the same time. Does perfectly all seed work for a 100 acre farm. Pays for itself annually on every 25 acres. Price freight paid, \$19.98. Order today. The Independent Hall Grain and Seed Separator Co., Box 10, New London, Ia.

Destroy the Gophers

In Your Alfalfa Fields by Using **Saunders' Gopher Exterminator**




This apparatus forces a deadly gas through their runways and is warranted to kill gophers within 100 feet of operation. With it a man can clear from five to six acres of gopher-infested land in a day at a cost of twenty cents per acre. The poison we use can be gotten at any drug store. Satisfaction guaranteed or money refunded. Complete outfit for \$5.

Flint Saunders, Lincoln, Kans.
Mention the Kansas Farmer.

Patent applied for.

SMOKE YOUR MEATS IN THE NEW WAY, USING WRIGHT'S CONDENSED SMOKE



A liquid made from hickory wood. Imparts the delicate flavor that is peculiar to meats smoked with hickory wood. USED BY APPLYING THE CONDENSED SMOKE WITH A BRUSH. Send 10c and names of five who cure meat and we will mail you sample free. Sold only in square quart bottles with metal cap. Never in bulk. At druggists, 75c per bottle. Bottle smokes a barrel.

WRITE FOR FREE BOOKLET

"Wright's Condensed Smoke." Made by THE E. H. WRIGHT CO., LTD., 112 W. FOURTH STREET, KANSAS CITY, MO.

When Writing Our Advertisers Please Mention This Paper

Dairy Interests

Reasons For Testing Herd of Dairy Cows.

WILLIS J. FRAZER, DEPARTMENT OF DAIRY HUSBANDRY, UNIVERSITY OF ILLINOIS.

After ten years' observation of Illinois dairy-herds and the individual testing of more than 800 cows in over forty herds, the writer is able to speak positively of the wide difference in production of milk on the dairy-farms of Illinois. Former articles have shown that many a good cow is worth ten or twenty or more poor cows in the same herd in actual profit to the farmer, and that Illinois dairymen are keeping thousands of cows that barely pay for their board or return so small a profit that it would require a herd of 250 to 400 to make \$1,000 clear money per year. Such cows are common in every community, in fact, as a rule, there are some such in every herd. The dairy-herd that contains none of these practically profitless creatures, or only one or two of them, is a notable exception.

The testing of many herds has shown an equally surprising fact—that these poor cows are not known to their owners or at least the extent of their worthlessness, their demand on his charity, is not suspected. The dairymen who employs any means whatever of knowing the exact returns from each cow in his herd is exceedingly hard to find. The man who keeps a record of the production of each cow is a rare and marked man—marked for success as sure as he follows this up and takes intelligent advantage of its results. The ordinary dairymen has no idea of how much milk, butter-fat, or butter each animal produces in a year; or how much it costs to feed her. And the natural result with the majority of our dairy-farmers is large investment of money and labor for too small returns.

The yield of milk may vary greatly at different times in the milking period or under different feed and care. A cow that gives a large flow of milk for a short time may not yield as much for the year as a cow that gives a smaller amount for a longer time. It is the total of the year's production that counts.

There is no other or easier way to find out the accurate production of each cow than to weigh and test the milk of each separately. This method is found simple and practical by those who have tried it, and their common verdict is that they receive much better pay for this than any other labor done on the farm.

The measure of milk will indicate its weight fairly well, but to be of value the measure must be exact, and it is much easier to weigh the milk than to measure it. Some may think they can estimate what a cow gives by noting how high up the milk comes in the pail, but this is nothing more than guessing, and is far more liable to be wrong than even approximately right. The froth usually prevents seeing where the milk comes to on the side of the pail, and as the froth varies in thickness at different times and with different cows, it is very apt to deceive the guesser.

Experienced dairymen who have begun weighing the milk have told the writer without exception that a close guess at the amount of milk in the pail is practically impossible, and they have every one been surprised at the revelation of the scales.

It is still harder, impossible, to estimate the per cent of butter-fat. All milk of the same richness does not show the same color, and even the amount of cream that rises on it is not a sure indication. A small quantity of high-testing milk may be worth more money than a large quantity of low testing.

The people who know, who have practical experience on both sides of this question, have come to see that guessing won't do and that weighing and testing the milk is absolutely the

only way to know what a cow is worth to the owner.

One of the first great steps towards improvements of the herd is to discover—by scales and test—the cows that are not worth keeping.

Big Records.

EDITOR KANSAS FARMER:—You credit Katy Gerben and Karen with a new yearly milk-production record, Karen 18,710.9 pounds and Katy Gerben 18,573.4 pounds. This caused me to look up a memorandum that I jotted down about 1887 or 1888.

Pietertje 2d produced 30,318.5 pounds in a year. Milla produced 17,927.5 pounds before two years old. These two cows were owned by Jonathan Miller, Brookside Stock Farm, Nunda, N. Y.

A herd of two-year-olds, owned by Smith, Powell & Lamb, Syracuse, N. Y., averaged 12,465 pounds 7 ounces. One two-year-old produced 21 pounds 10 1/4 ounces of butter in one week. Fifty-two cows averaged 20 pounds of butter weekly.

H. C. HAMMOND.
Johnson County.

To Cure A Self-Sucking Cow.

EDITOR KANSAS FARMER:—In your last issue you ask who can break a self-sucking cow. My way is to hang three harness rings, two inches in diameter, on a large bull ring and put it in her nose, just like you would ring a bull. She will never suck herself again, as the harness rings will prevent her from getting the teats in her mouth.

JOHN M. ENGLAND.
Callao, Mo.

The Guernsey Increasing in Popular Favor as a Dairy-Cow.

EDITOR KANSAS FARMER:—There is no better index of the growth of the Guernsey interests than the increase of the Register. Great as this increase appears for an extended period, the records of 1906 show more entries and a larger number of transfers than in any preceding year.

Volume 17 of the Herd Register began with the January number. When the quarterly issues of the Register were started with volume 6 in January, 1895, the club had been in existence seventeen years and a record had been made of 3572 bulls and 7080 cows. During the last twelve years there have been recorded 7612 bulls and 13,778 cows, or twice as many entries. This makes with the beginning of this volume 11,185 bulls and 20,859 cows in the Register, or a total of 32,044 animals.

There were 2706 sales recorded in 1906, or 400 more than in any previous year, and against 652 twelve years ago.

It is now just five years since the establishment of The Advanced Register. In this time 35 bulls have entered same, their qualification being that each must have two or more daughters in this Register. 453 cows have completed their year's record and entered this department of the Register, and 21 have reentered it making a second year's record. Classifying these records the following interesting figures are found that are conclusive proof of the capabilities of the Guernsey cow:

Best year's milk record, 14,920.8 pounds; best year's butter-fat record, 857.15 pounds, or equivalent to 1,000 pounds butter.

Class A.—170 cows, 5 years old or over, average 9,157.6 pounds milk, testing 5.01 per cent and containing 452.8 pounds butter-fat, equivalent to 528 pounds butter.

Class B.—23 cows, 4 1/2 to 5 years old, average 9,044.8 pounds milk, testing 5.01 per cent and containing 453.3 pounds butter-fat, equivalent to 529 pounds butter.

Class C.—32 cows, 4 to 4 1/2 years old, average 8,145 pounds milk testing 5.15 per cent and containing 419.3 pounds butter-fat, equivalent to 489 pounds butter.

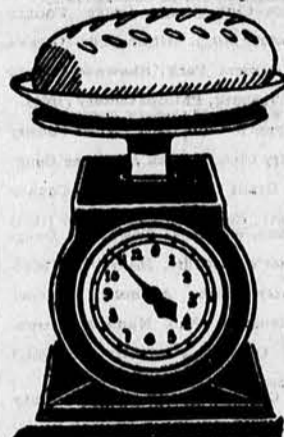
Class D.—31 cows, 3 1/2 to 4 years old, average 7,992.7 pounds milk, testing 5.22 per cent and containing 417 pounds butter-fat, equivalent to 487 pounds butter.

Class E.—56 cows, 3 to 3 1/2 years old, average 7,684.5 pounds milk, testing 5.08 per cent and containing 390.2

1 1/2 more butter 2 1 lbs.

If you can increase your butter production without any increased cost or any more work won't it pay you to do it? And if you can get more butter from you milk with less work, that will be still better, won't it? That's exactly what you can do if you will do as Mr. LEITING did—buy a Sharples Tubular Separator. Here's what he says about the Tubular:

Randolph, Nebraska, Feb. 15th, 1906. Gentlemen:—On the 23rd day of January, 1906, I took a No. 4 Sharples Tubular Separator on trial. On learning that I was in the market for a cream separator, the agent for the disc style "bucket bowl" separator brought one to my farm and requested me to give it a trial before making a purchase. After giving both machines a fair trial, I concluded to keep the Tubular as I consider it far superior to the other machine. It skims closer, runs easier, and is very much easier to wash, there being so many very parts. From three skimmings of milk from 7 cows, we were able to make 1 1/2 lbs. more butter with the Tubular than we could with the "bucket bowl" machine. B. LEITING.



The Sharples Tubular Separator

MORE BUTTER
MORE MONEY

gets all the cream there is in the milk, does it so easy that it's not work to run it at all, and is so simple, with only one little part in the bowl to wash and keep clean that comparison is out of the question.

The extra cream it gets makes the Tubular a regular savings bank for its owner.

All the other good money-making points are told in book F-165, which you ought to read. Write for it today—we'll send it free to you.

THE SHARPLES SEPARATOR CO.,
Toronto, Can. WEST CHEST ST., PA. Chicago, Ill.



Break Loose from the Creamery Trust

Farmers Organize to Manufacture and Market Their Own Product

If you are tired of milking cows and getting small returns; if you want more money for your butter fat; if you want to be freed from the danger of combinations to keep down the price paid you; if you want to get the most for your cream, and to have a voice in its manufacture and sale, you will join the great movement for

CO-OPERATION

that is sweeping over the State like wildfire and become a member of the

Farmers Co-operative Creamery and Supply Co.

It is your only hope of getting your fair share of profits from your milk cows. You do the hard work—you ought to reap the profit.

Organize! Cooperate! Control the manufacture and sale. That's the only way.

This movement will unite 5,000 cream producers in a purely cooperative movement.

The society—incorporated under the laws of Nebraska, has already purchased the immense plant, equipment, and business of the Harding Cream Co., of Omaha, with more than 3,000 patrons and a well-established trade.

So we start with a growing, paying business. No money need be spent in experimenting or in pioneer work. Our plant has a capacity of 40,000 pounds of butter, 5,000 gallons of ice cream, 25 tons of ice per day, and a good market for every pound we produce.

Members of the association not only share in the profits of this entire business, but also have their butter-fat manufactured and marketed at actual cost.

Will you, as a cream-producer and a clear-headed business man, join with us in the movement for cooperation and control of our products? Why not reap our legitimate profits from our cream? Why let them go to enrich a corporation or combination? Why not be our own masters?

SEND FOR FULL PARTICULARS

Write to-day for prospectus of the company and full particulars of our plan for mutual help. Find out why the combination paid on an average 5 and 6 cents more for butter-fat in Central Iowa than was paid in Nebraska and other States. Find out how to keep your profits in your own pockets.

Farmers Co-operative Creamery and Supply Co., 828 Harney St. OMAHA, NEB.

DAVIS

Get it direct from factory at factory prices and save 20% to 50%.

The simple cream separator which doubles profits and cuts dairywork in two. Absolutely the simplest, easiest running, easiest cleaned separator in the world. Just belt high to a man. Its three-piece bowl gets the last drop of cream. Investigate our liberal selling plan. Send your name and address to us on a postal card and get our money saving catalogue No. 125 by return mail.

Davis Cream Separator Co., 540 N. Clinton St., Chicago, Ill.



When writing advertisers, please mention this paper.

\$5.00 Down \$2.50 per Month

We will send a beautiful watch—your choice of Waltham, Waltham or Ruby Hampden, with fitted case—movement fitted gold filled, handsome engraved or perfect case—to any honest person for examination. If you decide to keep it, pay \$5.00 and the watch. We trust you for the balance and allow you to pay only \$2.50 per month for five months. This watch is \$25.00 at dealers; is warranted to wear two years, and is a perfect time-piece.

When ordering send three references, state make of watch desired, whether ladies' or gentlemen's size is wanted. Agents wanted. Address Dept. K. W. M. E. REINICHI & CO. Importers, Jewelers and Manufacturers 126-130 State St., CHICAGO

Good Harness

How You Can Buy a Fine \$35 Set Direct from the Maker for \$24.00

SHIPPED ON APPROVAL

Why should you pay an extra profit on harness to the dealer or mail order house, when you can save at least one-third by buying direct from the maker?

I make 50 styles of good harness. My line is complete. Each set that leaves my shop is the product of workmen highly skilled in the harness maker's art, and guaranteed to be from the best oak tanned leather,—the only kind I use.

I save you 30 to 50%, because I sell direct,—no agents, salesmen, dealers or middlemen of any kind stand between you and my goods; you get better harness, a greater selection and the maker's guarantee of perfect satisfaction or your money back.

And you take no risk dealing with me, because my word is good, and the Company of which I am President, is responsible for any promises I make; look them up in the Commercial Agency books, or ask any bank or express Company where we are best known here in our home town.

Now, about my "leader,"—the \$35 set for \$24.00. The cut gives you a fair idea of it. This is a genuine bargain,—a splendidly made 1½ inch team harness, strong, stylish in appearance, and made of the very best grade oak tanned leather. And it is actually worth more today than it was when we made it up, because leather is advancing in price, as you know.

So, if you want this special harness value, please order promptly, as I shall probably not be able to advertise the set again at \$24.00. Just send me the money and the harness will go to you at once with the distinct understanding that I will refund the price and pay charges both ways, if you are not perfectly satisfied.

My big free Harness Book is full of money saving offers. Send for it and compare our prices, styles and qualities with what your dealer offers. Write me today. Address R. M. Knox, Pres., Western Harness & Supply Co., 91 Main Street, Waterloo, Iowa.



pounds butter-fat, equivalent to 455 pounds butter.

Class F.—60 cows, 2½ to 3 years old, average 6,889 pounds milk, testing 5.23 per cent and containing 360.3 pounds butter-fat, equivalent to 420 pounds butter.

Class G.—113 cows, 2 to 2½ years old, average 6,851.4 pounds milk, testing 5.0 per cent and containing 343.6 pounds butter-fat, equivalent to 400 pounds butter.

Average of all the above classes show 7,997.68 pounds milk testing 5.06 per cent and containing 405.29 pounds butter-fat, equivalent to 475 pounds butter.

W.M. H. CALDWELL,

Secretary Guernsey Club, Peterboro, N. H.

Dairy Work at the Oklahoma Agricultural College and Experiment Station.

PRESS BULLETIN NO. 141.

Oklahoma possesses rare natural advantages which favor the development of the dairy industry of our State. The climate, soil, crops, and market are admirable features which can be appreciated by those who go into dairying and make a business of it.

The question early arose, can cows be kept at a profit and butter be made in the various sections of our State and sold at a remunerative price to both the factorymen and the farmers?

To answer this question, the college engaged in the creamery business about two years ago and began operating a small factory. The college has not encouraged dairying more than to receive the milk and cream from the farmers and make it into butter, paying the farmers what the market price of butter allowed after counting out the running expenses of the creamery.

The following data will indicate to some extent the growth and development in these two years, also the benefit to the farmers in the vicinity of the college:

Number of patrons in July, 1905	126
Number of patrons in July, 1906	204
Number of patrons in Dec., 1905	84
Number of patrons in Dec., 1906	110
Paid to patrons in July, 1905	\$1,495.16
Paid to patrons in July, 1906	2,106.50
Paid to patrons in Dec., 1905	764.79
Paid to patrons in Dec., 1906	1,580.25
Total amount paid to patrons in 1905	10,117.49
Total amount paid to patrons in 1906	20,773.80

The estimated per cent of increase of 1906 over 1905 is 100 per cent.

The year 1907 has started off with an output of seven thousand pounds of butter for the month of January for which the farmers were paid \$1,671.49, or 29 cents a pound for butter-fat.

All cream received at the college creamery is delivered by the farmers, none being shipped in over railroads. This section does not offer any special features for the development of dairying more than those offered by any other section of our State, except that the college offers to manufacture and market the butter for the farmer, the patrons paying all expenses incurred in the handling and marketing. The conditions are not ideal, nor is the creamery a model, yet this work illustrates what can be done in the dairy business in any section where a sufficient number of cows are kept to warrant starting a factory and where the farmers will stand by the factory, and have confidence in its management and see to it that it is managed successfully.

The patrons have always been willing to deliver sweet cream to the creamery and to this one fact is attributed much of the success. The butter has been placed on nearly every market in the South and West and it has never been wanting a buyer. It sells at the top of the market, which enables the creamery to pay a premium for the cream received. Herein lies the hopes for the successful development of dairying in Oklahoma. The price that the farmers receive for their cream depends upon the quality of the product of the factory and it should be the highest aim of the cream-producers, whether they patronize an independent creamery, a centralized creamery, or are shareholders in a cooperative creamery, to de-

CLEAN SKIMMING CREAM SEPARATORS

Clean skimming is the first consideration in the purchase of a cream separator. That is what you buy a separator to accomplish. But there are two kinds of clean skimming. One is under ideal or favorable conditions—warm milk, from fresh cows, running thin cream, with reduced capacity. The other is under practical every-day farm use conditions—with milk sometimes warm and sometimes cool, cows as they come, cream as heavy as possible instead of as thin, and capacity large so that the work is finished that much more quickly.

These two kinds of clean skimming mark the first great difference between the DE LAVAL and other kinds of cream separators. There is a small but material difference between the DE LAVAL and the other kinds of machines under favorable conditions. There is a BIG difference under the practical every-day use conditions—the difference between the "ALPHA-DISC" system and other superior constructional features of the DE LAVAL machines and even the best of other separators.

This is the difference which of itself saves the cost of a DE LAVAL Farm machine in six months or a year, and in creamery use several times a year, with the result that 98 per cent of the world's creamery separation to-day is done with DE LAVAL machines. A DE LAVAL catalogue makes plain the REASONS for this difference and is to be had for the asking.

THE DE LAVAL SEPARATOR CO.

Randolph & Canal Sts., CHICAGO. General Offices: 100-112 Youville Square MONTREAL. 1215 Filbert Street, PHILADELPHIA. 74 CORTLANDT STREET, NEW YORK. 75 & 77 York street, TORONTO. 14 & 16 Princess Street WINNIPEG.

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Agricultural College

OFFERS courses in Agriculture, Domestic Science, General Science, Mechanical Engineering, Electrical Engineering, Architecture, and Veterinary Science. Also short courses in Agriculture, Dairying, and Domestic Science. Admission direct from the country schools. A preparatory department is maintained for persons over eighteen. Necessary expenses low. Catalogue free. Address

PRES. E. R. NICHOLS, BOX 50, MANHATTAN, KANS.

FARMERS ACCOUNT BOOK

A scientific Account Book for farm bookkeeping. Specially prepared and adapted for all farm accounts. Contains 200 pages 10 to 13 inches with readings printed in for all farm and stock accounts. Each account is accompanied by instructions as to what charge or credit in that account—usually an Automatic account book, use this book and know what your expenses are and what you are making each department of your business. Price \$2.00 prepaid to any part of the United States. Money back if you want. Descriptive circular mailed on request. Ten cents in stamps will bring you a 50-page INSTRUCTOR in Business Writing and Lettering, regular price \$1.00. Address

G. PHELPS & CO., Bozeman, Mont.

Will Pay Men \$85 Per Month. Travel, collect names, advertise and give away plates. Expenses advanced. Write today. H. O. Company, Chicago.

Free THIS BEAUTIFUL GOLD WATCH and RING Free



We positively give both a guaranteed Solid Gold Laid, finely engraved watch, stem wind and stem set, American movement fully warranted, cannot be told from solid gold; also a Solid Gold Laid Ring set with a fine quality Mexican gem, brilliant as a \$50 stone for selling only twenty-four of our handsome jewelry novelties at 10c each.

Send us your name and address and we will send you at once twenty-four pieces of our new Art Jewelry consisting of real gold plated articles worn by the very best people. Every one will gladly buy one or more of these at 10c apiece. Return us the \$2.40 collected and we will immediately send you this BEAUTIFUL GOLD WATCH AND RING or your choice of many other useful articles shown on our big list. Your credit is good with us. We trust you with the goods until sold. We pay postage. We take back unsold goods. We run all the risk. Write at once.

SOLAR SUPPLY CO., Dept. 6, Chicago, Ill.

Extra Present
As an inducement for you to sell our goods quickly we give you this beautiful gold-plated ring set with a sparkling gem.

SAM JONES' LIFE AND SAYINGS

BY HIS WIFE AGENTS WANTED Agents are coinng money. Send 50c for Canvassing Outfit and Contract for territory. Big Book, 7x10, Price \$2.50 Circulars Free. A. N. Jenkins & Scott, ATLANTA GA.



- liver to the creamery the best cream that they can possibly produce.
- Milk and cream take up odors and taints from unclean vessels in which they may be placed, or from any substance emitting an odor. They are easily spoiled and made unwholesome for food if any dirt or filth gets into them, or if they are covered up tight so that the fresh air does not get to them to remove the odors and gases which may be forming in them.
- The following suggestions are given as a guide for the production of cream of good quality:
 1. Clean, cold, and rich are the three words which tell the secret of producing sweet cream.
 2. Be clean and sanitary in milking.
 3. Have all pails, crocks, cans, and dairy utensils scalded and clean.
 4. Keep the separator clean by washing after each separating.
 5. Cool each lot of cream in cold water before setting it away and have it thoroughly cooled before adding to the general lot of cream. (A good way is never to mix a fresh batch of cream with older cream, but keep each lot from the different separatings, separate and in one-gallon crocks.)
 6. Have a well ventilated cave or cool cellar in which to keep the cream.
 7. Stir each of the separate lots of cream every day to keep them uniform.
 8. Have a wire screen for each crock so as to "air the cream" and keep out flies and insects.
 9. Skim a rich cream—35 to 45 per cent—and it will keep sweet longer.
 10. Deliver the cream to the creamery or receiving station three times a week in summer and twice a week in winter.
 11. Insist on the creamery man weighing out the sample of cream for a test instead of measuring in a pipette. The scales are more accurate.
 12. Have the cows come fresh in September and October and receive 25 to 30 cents a pound for the butter-fat in winter instead of 15 to 20 cents a pound in summer.
 13. Make a study of the herd of cows, select the best ones, sell the poor ones, buy or raise more good ones, grow more cow-pea and alfalfa hay for winter feeding, and make the cows keep you instead of you keeping the cows.

PLYMOUTH ROCKS.

BUFF PLYMOUTH ROCKS—Vigorous, farm-raised; bred for size and laying qualities; eggs \$3 per 100, \$3 per 50, \$1 per 15. Sunny Slope Poultry Farm, Box 406, Effingham, Kans.

INCUBATOR EGGS from prize-winning White Rocks and White Wyandottes at \$5 per 100. W. L. Bates, Topeka, Kans.

FOR SALE—40 White Plymouth Rock cockerels, also one M. B. gobbler. J. C. Bostwick, Hoyt, Kans.

175 CHOICE BARRED AND WHITE ROCKS—Hawkins and Bradley strains. Cockerels \$2 up, pullets \$1 up; eggs \$2 for 15, \$5 for 45. Chris Bearman, Route 9, Ottawa, Kans.

BARRED ROCKS my specialty; a fine lot of cockerels from prize winners for sale reasonable. Peter Heber, Neosho Rapids, Kans.

FOR SALE—Barred Plymouth Rocks, Royal Blue strain. Some choice cockerels and pullets at \$1 to \$3 each. Mrs. Walter Bond, Route 14, Rossville, Kans.

College Hill Barred Rock and Scotch Collie Farm. Many first prize winners in Kansas and Oklahoma. 12 females scoring 91 to 94 1/2 by McClave, Emery & Helmick. Hens and eggs to order. Pedigree Collies from imported prize winners. Fine young stock for sale. Mrs. J. T. Woodford & Son, 3600 E. Central, Wichita, Kans.

FOR SALE—Pure-bred B. P. Rock; few left, \$1.50 each; pullets \$0 per dozen, \$5 half dozen; eggs in season 50 cents per sitting of 15, \$3 per 100. Hill Crest Fruit and Poultry Farm, North Central Avenue road, Topeka, Kans., independent telephone 4831. Address A. C. Merritt, R. F. D. 4.

WHITE PLYMOUTH ROCKS.

Largest and whitest in the west. Line bred for heavy egg production; Kansas State Show '07 I won 1st cockerel, 2d pen, 3d, 4th hen; Anthony, '08 1st cockerel 95 1/2, 1st pen 91 1/2, 1st hen 95 1/2, 1st pullet 95 1/2 write for egg prices. Chas. C. Fair, Sharon, Kans.

BARRED ROCKS A SPECIALTY—Also Nine Other Leading Varieties. If you want to win at the poultry shows, or make a success of poultry on the farm, we can supply you with stock. Circulars free. Write your wants. A. H. Duff, Larned, Kans.

LINDAMOOD'S BARRED ROCKS will surely please you. High scoring prize-winners. Pens mated now. Send your orders early. No eggs after May 15. From pens \$2 per 15, from flock \$3 per 100. Send for circular. Long distance phone Walton. C. C. Lindamood, Walton, Kans.

BARRED PLYMOUTH ROCKS

EXCLUSIVELY—EGGS \$3 per 15 \$5 per 30 Get the Best Start Right S. T. Divinia, R. 2, St. Joseph, Mo.

ANOTHER CLEAN SWEEP.

Steel Blue Barred Rocks again lead the Barred Rocks, two years in succession carrying off the prize of all prizes, First Grand Pen at the Kansas State Show held at Topeka 1914, Wichita 1917. Write me for other winnings; this is simply a gentle reminder of where the good birds may be found. Prices reasonable. Orders booked for eggs now; try them. Satisfaction guaranteed on all orders. JOE E. MOORE, originator and breeder of the renowned Steel Blue Barred Plymouth Rocks, Mexico, Mo.

White Plymouth Rocks EXCLUSIVELY.

Good for Eggs. Good to Eat and Good to look at. W. P. Rocks hold the record for egg-laying over every other variety of fowls; eight pullets averaging 299 eggs each in one year. I have bred them exclusively for twelve years and have them scoring 94 to 95 1/2, and as good as can be found anywhere. Eggs only \$2 per 15, \$5 per 45, and I prepay expressage to any express office in the United States. Yards at residence adjoining Washburn College. Address THOMAS OWEN, Sta. B, Topeka, Kans.

WYANDOTTES.

Pure-Bred White Wyandotte cockerels, unsexed, \$1 each. Emma Coppedge, Norcat, Kans.

BROWN'S White Wyandottes; ahead of everything; stock for sale; eggs in season. I also have the English Fox Terrier dogs. Write me for prices and particulars. J. H. Brown, Clay Center, Kans.

WHITE WYANDOTTE eggs \$1.50 for 15 from choice pens, \$5 per 100 from selected fine range stock. Indian Runner duck eggs \$1.50 for 15; Mammoth White Holland turkey eggs \$1.50 for 8; White African guinea eggs \$1.50 for 17; a few pairs of guineas yet for sale. Order now. Mrs. L. D. Arnold, Enterprise, Kans.

Hammer's White Wyandottes

35 cockerels for sale at \$1.50. These are high scoring birds. My strain is noted for eggs.

Lewis A. Hammer, Clearwater, Kans.

POULTRY BARGAINS.

White Wyandotte cockerels \$1 each. White African Guinea \$2 pair. Indian Runner Ducks \$2.50 pair. Choice farm-raised stock. Some prize winners. L. D. Arnold, R. F. D., Enterprise, Kans.

WHITE WYANDOTTES.

If you need the highest quality for breeders or show birds at reasonable prices write me. Cockerels now ready for shipment. Illustrated catalogues free. Address G. A. Wiebe, Box A, Beatrice, Neb.

WYANDOTTES—Pure white. Young stock at \$1 each. L. E. Brown, Norton, Kans.

WHITE WYANDOTTE COCKERELS—Show birds or choice breeders at \$1.00 to \$5.00 each. S. W. Arts, Larned, Kans.

Silver Laced Wyandottes

We pay all express charges. Eggs from stock scoring from 90 to 98 points by Rhodes; \$2 for sitting of fifteen; choice farm range \$5 per hundred. Good hatch guaranteed or eggs replaced.

A. E. Kroth, Soldier, Kans.

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Poultry Notes.

Some people not only count their chickens before they are hatched, but determine the sex of the chick by the shape of the egg. They claim that round eggs will hatch pullets and long tapering ones roosters. But there is nothing in it. An experimenter last season picked out the roundest eggs he could find and out of 90 chicks got 50 roosters and 40 pullets. He reversed the experiment by picking out all the long eggs and out of 75 chicks got 30 pullets and 45 roosters. So another old theory is busted.

Some Eastern fellow is advertising a method of telling the laying hens from the hens that are not laying. He asks ten dollars for this information and is getting it from several persons who have more money than brains. There is nothing in his theory that was not already known to all observant poultrymen, namely, that the contour of a pullet changes as soon as she commences to lay. The best test of whether a hen is laying or not is to see the eggs.

It would be well to look your hens over and see that they are free from lice. By dusting them thoroughly with insect powder you will get rid of these vermin and give the hens a chance to lay. By getting rid of the lice early in the season, you will save lots of time and trouble later on.

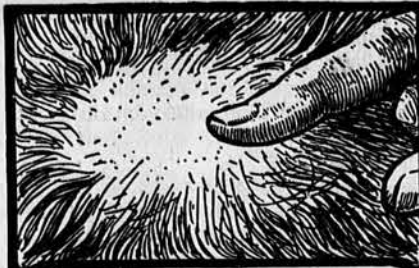
There is nothing like a good coat of whitewash for the interior of the poultry-house, regardless of how the walls are made or finished. Whitewash is a good eradicator of things objectionable about a poultry-house and it makes the house look light and clean. It should be sprayed into every crack and corner not forgetting the nest-boxes. A little crude carbolic in the whitewash will improve it.

Everybody at this time of the year is anxious to have his hens lay, and the great desire is to get them to commence business. After they once get started to laying, it will be comparatively easy to keep them laying right along. One of the best things to give them to induce laying is meat in some form. Either fresh meat or fresh cut bones will answer the purpose. A complete change in their ration will sometimes act as an incentive for hens to lay. Soak oats or wheat in water for several days until the grains commence to sprout. This changes the composition of the grain and hens relish it greatly. Another way is to soak oats or wheat in sand until sprouted and then throw sand and grain for them to pick at. This must be kept in a warm room or the grains will not sprout.

It is a little early yet to state what kind of food is best for young chicks, but it is better to be a little early than to wait until the chicks are dead, for it is a very hard matter to resurrect a dead chicken. If you have been in the habit of feeding your chicks a sloppy kind of food, we would advise you to adopt dry feeding this year. Any of the small grains will answer. Millet, cracked kafir-corn, and pin-head oatmeal are all good and wholesome, and young chicks will thrive on them. Grit in some shape should be provided; coarse sand will do if no better can be procured easily. Of course plenty of pure water should be provided at all times and skim-milk if you have it.

Do Certain Kinds of Eggs Hatch Easier than Others?

Would you tell me through the poultry department in THE KANSAS FARMER if certain kinds of eggs are easier to hatch in incubators than others. May be your readers in THE KANSAS FARMER would give their experience. I hear it stated that the large birds, Brahmas and Cochins, lay



What a Bare Spot Means

Watch closely for the first indication of lice on cattle. Don't wait till they are infested, and rub themselves bare in their misery. The wisest course is to dust Instant Louse Killer into the hair along the back, and at base of tail and horns, whether you see signs of lice or not. If there is a louse on the animal this powder will kill it.

Instant Louse Killer

Does its work thoroughly—kills lice on poultry, horses, cattle, ticks on sheep, bugs on cucumber, squash and melon vines, cabbage worms, slugs on rose bushes, etc. It is also a standard disinfectant and deodorizer. Guaranteed. Comes in shaker-top cans, and being a powder, may be used in cold weather as readily as in hot weather. Look for the word "INSTANT" on can, as there are many imitations.

1 lb. 25c. Except in Canada and extreme West and South

3 lbs. 60c. If your dealer cannot supply you, we will send 1 lb. by mail or express, prepaid, for 35c.

Manufactured by DR. HESS & CLARK, Ashland, Ohio.

such heavy shelled eggs that only a small per cent can be hatched in incubators. M. B. Barber County.

Answer.—In THE KANSAS FARMER of February 14, M. M. Johnson, the incubator expert, has a lengthy article on "Hatching Leghorn Eggs," in which he claims that Leghorn eggs will make a good hatch at a lower temperature than Plymouth Rock or Brahma eggs. We do not believe the statement that only a small per cent of heavy-shelled eggs can be hatched in an incubator. On the contrary, it is our belief that any egg that can be hatched under a hen can be hatched in a good incubator. We must confess that we have had no practical demonstration of this fact, though we have seen incubators hatch eggs from several different breeds at the same time and nearly all the eggs would hatch. A good test might be made by placing guinea eggs in an incubator and noting the result. If they hatch any egg will hatch, for we know of no harder shelled or tougher eggs than the guinea lays.

White Plymouth Rocks.

I. K. Felch, of Natick, Mass., the veteran poultryman and expert judge, is undoubtedly the best-known poultry-fancier in the United States. In the last Reliable Poultry Journal he has the following to say on White Plymouth Rocks:

"I duly received your request for a 1,000-word article, giving my reasons for describing the White Plymouth Rocks as 'the farmer's and poultier's pride and the exhibitor's favorite.' Of course these words, as used by me, do not detract from the value and popularity of other worthy varieties of standard fowls. To praise one breed or variety, or to duly appreciate its virtues, does not necessarily discredit some other breed or variety.

"First, as regards the origin of the White Plymouth Rocks: They came to the surface through the six Albino specimens shown at Bangor, Maine, in 1876. Like many other new varieties, they have had different names claimed for them, such as Snow Flakes, Diragoes (on account of their production in Dirago County, Maine) and when admitted to the Standard as White Plymouth Rocks they went under the name of 'White Plymouth Rocks Dirago Strain' for some time.

"Without any reservation whatever

LEGHORNS.

THEY LAY; THEY PAY—S. C. White Leghorns. My pen is of the finest in the west, bred by Van Natta's greatest World's Fair winners; \$1.25 for fifteen, \$5 per hundred. E. Boltwood, Ottawa, Kans.

S. C. WHITE LEGHORNS. Stock and eggs for sale. Eggs \$1 per 15. Prize winning egg stock. Leghorn egg man. W. C. Wait, Walton, Kans.

CHOICE PURE-BRED R. C. Brown Leghorn cockerels and pullets at \$1 each. Eggs \$1 per 15. Mammoth Pekin duck eggs \$1 per 15. Reasonable price on large orders. Mrs. J. E. Wright, Yorkmore, Kans.

SINGLE COMB BROWN LEGHORNS—Laying strain in the world. Eggs \$1 per sitting, 1 sitting \$2.50, \$5 per 100. Everett Hayes, Hiawatha, Kans.

FOR SALE—S. C. B. Leghorn cockerels, pure bred, from high scoring stock. Have raised Leghorns exclusively for 20 years. Single birds \$1; satisfaction guaranteed; order soon. Thos. D. Marshall, Meriden, Kans.

PURE SINGLE COMB BROWN LEGHORNS—Eggs, 30 for \$1, 100 for \$3. Jos. Caudwell, Wakefield, Kans., successor to F. F. Flower.

PURE R. C. Brown Leghorn and Black Langshans \$1 each; eggs in season. Mary McCaul Elk City, Mo.

FOR SALE—Single Comb White Leghorn cockerels. Wyckoff laying strain. Price, 75 cents each. Henry Martin, Newton, Kans.

ROSE COMB BROWN LEGHORNS EGGS, \$1.50 for \$2.50, 100 for \$4. Mrs. John Holshay, Kansas, Kans.

STANDARD BRED SINGLE-COMB BROWN LEGHORNS—Headed by first prize pen Chicago show 1908 and took six first prizes and first prize Newton 1904. Eggs \$3 for 15. S. Perkins, 801 First street, Newton, Kans.

SINGLE-COMB WHITE LEGHORN cockerels \$1 each; two or more 50 cents each. Fine pure, thoroughbred birds. Also a few Barred Plymouth Rocks, barred to the skin—fine, pure and vigorous; hens, cocks and pullets, \$1 each; two or more 90 cents each. All of our customers are very pleased. We will make reductions on large orders. Meadow Poultry Farm, Centerville, Illinois.

FOR SALE—Exhibition S. C. Black Mille cockerels, \$2. I guarantee them. Address Geo. Kera, 317 Osage Street, Leavenworth, Kans.

Buff Leghorns—Pure bred S. C. cockerels \$1 each, six for \$5. J. Reed, R. 3, Wakefield, Kans.

Oberndorf's S. C. W. Leghorns—Won 18 prizes and silver cup at Kansas City, Mo. Poultry Show 1907. Birds and eggs for sale. B. P. Rock eggs, best strains. Send your orders to Eleanor Fruit and Poultry Farm, Centralia, Kans. A. Oberndorf, Proprietor.

Galva Poultry Yards—R. C. White Leghorns and White Wyandottes 30 prices in three shows. Stock for sale. Eggs \$1 and \$2. J. Ditch, Galva, Kans.

RHODE ISLAND REDS. Rose Comb Rhode Island Red eggs for sale. Circular free. G. D. Williams, Inman, Kans.

R. C. B. I. Reds—Pure bred cockerels for sale each. A. L. Scott, Route 1, Larned, Kans.

GOLDEN RULE POULTRY and STOCK FARM—R. C. Rhode Island Reds—Won fourteen prizes our Reds at the two great Kansas State Poultry Shows January 1906-7. A few good cockerels for sale for hatching. Egg circular free. A. D. Williams, Minneola, Kans., (formerly of Inman, Kans.)

FOR SALE—Rose Comb Rhode Island Red cockerels. High grade Red Polled bull calves. J. V. Poulton, Medora, Kans.

RHODE ISLAND REDS—Cockerels, S. C. B. Reds from prize winners. Red to the skin. Egg season. Good Hope Fruit & Poultry Farm, Troy, Kans.

ONE DOLLAR buys 15 eggs of either Rose Comb R. I. Reds or Barred Rocks from prize-winning stock at the college show. Mrs. A. J. Nicholson, Manhattan, Kans.

BLACK LANGSHANS.

BLACK LANGSHANS—My birds are prize-winners. Choice cockerels and pullets for sale; eggs \$1.50 and \$2. Satisfaction guaranteed. W. M. Tipton, Route 5, Wellington, Kans.

BLACK LANGSHAN cockerels and hens for sale \$1.50 per sitting; also Pekin duck eggs. Thos. Hutley, Route 2, Maple Hill, Kans.

PURE-BRED WHITE LANGSHANS for sale \$1.25, pullets \$1 each; also a few Silver Spangled Hamburg cockerels. Mrs. John Cooke, Greeley, Kans.

BLACK LANGSHANS

which will please you at prices that will satisfy you. Bred from stock from such breeders as Mrs. M. Smith, Ben S. Myers, Abbe, Hettich, King, etc. Write for prices and descriptions.

MRS. E. S. MYERS, Box 174, Chanute, Kans.

BUFF ORPINGTONS.

BUFF ORPINGTONS AND BUFF LEGHORNS—Won first pen State Show; catalog free. W. Maxwell, 1924 McVicar Ave., Topeka, Kans.

CHOICE Buff Orpington and B. P. Rock cockerels, Collie pups and bred bitches. Send for catalog. W. B. Williams, Stella, Neb.

BUFF ORPINGTONS EXCLUSIVELY—Bred from prize-winners \$2 a sitting. Mrs. A. Davis, Douglass, Kans.

SALMON FAVEROLLES.

Salmon Favorolles are unexcelled as layers both winter and summer and broilers on account of early maturity and quantity of flesh. Weight, hens 6 to 7 lbs., cocks 7 to 8 lbs. Eggs \$2 for 15. A. R. Alsworth, Newton, Kans.

SCOTCH COLLIES.

SCOTCH COLLIE PUPS for sale from registered parents. Address W. R. Dawdy, Jewell, Kans.

BRAHMAS.

LIGHT BRAHMAS.

Prize winners—two firsts, two seconds at State Poultry Show 1907. Cockerels \$2, eggs \$1.50. John Lichte, Route 1, Oatville, Kans.

Light Brahma Chickens Choice pure bred cockerels for sale. Write or call on Chas. Foster & Son, Eldorado, Kas., Route 4

INDIAN GAMES.

CORNISH INDIANS.

Good for eggs, good for the table; early maturing, and quality of flesh unexcelled. Weight, hens 6 to 7 lbs., cocks 8 to 10; eggs \$1.50 to \$2 for 15. S. Otto Westor, Newton, Kans.

TURKEYS.

MAMMOTH BRONZE TURKEY EGGS for sale. Three for \$1, or 35 cents each. From choice stock; yearling tom weighs 40 pounds. Mrs. A. D. Watts Route 2, Hallowell, Kans.

FOR SALE—White Holland toms \$3.50, White Wyandotte eggs \$1 per sitting, \$5 per hundred. Mrs. E. F. Ney, Bonner Springs, Kansas.

WHITE HOLLAND TURKEY EGGS—\$1.50 per nine, \$4.50 per thirty. Inquiries promptly answered. T. J. Sweeney, St. Marys, Kans.

FOR SALE—Bronze turkeys; July hatch; all by a fine Kentucky tom. Price \$5. Address Mrs. Fred Cowley, Hallowell, Kans.

MISCELLANEOUS.

EGGS! EGGS! EGGS! Toulouse Geese eggs, \$1 per sitting. Rouen and Pekin duck eggs, 15 for \$1. Muscovy duck eggs, 9 for \$1. Bronze turkey eggs, 9 for \$2. Peacocks, Barred and White Plymouth Rocks, Houdans, Buff Games, Silver Spangled Hamburgs, Cornish Indian Game, Buff Orpingtons, Rhode Island Reds, Brown, Buff and White Leghorns, Buff, White and Silver Laced Wyandottes, Pearl and White Guineas, Golden Seabright Bantams, Buff Cochins Bantams. Eggs 15 for \$1. Also sell by the 100. All kinds of fancy pigeons for sale. Also hunting dogs. Satisfaction guaranteed. Write for circular. D. L. Bruen, Platte Center, Neb.



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of high-bred and prize-winning poultry is now ready. Send for it today; it's free. We have 75 fine and big young Mammoth Bronze turkey toms for your breeders; get one quick; \$4 to \$8 each.

J. A. LOVETTE, Prop., MULLINVILLE, KANS.

FOR SALE—Eggs from a fine flock of large grey geese at \$2 per sitting of 10 eggs. Mrs. E. M. Cooper, Route 3, Neodesha, Kans.

GILT EDGE POULTRY CO.

Cockerels for sale from 20 different varieties at farmer's prices. Also Toulouse geese, Pekin ducks and M. B. turkeys. Write for catalogue. Walter Hogue, Fairfield, Neb.

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COCKERELS

Of thirty-two of the leading varieties, being farm raised, no two on the same farm. To make room for winter quarters, Leghorns three for \$5, all other varieties in proportion. Address W. F. Holcomb, Mgr.

Nebraska Poultry Co., Clay Center, Neb.

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and Almanac for 1907 contains 220 pages, with many fine colored plates of fowls true to life. It tells all about chickens, their care, diseases and remedies. All about incubators and how to operate them. All about poultry houses and how to build them. It's really an encyclopedia of chickendom. You need it. Price only 15c. C.C. SHOEMAKER, Box 1293 FREEPORT, ILL.

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Pride of Nebraska

The Greatest Incubator on the Market...

Waste heat runs brooder. The only brooder that will raise chicks after they are hatched. One lamp runs both. Write at once for free catalogue to

Mrs. Tim Hartnett, Sutton, Nebraska

7.50 Incubator

Everybody's incubator holds 125 eggs. Self regulator, needs no moisture, powerful double heater, egg tray and new removable sanitary nursery tray. Has everything high-priced hatches have. Four walls, packed, not affected by heat or cold. Cat. free. Governor Incubator Co., 811 Main Street, Governor, N. Y.

Hatch Chickens by Steam with the EXCELSIOR INCUBATOR OR WOODEN HEN

Simple, perfect, self-regulating. Hatch every fertile egg. Lowest priced first-class hatches made. GEO. E. STAHN, Quincy, Ill.

we claim them to be the best and most prolific egg-producers among all the American breeds and new creations now before the public. Their unprecedented record of 285 eggs per capita for a year's yield in the National Stockman and Farmer's competition, by which they won the prizes offered by that paper, secured for them the world's record for a pen of eight birds. Phenomenal as this record is, we have records of fourteen birds penned for breeding that laid 23 2-8 eggs per capita each month for the four months of March, April, May, and June which, while we do not use trap-nests, is proof that more than one of the fourteen would have laid full 100 eggs in the time specified. Therefore, if any American breed can be called the '200 Egg Hen,' surely the White Plymouth Rocks are entitled to the name. We do not use trap-nests—we prefer to have the best pen records and to select no eggs for hatching that do not exceed one and one-half pounds in weight to the dozen. This variety's eggs are the largest of all the American breeds, and nearer one shade of color, being a light brown, as a rule, in well-bred flocks.

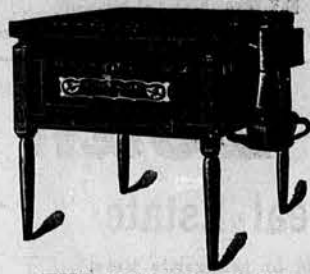
The White Plymouth Rocks have reached fabulous prices in isolated cases. Nine hundred dollars has been paid for a pen of five birds, but at \$3 to \$10 per female and \$5 to \$25 for males they breed so many to the hundred to score 92 to 96 1/2 points that the high average for a season's get makes them far more profitable than other varieties of the American class. It is the highest average price that counts for the breeder's income in poultry culture. Their high average makes the White Plymouth Rocks one of the most profitable breeds for the poulterer's use, while their growing popularity at our exhibitions has brought them favorably to the front and the breeder makes no mistake in choosing them as one of a trio to meet the daily demand for market poultry and the yearly demand for exhibition specimens.

"In previous articles we have shadowed the fact that while we are forced to breed White Rocks to a pure white plumage both in quill and web for exhibition purposes, we are forced to say that the oblong, heavy posterior specimens whose plumage is rather a creamy white—say the white we see in the milk from the Ayrshire cow—that these are the specimens that give us the egg records and the golden yellow skin and legs, and last but not least, the larger growth of muscle for the food they consume. In writing for any fowl we believe in telling the whole story for them. In this variety it leaves sterling merit enough to secure for them a lasting reputation and a sure position as a mainstay among the most successful creations in poultry culture. A fact in their favor as compared with the Wyandotte varieties is that they weigh one pound heavier. They can be bred to a much larger weight than is now demanded by the Standard. Twelve pounds for a matured cock-bird and eight and one-half pounds for a hen are frequent occurrences when generously dealt with by their owners. The Standard's demand to cut for overweight, while it is an injustice against all breeds, is peculiarly so in this breed. Luxurious nature in this respect should never be legislated against.

"In the history of all the most meritorious breeds of domestic fowl we have seen them fluctuate between neglect and over-appreciation. This variety has not escaped, but if the history of poultry culture in America is a familiar object to you, reader, you will have noticed in following the booms for new breeds that when they have had their run you see popular favor return to the Plymouth Rock and Brahmasthat they suffer the least from the innovation of new breeds. This makes them the safe friends of both the breeder and novice. They are established breeds and so long as they are intelligently handled will always remain so because their practical merit can not be ignored."

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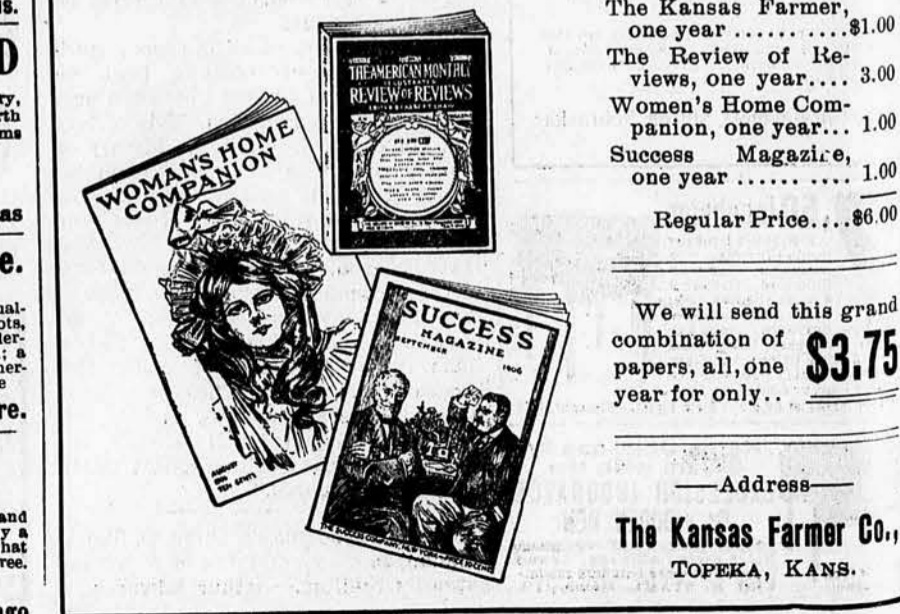
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Principles of Animal Breeding.
(Continued from page 275.)

than would have been shown in the case of direct in-and-in breeding. Frequently the term high breeding, of a high-bred animal, is spoken of. By such a term it is meant to convey the idea of selecting breeding stock with reference to a definite standard. It may have reference to form in general, or to the pedigree, or to both. When only form is considered its success is not likely to be very marked, nor will it be when only the pedigree is considered, but when due consideration is given to both, it is another name for wise and judicious breeding and is worthy of all consideration.

CROSS-BREEDING.

Many a farmer who is not a breeder of pure-bred stock has asked the question, "Is it more profitable to raise cross-bred or pure-bred stock?" Cross-bred, in the strictest sense of the term, means the breeding together of two distinct breeds of animals, such as the mating of the Angus and the Shorthorn. The progeny of such mating could be called a cross-bred animal. Frequently a grade animal is termed a cross-bred, but a grade is an animal that has either for its sire or dam an animal that has been a good beast without showing evidence of the blood of any particular breed, or an animal that has one parent showing a predominance of the blood of some particular breed and the other parent being a pure-bred animal of the same breed. The progeny of such a mating will then be called a grade animal of its respective breed.

Before the time of Bakewell cross-breeding was a favorite method of securing improvement, but this was before the time of pedigrees and hard-books. It is believed to give increase in vigor, and in some instances individual improvement, but it can not be depended on in all cases to produce either improvement or greater vigor, and if carried on without a definite plan, the results are usually found to be disappointing. In fusing the blood of two distinct breeds indefinitely, it has not been satisfactory, and experience has shown that the results of such a method, as far as improvement is concerned, do no good beyond a certain level.

Such methods tend to produce variation that is very uncertain, and the results may be quite different from those desired. Crossing for the purpose of forming a new breed has been practised with good success when accompanied by the most rigid selection of the progeny, but even then the tendency to variation must be contended with. The history of many of our improved breeds will show more or less of this method of breeding. The introduction of a cross for a time to remedy some particular defect, or to secure some desirable quality, has in some instances been the means of improvement among grade animals. As for instance, the beef, or early-maturing qualities, or the Shorthorn can be improved by the Angus cross; or the wool of the Shropshire or Rambouillet can be lengthened by the Cotswold cross.

Where cross-breeding can be practised in the forming of breeds, it has usually been followed by judicious in-breeding to intensify and make prominent the desirable qualities obtained by crossing, and in such cases has rendered a valuable service. Where two distinct breeds are crossed, the blood of the breed which has for the longest period been kept pure, and without mixture of any foreign blood, will usually predominate. This can be readily shown by the cross between the Shorthorn and the Angus, the offspring in at least nine cases out of ten being black and hornless. It can also be illustrated in the cross between the Poland-China and York-shire, which will produce pigs of pure white color with very seldom even a dark spot on their skin.

Such methods of breeding frequently produce good, healthy, vigorous animals that are very satisfactory for breeding and marketing, but how is a breeder to maintain his herd if such method is followed? There is but one way in which it can be done, and

that is to buy new foundation stock. There is no reason why the same degree of vigor and constitution can not be produced with pure-bred or high-grade animals as can be by continued cross-breeding. The man who has high-grade or pure-bred animals has some idea of what may be expected from the mating of such animals, while the man who promiscuously cross-breeds may get something or may get nothing, and at this time there is no particular reason or no especially strong points to be advanced in favor of such a practise.

VALUE OF THE PEDIGREE.

To be a successful breeder one must thoroughly understand and be familiar with the pedigree of his animals. The pedigree is nothing more or less than the record of the ancestry of an animal for a longer or a shorter period of time. Its object is to enable the breeder to trace the lineage of his animals, or in some instances with the standard-bred horse and the dairy-cow, to trace the performances of the ancestry, and in all instances to furnish a guarantee of purity of blood. However, a pedigree in itself is not a guarantee of the purity of blood, for even a grade animal may have a pedigree. The value of a pedigree depends largely on its being authentic, genuine, and on the excellence of the individuals in the ancestry, more especially those that are near, rather than those that are remote. If a pedigree is not authentic, its value is lessened in proportion; if it is not genuine, it has no value at all; and it is a wrong idea when you trace back twelve, fifteen, or twenty generations to find some noted animal. The general excellence in the near ancestors in their pedigree is of far more consequence than the length of pedigree in the absence of such excellence, although many a high-priced animal has been bought wholly on the strength of his pedigree, and not upon his individual merit.

If a pedigree be full of noted animals whose individual merit is known to have been the very best, then it is so much the better. But many a man has paid a long price for a pedigree, and with it has taken home a very inferior animal. It is a fact not to be disputed that good blood will tell, and it is equally sure that bad blood will crop out. Whenever our breeders get away from the idea of buying a pedigree without an individual, we will have made one grand step toward improvement.

And now a word regarding the selection and breeding. If you are starting a herd, select your females with the greatest care and endeavor to get them as uniform as possible. Then select the male with which they are to be mated, with the idea of correcting any general defect which may be shown in the herd as a whole. However, bear in mind that the end of all our herds of stock, except the horse, is the butchers' block; that we, in a sense, must cater to their terms; that we must look to them as an outlet for our surplus stock; and if we expect to obtain the highest market price, we must produce the class of animals they desire. This may be said of the pure-bred breeder as well as of the grade breeder, for the pure-bred breeder is only producing animals that are to be sold to the farmer to produce animals to go to market. Therefore, it becomes the duty of every breeder of pure-bred stock to try to educate those about him and place in their hands the types of animals that are most desirable for the present market demands.

And let any man who is breeding domestic animals have in mind a standard of excellence, either ideal or real, and let him breed only from parents which conform to this standard in a marked degree. Let him breed only from parents, and especially males, which have been long bred without the intermixture of foreign blood. Let him so mate his animals as to correct the defects of the parents in the offspring. Let him practise the most rigid and persistent selection, and give due attention to the uniformness, feeding, and sanitary condition of his herd.

If every breeder would hang in a conspicuous place in his barn such

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The Veterinarian

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

If in addition to having the letter answered in The Kansas Farmer, an immediate answer is desired by mail, kindly enclose a 2-cent stamp. Write across top of letter: "To be answered in Kansas Farmer."

Contracted Tendon.—I have a 9-year-old mare that has strained her ankle. The foot has drawn so that she does not step down on frog of foot. I used a spavin cure and blistered the foot, but I do not know whether I should have done it or not. It took away the swollen places that were on each side of her leg. I also took a forked stick and drilled holes in front of hoof and drew the toes forward.

Can the strain be cured? I know the treatment I have followed has helped some. J. M. J.

Vllets, Kans.
Answer.—I think you are giving your mare the proper treatment for the contracted tendon. Would suggest that you continue blistering as often as every two weeks, using Kendall's Spavin Cure as you have been doing.

Bloody Murrain.—Have lost two calves about a year old with what I believe is bloody burrain. They scour, pass blood, and die in a few days. P. J.

Oneida, Kans.
Answer.—I think from the symptoms given that the calves are dying from inflammation of the stomach or intestines. Would advise your changing the feed, giving gruels and hand treating them until they are able to eat roughness and concentrated food.

Sore Eyes.—Our horse has sore eyes every once in a while. Last year one eye would get sore and run, then seem all right awhile. Next white scum would form over eye and eye would become blind. This winter the other eye is acting the same way. Larned, Kans. SUBSCRIBER.

Answer.—Poultice the eye with hot water. Attach a piece of absorbent cotton six inches square to a piece of cheese cloth. Cheese cloth piece should be long enough to be tied to the halter and the cotton to cover the

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— ADDRESS —

**The Kansas Farmer Co.,
TOPEKA, KANS.**

eye. The cotton can then be saturated with hot water and put over the eye. Before it gets cold the cloth should be untied and more hot water poured on the cotton.

Lump on Colt's Shoulders.—Bay, 1-year-old colt has enlargements on point of each shoulder; came on while in pasture. Each lump is large as croquet ball and appears hard. G. F. Dustin, Neb.

Answer.—Probably the enlargement on the colt's shoulder came from a bruise and the best thing you can do is to blister with a fly blister which is prepared as follows: At your drug store have mixed together 1 ounce of biniodide of mercury, 1 ounce of pulverized cantharides, and 8 ounces of lard. Clip the hair over the enlargement and apply some of this blister with considerable rubbing. You will need to tie the horse's head so he can not reach the shoulder while the blister is acting. Allow the medicine to remain on the shoulders for about thirty-six hours, then wash off with warm water and grease. Repeat the blister about every three weeks for say three or four treatments. If you find that this enlargement on each shoulder continues to remain let us hear from you again, giving full particulars of the animal at the time you write.

Kitten With Sore Back of Ear.—We have a pet cat that we think a great deal of. She has a sore on the back of her ear. It is a lump and itches her a great deal. She is a white kitten about one year old and has had the sore for about six months. I have been bathing it in carbolic water. Would you kindly tell me what to do? G. O. Oxen Hill, Md.

Answer.—I think that the lump that you have reference to that is situated back of the cat's ear will need to be opened freely. After it is opened that you can use carbolic acid water to heal the wound, but if you can secure Zenoleum from your drug store use it instead of the carbolic acid. It will be better as cats are very subject to carbolic acid poisoning.

Running Sore.—I have a bay horse, 8 years old that I drove last fall about 14 miles to town and he became sick there with what the veterinarian called stomach staggers. He has a sore that has been running ever since from the effect of a puncture. The horse seems to be quite well now only for that running sore. The puncture was made on the right side by the hip. Kindly advise me what to do or is there any remedy to heal it. Wilson, Kans. J. Z.

Answer.—I think the opening through which the discharge is coming on the right side of your animal's body should be freshened in order to let it heal. After freshening the wound the opening should be kept disinfected daily and it will heal without any further trouble.

Ailing Shoats.—I have a nice bunch of thrifty shoats born the last week in August and weigh from 100 to 130 pounds. They are beginning to get weak in the back and hind legs. Some say it is kidney worms, but I am at a loss to know what it is or what to do for those afflicted or what to do as a prevention. The first symptoms are that they appear lame and tremble in the hind hips, then they begin to knuckle with hind feet when standing or walking until they get too bad to stand. Seem to eat pretty well. Have had mostly corn with plenty of skim-milk. If you can advise me what to do I would very much appreciate the favor. Have had some that way before but they never got over it. Greenleaf, Kans. B. E. Y.

Answer.—I think you are feeding your hogs too much corn, which is causing them to be weak in the hind legs. We are sending you a press bulletin on some troubles of swine which I think will explain this condition. If you will feed your hogs oats ground with bran I believe you will find that they will do better.

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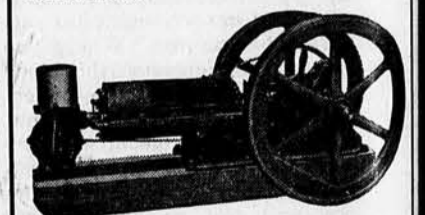
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